MOHAWK
Cabling Excellence for Open Architecture

Mohawk Master Catalog

Cabling Excellence
for Open Architecture

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A DISTRIBUTOR OF MOHAWK PRODUCTS

Mohawk's Green Initiative

Even in the early stages of product development, ecological aspects from energy and resource consumption to the products' future disposal are considered to ensure that our products have a min impact to the environment. Green initiatives have been incorporated into our manufacturing processes, research & development, and product strategy.

A better understanding of customer requirements allows us to create specifications that exactly meet the needs of our customers. This has been integrated into our R&D processes. For example: on-site test equipment reduces the need for costly and unnecessary transport to external test facilities. Lean tools are used to identify and eliminate waste in all aspects of the production and administrative processes.

While Mohawk fully controls its own production processes, we also take into account all green and sustainable initiatives throughout the supply chain, encouraging suppliers and business partners to look for greener, smarter solutions and to obtain ISO 14001 certification.

Global Environmental Product Requirements:

- Post production recycling (high efficiency copper recycling)
- All products are RoHS and REACH compliant. All Chlorinated flame retardants (CFR's) and Brominated flame retardants (BFR's) have been banned from our products

Product Strategy

- Improved energy efficiency
- Use of recycled packaging materials
- Longer lifecycle solutions
- Reduced material use & waste
- Optimized space savings
- Reduced use of hazardous materials

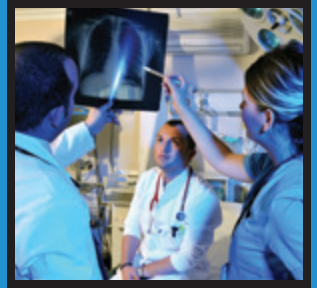
Research & Development

- Reduced production and redesign costs during product development
- Reduced carbon footprint through fewer redesigns
- Implementation of low energy designs, and the development of reusable product

Global Lean Processes

- Identify waste and find new & more efficient processes
- Product quality improvements through Lean Daily Management
- Monitoring of scrap levels to further reduce waste

Cabling Excellence for
Open Architecture



Mohawk Master Catalog

Mohawk's Open Architecture allows a completely flexible and warranted mix-and-match network system. We have opened the door on closed dictated cable and connectivity partnerships. Cabling products and installation practices offered by our certified Mohawk Accredited Contractors (MAC's) deliver an end-to-end 25-year warranted Mohawk ChannelMATE™ solution.

With the Open Architecture concept, designers and end-users can create their customized network from a variety of connectivity products which have been third-party verified through Mohawk's ChannelMATE program. Through our extensive Mohawk training, contractors can earn the MAC accreditation. Becoming a MAC allows the contractor to offer Mohawk's ChannelMATE end-to-end system warranty, installed using any approved connectivity hardware, independently verified and defined by the industry standards.

Mohawk provides the right combination of cable products with many leading industry connectivity products to deliver an infrastructure that affords flexibility, expandability, and durability. With each ChannelMATE warranted system, the end-user is provided with all test results, confirming that the installed system meets or exceeds the latest ANSI/TIA-568-C standard, as well as ETL and UL specifications to assure compliance for safety and performance. Mohawk is an ISO 9001 compliant company, adhering to its quality standards.

ChannelMATE guarantees that the cable and connectivity meet the specified backbone and horizontal system specifications as defined in ANSI/TIA-568-C. All parts and labor are guaranteed for 25 years.

Fiber Optic	6 LAN Plus
Copper Backbone	AdvanceNet
5e LAN	GigaLAN
MegaLAN	Giga*LAN 10*
6 LAN	Giga*LAN 10* Small Diameter

Warranty available with MAC program. See page 66 for MAC program details.

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MOHAWK

Quick Reference Copper Cable Selection Guide

			Jacket Colors & Part Numbers				
			White	Blue	Pink	Yellow	Gray
UTP Cables	GigaLAN 10 Small Diameter – Category 6A	Riser	M59155	M59156	M59157	M59158	M59159
		Plenum	M59145	M59146	M59147	M59148	M59149
	GigaLAN 10 – Category 6A	Riser	M58651	M58650	M58688	M58652	M58653
		Plenum	M58647	M58646	M58682	M58648	M58649
	GigaLAN – Category 6E	Riser	M57418	M57419	M57867	M57420	M57422
		Plenum	M57413	M57414	M57750	M57415	M57417
	AdvanceNet – Category 6e+	Riser	M56889	M57202	M57203	M57204	M57205
		Plenum	M56905	M57193	M57194	M57195	M57196
	6 LAN Plus – Category 6e	Riser	M58805	M58804	M58919	M58920	M58806
		Plenum	M58802	M58801	M58914	M58863	M58803
	6 LAN – Category 6	Riser	M58291	M58292	M58293	M58294	M58295
		Plenum	M58280	M58281	M58282	M58283	M58285
	MegaLAN – Category 5E	Riser	M55989	M56167	M56094	M56095	M56746
		Plenum	M55988	M56168	M56092	M56093	M56882
	5e LAN – Category 5e	Riser	M57554	M57553	M57555	M57556	M57552
		Plenum	M57547	M57546	M57548	M57550	M57545
F/UTP Cables	XGO F/UTP – Category 6A	Riser	M58817	M58816	M58896	M58894	M58895
		Plenum	M58782	M58781	M58888	M58886	M58887
	Category 6	Riser	M58155	M58156	M58157	M58158	M58159
		Plenum	M58175	M58176	M58177	M58178	M58179
	MegaLAN – Category 5E	Riser	M55987	M57370	M57371	M57372	M57373
		Plenum	M55986	M57360	M57322	M57361	M57362
	5e LAN – Category 5e	Riser	M58195	M58196	M58197	M58198	M58145
		Plenum	M58185	M58186	M58187	M58188	M58144

			Cable Count & Type						
			25-pair UTP	50-pair UTP	100-pair UTP	200-pair UTP	300-pair UTP	25-pair F/UTP	Page #
Hi-pair	Category 5e	Riser	M58141	M58522	–	–	–	M58520	16
		Plenum	M58142	–	–	–	–	M58521	
	Category 3	Riser	M55700	M55216	M55211	M55212	M57098	–	17
		Plenum	M56801	M56126	M56128	M56129	M57211	–	

Quick Reference Copper Cable Selection Guide (Cont.)

Green	Red	Orange	Black	Violet	Packaging			Page #
					Reel	Box	Reel-in-a-box	
M59160	M59161	M59162	M59163	M59164	✓	–	✓	8
M59150	M59151	M59152	M59153	M59154	✓	–	✓	
M58689	M58690	M58691	M58692	M58693	✓	–	✓	9
M58683	M58684	M58685	M58686	M58687	✓	–	✓	
M57421	M57621	M57868	M57869	M57870	✓	–	✓	10
M57416	M57620	M57861	M57866	M57860	✓	–	✓	
M57206	M57207	M57208	M57209	M57210	✓	✓	✓	11
M57197	M57198	M57199	M57200	M57201	✓	✓	✓	
M58922	M58923	M58924	M58925	M58795	✓	✓	✓	12
M58915	M58916	M58917	M58918	M58794	✓	✓	✓	
M58296	M58297	M58298	M58299	M58300	✓	✓	✓	13
M58286	M58287	M58288	M58289	M58290	✓	✓	✓	
M56165	M56670	M56954	M57129	M57048	✓	✓	✓	14
M56166	M56072	M56876	M56877	M56878	✓	✓	✓	
M57557	M58008	M58009	M58010	M58007	✓	✓	✓	15
M57551	M57887	M57924	M57936	M57761	✓	✓	✓	
M58897	M58898	M58899	M58900	M58901	✓	–	–	18
M58889	M58890	M58891	M58892	M58893	✓	–	–	
M58160	M58161	M58162	M58163	M58164	✓	–	–	20
M58180	M58181	M58182	M58183	M58184	✓	–	–	
M57374	M57375	M57376	M57377	M57378	✓	–	–	21
M57363	M57364	M57365	M57366	M57367	✓	–	–	
M58199	M58200	M58201	M58202	M58203	✓	–	–	22
M58189	M58190	M58191	M58192	M58193	✓	–	–	

Above part numbers are for 1000 ft reels only. Add “RB” for reel-in-a-box. Add “B” for boxes.

For copper product cross reference see page 46.
For copper cable selection see page 58.

Quick Reference Fiber Cable Selection Guide

Grades

Multimode
OM4 is a 50/125 bend-insensitive fiber that exceeds TIA-568-C.3-1 and ISO 11801 OM4 for 550 m lengths at 10 Gigabit data rates.

OM3 is a 50/125 bend-insensitive fiber that complies with TIA-568-C.3 and ISO 11801 OM3 for 300 m lengths at 10 Gigabit data rates.

OM1 is a 62.5/125 fiber that complies with TIA-568-C.3 and ISO 11801 OM1, and provides up to 550 m link lengths for Gigabit Ethernet.

Singlemode
SM is a bend-insensitive fiber that complies with ITU G.652.c/d, G.657.a1 and ISO 11801 OS2.

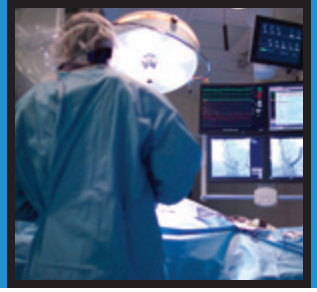
*Smart*Part Number Code (X)

OM1	OM3	OM4	OS2/SM
1	3	4	S

For "X" in part number, see optical characteristics on page 32.

			Fiber Count - Non Unitized				
			2	4	6	12	24
Fiber Optic Cables	Breakout	Plenum	FIXB002PB	FIXB004PB	FIXB006PB	FIXB012PB	—
	Distribution	Riser	FIXD002R9	FIXD004R9	FIXD006R9	FIXD012R9	FIXD024R9
		Plenum	FIXD002P9	FIXD004P9	FIXD006P9	FIXD012P9	FIXD024P9
	I/O Distribution	Riser	FDXD002R9	FDXD004R9	FDXD006R9	FDXD012R9	FDXD024R9
		Plenum	FDXD002P9	FDXD004P9	FDXD006P9	FDXD012P9	FDXD024P9
	Armored Distribution	Plenum	—	—	FIXD006A9	FIXD012A9	FIXD024A9
	I/O Armored Distribution	Plenum	—	—	FDXD006A9	FDXD012A9	FDXD024A9
	Single Jacket Loose Tube	I/O Riser Gel	—	—	FDXL006RF	FDXL012RG	—
		Outdoor Gel	—	—	FSXL006NF	FSXL012NG	—
	Double Jacket Armored Loose Tube	I/O Riser Gel	—	—	FDXH0065F	FDXH0125G	—
		Outdoor Gel	—	—	FSXH0066F	FSXH0126G	—
	Double Jacket Loose Tube	Outdoor Gel	FSXH002NF	FSXH004NF	FSXH006NF	FSXH012NG	--
	Central Loose Tube	Outdoor Gel	FSXC002N0	FSXC004N0	FSXC006N0	FSXC012N0	FSXC024N0
		Outdoor Armored Gel	FSXC00260	FSXC00460	FSXC00660	FSXC01260	FSXC02460
	I/O TrayOptic	Riser PVC Gel	FDXT002RF	FDXT004RF	FDXT006RF	FDXT012RF	—
		Riser CPE Gel	FDXY002RF	FDXY004RF	FDXY006RF	FDXY012RF	—

For fiber counts and part numbers not listed, please consult your Mohawk representative.



Quick Reference Fiber Cable Selection Guide (Cont.)

Fiber Count - Unitized						Page #
24	36	48	72	96	144	
—	—	—	—	—	—	33
FIXD024RJ	FIXD036RK	FIXD048RK	FIXD072RK	FIXD096RK	FIXD144RK	34 - 35
FIXD024PJ	FIXD036PK	FIXD048PK	FIXD072PK	FIXD096PK	FIXD144PK	
FDXD024RJ	FDXD036RJ	FDXD048RK	FDXD072RK	FDXD096RK	FDXD144RK	36 - 37
FDXD024PJ	FDXD036PJ	FDXD048PK	FDXD072PK	FDXD096PK	FDXD144PK	
FIXD024AJ	FIXD036AJ	FIXD048AK	FIXD072AK	FIXD096AK	FIXD144AK	38
FDXD024AJ	FDXD036AJ	FDXD048AK	FDXD072AK	FDXD096AK	FDXD144AK	39
FDXL024RG	FDXL036RG	FDXL048RG	FDXL072RG	FDXL096RG	FDXL144RG	40
FSXL024NG	FSXL036NG	FSXL048NG	FSXL072NG	FSXL096NG	FSXL144NG	
FDXH0245G	FDXH0365G	FDXH0485G	FDXH0725G	FDXH0965G	FDXH1445G	41
FSXH0246G	FSXH0366G	FSXH0486G	FSXH0726G	FSXH0966G	FSXH1446G	
FSXH024NG	FSXH036NG	FSXH048NG	FSXH072NG	FSXH096NG	FSXH144NG	42
FSXC024N0	—	—	—	—	—	43
FSXC02460	—	—	—	—	—	
FDXT024RF	FDXT036RF	FDXT048RG	FDXT072RG	FDXT096RG	FDXT144RG	44
FDXY024RF	FDXY036RF	FDXY048RG	FDXY072RG	FDXY096RG	FDXY144RG	

*Single jacket version.

For fiber product cross reference see page 48.
For fiber cable selection guide see page 59.

Standard Jacket Colors

For outside plant cables, the standard jacket color is black.

OM4 Fiber Cables come standard in Erika Violet jackets. For Aqua OM4, please add an 'A' to the end of your part number

OM1 – Orange

OM3 – Aqua

OM4 – Erika Violet

OS2/SM – Yellow

OM4 also available in Aqua

Non-standard colors are available.

Category 6A UTP Giga*LAN 10*® Small Diameter

Tested to 750 MHz

Incorporates FlexWeb™ technology, and a unique barrier tape technology that improves all cable-to-cable ANEXT performance parameters while delivering a compact 6A design. With a finished diameter of 0.265" Giga*LAN 10*® Small Diameter is one of the smallest and most flexible Category 6A cables available today. As always, Mohawk goes a step further to provide value. Giga*LAN 10*® Small Diameter is sweep tested to 750 MHz – with verified stability.

Features:

- 25-Year Warranty*
- Sweep tested to 750 MHz for performance beyond 500 MHz – with verified stability
- Supports component compliant connectivity and full 100 m channel lengths
- Application – 10GBASE-T IEEE 802.3an; fully backwards compatible for 1000BASE-T, 100BASE-T and 10BASE-T applications. Supports 10G WiFi Access Points, PoE and PoE Plus
- Power Sum Alien Crosstalk – Fully component compliant

* Warranty available with MAC program.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M59155 Riser	4-pair 23 AWG UTP	Thermoplastic	White PVC .273	6.93	38	57	CMR
M59145 Plenum	4-pair 23 AWG UTP	FEP	White ThermoPlen®* .265	6.73	43	64	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 6A, ICEA S-90-661-1997 Category 6, ISO/IEC 11801 ed 2.0 AMEND 1 CLASS EA & IEC 61156-5 ed 2.0 Horizontal Cable

UL Temperature Rating 90°C

Conductor DCR:

Plenum 7.5 Ω/100 m (22.8 Ω/Mft) max
Riser 7.9 Ω/100 m (24.0 Ω/Mft) max

DCR Unbalance:

2% max (Conductor-Conductor)

4% max (Pair-Pair)

Mutual Capacitance:

56 pF/m nom

Capacitance Unbalance Pair/Ground:

90 pF/100 m max

Characteristic Impedance:

105 Ω ± 15% (0.772-2 MHz)

100 Ω ± 10% (>2-500 MHz)

Input Impedance:

100 Ω ± 15% (1-100 MHz)
100 Ω ± 22% (>100-200 MHz)
100 Ω ± 32% (>200-500 MHz)

Propagation Delay:

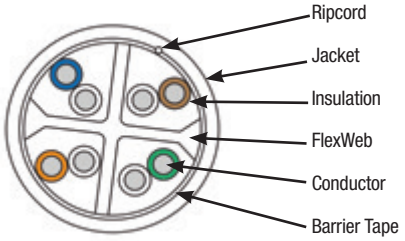
$534 + 36/\sqrt{f}$ ns/100 m max

Delta Delay (Skew):

45 ns/100 m max

Nominal Velocity of Propagation (NVP):

Plenum 69%
Riser 65%



Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M59155**	Green	**M59160**
Blue	**M59156**	Red	**M59161**
Pink	**M59157**	Orange	**M59162**
Yellow	**M59158**	Black	**M59163**
Gray	**M59159**	Violet	**M59164**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M59145**	Green	**M59150**
Blue	**M59146**	Red	**M59151**
Pink	**M59147**	Orange	**M59152**
Yellow	**M59148**	Black	**M59153**
Gray	**M59149**	Violet	**M59154**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)	NEXT (dB/ 100 m)	PS-NEXT (dB/ 100 m)	ACRF (dB/ 100 m)	PS-ACRF (dB/ 100 m)	Return Loss (dB)	Prop Delay (ns/ 100 m)	Alien Crosstalk	
								PS-ANEXT (dB/ 100 m)	PS-AACRF (dB/ 100 m)
	max	min	min	min	min	min	max	min	min
1.0	2.1	75.3	73.3	71.8	68.8	20.0	570.0	74.5	74.5
4.0	3.8	66.3	64.3	59.8	56.8	23.0	552.0	74.5	73.7
10.0	5.9	60.3	58.3	51.8	48.8	25.0	545.4	74.5	65.7
16.0	7.5	57.2	55.2	47.7	44.7	25.0	543.0	74.5	61.6
20.0	8.4	55.8	53.8	45.8	42.8	25.0	542.0	74.5	59.7
31.25	10.5	52.9	50.9	41.9	38.9	23.6	540.4	74.5	55.8
62.5	14.9	48.4	46.4	35.9	32.9	21.5	538.6	73.1	49.8
100.0	19.0	45.3	43.3	31.8	28.8	20.1	537.6	70.0	45.7
250.0	30.8	39.3	37.3	23.8	20.8	17.3	536.5	64.0	37.7
350.0	36.9	37.1	35.1	20.9	17.9	16.3	536.1	61.8	34.8
500.0	44.8	34.8	32.8	17.8	14.8	15.2	535.6	59.5	31.7
600.0	49.5	33.6	31.6	16.2	13.2	14.7	-	58.3	30.1
750.0	56.0	32.2	30.2	14.3	11.3	14.0	-	56.9	28.2

Values above 500 MHz are for engineering information only.

c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2

Category 6A UTP Giga*LAN 10*®

Tested to 750 MHz

Giga*LAN 10*® incorporates FlexWeb Plus™ technology, a unique cross web incorporating additional fins at the end of the Y axes. FlexWeb Plus, coupled with the mini fluting internal to the jacket, improves all cable-to-cable ANEXT performance parameters while delivering a compact 6A design.

Features:

- 25-Year Warranty*
- Sweep tested to 750 MHz for performance beyond 500 MHz – with verified stability
- Supports component compliant connectivity
- Application – Support for 10GBASE-T IEEE 802.3an; fully backwards compatible for 1000BASE-T, 100BASE-T and 10BASE-T applications.
- Power Sum Alien Crosstalk – Fully component compliant

* Warranty available with MAC program.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M58651 Riser	4-pair 23 AWG UTP	Thermoplastic	White PVC .309	7.85	40	60	CMR
M58647 Plenum	4-pair 23 AWG UTP	FEP	White ThermoPlen®* .309	7.85	47	70	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58651**	Green	**M58689**
Blue	**M58650**	Red	**M58690**
Pink	**M58688**	Orange	**M58691**
Yellow	**M58652**	Black	**M58692**
Gray	**M58653**	Violet	**M58693**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58647**	Green	**M58683**
Blue	**M58646**	Red	**M58684**
Pink	**M58682**	Orange	**M58685**
Yellow	**M58648**	Black	**M58686**
Gray	**M58649**	Violet	**M58687**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)	NEXT (dB/ 100 m)	PS-NEXT (dB/ 100 m)	ACRF (dB/ 100 m)	PS-ACRF (dB/ 100 m)	Return Loss (dB)	Prop Delay (ns/ 100 m)	Alien Crosstalk PS-ANEXT (dB/ 100 m)	Alien Crosstalk PS-AACRF (dB/ 100 m)
	max	min	min	min	min	min	max	min	min
1.0	2.0	75.3	73.3	70.8	68.8	20.0	570.0	67.0	67.0
4.0	3.7	66.3	64.3	58.8	56.8	24.2	552.0	67.0	66.2
10.0	5.9	60.3	58.3	50.8	48.8	27.0	545.4	67.0	58.2
16.0	7.4	57.2	55.2	46.7	44.7	27.0	543.0	67.0	54.1
20.0	8.3	55.8	53.8	44.8	42.8	27.0	542.0	67.0	52.2
31.25	10.4	52.9	50.9	40.9	38.9	25.6	540.4	67.0	48.3
62.5	14.9	48.4	46.4	34.9	32.9	23.5	538.6	65.6	42.3
100.0	19.0	45.3	43.3	30.8	28.8	22.1	537.6	62.5	38.2
250.0	31.0	39.3	37.3	22.8	20.8	19.3	536.3	56.5	30.2
350.0	37.2	37.1	35.1	19.9	17.9	18.3	535.9	54.3	27.3
500.0	45.3	34.8	32.8	16.8	14.8	17.2	535.6	52.0	24.2
600.0	50.1	33.6	31.6	-	-	16.7	-	-	-
750.0	56.8	32.2	30.2	-	-	16.0	-	-	-

Values above 500 MHz are for engineering information only.

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 6A, ICEA S-90-661-1997 Category 6, ISO/IEC 11801 ed 2.0 AMEND 1 CLASS EA & IEC 61156-5 ed 2.0 Horizontal Cable

Conductor DCR:

9.38 Ω/100 m (28.6 Ω/Mft) max

DCR Unbalance:

4% max

Mutual Capacitance:

46 pF/m nom

Capacitance Unbalance Pair/Ground:

33 pF/100 m max

Characteristic Impedance:

100 Ω ± 7% (10-500 MHz)

Input Impedance:

100 Ω ± 10% (1-100 MHz)
100 Ω ± 15% (>100-350 MHz)
100 Ω ± 22% (>350 MHz)

Propagation Delay:

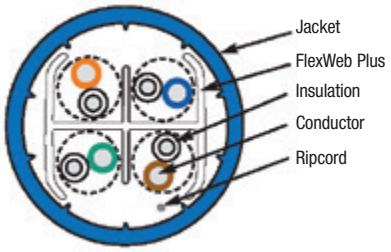
534 + 36/√*f* ns/100 m max

Delta Delay (Skew):

45 ns/100 m max

Nominal Velocity of Propagation (NVP):

Plenum 72%
Riser 68%



Verified to ANSI/TIA-568-C.2 Safety listed to NEC (NFPA 70)

Category 6E UTP GigaLAN®

Tested to 750 MHz

GigaLAN® with FlexWeb® pair isolation is one of the highest performing unshielded twisted pair (UTP) cables available today. ETL verified to ANSI/TIA-568-C.2 Category 6 and Mohawk's GigaLAN specification.

Features:

- 25-Year Warranty*
- Sweep tested to 750 MHz – with verified stability
- 34% increase power at 100 MHz and 50% increase at 250 MHz than Category 6 limits due to lower insertion loss
- 7 dB NEXT and PS-NEXT improvement versus Category 6 limits due to improved pair isolation

* Warranty available with MAC program.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M57418 Riser	4-pair 23 AWG UTP	Thermoplastic	White PVC .255	6.48	33	49	CMR
M57413 Plenum	4-pair 23 AWG UTP	Dual Insulation FEP on all 4-pairs	White ThermoPlen®* .255	6.48	37	55	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 6, ICEA S-90-661-1997 Category 6, ISO/IEC 11801:2002 Category 6 & IEC 61156-5 Category 6 Horizontal Cable

Conductor DCR:

8.3 Ω/100 m (25.3 Ω/Mft) max

DCR Unbalance:

5% max

Mutual Capacitance:

46 pF/m nom

Capacitance Unbalance Pair/Ground:

33 pF/100 m max

Characteristic Impedance:

100 Ω ± 7% (10-250 MHz)

Input Impedance:

100 Ω ± 12% (1-100 MHz)
100 Ω ± 15% (>100-250 MHz)

Propagation Delay:

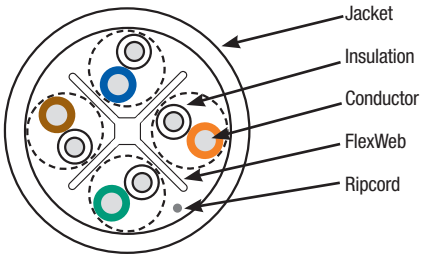
534 + 36/√f ns/100 m max

Delta Delay (Skew):

45 ns/100 m max (10-250 MHz)

Nominal Velocity of Propagation (NVP):

Plenum 72%
Riser 68%



Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M57418**	Green	**M57421**
Blue	**M57419**	Red	**M57621**
Pink	**M57867**	Orange	**M57868**
Yellow	**M57420**	Black	**M57869**
Gray	**M57422**	Violet	**M57870**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M57413**	Green	**M57416**
Blue	**M57414**	Red	**M57620**
Pink	**M57750**	Orange	**M57861**
Yellow	**M57415**	Black	**M57866**
Gray	**M57417**	Violet	**M57860**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)		NEXT (dB/100 m)		ACR (dB/ 100 m)	PS-NEXT (dB/100 m)		PS-ACR (dB/ 100 m)	ELFEXT (dB/ 100 m)	PS-ELFEXT (dB/ 100 m)	RL (dB)	DELAY (ns/ 100 m)
	avg	max	avg	min	min	avg	min	min	min	min	min	max
1.0	1.8	1.9	91	81.3	79.4	84	79.3	77.4	74.8	72.8	20.0	570
4.0	3.3	3.5	82	72.3	68.8	75	70.3	66.8	62.8	60.8	23.0	552
10.0	5.2	5.5	76	66.3	60.8	69	64.3	58.8	54.8	52.8	25.0	545
16.0	6.7	7.0	73	63.2	56.2	66	61.2	54.2	50.7	48.7	25.0	543
20.0	7.4	7.8	72	61.8	54.0	65	59.8	52.0	48.8	46.8	25.0	542
31.25	9.3	9.8	69	58.9	49.1	62	56.9	47.1	44.9	42.9	24.3	540
62.5	13.4	14.1	64	54.4	40.3	57	52.4	38.3	38.9	36.9	22.2	539
100.0	17.1	18.0	61	51.3	33.3	54	49.3	31.3	34.8	32.8	20.8	538
250.0	28.1	29.6	55	45.3	15.8	48	43.3	13.8	26.8	24.8	18.0	536
350.0	33.8	35.6	53	43.1	7.5	46	41.1	5.5	23.9	21.9	17.0	536
500.0	41.4	43.6	51	40.8	-	44	38.8	-	20.8	18.8	15.9	536
600.0	46.0	48.4	50	39.6	-	43	37.6	-	-	-	12.7	-
750.0	52.3	55.0	48	38.2	-	41	36.2	-	-	-	12.0	-

Values above 250 MHz are for engineering information only

c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2

Category 6e+ UTP AdvanceNet™

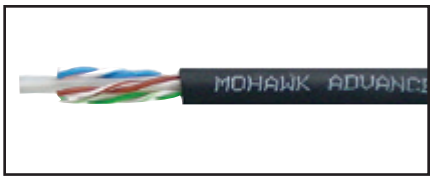
Tested to 650 MHz

AdvanceNet with FlexWeb® pair isolation is a mid-grade Category 6 unshielded twisted pair (UTP) cable. ETL verified to ANSI/TIA-568-C.2 Category 6 and Mohawk's AdvanceNet specification.

Features:

- 25-Year Warranty*
- Sweep tested to 650 MHz – with verified stability
- 28 dB min PS-ACR at 100 MHz
- Up to 3.3% Improved Signal Strength
- 5 dB NEXT and PS-NEXT improvement versus Category 6 limits due to improved pair isolation

* Warranty available with MAC program.



Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M56889 Riser	4-pair 23 AWG UTP	Thermoplastic	White PVC .231	5.87	27	40	CMR
M56905 Plenum	4-pair 23 AWG UTP	Dual Insulation FEP on all 4-pairs	White ThermoPlen®* .238	6.05	30	45	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M56889**	Green	**M57206**
Blue	**M57202**	Red	**M57207**
Pink	**M57203**	Orange	**M57208**
Yellow	**M57204**	Black	**M57209**
Gray	**M57205**	Violet	**M57210**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M56905**	Green	**M57197**
Blue	**M57193**	Red	**M57198**
Pink	**M57194**	Orange	**M57199**
Yellow	**M57195**	Black	**M57200**
Gray	**M57196**	Violet	**M57201**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)		NEXT (dB/100 m)		ACR (dB/ 100 m)	PS-NEXT (dB/100 m)		PS-ACR (dB/ 100 m)	ELFEXT (dB/ 100 m)	PS-ELFEXT (dB/ 100 m)	RL (dB)
	avg	max	avg	min	min	avg	min	min	min	min	min
1.0	1.8	2.0	88	79.3	77.3	81	77.3	75.3	72.8	69.8	20.0
4.0	3.5	3.7	79	70.3	66.6	72	68.3	64.6	60.7	57.7	23.0
10.0	5.6	5.8	73	64.3	58.5	66	62.3	56.5	52.8	49.8	25.0
16.0	7.1	7.4	70	61.3	53.9	63	59.3	51.9	48.7	45.7	25.0
20.0	7.9	8.3	69	59.8	51.5	62	57.8	49.5	46.8	43.8	25.0
31.25	10.0	10.4	66	56.9	46.5	59	54.9	44.5	42.9	39.9	23.6
62.5	14.3	15.0	61	52.4	37.4	54	50.4	35.4	36.8	33.8	21.5
100.0	18.4	19.3	58	49.3	30.0	51	47.3	28.0	32.8	29.8	20.8
250.0	30.5	32.1	52	43.3	11.2	45	41.3	9.2	24.8	21.8	18.0
350.0	37.0	38.9	50	41.1	2.3	43	39.1	0.3	21.9	18.9	17.0
500.0	45.5	47.9	48	38.8	-	41	36.8	-	18.8	15.8	15.9
650.0	53.2	55.9	46	37.1	-	39	35.1	-	-	-	15.1

Values above 250 MHz are for engineering information only

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 6, ICEA S-90-661-1997 Category 6, ISO/IEC 11801:2002 Category 6 & IEC 61156-5 Category 6 Horizontal Cable

Conductor DCR:

9.38 Ω/100 m (28.6 Ω/Mft) max

DCR Unbalance:

5% max

Mutual Capacitance:

56 pF/m nom

Capacitance Unbalance Pair/Ground:

330 pF/100 m max

Characteristic Impedance:

100 Ω ± 15% (1-250 MHz)

Input Impedance:

100 Ω ± 15% (10-100 MHz)
100 Ω ± 22% (>100-250 MHz)

Propagation Delay:

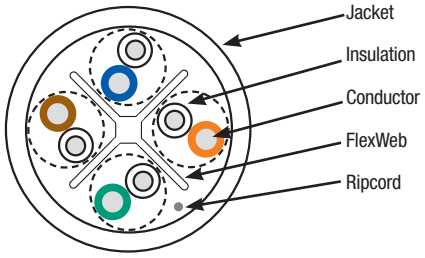
$534 + 36/\sqrt{f}$ ns/100 m max

Delta Delay (Skew):

45 ns/100 m max

Nominal Velocity of Propagation (NVP):

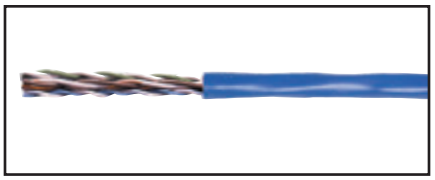
Plenum 70%
Riser 70%



UL or ETL Verified to ANSI/TIA-568-C.2 cULus or ETL Safety listed to NEC (NFPA 70)

Category 6e UTP 6 LAN™ Plus

Tested to 625 MHz



6 LAN Plus with flat tape core separator is a mid-grade Category 6 unshielded twisted pair (UTP) cable. ETL verified to ANSI/TIA-568-C.2 Category 6 and Mohawk's 6 LAN Plus specification.

Features:

- 25-Year Warranty*
- Sweep tested to 625 MHz – with verified stability
- 27.5 dB min PS-ACR at 100 MHz
- 5 dB PS-NEXT improvement versus Category 6 limits due to improved pair isolation

* Warranty available with MAC program.

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 6, ICEA S-90-661-1997 Category 6 & ISO/IEC 11801:2002 Category 6 Horizontal Cable

Conductor DCR:

9.38 Ω/100 m (28.6 Ω/Mft) max

DCR Unbalance:

5% max

Mutual Capacitance:

46 pF/m nom

Capacitance Unbalance Pair/Ground:

66 pF/100 m max

Characteristic Impedance:

100 Ω ± 15% (1-250 MHz)

Input Impedance:

100 Ω ± 15% (1-100 MHz)
100 Ω ± 20% (>100-200 MHz)
100 Ω ± 25% (>200 MHz)

Propagation Delay:

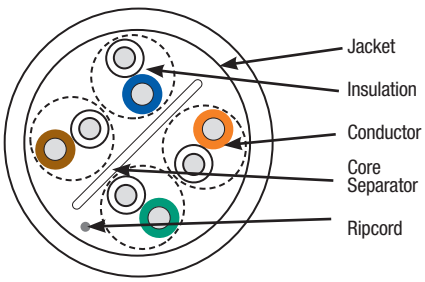
534 + 36/√*f* ns/100 m max

Delta Delay (Skew):

45 ns/100 m max

Nominal Velocity of Propagation (NVP):

Plenum 72%
Riser 68%



Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M58805 Riser	4-pair 23 AWG UTP	Thermoplastic	White PVC .223	5.66	24	36	CMR
M58802 Plenum	4-pair 23 AWG UTP	Dual Insulation** FEP on all 4-pairs	White ThermoPlen®* .224	5.69	28	42	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58805**	Green	**M58922**
Blue	**M58804**	Red	**M58923**
Pink	**M58919**	Orange	**M58924**
Yellow	**M58920**	Black	**M58925**
Gray	**M58806**	Violet	**M58795**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58802**	Green	**M58915**
Blue	**M58801**	Red	**M58916**
Pink	**M58914**	Orange	**M58917**
Yellow	**M58863**	Black	**M58918**
Gray	**M58803**	Violet	**M58794**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)		NEXT (dB/100 m)		ACR (dB/ 100 m)	PS-NEXT (dB/100 m)		PS-ACR (dB/ 100 m)	ELFEXT (dB/ 100 m)	PS-ELFEXT (dB/ 100 m)	RL (dB)
	avg	max	avg	min	min	avg	min	min	min	min	min
1.0	1.9	2.0	83	77.3	75.3	80	77.3	75.3	69.8	69.8	20.0
4.0	3.6	3.8	74	68.3	64.5	71	68.3	64.5	57.8	57.8	23.0
8.0	5.1	5.3	70	63.8	58.5	67	63.8	58.5	51.7	51.7	24.5
10.0	5.7	6.0	68	62.3	56.3	65	62.3	56.3	49.8	49.8	25.0
16.0	7.3	7.6	65	59.2	51.6	62	59.2	51.6	45.7	45.7	25.0
20.0	8.1	8.5	64	57.8	49.3	61	57.8	49.3	43.8	43.8	25.0
25.0	9.1	9.5	62	56.3	46.8	59	56.3	46.8	41.8	41.8	24.3
31.25	10.2	10.7	61	54.9	44.2	58	54.9	44.2	39.9	39.9	23.6
62.5	14.8	15.4	56	50.4	35.0	53	50.4	35.0	33.9	33.9	21.5
100.0	19.0	19.8	53	47.3	27.5	50	47.3	27.5	29.8	29.8	20.1
155.0	24.2	25.2	50	44.4	19.3	47	44.4	19.3	26.0	26.0	18.8
200.0	27.8	29.0	49	42.8	13.8	46	42.8	13.8	23.8	23.8	18.0
250.0	31.5	32.8	47	41.3	8.5	44	41.3	8.5	21.8	21.8	17.3
300.0	35.0	36.4	46	40.1	3.7	43	40.1	3.7	15.3	15.3	16.8
350.0	38.2	39.8	45	39.1	--	42	39.1	--	13.9	13.9	16.3
400.0	41.3	43.0	44	38.3	--	41	38.3	--	12.8	12.8	15.9
500.0	47.0	48.9	43	36.8	--	40	36.8	--	10.8	10.8	15.2
550.0	49.7	51.8	42	36.2	--	39	36.2	--	--	--	14.9
600.0	52.3	54.5	41	35.6	--	38	35.6	--	--	--	14.6
625.0	53.5	55.8	41	35.4	--	38	35.4	--	--	--	14.5

Values above 250 MHz are for engineering information only.

c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2

Category 6 UTP 6 LAN™

Tested to 550 MHz

6 LAN with an improved design featuring a reduced OD is an entry grade Category 6 unshielded twisted pair (UTP) cable. ETL verified to ANSI/TIA-568-C.2 Category 6 and Mohawk's 6 LAN specification.

Features:

- 25-Year Warranty*
- Sweep tested to 550 MHz – with verified stability
- 22.5 dB min PS-ACR at 100 MHz

* Warranty available with MAC program.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M58291 Riser	4-pair 23 AWG UTP	Thermoplastic	White PVC .220	5.59	24	36	CMR
M58280 Plenum	4-pair 23 AWG UTP	Dual Insulation FEP on all 4-pairs	White ThermoPlen®* .220	5.59	27	40	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58291**	Green	**M58296**
Blue	**M58292**	Red	**M58297**
Pink	**M58293**	Orange	**M58298**
Yellow	**M58294**	Black	**M58299**
Gray	**M58295**	Violet	**M58300**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58280**	Green	**M58286**
Blue	**M58281**	Red	**M58287**
Pink	**M58282**	Orange	**M58288**
Yellow	**M58283**	Black	**M58289**
Gray	**M58285**	Violet	**M58290**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)		NEXT (dB/100 m)		ACR (dB/ 100 m)	PS-NEXT (dB/100 m)		PS-ACR (dB/ 100 m)	ELFEXT (dB/ 100 m)	PS-ELFEXT (dB/ 100 m)	RL (dB)
	avg	max	avg	min	min	avg	min	min	min	min	min
1.0	1.9	2.0	80	74.3	72.3	75	72.3	70.3	67.8	64.8	20.0
4.0	3.6	3.8	71	65.3	61.5	66	63.3	59.5	55.8	52.8	23.0
10.0	5.7	6.0	65	59.3	53.3	60	57.3	51.3	47.8	44.8	25.0
16.0	7.3	7.6	62	56.2	48.6	57	54.2	46.6	43.7	40.7	25.0
20.0	8.1	8.5	61	54.8	46.3	56	52.8	44.3	41.8	38.8	25.0
31.25	10.2	10.7	58	51.9	41.2	53	49.9	39.2	37.9	34.9	23.6
62.5	14.8	15.4	53	47.4	32.0	48	45.4	30.0	31.9	28.9	21.5
100.0	19.0	19.8	50	44.3	24.5	45	42.3	22.5	27.8	24.8	20.1
250.0	31.5	32.8	44	38.3	5.5	39	36.3	3.5	19.8	16.8	17.3
300.0	35.0	36.4	43	37.1	0.7	38	35.1	-	18.3	15.3	16.8
500.0	47.0	48.9	40	33.8	-	35	31.8	-	13.8	10.8	15.2
550.0	49.7	51.8	39	33.2	-	34	31.2	-	-	-	14.9

Values above 250 MHz are for engineering information only.

For shielded version, please see page 20.

Electrical Characteristics:

Standards:

Meets ANSI/TIA-568-C.2 Category 6, ICEA S-90-661-1997 Category 6 & ISO/IEC 11801:2002 Category 6 Horizontal Cable

Conductor DCR:

9.38 Ω/100 m (28.6 Ω/Mft) max

DCR Unbalance:

5% max

Mutual Capacitance:

46 pF/m nom

Capacitance Unbalance Pair/Ground:

66 pF/100 m max

Characteristic Impedance:

100 Ω ± 15% (1-250 MHz)

Input Impedance:

100 Ω ± 15% (1-100 MHz)
100 Ω ± 20% (>100-200 MHz)
100 Ω ± 25% (>200 MHz)

Propagation Delay:

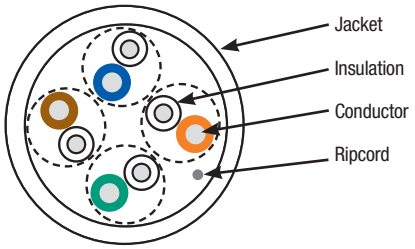
534 + 36/√ƒ ns/100 m max

Delta Delay (Skew):

45 ns/100 m max

Nominal Velocity of Propagation (NVP):

Plenum 72%
Riser 68%



Verified to ANSI/TIA-568-C.2 Safety listed to NEC (NFPA 70)

Category 5E UTP MegaLAN®

Tested to 400 MHz

MegaLAN is an enhanced Category 5e grade unshielded twisted pair (UTP) cable. ETL verified to ANSI/TIA-568-C.2 Category 5e and Mohawk's MegaLAN specification.

Features:

- 25-Year Warranty*
- Sweep tested to 400 MHz – with verified stability
- 5 dB min improvement in NEXT versus Category 5e
- .45 ns/m max skew – tightly controlled propagation delay

* Warranty available with MAC program.

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 5e & ISO/IEC 11801:2002 Category 5 Horizontal Cable

Conductor DCR:

9.38 Ω/100 m (28.6 Ω/Mft) max

DCR Unbalance:

5% max

Mutual Capacitance:

46 pF/m nom

Capacitance Unbalance Pair/Ground:

160 pF/100 m max

Characteristic Impedance:

100 Ω ± 15% (1-200 MHz)

Input Impedance:

100 Ω ± 15% (1-100 MHz)
100 Ω ± 22% (>100-200 MHz)

Propagation Delay:

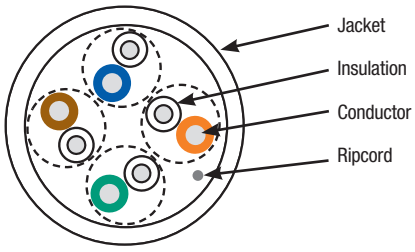
$534 + 36/\sqrt{f}$ ns/100 m max

Delta Delay (Skew):

45 ns/100 m max

Nominal Velocity of Propagation (NVP):

Plenum 72%
Riser 68%



Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M55989 Riser	4-pair 24 AWG UTP	Thermoplastic	White PVC .200	5.08	21	31	CMR
M55988 Plenum	4-pair 24 AWG UTP	Dual Insulation FEP on all 4-pairs	White ThermoPlen®* .200	5.08	25	37	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M55989**	Green	**M56165**
Blue	**M56167**	Red	**M56670**
Pink	**M56094**	Orange	**M56954**
Yellow	**M56095**	Black	**M57129**
Gray	**M56746**	Violet	**M57048**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M55988**	Green	**M56166**
Blue	**M56168**	Red	**M56072**
Pink	**M56092**	Orange	**M56876**
Yellow	**M56093**	Black	**M56877**
Gray	**M56882**	Violet	**M56878**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m) avg	Insertion Loss (dB/100 m) max	Insertion Loss (dB/mft) max	NEXT (dB/100 m) avg	NEXT (dB/100 m) min	ACR (dB/100 m) min	PS-NEXT (dB/100 m) avg	PS-NEXT (dB/100 m) min	PS-ACR (dB/100 m) min	ELFEXT (dB/100 m) min	PS-ELFEXT (dB/100 m) min	RL (dB) min
1.0	1.8	2.0	6.3	80	70.3	68.3	73	68.3	66.3	67.8	64.8	20.0
4.0	3.8	4.1	13	70	61.3	57.2	63	59.3	55.2	55.8	52.8	23.0
10.0	6.0	6.5	20	64	55.3	48.8	58	53.3	46.8	47.8	44.8	25.0
20.0	8.6	9.3	28	60	50.8	41.5	54	48.8	39.5	41.8	38.8	25.0
31.25	10.9	11.7	36	58	47.9	36.2	51	45.9	34.2	37.9	34.9	23.6
62.5	15.8	17.0	52	54	43.4	26.4	47	41.4	24.4	31.9	28.9	21.5
100.0	20.5	22.0	67	50	40.3	18.3	43	38.3	16.3	27.8	24.8	20.1
200.0	30.2	32.4	99	46	35.8	3.4	40	33.8	1.4	21.8	18.8	18.0
300.0	38.5	41.0	125	44	33.1	-	37	31.1	-	18.3	15.3	16.8
400.0	45.2	48.5	145	42	31.3	-	35	29.3	-	-	-	15.9

Values above 200 MHz are for engineering information only.

For shielded version see page 21.

cULus or ETL Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2

Category 5e UTP 5e LAN®

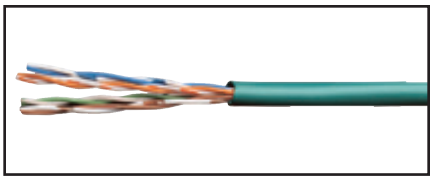
Tested to 200 MHz

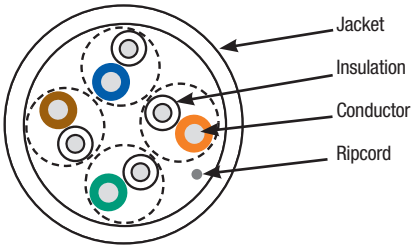
5e LAN is an enhanced Category 5e grade unshielded twisted pair (UTP) cable. ETL verified to ANSI/TIA-568-C.2 Category 5e and Mohawk's 5e LAN specification.

Features:

- 25-Year Warranty*
- Sweep tested to 200 MHz – with verified stability
- 13.3 dB min ACR @ 100 MHz
- .45 ns/m max skew – tightly controlled propagation delay

* Warranty available with MAC program.





Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M57554 Riser	4-pair 24 AWG UTP	Thermoplastic	White PVC .190	4.83	20	30	CMR
M57547 Plenum	4-pair 24 AWG UTP	Dual Insulation FEP on all 4-pairs	White ThermoPlen®* .190	4.83	22	33	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M57554**	Green	**M57557**
Blue	**M57553**	Red	**M58008**
Pink	**M57555**	Orange	**M58009**
Yellow	**M57556**	Black	**M58010**
Gray	**M57552**	Violet	**M58007**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M57547**	Green	**M57551**
Blue	**M57546**	Red	**M57887**
Pink	**M57548**	Orange	**M57924**
Yellow	**M57550**	Black	**M57936**
Gray	**M57545**	Violet	**M57761**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)		Insertion Loss (dB/ mft)	NEXT (dB/100 m)		ACR (dB/ 100 m)	PS-NEXT (dB/100 m)		PS-ACR (dB/ 100 m)	ELFEXT (dB/ 100 m)	PS-ELFEXT (dB/ 100 m)	RL (dB)
	avg	max	max	avg	min	min	avg	min	min	min	min	min
1.0	1.8	2.0	6.3	77	65.3	63.3	68	62.3	60.3	63.8	60.8	20.0
4.0	3.8	4.1	13	68	56.3	52.2	57	53.3	49.2	51.7	48.7	23.0
10.0	6.0	6.5	20	62	50.3	43.8	52	47.3	40.8	43.8	40.8	25.0
20.0	8.6	9.3	28	58	45.8	36.5	48	42.8	33.5	37.7	34.7	25.0
31.25	10.9	11.7	36	56	42.9	31.2	46	39.9	28.2	33.9	30.9	23.6
62.5	15.8	17.0	52	52	38.4	21.4	42	35.4	18.4	27.8	24.8	21.5
100.0	20.5	22.0	67	48	35.3	13.3	38	32.3	10.3	23.8	20.8	20.1
200.0	30.2	32.4	99	43	30.8	-	33	27.8	-	17.8	14.8	18.0

Values above 100 MHz are for engineering information only.

For shielded version see page 22.

Verified to ANSI/TIA-568-C.2 Safety listed to NEC (NFPA 70)

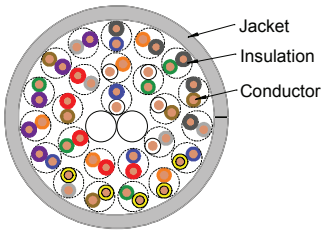
High Pair Count
Power Sum Backbone Cables

Operating Temperature:
-20ºC to +60ºC (-4ºF to +140ºF)

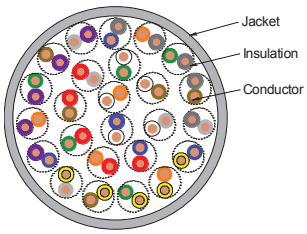
Storage Temperature:
-20ºC to +75ºC (-4ºF to +167ºF)

Installation Temperature:*
0ºC to +60ºC (+32ºF to +140ºF)
*The installation temperature refers to the temperature of the cable while being installed or pulled. Do not install below 0ºC (+32ºF).

25pr Cat 5e



25pr Cat 3



Mohawk Part No.	Cable Type	Shield Type	Jacket Type Diameter		Weight		Min Bend Radius		Listings
			Inch	mm	lbs/M'	kg/km	Inch	mm	
Category 5e Riser									
M58141	25-pair 24 AWG UTP	None	Gray PVC .505	12.83	155	231	5.1	130	CMR
M58522	50-pair 24 AWG UTP	None	Gray PVC .842	21.39	301	448	8.4	213	CMR
M58520	25-pair 24 AWG F/UTP	O/A ALUM/ PLY W/DW	Gray PVC .522	13.26	149	222	5.25	133	CMR
Category 5e Plenum									
M58142	25-pair 24 AWG UTP	None	Gray FEP .450	11.43	152	226	4.5	114	CMP
M58521	25-pair 24 AWG F/UTP	O/A ALUM/ PLY W/DW	Gray ThermoPlen®* .490	12.45	177	263	4.9	124	CMP

*Plenum rated Thermoplastic. For pair and binder colors, see chart D on page 52.

25-pair Category 5e Packaging Options

Plenum	Gross Weight
24" Reel 1000 ft	152 lbs
30" Reel 2000 ft	292 lbs
36" Reel 5000 ft	773 lbs

Riser	Gross Weight
24" Reel 1000 ft	155 lbs
30" Reel 2000 ft	298 lbs
38" Reel 5000 ft	795 lbs

c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2

High Pair Count (Cont.)

Power Sum Backbone Cables

Mohawk Part No.	Cable Type	Shield Type	Jacket Type Diameter		Weight		Min Bend Radius		Listings
			Inch	mm	lbs/M'	kg/km	Inch	mm	
Category 3 Riser									
M55700	25-pair 24 AWG UTP	None	Gray PVC .345	8.76	97	144	3.5	89	CMR
M55216	50-pair 24 AWG UTP	None	Gray PVC .497	12.62	201	299	5.0	127	CMR
M55211	100-pair 24 AWG UTP	None	Gray PVC .693	17.60	398	592	7.0	178	CMR
M55212	200-pair 24 AWG UTP	None	Gray PVC 1.014	25.76	839	1249	10.1	257	CMR
M57098	300-pair 24 AWG UTP	None	Gray PVC 1.300	33.02	1165	1734	13.0	330	CMR
Category 3 Plenum									
M56801	25-pair 24 AWG UTP	None	Gray ThermoPlen®* .375	9.53	110	164	3.8	97	CMP
M56126	50-pair 24 AWG UTP	None	Gray ThermoPlen®* .539	13.69	236	351	5.4	137	CMP
M56128	100-pair 24 AWG UTP	None	Gray ThermoPlen®* .775	19.69	444	661	7.75	197	CMP
M56129	200-pair 24 AWG UTP	None	Gray ThermoPlen®* 1.085	27.56	902	1342	10.9	277	CMP
M57211	300-pair 24 AWG UTP	None	Gray ThermoPlen®* 1.350	34.29	1358	2021	13.5	343	CMP

*Plenum rated Thermoplastic. For pair and binder colors see chart B on page 52.

Category 3 High Pair Count Packaging Options

Category 3		Riser UTP		Plenum UTP	
Pair Count	Put-up	Reel Size	Gross Weight (lbs)	Reel Size	Gross Weight (lbs)
25	1000 ft	18 x 10.5 x 8	97	18 x 10.5 x 8	110
25	5000 ft	36 x 12 x 10	477	36 x 12 x 10	542
25	10000 ft	42 x 20 x 18	960	42 x 20 x 18	1090
50	1000 ft	24 x 12 x 10	201	24 x 14 x 10	236
50	5000 ft	36 x 20 x 13	1043	42 x 20 x 18	1150
100	1000 ft	36 x 12 x 10	398	36 x 12 x 10	444
100	4000 ft	50 x 28 x 24	1667	50 x 28 x 24	1851
100	5000 ft	50 x 28 x 24	2037	—	—
200	1000 ft	30 x 20 x 13	839	38 x 20 x 13	902
300	1000 ft	45 x 20 x 13	1165	45 x 20 x 13	1358

Category 6A F/UTP XGO™

Tested to 500 MHz

Mohawk's XGO F/UTP 6 is a robust, high performance data cable that is designed, manufactured and tested to exceed ANSI/TIA-568-C.2 performance standards. It is independently tested by Underwriters Laboratory (UL), a Nationally Recognized Test Laboratory (NRTL) and verified to ANSI/TIA-568-C.2 Category 6A.

Mohawk's patented XGO design incorporates our Flexweb® core separator technology to reduce the effects of internal crosstalk. The foil shield with drain wire provide a cost-effective solution to blocking ANEXT, EMI and RFI in extreme environments.

Features:

- ETL component compliant cable to ANSI/TIA-568-C.2 Category 6A
- 25-Year Warranty*
- Sweep tested to 500 MHz – with verified stability
- Supports any component compliant 6A connectivity
- Application – Support for 10GBASE-T IEEE 802.3an; fully backwards compatible for 1000BASE-T, 100BASE-T, and 10BASE-T applications
- Power Sum Alien Crosstalk – Power Sum Alien Crosstalk measures the impact of many aggressors on one victim pair. It is the sum of unwanted signal coupling of crosstalk noise from the external cabling pairs into a victim pair of a cable. In the illustration (see Figure 1), a bundle of 7 cables with 6 cables around a center cable is depicted. What is being measured is the noise coupling from the pairs in the outer ring of cables (aggressor pairs) to the pairs in the center cable (victim pair). Each pair of the aggressor cables contributes noise to each of the pairs in the victim cable. The total impact on the victim is determined using a power summation equation.

* Warranty available with MAC program.

Electrical Characteristics:

Conductor DCR:
9.38 Ω/100 m (28.6 Ω/Mft) max

DCR Unbalance:
3% max

Mutual Capacitance:
46 pF/m nom

Capacitance Unbalance Pair/Ground:
90 pF/100 m max

Characteristic Impedance:
100 Ω ± 10% (10-550 MHz)

Input Impedance:
100 Ω ± 15% (1-100 MHz)
100 Ω ± 18% (>100-250 MHz)
100 Ω ± 32% (>250 MHz)

Propagation Delay:
$534 + 36/\sqrt{f}$ ns/100 m max

Propagation Delay (SKEW):
45 ns/100 m max

Nominal Velocity of Propagation (NVP):

Plenum	70%
Riser	66%

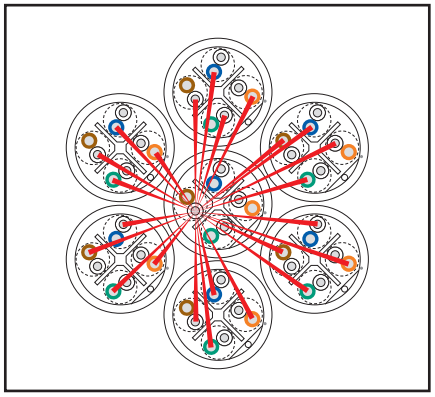
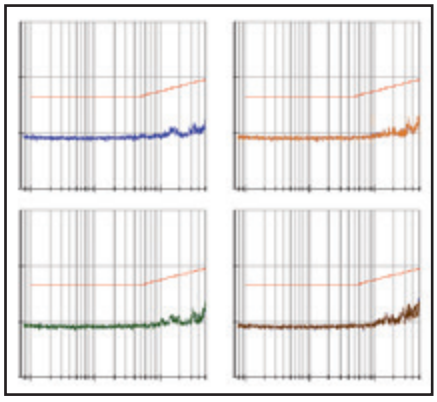
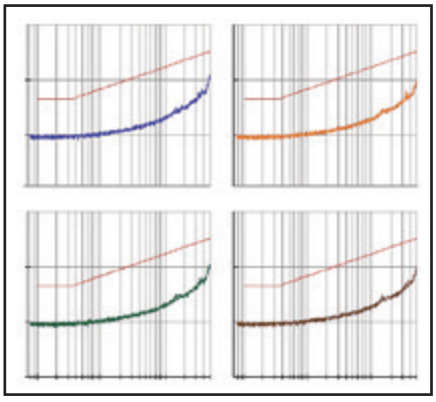


Figure 1



Power Sum Alien NEXT



Power Sum Alien ACRF

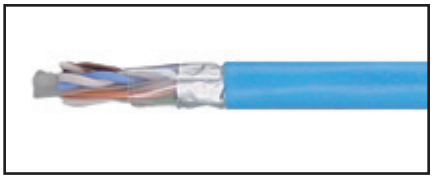
Safety listed to NEC (NFPA 70) Verified to ANSI/TIA-568-C.2

Category 6A F/UTP XGO™ (Cont.)

Tested to 750 MHz

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M58817 Riser	4-pair 23 AWG F/UTP	Thermoplastic	White PVC .303	7.7	45	67	CMR
M58782 Plenum	4-pair 23 AWG F/UTP	FEP	White ThermoPlen®* .290	7.37	48	71	CMP

*Plenum rated Thermoplastic. For pair colors, see Chart A Page 52.



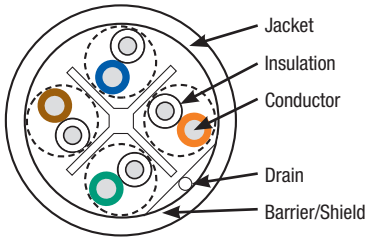
Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58817**	Green	**M58897**
Blue	**M58816**	Red	**M58898**
Pink	**M58896**	Orange	**M58899**
Yellow	**M58894**	Black	**M58900**
Gray	**M58895**	Violet	**M58901**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58782**	Green	**M58889**
Blue	**M58781**	Red	**M58890**
Pink	**M58888**	Orange	**M58891**
Yellow	**M58886**	Black	**M58892**
Gray	**M58887**	Violet	**M58893**

Custom colors available; please call (800) 422-9961



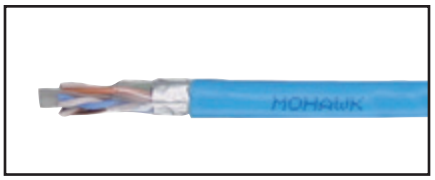
FREQ (MHz)	Insertion Loss (dB/100 m)	NEXT (dB/100 m)	PS-NEXT (dB/100 m)	ACRF (dB/100 m)	PS-ACRF (dB/100 m)	Return Loss (dB)	Prop Delay (ns/100 m)	Alien Crosstalk PS-ANEXT (dB/100 m)	Alien Crosstalk PS-AACRF (dB/100 m)
	max	min	min	min	min	min	max	min	min
1.0	2.1	74.3	72.3	67.8	64.8	20.0	570.0	67.0	67.0
4.0	3.8	65.3	63.3	55.8	52.8	23.0	552.0	67.0	66.2
8.0	5.3	60.8	58.8	49.7	46.7	24.5	546.7	67.0	60.1
10.0	5.9	59.3	57.3	47.8	44.8	25.0	545.4	67.0	58.2
16.0	7.5	56.2	54.2	43.7	40.7	25.0	543.0	67.0	54.1
20.0	8.4	54.8	52.8	41.8	38.8	25.0	542.0	67.0	52.2
25.0	9.4	53.3	51.3	39.8	36.8	24.3	541.2	67.0	50.2
31.25	10.5	51.9	49.9	37.9	34.9	23.6	540.4	67.0	48.3
62.5	15.0	47.4	45.4	31.9	28.9	21.5	538.6	65.6	42.3
100.0	19.1	44.3	42.3	27.8	24.8	20.1	537.6	62.5	38.2
155.0	24.1	41.4	39.4	24.0	21.0	18.8	536.9	59.6	34.4
200.0	27.6	39.8	37.8	21.8	18.8	18.0	536.5	58.0	32.2
250.0	31.1	38.3	36.3	19.8	16.8	17.3	536.3	56.5	30.2
300.0	34.3	37.1	35.1	18.3	15.3	16.8	536.1	55.3	28.7
350.0	37.2	36.1	34.1	16.9	13.9	16.3	535.9	54.3	27.3
400.0	40.1	35.3	33.3	15.8	12.8	15.9	535.8	53.5	26.2
500.0	45.3	33.8	31.8	13.8	10.8	15.2	535.6	52.0	24.2

Grounding Tip (or Practice)

It is imperative when installing any high performance data cable, such as Mohawk's XGO F/UTP cable, that the shield MUST be grounded properly to ensure its effectiveness. If a shield is not properly grounded, it acts like an antenna and captures emanating ANEXT, EMI and RFI noise, coupling it to the cable pairs. XGO F/UTP is constructed with a drain wire which provides an easy installation solution for grounding the shield. Shielded cable should only be grounded at one end to eliminate potential ground loops. This grounding normally occurs on the closet side of the installation.

Category 6 F/UTP

Tested to 550 MHz



Category 6 F/UTP is designed with a FlexWeb® pair isolator and foil-backed shield over the cabled core, with a drain wire under the foil. ETL verified to ANSI/TIA-568-C.2 Category 6 and Mohawk's 6 F/UTP specification.

Features:

- 25-Year Warranty*
- Sweep tested to 550 MHz – with verified stability
- 24.5 dB min ACR at 100 MHz
- .30 ns/m max skew – tightly controlled propagation delay
- Use of shielded or screened connecting hardware is recommended

* Warranty available with MAC program.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M58155 Riser	4-pair 23 AWG F/UTP	Thermoplastic	White PVC .288	7.32	51	76	CMR
M58175 Plenum	4-pair 23 AWG F/UTP	FEP	White ThermoPlen®* .290	7.37	46	68	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 6, ICEA S-90-661-1997 Category 6 & ISO/IEC 11801:2002 Category 6 Horizontal Cable

Conductor DCR:

PLENUM 7.1 Ω/100 m (21.8 Ω/Mft) max
RISER 7.8 Ω/100 m (23.8 Ω/Mft) max

DCR Unbalance:

3% max

Mutual Capacitance:

46 pF/m nom

Capacitance Unbalance Pair/Ground:

66 pF/100 m max

Characteristic Impedance:

100 Ω ± 15% (1-300 MHz)

Input Impedance:

100 Ω ± 15% (1-100 MHz)
100 Ω ± 22% (>100-200 MHz)
100 Ω ± 32% (>200 MHz)

Propagation Delay:

$534 + 36/\sqrt{f}$ ns/100 m max

Delta Delay (Skew):

30 ns/100 m max

Nominal Velocity of Propagation (NVP):

Plenum 72%
Riser 68%

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58155**	Green	**M58160**
Blue	**M58156**	Red	**M58161**
Pink	**M58157**	Orange	**M58162**
Yellow	**M58158**	Black	**M58163**
Gray	**M58159**	Violet	**M58164**

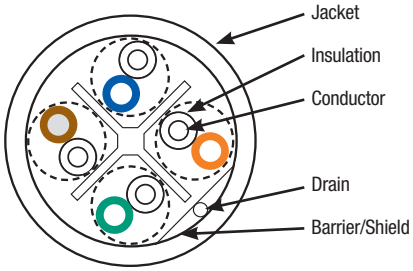
Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58175**	Green	**M58180**
Blue	**M58176**	Red	**M58181**
Pink	**M58177**	Orange	**M58182**
Yellow	**M58178**	Black	**M58183**
Gray	**M58179**	Violet	**M58184**

Custom colors available; please call (800) 422-9961

FREQ (MHz)	Insertion Loss (dB/100 m)		NEXT (dB/100 m)		ACR (dB/100 m)	PS-NEXT (dB/100 m)		PS-ACR (dB/100 m)	ELFEXT (dB/100 m)	PS-ELFEXT (dB/100 m)	RL (dB)
	avg	max	avg	min	min	avg	min	min	min	min	min
1.0	1.9	2.0	82	74.3	72.3	75	72.3	70.3	70.0	68.0	20.0
4.0	3.6	3.8	73	65.3	61.5	65	63.3	59.5	58.0	56.0	23.0
10.0	5.6	6.0	67	59.3	53.3	60	57.3	51.3	50.0	48.0	25.0
16.0	7.1	7.6	66	56.2	48.6	58	54.2	46.6	45.9	43.9	25.0
20.0	7.9	8.5	64	54.8	46.3	56	52.8	44.3	44.0	42.0	25.0
31.25	10.0	10.7	62	51.9	41.2	53	49.9	39.2	40.1	38.1	23.6
62.5	14.4	15.4	58	47.4	32.0	49	45.4	30.0	34.1	32.1	21.5
100.0	18.5	19.8	54	44.3	24.5	45	42.3	22.5	30.0	28.0	20.1
250.0	30.7	32.8	49	38.3	5.5	40	36.3	3.5	22.0	20.0	17.3
500.0	45.7	48.9	45	33.8	-	36	31.8	-	16.0	14.0	15.2
550.0	48.4	51.8	44	33.2	-	35	31.2	-	-	-	14.9

Values above 250 MHz are for engineering information only.



c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2

Category 5E F/UTP MegaLAN®

Tested to 400 MHz

MegaLAN F/UTP is designed with a foil-backed shield over the cabled core, with a drain wire. ETL verified to Category 5e and Mohawk's MegaLAN F/UTP specification.

Features:

- 25-Year Warranty*
- Sweep tested to 400 MHz – with verified stability
- 18.3 dB min ACR at 100 MHz
- 5 dB NEXT improvement versus Category 5e
- Use of shielded or screened connecting hardware is recommended

* Warranty available with MAC program.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M55987 Riser	4-pair 24 AWG F/UTP	Thermoplastic	White PVC .260	6.60	40	60	CMR
M55986 Plenum	4-pair 24 AWG F/UTP	FEP	White ThermoPlen®* .235	5.97	34	51	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M55987**	Green	**M57374**
Blue	**M57370**	Red	**M57375**
Pink	**M57371**	Orange	**M57376**
Yellow	**M57372**	Black	**M57377**
Gray	**M57373**	Violet	**M57378**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M55986**	Green	**M57363**
Blue	**M57360**	Red	**M57364**
Pink	**M57322**	Orange	**M57365**
Yellow	**M57361**	Black	**M57366**
Gray	**M57362**	Violet	**M57367**

Custom colors available; please consult the factory.

FREQ (MHz)	Insertion Loss (dB/100 m)		NEXT (dB/100 m)		ACR (dB/ 100 m)	PS-NEXT (dB/100 m)		PS-ACR (dB/ 100 m)	ELFEXT (dB/ 100 m)	PS-ELFEXT (dB/ 100 m)	RL (dB)
	avg	max	avg	min	min	avg	min	min	min	min	min
1.0	1.8	2.0	80	70.3	68.3	73	68.3	66.3	67.8	64.8	20.0
4.0	3.8	4.1	70	61.3	57.2	63	59.3	55.2	55.8	52.8	23.0
10.0	6.0	6.5	64	55.3	48.8	58	53.3	46.8	47.8	44.8	25.0
16.0	7.6	8.2	62	52.2	44.0	56	50.2	42.0	43.7	40.7	25.0
20.0	8.6	9.3	60	50.8	41.5	54	48.8	39.5	41.8	38.8	25.0
31.25	10.9	11.7	58	47.9	36.2	51	45.9	34.2	37.9	34.9	23.6
62.5	15.8	17.0	54	43.4	26.4	47	41.4	24.4	31.9	28.9	21.5
100.0	20.5	22.0	50	40.3	18.3	43	38.3	16.3	27.8	24.8	20.1
250.0	34.8	36.9	45	34.3	-	38	32.3	-	19.8	16.8	17.3
300.0	38.5	41.0	44	33.1	-	37	31.1	-	18.3	15.3	16.8
350.0	42.0	44.9	43	32.1	-	36	30.1	-	16.9	13.9	16.3
400.0	45.2	48.5	42	31.3	-	35	29.3	-	15.8	12.8	15.9

Values above 250 MHz are for engineering information only.

Electrical Characteristics:

Standards:

Exceeds ANSI/TIA-568-C.2 Category 5e & ISO/IEC 11801:2002 Category 5 Horizontal Cable

Conductor DCR:

8.9 Ω/100 m (27.1 Ω/Mft) max

DCR Unbalance:

3% max

Mutual Capacitance:

46 pF/m nom

Capacitance Unbalance Pair/Ground:

66 pF/100 m max

Characteristic Impedance:

100 Ω ± 15% (1-400 MHz)

Input Impedance:

100 Ω ± 15% (1-100 MHz)
100 Ω ± 22% (>100-200 MHz)

Propagation Delay:

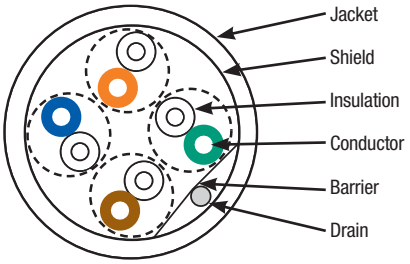
$534 + 36/\sqrt{f}$ ns/100 m max

Delta Delay (Skew):

30 ns/100 m max

Nominal Velocity of Propagation (NVP):

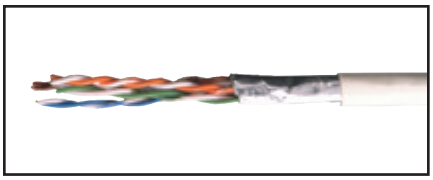
Plenum 72%
Riser 68%



Verified to ANSI/TIA-568-C.2 Safety listed to NEC (NFPA 70)

Category 5e F/UTP 5e LAN®

Tested to 200 MHz

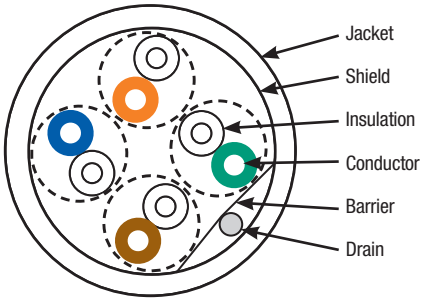


5e LAN F/UTP is designed with a foil-backed shield over the cabled core, with a drain wire under the foil. ETL verified to Category 5e and Mohawk's 5e LAN F/UTP specification.

Features:

- 25-Year Warranty*
- Sweep tested to 200 MHz – with verified stability
- 13.3 dB min ACR at 100 MHz
- Use of shielded or screened connecting hardware is recommended

* Warranty available with MAC program.



Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M58195 Riser	4-pair 24 AWG F/UTP	Thermoplastic	White PVC .260	6.60	32	48	CMR
M58185 Plenum	4-pair 24 AWG F/UTP	FEP	White ThermoPlen®* .235	5.97	34	51	CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

Jacket Colors for 4-pair Riser

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58195**	Green	**M58199**
Blue	**M58196**	Red	**M58200**
Pink	**M58197**	Orange	**M58201**
Yellow	**M58198**	Black	**M58202**
Gray	**M58145**	Violet	**M58203**

Jacket Colors for 4-pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
White	**M58185**	Green	**M58189**
Blue	**M58186**	Red	**M58190**
Pink	**M58187**	Orange	**M58191**
Yellow	**M58188**	Black	**M58192**
Gray	**M58144**	Violet	**M58193**

Custom colors available; please call (800) 422-9961

c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2

Special Applications Spectrum®

Low Skew Video Twisted Pair Cable

With fast growing applications such as digital signage and in-studio video monitoring becoming mainstream, Mohawk has developed an unshielded twisted pair cable as an alternative to coax for RGB (Red, Green, Blue) or component style video broadcasts. The cable consists of a standard "Category" style design using four twisted pairs under one jacket. This allows the cables to be smaller than the standard style coax type cables that have been traditionally used for RGB applications.

The primary benefit is the cable's built-in "low-skew." Skew is defined as the difference in signal delay between any pairs in the same cable. This cable has a skew of **2.2 ns/ 100 m nominal**. This means that all parts of the image being transmitted along the separate pairs of cable will arrive within 2.2 nanoseconds of each other, ensuring the clearest image on the receiving monitor. The lower the skew, the longer the lengths of cable that can carry the video transmission before experiencing some form of degradation of the image. The cable can transmit component type video on lengths of up to 2000 ft.

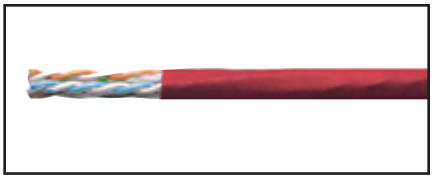
Applications:

- Retail Signage
- Supermarkets
- Education
- Government
- Hospitality
- Transportation

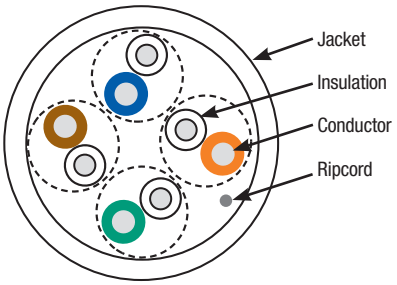
Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			Inch	mm	lbs/M'	kg/km	
M58813 Non-Plenum	4-pair 23 AWG UTP	Thermoplastic	Maroon PVC .190	4.83	24	36	CMR
M58814 Plenum	4-pair 23 AWG UTP	Dual Insulation* FEP on all 4-pairs	Maroon ThermoPlen®* .189	4.80	26	39	CMP
M58854 Indoor/Outdoor	4-pair 23 AWG Flooded	Thermoplastic	Black LSZH .251	6.38	41	61	CM-LS

*Plenum rated Thermoplastic. For pair colors, see chart A on page 52.

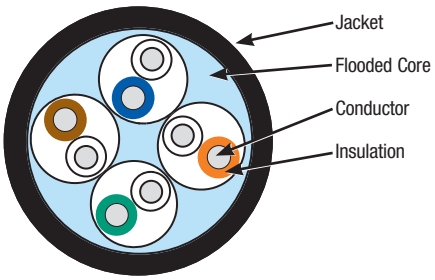
Custom colors available; please call (800) 422-9961



4PR UTP

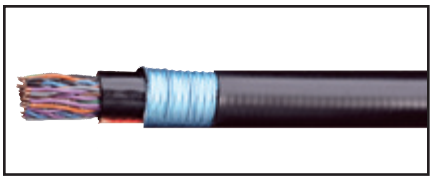


4PR Flooded



Special Applications LAN-Trak OSP

Outside Plant Cable



LAN-Trak OSP delivers TIA/EIA-568-C.2 Category 5, 5e, 5E or 6 electrical performance in an outside plant cable, because even small amounts of moisture or water in the cable will degrade the electrical performance of a Category cable. These cables are designed for exposure to the elements. Jacketed with black UV-resistant polyethylene, they employ a craft-friendly semi-dry flooding material that cleans easily from the cabled core.

Traditional petroleum-based gels such as “icky-pick” result in hard-to-clean and time-consuming cable prep time. This thixotropic gel has a dry, soft texture that is dermally safe and cleans easily with citrus-based cleaners. The result is faster cable prep time, and quicker clean-ups.

The cables allow you to extend your current network to outdoor satellite structures such as temporary classrooms or trailers in a campus environment. They are also well suited for runs under concrete slabs and in other wet locations.

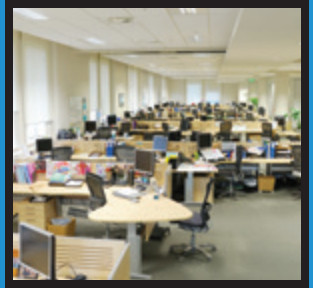
Lan-Trak cables are offered in both unshielded (UTP) and the more robust corrugated aluminum tape cables. Also, the NEC may require a Category 5, 5e, or 6 rated protection device.

As with all horizontal cables, run length is limited to 90 m (295 ft) per ANSI/TIA-568-C.2 for Category cable operation.

Mohawk Part No.	Cable Type	Jacket Diameter		Weight		Min Bend Radius	
		Inch	mm	lbs/M’	kg/km	Inch	mm
LAN-Trak OSP Category 6							
M57622	4-pair 24 AWG Duct/Aerial Lashed	.251	6.38	30	45	2.5	64
LAN-Trak OSP Category 5E							
M57561	4-pair 24 AWG Duct/Aerial Lashed	.226	5.74	25	37	2.25	57
M57562	4-pair 24 AWG Suitable for Burial (Corrugated Aluminum)	.400	10.16	64	95	6.0	152
LAN-Trak OSP Category 5e							
M58790	4-pair 24 AWG Duct/Aerial Lashed	.231	5.87	26	39	2.30	58
M58527	25-pair 24 AWG Suitable for Burial (Corrugated Aluminum)	.730	18.54	317	472	11.00	280
LAN-Trak OSP Category 5							
M57041	4-pair 24 AWG Duct/Aerial Lashed	.226	5.74	25	37	2.30	58
M57042	4-pair 24 AWG Suitable for Burial (Corrugated Aluminum)	.380	9.65	63	94	5.70	145
M57656	25-pair 24 AWG Suitable for Burial (Corrugated Aluminum)	.730	18.54	317	472	11.00	280

For 4-pair colors see chart A; for 25-pair colors see chart D on page 52.

c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2



Special Applications VersaLAN® CM & CMR/CMX Outdoor

Indoor/Outdoor Category 5e & 6 Cable

VersaLAN CMR/CMX IEEE 1202 Outdoor cable is designed for residential LAN applications. The black PVC jacket resists cracking from long-term UV exposure, and the CMR listing allows the cable to be run between multiple floors within a building. The F/UTP design provides additional EMI/RFI isolation in electrically noisy environments. These designs are gel-free and are not intended for extended exposure to water.

Use VersaLAN CM IEEE 1202 if your application exposes the cables to water for extended periods. VersaLAN CM cable is made with a fully waterblocked and waterproof construction containing the same soft semi-dry flooding material used in Mohawk's standard outside plant cable. VersaLAN CM is rated for general purpose communications use in accordance with Article 800 of the National Electrical Code (NEC). The cable is UL (USA) and c(UL) (CANADA) listed for this application by passing UL 1581 vertical tray flame test.

Mohawk's technology enables the cable to be run indoors with a CM UL listing and outdoors between buildings. The unique construction extends Ethernet networks into previously restricted ground. This product delivers in wet indoor locations where standard plenum or riser will fail.

This cable was designed for slab-on-grade installations and can be used indoors in wet locations or flood-prone areas. It is also suitable for outdoor use in duct and for aerial lashing. It is fully waterblocked and has a black sunlight-resistant jacket.

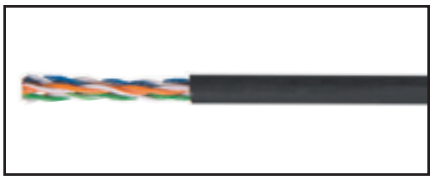
This product can be run directly to a single floor outlet floor application as opposed to standard outside plant cable which can only be brought indoors 50 ft. It is suitable for outdoor applications in addition to running inside a building. It is not suitable for direct burial.

VersaLAN products deliver 1 GbE to bandwidth requirements for evolving applications, such as enterprise data centers.

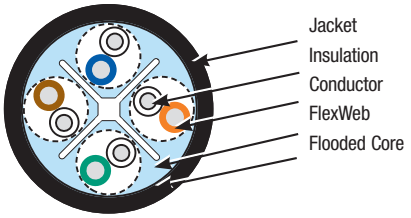
Mohawk Part No.	Cable Type	Jacket Diameter		Weight		Min Bend Radius		Listings
		Inch	mm	lbs/M'	kg/km	Inch	mm	
M58772*	**Category 6** 4-pair 23 AWG UTP	.275	6.99	43	64	2.8	71	CM-LS
M58762*	**Category 5e** 4-pair 24 AWG UTP	.251	6.38	37	55	2.5	64	CM-LS
M58783*	**Category 5e** 25-pair 24 AWG F/UTP	.730	18.54	332	494	11.0	279	CM-LS
M58926	**Category 5e** 4-pair 24 AWG UTP	.220	5.59	25	37	2.2	56	CMR-CMX Outdoor; CMG FT4
M58932	**Category 5e** 4-pair 24 AWG AWG F/UTP w/drain	.265	6.73	36	54	2.7	69	CMR-CMX Outdoor; CMG FT4

For 4-pair colors, see chart A; for 25-pair colors, see chart D on page 52.

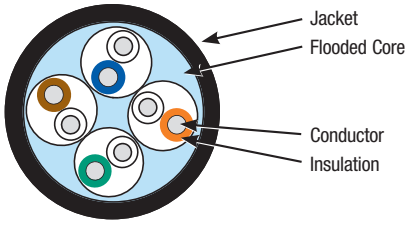
*These cables are approved by the American Bureau of Shipping (ABS). The ABS is an international classification society dedicated to developing and verifying standards for design, construction and maintenance of marine vessels. ABS approval offers excellence and safety standards for marine vessel products.



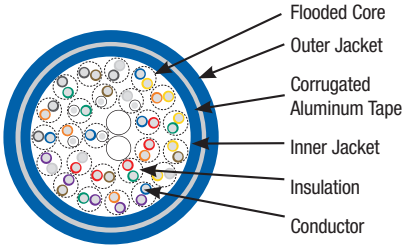
Category 6



Category 5e



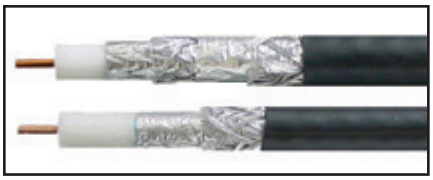
Category 5e 25-pair



MOHAWK

Special Applications RG-6 Coax

Coaxial Cables

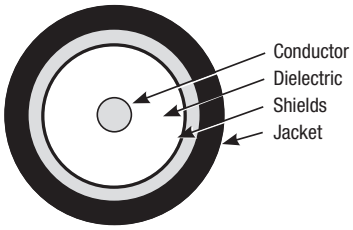


These Dual and Quad shield plenum and non-plenum cables extend Mohawk's existing product offerings to include coax capabilities. RG-6 Dual shield has a foil tape and aluminum braid. RG-6 Quad shield consists of a foil/braid/foil/braid design. These cables include 18 AWG solid copper covered steel conductors.

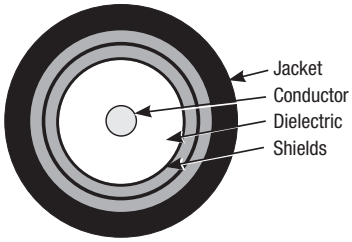
Applications:

- Community Access Television Stations
- Closed Circuit Television
- Security Cameras and Security Sectors
- Broadband Cable Access Television & Video Cameras
- K-12 Education
- Healthcare

RG-6 Dual



RG-6 Quad

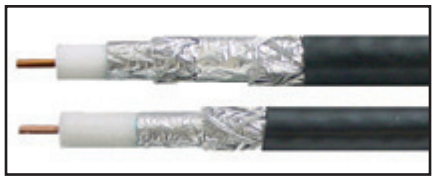


Mohawk Part No.	Cable Type	Jacket Diameter		Weight		Min Bend Radius		Max Pulling Tension (lbs)
		Inch	mm	lbs/M'	kg/km	Inch	mm	
Plenum (White Jacket) NEC CATVP/CMP NFPA 262								
M71002	DUAL Foil/61% AL Braid	.235	6.0	36	53	2.5	64	126
M71003	QUAD Foil/60% AL Braid/ Foil/40% AL Braid	.273	6.9	45	67	2.75	70	134
Non-Plenum (Black Jacket) NEC CATV NEC Article 725								
M71005	DUAL Foil/61% AL Braid	.245	6.2	35	52	2.5	64	126
M71006	QUAD Foil/60% AL Braid/ Foil/40% AL Braid	.295	7.5	48	71	3.0	76	137

Special Applications RG-11 Coax

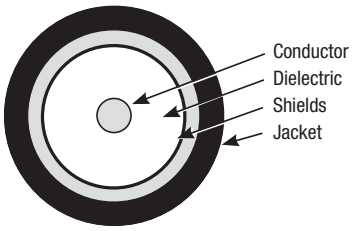
Coaxial Cables

These Dual and Quad shield plenum and non-plenum cables extend Mohawk's existing product offerings to include coax capabilities. RG-11 Dual shield has a foil tape and aluminum braid and RG-11 Quad shield consists of a foil/braid/foil/braid design. RG-11 cables offer a stronger signal, longer lengths and less loss than RG-6 cables for HDTV applications. These cables include 14 AWG solid copper conductors.

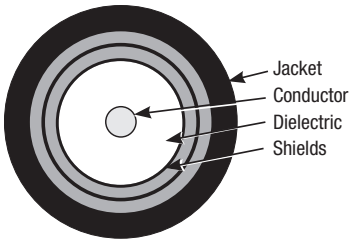


Mohawk Part No.	Cable Type	Jacket Diameter		Weight		Min Bend Radius		Max Pulling Tension (lbs)
		Inch	mm	lbs/M'	kg/km	Inch	mm	
Plenum (White Jacket) NEC CATVP/CMP* or CATVP/CL2P NFPA 262**								
M71001**	DUAL Foil/65% AL Braid	.352	8.9	43	64	3.5	89	230
M71004*	QUAD Foil/60% AL Braid/ Foil/40% AL Braid	.385	9.8	55	82	3.8	97	260
Non-Plenum (Black Jacket) NEC CATV/CL2 NEC Article 725								
M71007	DUAL Foil/61% AL Braid	.405	10.3	52	77	4.0	102	250
M71008	QUAD Foil/65% AL Braid/ Foil/55% AL Braid	.415	10.5	59	88	4.1	104	315

RG-11 Dual



RG-11 Quad

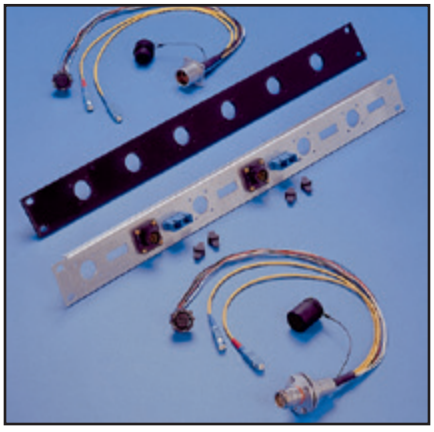


MOHAWK

Broadcast

Fiber Optic Camera Cable Assemblies

Fiber Optic Connectors for HDTV Cameras



Breakout Jumpers & Patch Panels

Mohawk offers broadcasters a complete end-to-end cabling solution for their HDTV infrastructure upgrades. Utilizing the highest quality singlemode optical fibers to transmit the uncompressed 1.5 gigabits per second, coupled with years of termination expertise, ensures optimal performance and repeatability.

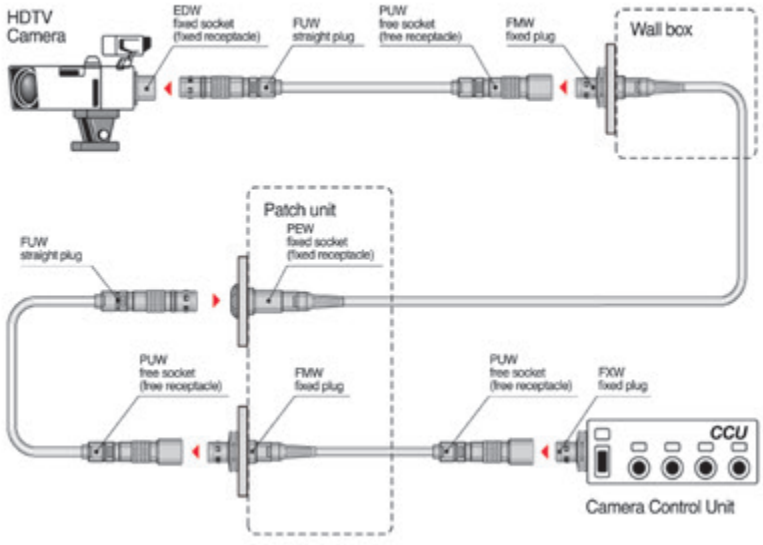
Mohawk offers a complete line of Hybrid Optical Fiber camera cables which comply to the SMTPE 311M specification. Mohawk has over 16 years of experience terminating LEMO 304M connectors. Our factory polished and terminated assemblies ensure superior performance and durability. These assemblies provide unlimited bandwidth, exceptional digital distance transmission and noise immunity in any HDTV or SD camera system. Standard on every assembly is a high performance LEMO solid stainless steel shell and full-length rubber protective boot with end cap, ensuring that cable and connector get the “shot” done.

Mohawk provides an easy solution to expensive on-site LEMO terminations. Utilizing custom-made LEMO to industry standard fiber connector types (ST, FC, SC) and multi-pin crimp on copper connectors, customers and integrators can quickly and inexpensively re-cable their studios, mobile trucks or stadiums with ease.

Features:

- LEMO Push-Pull self-latching system for quick and easy mating
- Meets SMPTE 304M-1998
- Optimum sealing (IP 68) meeting the requirements of the IEC 60529 standard for safe outdoor applications
- Easily cleaned fiber optic contacts due to removable alignment sleeve
- Compact design with 2 fiber optic contacts, 2 power and 2 signal electrical contacts
- Return loss (upc) > 45 dB
- Rugged stainless steel outer shell
- Contact Mohawk for other LEMO broadcast connectors and pre-terminated options

Studio Configuration



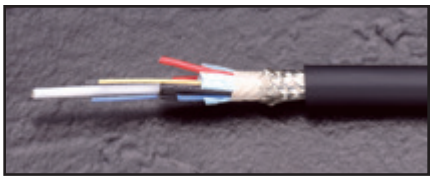
Broadcast

Fiber Optic Camera Cables - Meets SMPTE Standard for Hybrid Electrical and Fiber Optical Camera Cable

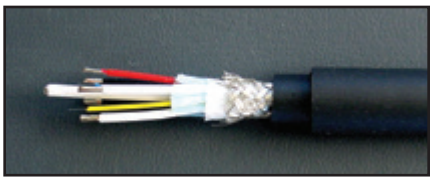
These special fiber/copper composite cables consist of two tight buffered Singlemode optical fibers, four 20 AWG (19x32) and two 24 AWG (7x32) tinned copper conductors, insulated with PE. These are cabled around a jacketed stranded steel strength element, with an overall tinned copper braid, 80% min coverage, and a black Dura-Flex™ jacket. These cables are compliant with SMPTE 311M and UL recognized type AWM, 300 volt rating.

Mohawk Part No.	Cable Type	Jacket Type Diameter		Weight		Min Bend Radius		Max Load (installation)		Jacket
		Inch	mm	lbs /M'	kg /km	Inch	mm	lbs	New-tons	
M96040	Studio Light Duty	.357	9.07	76	113	2.5	6.0	160	710	Thermoplastic Elastomer AWM Style 20907
M96818	Harsh Environment Outdoor	.357	9.07	81	121	2.5	6.0	160	710	Polyurethane Non-UL
M96921	Riser Rated 9.2 mm	.357	9.07	89	132	2.5	6.0	160	710	PVC UL Type CMR-OF
M96825	Riser Breakout	.406	10.30	110	163	3.25	8.3	160	710	PVC UL Type CMR-OF
M97938	12 mm Double Jacket	.472	12.00	110	163	3.25	8.3	160	710	Thermoplastic Elastomer AWM Style 20907
M96924	Plenum Rated	.256	6.50	61	91	2.5	6.0	160	710	PVDF-Copolymer UL Type CMP-OF
M96920	Plenum Breakout	.294	7.47	69	102	2.5	6.0	160	710	PVDF-Copolymer UL Type CMP-OF
M97176	Stedicam	.166	4.20	18	27	1.0	4.3	80	355	PVC Non-UL
M97673	Stadium	.525	13.34	135	201	3.5	8.9	160	710	PVC UL Type CMR-OF

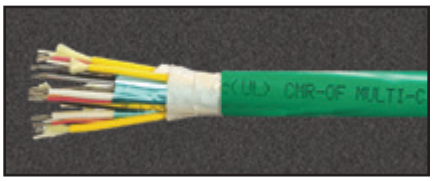
Optical attenuation 0.80 Max (dB/km at 1310nm)



Studio Light Duty



12mm Double Jacket



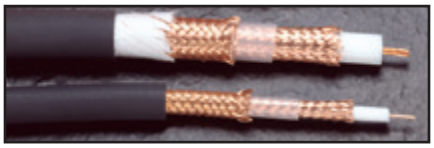
Stadium†

†Contact Mohawk for fiber count and copper size/count. Not 311M Compliant.

Specialty riser and plenum rated versions available for permanent installations.

For use with SMPTE standard 304M video connectors, manufactured by LEMO.

Broadcast
Video Triaxial Cables



These special triax boots are available on our assemblies to protect the connectors against handling and weather.

Mohawk's video triaxial cables are used to interconnect video cameras to related equipment. Triaxial cables are constructed with a solid or stranded center conductor and two isolated shields. The center conductor and the inner isolated shield make up a coaxial cable configuration that functions to carry the video signal. The outer isolated shield can be used for several separate signals by means of multiplexing that may include teleprompter feeds and control for automation such as robotics.

We offer both RG/U types of triaxial cable. The standard sizes include RG59/U and RG11/U types. The RG59/U is the smaller of the two and is generally more flexible. RG11/U has lower attenuation values that will allow longer cable runs. Both cables may be used with various OEM's Triax Adapter Systems for SD/HD transmission. The Mohawk Dura-Flex jacket was developed to enhance flexibility and provide excellent protection through a wide range of temperatures.

Mohawk Part No.	AWG	Dielectric Type Nominal OD		Shield Type	Nominal OD		Weight		Suggested Connector & Tooling
		Inch	mm		Inch	mm	lbs/M'	kg/km	
M80248 UL AWM/10296 3/8" Triax RG-59/U Type	20 (Solid) .032 Bare Copper 10.1 Ω/M' 33.1 Ω/km	Cellular Polyethylene .146	3.71	2 BC - Inner 2.5 Ω/M' 8.3 Ω/km Outer 1.6 Ω/M' 5.3 Ω/km 95% Shield Coverage	.355	9.02 Polyethylene Insulation Between Braids Black Dura-Flex Jacket 100% Sweep Tested 5-850 MHz min SRL 21 dB	85	126	*Connector:* Kings Female 7703-2 Kings Male 7705-2 *Tooling:* Kings KTH-1000 Tool Kings KTH-2002 Die
M52479 UL AWM/10296 1/2" Triax RG-11/U Type	14 (19x27) .064 Bare Copper 3.1 Ω/M' 10.2 Ω/km	Cellular Polyethylene .312	7.92	2 BC - Inner 1.8 Ω/M' 5.9 Ω/km Outer 1.4 Ω/M' 4.6 Ω/km 95% Shield Coverage	.510	12.95 Polyethylene Insulation Between Braids Black Dura-Flex Jacket 100% Sweep Tested 5-850 MHz min SRL 21 dB	158	235	*Connector:* Kings Female 7703-3 Kings Male 7705-3 *Tooling:* Kings KTH-1000 Tool Kings KTH-2041 Die

The above cables are available as assemblies using Kings, Fischer and LEMO Connectors. Kings are also available with protective full-body boots.

Water-resistant versions available.

Broadcast

Multicore Assemblies/Repair Services

Multicore Assemblies

Mohawk is an approved source of camera cable assemblies for the major manufacturers of professional camera systems. We use only the highest quality components, from the highest quality connectors to the tightly specified coaxial and interconnect transmission lines that make up our UL listed cable.

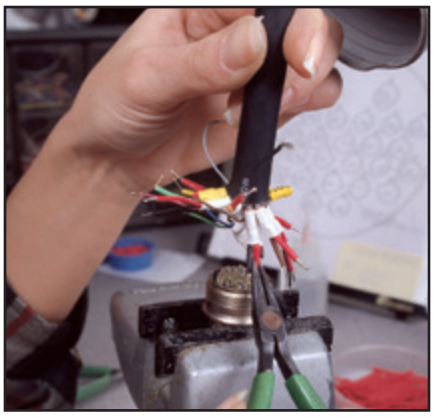
Multicore Assemblies

Types of assemblies offered:

Manufacturer	Manufacturer Part No.	Description
Sony	CCZAD	26 pin Digital
Sony	CCZA	26 pin Analog
Ikegami	MCC	26 pin
Ikegami	CP	8 pin
Hitachi	KAB	26 pin
JVC	VCP	26 pin
JVC	VCHP	26 pin + 1 coax
JVC	VCDHP	26 pin + 2 coax
Panasonic	WVCA26U	26 pin

Repair Services

Mohawk offers quality and innovation in our repair service facility. We can repair many types of cables, including hybrid fiber optic assemblies and the various multicore assemblies, no matter who the manufacturer. We can diagnose the problem and offer a solution at a competitive cost.



Repair Services

Fiber Optic Cables

Mohawk's Range of Fiber Optic Cables for Gigabit Applications

Mohawk has been manufacturing and testing fiber optic cable in accordance with many industry standards, including Telcordia, RUS and TIA/EIA, since 1990. Cables are listed by UL for compliance with the NEC and Canadian Electrical Code.

Cables are available with fiber counts ranging from 1 to 144 in multimode, singlemode or hybrid versions. They are compatible with all major manufacturers' connectivity hardware.

Mohawk's ISO 9001 registration assures our customers of consistent quality. Also, by working closely with customers, vendors and industry organizations, Mohawk can help determine the best solution for a given application.

Cables feature fiber that is optimized for laser-based protocols, yet these cables are still compatible with LED systems. They provide guaranteed link lengths to handle multi-gigabit transmission.

Fiber Optic Performance

Meets or exceeds ISO/IEC 11801	OM1	OM3	OM4	OS2
Grade	2	5[3]	6[3]	SM
Glass Type	62.5/125 MM	50/125 MM	50/125 MM	Singlemode Enhanced[2]
*Smart*Part Number Code (X)	1	3	4	S
Operating Wavelength (nm)	850/1300	850/1300	850/1300	1310/1550
Min OLF[1] Bandwidth (MHz-km)	200/500	1500/500	3500/500	—
Min Laser Bandwidth (MHz-km)	200/500	2000/500	4700/500	—
Max. Attenuation Loose Tube (dB/km)	3.5/1.50	3.25/1.0	3.0/1.0	0.35/0.25
Max. Attenuation Tight Buffered (dB/km)	3.5/1.25	3.25/1.0	3.0/1.0	0.50/0.50

1. OFL – Overfilled Launch
2. Low water peak singlemode
3. Bend-insensitive fiber

Simplify Fiber, NEW *Smart*Part numbers

Mohawk is constantly evolving to provide our customers the best experience possible. Mohawk will be replacing the legacy "M9" series part numbers with the new intelligent "F" series part numbers. Refer to the configurator on page 45 for more details.

Visit info.mohawk-cable.com/smart-fiber to learn more.

Breakout Cables

Tight Buffer - Indoor Plenum

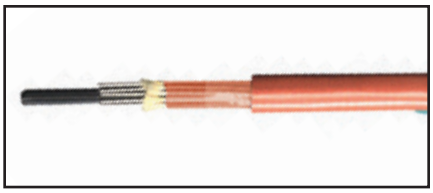
Robust terminations in demanding environments. All the ease of 900 µm tight buffered termination with only one fiber per sub-unit enables the ultimate bond between the connector and the cables' aramid yarns, resulting in unmatched strength and durability.

Applications:

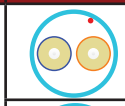
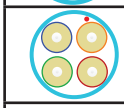
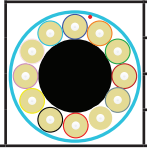
- Horizontal distribution for Fiber-to-the-desk
- In-building backbone
- Factory floor automation
- Broadcast and AV in-building installations

Additional Options

- 2.5 mm and 2.9 mm sub-units
- MSHA (Mining) Approvals



Optical Fiber Breakout Cable

Description	Construction	Fiber Count	Fiber	Sub-Unit OD	Cable OD		Weight		Tensile Strength			
									Operation		Installation	
				mm	mm	in.	Kg/km	lb/1000 ft	N	lbs-f	N	lbs-f
Color-coded Sub-Units		2	900 µm TB	2.0	6.6	0.26	36	24	400	90	800	180
		4	900 µm TB	2.0	8.2	0.32	52	35	755	170	1535	345
		6	900 µm TB	2.0	9.1	0.36	80	54	1025	230	2070	465
		8			10.3	0.41	103	69	1335	300	2670	600
		10			11.6	0.46	128	86				
		12			13.1	0.51	164	110				

Above specifications provide a general representation for the product family. Improved specifications may exist for Riser or Plenum constructions. Consult indiviDual technical data sheets for exact specifications.

Standard Configurations

Fiber Count	*Smart*Part Number				
	OM1 Orange	OM3 Aqua	OM4 Erika Violet	OM4 Aqua	OS2 Yellow
Plenum					
2	FI1B002PB	FI3B002PB	FI4B002PB	FI4B002PBA	FISB002PB
4	FI1B004PB	FI3B004PB	FI4B004PB	FI4B004PBA	FISB004PB
6	FI1B006PB	FI3B006PB	FI4B006PB	FI4B006PBA	FISB006PB
12	FI1B012PB	FI3B012PB	FI4B012PB	FI4B012PBA	FISB012PB

For an exhaustive selection contact customer service at (800) 422-9961

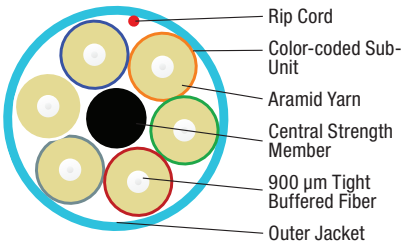
Specifications

Bend Radius (vs. Cable OD)

Installation	15 x OD
Operation	10 x OD

Temperature Range

Storage	-40°C to 70°C (-40°F to 158°F)
Installation (Plenum/LSZH)	0°C to 60°C (32°F to 140°F)
Installation (Plenum/LSZH)	0°C to 60°C 32°F to 140°F
Installation (Riser)	-10°C to 60°C (14°F to 140°F)
Operation (Plenum/LSZH)	0°C to 70°C (32°F to 158°F)
Operation (Riser)	-20°C to 70°C (-4°F to 158°F)



Compliance

- TIA/EIA-568-C.3
- ISO/IEC 11801, 2nd Edition
- Telcordia GR-409-CORE
- RoHS II 2011/65/EU
- REACH EC1907-2006
- NEC/CEC OFNR/OFN FT4 (RISER - PVC)
- NEC/CEC OFNR/OFN FT4 (LSZH - FRPE)
- NEC/CEC OFNP/OFN FT6 (PLENUM - PVC or PVDF)

MOHAWK

Distribution Cables

Tight Buffer — Indoor Riser & Plenum Rated

Fast installation, easy termination.
Sub-unitized cables provide easy routing, while 900 µm tight-buffered fibers support fast and robust field-termination.

Applications:

- Horizontal distribution for Fiber-to-the-desk
- In-building backbone
- Factory floor automation
- Data Center EDA areas

Additional Options

- MSHA (Mining) Approvals

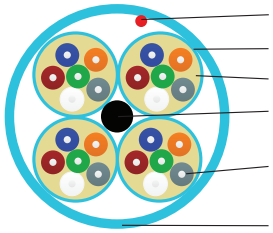
Indoor Specifications

Bend Radius (vs. Cable OD)

Installation	15 x OD
Operation	10 x OD

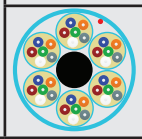
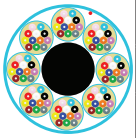
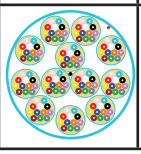
Temperature Range

Storage	-40°C to 70°C (-40°C to 158°F)
Installation (Plenum/LSZH)	0°C to 60°C (32°F to 140°F)
Installation (Riser)	-10°C to 60°C (14°F to 140°F)
Operation (Plenum/LSZH)	0°C to 70°C (32°F to 158°F)
Operation (Riser)	-20°C to 70°C (-4°F to 158°F)



Compliance

- TIA/EIA-568-C.3
- ISO/IEC 11801, 2nd Edition
- Telcordia GR-409-CORE
- RoHS II 2011/65/EU
- REACH EC1907-2006
- NEC/CEC OFNR/OFN FT4 (RISER - PVC)
- NEC/CEC OFNR/OFN FT4 (LSZH - FRPE)
- NEC/CEC OFNP/OFN FT6 (PLENUM - PVC or PVDF)

Description	Construction	Fiber Count	Fiber	Sub-Unit OD	Cable OD		Weight		Tensile Strength			
									Operation		Installation	
				mm	mm	in.	Kg/km	lb/1000 ft	N	lbs-f	N	lbs-f
Non-Unitized		2	900 µm TB	N/A	4.8	0.19	22	15	222	50	556	125
		4	900 µm TB	N/A	4.8	0.19	25	17	222	50	556	125
		6					31	21				
		8			5.8	0.23	36	24	334	75	667	150
		10					39	26				
		12					43	29				
		16			8.8	0.35	64	43	556	125	1112	250
		24					80	54				
Unitized 6-Fiber Sub-Units		24	900 µm TB	4.5	13.1	0.52	145	97	1001	225	2002	450
		36			16.0	0.63	221	148	1668	375	3336	750
Unitized 12-Fiber Sub-Units		36	900 µm TB	5.5	14.1	0.56	162	109	1001	225	2002	450
		48			15.5	0.61	207	139	1423	320	2847	640
		72			19.0	0.75	321	216	2002	450	4226	950
		96			22.8	0.90	536	360	2780	625	5560	1250
		144			25.4	1.00	602	404	4226	950	8452	1900

Above specifications provide a general representation for the product family. Improved specifications may exist for Riser, Plenum or LSZH constructions. Consult indiviDual technical data sheets for exact specifications.

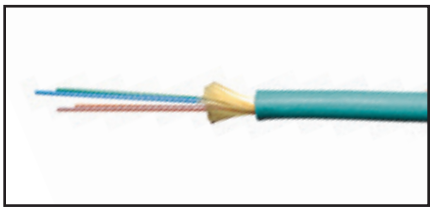
Distribution Cables (Cont.)

Tight Buffer — Indoor Riser & Plenum Rated

Standard Indoor Configurations

Fiber Count	*Smart*Part Number				
	OM1 Orange	OM3 Aqua	OM4 Erika Violet	OM4 Aqua	OS2 Yellow
Non-unitized Riser					
2	FI1D002R9	FI3D002R9	FI4D002R9	FI4D002R9A	FISD002R9
6	FI1D006R9	FI3D006R9	FI4D006R9	FI4D006R9A	FISD006R9
12	FI1D012R9	FI3D012R9	FI4D012R9	FI4D012R9A	FISD012R9
24	FI1D024R9	FI3D024R9	FI4D024R9	FI4D024R9A	FISD024R9
Non-unitized Plenum					
2	FI1D002P9	FI3D002P9	FI4D002P9	FI4D002P9A	FISD002P9
6	FI1D006P9	FI3D006P9	FI4D006P9	FI4D006P9A	FISD006P9
12	FI1D012P9	FI3D012P9	FI4D012P9	FI4D012P9A	FISD012P9
24	FI1D024P9	FI3D024P9	FI4D024P9	FI4D024P9A	FISD024P9
Unitized 12-Fiber Sub-Units - Plenum					
48	FI1D048PK	FI3D048PK	FI4D048PK	FI4D048PKA	FISD048PK
72	FI1D072PK	FI3D072PK	FI4D072PK	FI4D072PKA	FISD072PK
96	FI1D096PK	FI3D096PK	FI4D096PK	FI4D096PKA	FISD096PK
144	FI1D144PK	FI3D144PK	FI4D144PK	FI4D144PKA	FISD144PK

For an exhaustive selection contact customer service at (800) 422-9961



Optical Fiber Distribution Cable

Distribution Cables (Cont.)

Tight Buffer - Indoor/Outdoor, Riser and Plenum

Indoor/Outdoor Specifications

Environmental Protection

- UV Resistant Jacket
- Moisture Resistant Jacket
- Fungus Resistant Jacket
- Water Blocking Aramid
- Water Blocking Tape

Additional Options

- MSHA (Mining) Approvals

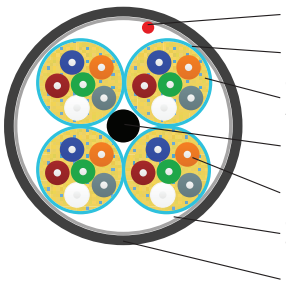
Indoor/Outdoor Specifications

Bend Radius (vs. Cable OD)

Installation	20 x OD
Operation	10 x OD

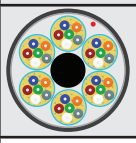
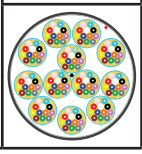
Temperature Range

Storage	-40°C to 70°C (-40 to 158°F)
Installation	-20 to 70°C (-4 to 158°F)
Operation	-40 to 70°C (-40 to 158°F)



Compliance

- TIA/EIA-568-C.3
- ISO/IEC 11801, 2nd Edition
- Telcordia GR-20-CORE
- RoHS II 2011/65/EU
- REACH EC1907-2006
- NEC/CEC OFNR/OFN FT4 (RISER - PVC)
- NEC/CEC OFNR/OFN FT4 (LSZH - FRPE)
- NEC/CEC OFNP/OFN FT6 (PLENUM - PVC or PVDF)

Description	Construction	Fiber Count	Fiber	Sub-Unit OD	Cable OD		Weight		Tensile Strength			
									Operation		Installation	
				mm	mm	in.	Kg/km	lb/1000 ft	N	lbs-f	N	lbs-f
Non-Unitized		2	900 µm TB	N/A	4.8	0.19	22	15	222	50	556	125
		4	900 µm TB	N/A	4.8	0.19	25	17	222	50	556	125
		6					31	21				
		8			5.8	0.23	36	24	334	75	667	150
		10					39	26				
		12					43	29				
		16			8.8	0.35	64	43	556	125	1112	250
		24					80	54				
Unitized 6-Fiber Sub-Units		24	900 µm TB	4.5	13.1	0.52	145	97	1001	225	2002	450
		36			16.0	0.63	221	148	1668	375	3336	750
Unitized 12-Fiber Sub-Units		36	900 µm TB	5.5	14.1	0.56	162	109	1001	225	2002	450
		48			15.5	0.61	207	139	1423	320	2847	640
		72			19.0	0.75	321	216	2002	450	4226	950
		96			22.8	0.90	536	360	2780	625	5560	1250
		144			25.4	1.00	602	404	4226	950	8452	1900

Above specifications provide a general representation for the product family. Improved specifications may exist for Riser, Plenum or LSZH constructions. Consult indiviDual technical data sheets for exact specifications.

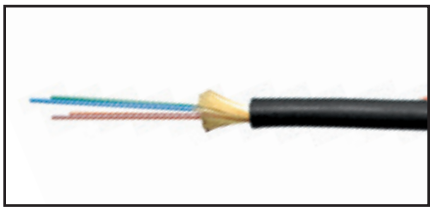
Distribution Cables (Cont.)

Tight Buffer - Indoor/Outdoor, Riser and Plenum

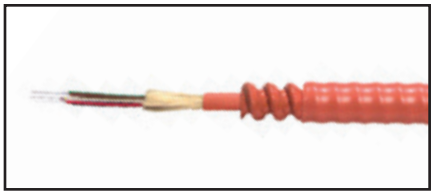
Standard Indoor/Outdoor Configurations

Fiber Count	*Smart*Part Number			
	OM1 Black	OM3 Black	OM4 Black	OS2 Black
Non-unitized - Riser				
2	FD1D002R9	FD3D002R9	FD4D002R9	FDSD002R9
6	FD1D006R9	FD3D006R9	FD4D006R9	FDSD006R9
12	FD1D012R9	FD3D012R9	FD4D012R9	FDSD012R9
24	FD1D024R9	FD3D024R9	FD4D024R9	FDSD024R9
Non-unitized - Plenum				
2	FD1D002P9	FD3D002P9	FD4D002P9	FDSD002P9
6	FD1D006P9	FD3D006P9	FD4D006P9	FDSD006P9
12	FD1D012P9	FD3D012P9	FD4D012P9	FDSD012P9
24	FD1D024P9	FD3D024P9	FD4D024P9	FDSD024P9
Unitized 12-Fiber Sub-Units - Plenum				
48	FD1D048PK	FD3D048PK	FD4D048PK	FDSD048PK
72	FD1D072PK	FD3D072PK	FD4D072PK	FDSD072PK
96	FD1D096PK	FD3D096PK	FD4D096PK	FDSD096PK
144	FD1D144PK	FD3D144PK	FD4D144PK	FDSD144PK

For an exhaustive selection contact customer service at (800) 422-9961



Optical Fiber Distribution Cable, Indoor/Outdoor



Armored Optical Fiber Distribution Cable

Armored Distribution Cables

Tight Buffer — Indoor, Riser and Plenum Rated

Heightened protection with simple termination. Augmenting the easy termination of Distribution cable with interlocking armor to provide an elevated resistance to cutting, crushing and the gnawing of rodents all while eliminating the additional expense of innerduct.

Applications:

- Campus/Inter Building
- Telecom Trunks
- Industrial
- Rugged Environments

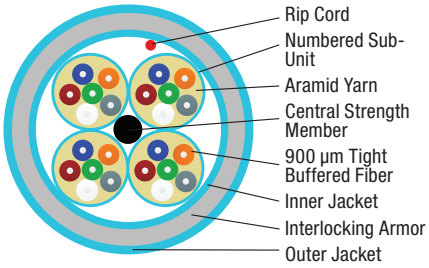
Indoor Specifications

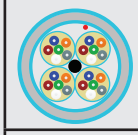
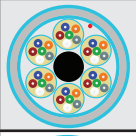
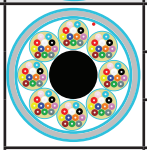
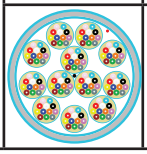
Bend Radius (vs. Cable OD)

Installation	20 x OD
Operation	15 x OD

Temperature Range

Storage	-40°C to 70°C (-40°F to 158°F)
Installation (Plenum/LSZH)	0°C to 60°C (32°F to 140°F)
Installation (Riser)	-10°C to 60°C (14°F to 140°F)
Operation (Plenum/LSZH)	0°C to 70°C (32°F to 158°F)
Operation (Riser)	-20°C to 70°C (-4°F to 158°F)



Description	Construction	Fiber Count	Fiber	Sub-Unit OD	Cable OD		Weight		Tensile Strength			
									Operation		Installation	
				mm	mm	in.	Kg/km	lb/1000 ft	N	lbs-f	N	lbs-f
Non-Unitized		6	900 µm TB	N/A	14.5	0.57	189	127	360	81	1201	270
		12			15.7	0.62	150	223	400	90	1334	300
		24			17.0	0.67	335	225				
Unitized 6-Fiber Sub-Units		24	900 µm TB	4.5	21.5	0.85	391	263	890	200	2700	600
		36			25.3	1.00	548	368				
Unitized 12-Fiber Sub-Units		48	900 µm TB	5.5	24.6	0.97	540	363	890	200	2700	600
		72			27.8	1.09	716	481				
		96			32.5	1.28	930	625				
		144			35.6	1.40	1005	675				

Above specifications provide a general representation for the product family. Improved specifications may exist for Riser, Plenum or LSZH constructions. Consult indiviDual technical data sheets for exact specifications.

Compliance

- TIA/EIA-568-C.3
- ISO/IEC 11801, 2nd Edition
- Telcordia GR-409-CORE
- RoHS II 2011/65/EU
- REACH EC1907-2006
- NEC/CEC OFNR/OFN FT4 (RISER - PVC)
- NEC/CEC OFNR/OFN FT4 (LSZH - FRPE)
- NEC/CEC OFNP/OFN FT6 (PLENUM - PVC or PVDF)

Standard Indoor Configurations

Fiber Count	*Smart*Part Number				
	OM1 Orange	OM3 Aqua	OM4 Erika Violet	OM4 Aqua	OS2 Yellow
Non-unitized - Riser					
6	FI1D006F9	FI3D006F9	FI4D006F9	FI4D006F9A	FISD006F9
12	FI1D012F9	FI3D012F9	FI4D012F9	FI4D012F9A	FISD012F9
24	FI1D024F9	FI3D024F9	FI4D024F9	FI4D024F9A	FISD024F9
Non-unitized - Plenum					
6	FI1D006A9	FI3D006A9	FI4D006A9	FI4D006A9A	FISD006A9
12	FI1D012A9	FI3D012A9	FI4D012A9	FI4D012A9A	FISD012A9
24	FI1D024A9	FI3D024A9	FI4D024A9	FI4D024A9A	FISD024A9
Unitized 12-Fiber Sub-Units - Plenum					
48	FI1D048AK	FI3D048AK	FI4D048AK	FI4D048AKA	FI4D048AK

For an exhaustive selection contact customer service at (800) 422-9961

Armored Distribution Cables (Cont.)

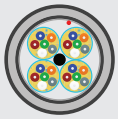
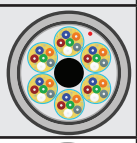
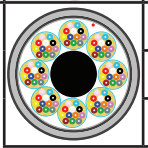
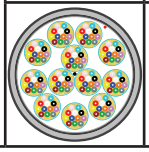
Tight Buffer — Indoor/Outdoor, Riser and Plenum Rated

Indoor/Outdoor Specifications

- Environmental Protection
- UV Resistant Jacket
- Moisture Resistant Jacket
- Fungus Resistant Jacket
- Water Blocking Aramid
- Water Blocking Tape

Additional Options

- MSHA (Mining) Approvals

Description	Construction	Fiber Count	Fiber	Sub-Unit OD	Cable OD		Weight		Tensile Strength			
									Operation		Installation	
				mm	mm	in.	Kg/km	lb/1000 ft	N	lbs-f	N	lbs-f
Non-Unitized		6	900 µm TB	N/A	14.5	0.57	189	127	360	81	1201	270
		12			15.7	0.62	150	223	400	90	1334	300
		24			17.0	0.67	335	225				
Unitized 6-Fiber Sub-Units		24	900 µm TB	4.5	21.5	0.85	391	263	890	200	2700	600
		36			25.3	1.00	548	368				
Unitized 12-Fiber Sub-Units		48	900 µm TB	5.5	24.6	0.97	540	363	890	200	2700	600
		72			27.8	1.09	716	481				
		96			32.5	1.28	930	625				
		144			35.6	1.40	1005	675				

Above specifications provide a general representation for the product family. Improved specifications may exist for Riser, Plenum or LSZH constructions. Consult indiviDual technical data sheets for exact specifications.

Standard Indoor/Outdoor Configurations

Fiber Count	*Smart*Part Number			
	OM1 Black	OM3 Black	OM4 Black	OS2 Black
Non-unitized - Riser				
6	FD1D006F9	FD3D006F9	FD4D006F9	FDSD006F9
12	FD1D012F9	FD3D012F9	FD4D012F9	FDSD012F9
24	FD1D024F9	FD3D024F9	FD4D024F9	FDSD024F9
Non-unitized - Plenum				
6	FD1D006A9	FD3D006A9	FD4D006A9	FDSD006A9
12	FD1D012A9	FD3D012A9	FD4D012A9	FDSD012A9
24	FD1D024A9	FD3D024A9	FD4D024A9	FDSD024A9
Unitized 12-Fiber Sub-Units - Plenum				
48	FD1D048AK	FD3D048AK	FD4D048AK	FDSD048AK

For an exhaustive selection contact customer service at (800) 422-9961

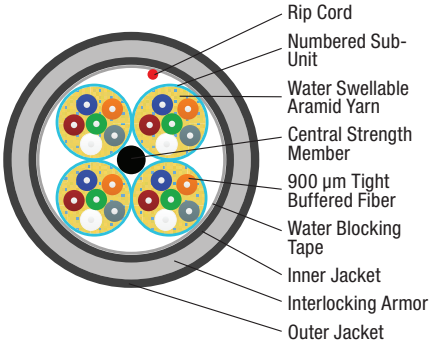
Indoor/Outdoor Specifications

Bend Radius (vs. Cable OD)

Installation	20 x OD
Operation	15 x OD

Temperature Range

Storage	-40°C to 70°C (-40°F to 158°F)
Installation	-20°C to 70°C (-4°F to 158°F)
Operation	-40°C to 70°C (-40°F to 158°F)



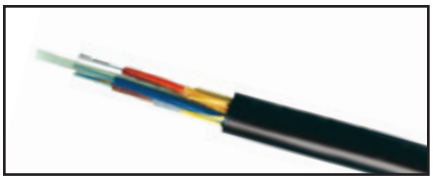
Compliance

- TIA/EIA-568-C.3
- ISO/IEC 11801, 2nd Edition
- Telcordia GR-20-CORE
- RoHS II 2011/65/EU
- REACH EC1907-2006
- NEC/CEC OFNR/OFN FT4 (RISER - PVC)
- NEC/CEC OFNR/OFN FT4 (LSZH - FRPE)
- NEC/CEC OFNP/OFN FT6 (PLENUM - PVC or PVDF)

MOHAWK

Single Jacket, All Dielectric Loose Tube Cables

Loose Tube — Outdoor, and Indoor/Outdoor Riser



Gel-filled buffer tube prevents water migration. All-dielectric strength member. Available as Riser rated cable, thereby eliminating the need for service entrance splicing to in-building cable. Full dielectric construction, no grounding required. Available with up to 216 fibers. Length markings in meters for easy determination of cable length.

Applications:

- Medium to high fiber count requirements
- Inter-building duct installations
- Lashed aerial
- Indoor/outdoor
- Industrial outside plant (OSP Type)

Jacket Specifications

Jacket Material	
Outdoor	PE
Riser	PVC
Buffer Tube	PBT
Strength Member	Aramid Yarn
Central Strength Member	E-Glass
Color Code (Buffer)	Per TIA/EIA 598-B
Jacket Color	Black

Ratings

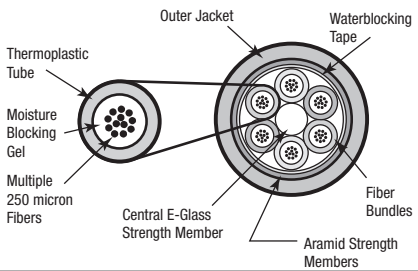
Riser	
UL Type	OFNR
cUL Type	OFN FT4
Flame Resistance	UL 1666

Specifications

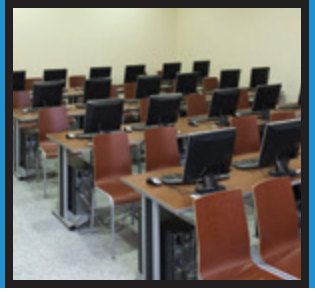
Temperature Range (Outdoor Series)	
Storage	-40°C to 75°C
Operating	-40°C to 70°C
Temperature Range (Riser Series)	
Storage	-40°C to 75°C
Operating	-40°C to 70°C
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD
Strength Member	Aramid Yarn

Compliance

- TIA/EIA-568-C.3
- ICEA S-87-640



Fiber Count	*Smart*Part Number				
	OM1	OM2	OM3	OM4	OS2
Outdoor					
6	FS1L006NF	FS2L006NF	FS3L006NF	FS4L006NF	FSSL006NF
12	FS1L012NG	FS2L012NG	FS3L012NG	FS4L012NG	FSSL012NG
24	FS1L024NG	FS2L024NG	FS3L024NG	FS4L024NG	FSSL024NG
36	FS1L036NG	FS2L036NG	FS3L036NG	FS4L036NG	FSSL036NG
48	FS1L048NG	FS2L048NG	FS3L048NG	FS4L048NG	FSSL048NG
72	FS1L072NG	FS2L072NG	FS3L072NG	FS4L072NG	FSSL072NG
96	FS1L096NG	FS2L096NG	FS3L096NG	FS4L096NG	FSSL096NG
144	FS1L144NG	FS2L144NG	FS3L144NG	FS4L144NG	FSSL144NG
216	FS1L216NG	FS2L216NG	FS3L216NG	FS4L216NG	FSSL216NG
Riser (NEC/CEC OFNR/OFN FT4) Indoor/Outdoor					
6	FD1L006RF	FD2L006RF	FD3L006RF	FD4L006RF	FDSL006RF
12	FD1L012RG	FD2L012RG	FD3L012RG	FD4L012RG	FDSL012RG
24	FD1L024RG	FD2L024RG	FD3L024RG	FD4L024RG	FDSL024RG
36	FD1L036RG	FD2L036RG	FD3L036RG	FD4L036RG	FDSL036RG
48	FD1L048RG	FD2L048RG	FD3L048RG	FD4L048RG	FDSL048RG
72	FD1L072RG	FD2L072RG	FD3L072RG	FD4L072RG	FDSL072RG
96	FD1L096RG	FD2L096RG	FD3L096RG	FD4L096RG	FDSL096RG
144	FD1L144RG	FD2L144RG	FD3L144RG	FD4L144RG	FDSL144RG



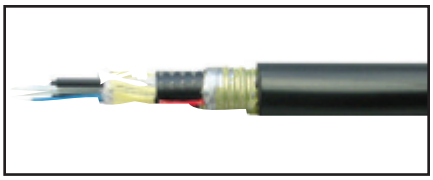
Double Jacket, Armored Loose Tube Cables (OSP Type)

Loose Tube – Outdoor, and Indoor/Outdoor Riser Rated

Gel-filled buffer tubes prevent water migration. Available as Riser rated cable, thereby eliminating the need for service entrance splicing to in-building cable. Rodent resistant. Available in sizes up to 216 fibers. Length markings in meters for easy determination of cable length.

Applications:

- Direct burial
- Low to high fiber count requirements
- Inter-building duct installations
- Indoor/outdoor
- Industrial outside plant (OSP Type)



Fiber Count	*Smart*Part Number				
	OM1	OM2	OM3	OM4	OS2
Outdoor					
6	FS1H0066F	FS2H0066F	FS3H0066F	FS4H0066F	FSSH0066F
12	FS1H0126G	FS2H0126G	FS3H0126G	FS4H0126G	FSSH0126G
24	FS1H0246F	FS2H0246G	FS3H0246G	FS4H0246G	FSSH0246G
36	FS1H0366G	FS2H0366G	FS3H0366G	FS4H0366G	FSSH0366G
48	FS1H0486G	FS2H0486G	FS3H0486G	FS4H0486G	FSSH0486G
72	FS1H0726G	FS2H0726G	FS3H0726G	FS4H0726G	FSSH0726G
96	FS1H0966G	FS2H0966G	FS3H0966G	FS4H0966G	FSSH0966G
144	FS1H1446G	FS2H1446G	FS3H1446G	FS4H1446G	FSSH1446G
Riser (NEC/CEC OFNR/OFN FT4) Indoor/Outdoor					
6	FD1H0065F	FD2H0065F	FD3H0065F	FD4H0065F	FDSH0065F
12	FD1H0125G	FD2H0125G	FD3H0125G	FD4H0125G	FDSH0125G
24	FD1H0245G	FD2H0245G	FD3H0245G	FD4H0245G	FDSH0245G
36	FD1H0365G	FD2H0365G	FD3H0365G	FD4H0365G	FDSH0365G
48	FD1H0485G	FD2H0485G	FD3H0485G	FD4H0485G	FDSH0485G
72	FD1H0725G	FD2H0725G	FD3H0725G	FD4H0725G	FDSH0725G
96	FD1H0965G	FD2H0965G	FD3H0965G	FD4H0965G	FDSH0965G
144	FD1H1445G	FD2H1445G	FD3H1445G	FD4H1445G	FDSH1445G

Jacket Specifications

Jacket Material	
Outdoor	PE
Riser	PVC
Buffer Tube	Thermoplastic
Strength Member	Aramid Yarn
Central Strength Member	E-Glass
Armor	Corrugated Steel Tape
Color Code (Buffer)	Per TIA/EIA 598-B
Jacket Color	Black

Ratings

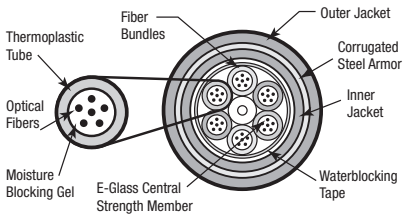
Riser	OFCR

Specifications

Temperature Range (Outdoor)	
Storage	-40°C to 75°C
Operating	-40°C to 70°C
Temperature Range (Riser)	
Storage	-40°C to 80°C
Operating	-40°C to 70°C
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Compliance

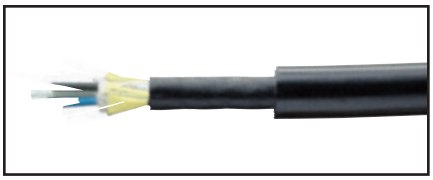
- TIA/EIA-568-C.3
- ICEA S-87-640



MOHAWK

Double Jacket, Heavy-Duty Loose Tube Cables

Loose Tube — Outdoor



Gel-filled buffer tubes prevent water migration. Available with up to 216 fibers.

Applications:

- Direct burial
- Harsh environments
- Applications requiring good ozone-, moisture- and weather-resistance

Jacket Specifications

Jacket Material	
Outdoor	PE
Riser	PE
Buffer Tube	PBT
Strength Member	Aramid Yarn
Central Strength Member	E-Glass
Core Wrap	Water Swellable
Color Code (Buffer)	Per TIA/EIA 598-B
Jacket Color	Black

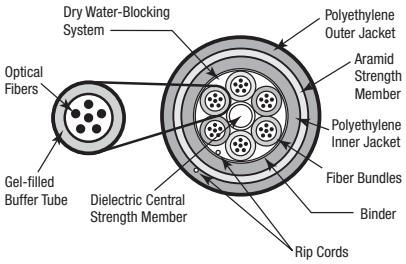
Specifications

Temperature Range	
Storage	-40°C to 75°C
Operating	-40°C to 70°C
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Compliance

- TIA/EIA-568-C.3
- ICEA S-87-640

Fiber Count	*Smart*Part Number				
	OM1	OM2	OM3	OM4	OS2
Outdoor					
2	FS1H002NF	FS2H002NF	FS3H002NF	FS4H002NF	FSSH002NF
4	FS1H004NF	FS2H004NF	FS3H004NF	FS4H004NF	FSSH004NF
6	FS1H006NF	FS2H006NF	FS3H006NF	FS4H006NF	FSSH006NF
8	FS1H008NF	FS2H008NF	FS3H008NF	FS4H008NF	FSSH008NF
12	FS1H012NG	FS2H012NG	FS3H012NG	FS4H012NG	FSSH012NG
18	FS1H018NG	FS2H018NG	FS3H018NG	FS4H018NG	FSSH018NG
24	FS1H024NG	FS2H024NG	FS3H024NG	FS4H024NG	FSSH024NG
36	FS1H036NG	FS2H036NG	FS3H036NG	FS4H036NG	FSSH036NG
48	FS1H048NG	FS2H048NG	FS3H048NG	FS4H048NG	FSSH048NG
72	FS1H072NG	FS2H072NG	FS3H072NG	FS4H072NG	FSSH072NG
96	FS1H096NG	FS2H096NG	FS3H096NG	FS4H096NG	FSSH096NG
144	FS1H144NG	FS2H144NG	FS3H144NG	FS4H144NG	FSSH144NG
216	FS1H216NG	FS2H216NG	FS3H216NG	FS4H216NG	FSSH216NG



Central Tube Cables

Loose Tube — Outdoor, and Outdoor Armored

Economical option for low fiber counts. Quick and easy end preparation. Fully waterblocked with gel-filled buffer tube. No rods – easy handling. Crush, impact and abrasion resistant.

Applications:

- Campus OSP backbones
- Drop cable
- Telecommunications and data trunk
- Direct burial (armored only)
- Lashed aerial

Fiber Count	*Smart*Part Number				
	OM1	OM2	OM3	OM4	OS2
Outdoor					
2	FS1C002N0	FS2C002N0	FS3C002N0	FS4C002N0	FSSC002N0
4	FS1C004N0	FS2C004N0	FS3C004N0	FS4C004N0	FSSC004N0
6	FS1C006N0	FS2C006N0	FS3C006N0	FS4C006N0	FSSC006N0
8	FS1C008N0	FS2C008N0	FS3C008N0	FS4C008N0	FSSC008N0
10	FS1C010N0	FS2C010N0	FS3C010N0	FS4C010N0	FSSC010N0
12	FS1C012N0	FS2C012N0	FS3C012N0	FS4C012N0	FSSC012N0
24	FS1C024N0	FS2C024N0	FS3C024N0	FS4C024N0	FSSC024N0
Outdoor Armored					
2	FS1C00260	FS2C00260	FS3C00260	FS4C00260	FSSC00260
4	FS1C00460	FS2C00460	FS3C00460	FS4C00460	FSSC00460
6	FS1C00660	FS2C00660	FS3C00660	FS4C00660	FSSC00660
8	FS1C00860	FS2C00860	FS3C00860	FS4C00860	FSSC00860
10	FS1C01060	FS2C01060	FS3C01060	FS4C01060	FSSC01060
12	FS1C01260	FS2C01260	FS3C01260	FS4C01260	FSSC01260
24	FS1C02460	FS2C02460	FS3C02460	FS4C02460	FSSC02460

Jacket Specifications

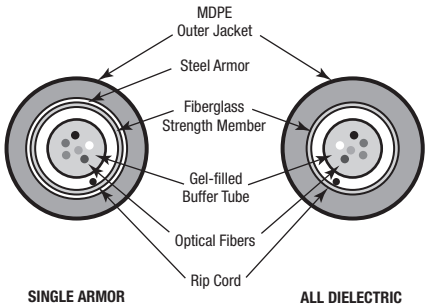
Jacket Material	PE
Buffer Tube	PBT
Core Wrap	Water Swellable
Strength Member	Fiberglass
Armor	Corrugated Steel Tape
Color Code (Buffer)	Per TIA/EIA 598-B
Jacket Color	Black

Specifications

Temperature Range	
Storage	-40°C to 75°C
Operating	-40°C to 70°C
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Compliance

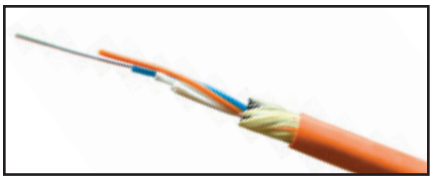
- TIA/EIA-568-C.3
- ICEA S-87-640



MOHAWK

TrayOptic® Industrial, Heavy-Duty, All Dielectric Cables

Loose Tube — Indoor/Outdoor Riser Rated



Laser Optimized Fiber to handle Gigabit Ethernet light sources and expanded bandwidth requirements. Passes IEEE 1202/583-2003 flame test. Waterblocking agent for moisture protection. CPE outer jacket option provides extra chemical or abrasion resistance.

Applications:

- Industrial and other harsh environment applications
- Factory automation
- Direct burial

Jacket Specifications

Jacket Material	PVC or CPE
Strength Member	Aramid Yarn
Jacket Color	
Singlemode	Yellow
62.5/125 µm	Orange
50/125 µm / 1 Gb	Orange
50/125 µm / 10 Gb	Aqua

Ratings

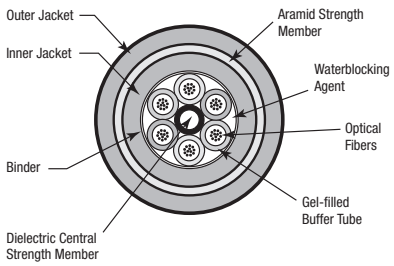
Riser	
UL Type	OFNR
cUL Type	OFN FT4
Flame Resistance	IEEE 1202 / 383-2003

Specifications

Temperature Range (Outdoor Series)	
Storage	-40°C to 70°C
Operating	-40°C to 70°C
Crush Resistance	
(EIA-455-41)	2000 N/cm
Impact Resistance	
(EIA-455-25)	2000 impacts @ 1.6N-m
Cyclic Flexing	25 cycles, 12 lbs.,
(EIA-455-104)	20 x OD radius min.
Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Compliance

- TIA/EIA-568-C.3
- ICEA S-104-696



Fiber Count	*Smart*Part Number				
	OM1	OM2	OM3	OM4	OS2
Riser (NEC/CEC OFNR/OFN FT4) PVC Jacket Indoor/Outdoor					
2	FD1T002RF	FD2T002RF	FD3T002RF	FD4T002RF	FDST002RF
4	FD1T004RF	FD2T004RF	FD3T004RF	FD4T004RF	FDST004RF
6	FD1T006RF	FD2T006RF	FD3T006RF	FD4T006RF	FDST006RF
8	FD1T008RF	FD2T008RF	FD3T008RF	FD4T008RF	FDST008RF
12	FD1T012RF	FD2T012RF	FD3T012RF	FD4T012RF	FDST012RF
18	FD1T018RF	FD2T018RF	FD3T018RF	FD4T018RF	FDST018RF
24	FD1T024RF	FD2T024RF	FD3T024RF	FD4T024RF	FDST024RF
36	FD1T036RF	FD2T036RF	FD3T036RF	FD4T036RF	FDST036RF
48	FD1T048RG	FD2T048RG	FD3T048RG	FD4T048RG	FDST048RG
60	FD1T060RG	FD2T060RG	FD3T060RG	FD4T060RG	FDST060RG
72	FD1T072RG	FD2T072RG	FD3T072RG	FD4T072RG	FDST072RG
Riser (NEC/CEC OFNR/OFN FT4) CPE Jacket Indoor/Outdoor					
2	FD1Y002RF	FD2Y002RF	FD3Y002RF	FD4Y002RF	FDSY002RF
4	FD1Y004RF	FD2Y004RF	FD3Y004RF	FD4Y004RF	FDSY004RF
6	FD1Y006RF	FD2Y006RF	FD3Y006RF	FD4Y006RF	FDSY006RF
8	FD1Y008RF	FD2Y008RF	FD3Y008RF	FD4Y008RF	FDSY008RF
12	FD1Y012RF	FD2Y012RF	FD3Y012RF	FD4Y012RF	FDSY012RF
18	FD1Y018RF	FD2Y018RF	FD3Y018RF	FD4Y018RF	FDSY018RF
24	FD1Y024RF	FD2Y024RF	FD3Y024RF	FD4Y024RF	FDSY024RF
36	FD1Y036RF	FD2Y036RF	FD3Y036RF	FD4Y036RF	FDSY036RF
48	FD1Y048RG	FD2Y048RG	FD3Y048RG	FD4Y048RG	FDSY048RG
60	FD1Y060RG	FD2Y060RG	FD3Y060RG	FD4Y060RG	FDSY060RG
72	FD1Y072RG	FD2Y072RG	FD3Y072RG	FD4Y072RG	FDSY072RG

*Smart*Part Number Configurator

To use the configuration matrices, make a selection from each category (some selections will require measurements) and combine to form a custom part number.

Part number example from configuration shown below: **FI3B004PB**

FI	3	B	004	P	B
FX Fiber Cable	**Fiber Type**	**Family**	**Fiber Count**	**Fire Rating & Protection**	**Subunit Type / Configuration**
Breakout Cable					
FI Indoor Cable	1 OM1	B Breakout	002 2 Fibers	Plenum Group	B 2.0mm, 1 x 900 µm Fiber
FD Indoor/Outdoor Cable	3 OM3		004 4 Fibers	P Plenum (OFNP)	
	4 OM4		006 6 Fibers	A Plenum Interlocked Aluminum Armor (OFCP)	
	S OS2 (G.657.A1)		008 8 Fibers	Riser Group	
			010 10 Fibers	R Riser (OFNR)	
			012 12 Fibers	F Riser Interlocked Aluminum Armor (OFCR)	
Non-Unitized Distribuion Cable					
FI Indoor Cable	1 OM1	D Distribution	002 2 Fibers	Plenum Group	9 900 µm Fiber
FD Indoor/Outdoor Cable	3 OM3		004 4 Fibers	P Plenum (OFNP)	
	4 OM4		006 6 Fibers	A Plenum Interlocked Aluminum Armor (OFCP)	
	S OS2 (G.657.A1)		012 12 Fibers	Riser Group	
			024 24 Fibers	R Riser (OFNR)	
				F Riser Interlocked Aluminum Armor (OFCR)	
Unitized Distribuion Cable					
FI Indoor Cable	1 OM1	D Distribution	024 24 Fibers	Plenum Group	J 4.5 mm, 6 x 900 µm Fiber
FD Indoor/Outdoor Cable	3 OM3		036 36 Fibers	P Plenum (OFNP)	K 5.5 mm, 12 x 900 µm Fiber
	4 OM4		048 48 Fibers	A Plenum Interlocked Aluminum Armor (OFCP)	
	S OS2 (G.657.A1)		072 72 Fibers	Riser Group	
	Hybrid Assignments (Primary/Secondary)		096 96 Fibers	R Riser (OFNR)	
	E OS2/OM4		144 144 Fibers	F Riser Interlocked Aluminum Armor (OFCR)	
	F OS2/OM1		Hybrid Configurations		
	H OS2/OM3		H31 4 Subunits		
	K OM4/OM1		H22 4 Subunits		
	M OM3/OM1		H13 4 Subunits		
Mini-Distribution Cable (Non-Unitized)					
FI Indoor Cable	3 OM3	M Mini-Distribution	012 12 Fibers	Plenum Group	0 250 µm Fiber
	4 OM4			P Plenum (OFNP)	2 3.0 mm, 12 x 250 µm Fiber
	S OS2 (G.657.A1)			A Plenum Interlocked Aluminum Armor (OFCP)	
Mini-Distribution Cable (Unitized)					
FI Indoor Cable	3 OM3	M Mini-Distribution	024 24 Fibers	Plenum Group	1 2.0 mm, 12 x 250 µm Fiber
	4 OM4		036 36 Fibers	P Plenum (OFNP)	
	S OS2 (G.657.A1)		048 48 Fibers	A Plenum Interlocked Aluminum Armor (OFCP)	
			072 72 Fibers		
			096 96 Fibers		
			144 144 Fibers		
Loose-Tube					
FI Indoor Cable	1 OM1	L Loose-Tube (Single Jacket)	012 12 Fibers	CM	D 12 Fibers per Tube Dry
FS Outdoor Cable	3 OM3		024 24 Fibers	N CM (OFN)	G 12 Fibers per Tube Gel
	4 OM4		036 36 Fibers	6 CM Corrugated Steel Tape Armor	
	S OS2 (G.657.A1)		048 48 Fibers	Riser Group	
			072 72 Fibers	R Riser (OFNR)	
			096 96 Fibers	5 Riser Corrugated Steel Tape Armor (OFCR)	
			144 144 Fibers		

Copper Product Cross Reference

Category 6A GigaLAN 10® Small Diameter
Exceeds the requirements of IEEE 802.3an 10GBASE-T, for the full 100 m per ANSI/TIA-568-C.2. Supports 10G WiFi Access Points, PoE and PoE Plus.

Category 6A GigaLAN 10®
Exceeds the requirements of IEEE 802.3an 10GBASE-T, for the full 100 m per ANSI/TIA-568-C.2.

Category 6E GigaLAN®
Exceeds the requirements of ANSI/TIA-568-C.2 and ISO 11801 Class E cable. GigaLAN delivers an additional 7 dB of NEXT and PS-NEXT and 1.8 dB of Insertion Loss performance over standard Category 6.

Category 6e+ AdvanceNet™
Exceeds the requirements of ANSI/TIA-568-C.2 and ISO 11801 Class E cable. Delivers up to an additional 3.3% of improved signal strength, and 5 dB of NEXT and PS-NEXT performance over standard Category 6.

		Mohawk	General Cable	Superior Essex
UTP Cables	Category 6A	**GigaLAN 10 Small Diameter**	GenSPEED 10MTP	10Gain XP
	Category 6A	**GigaLAN 10**	GenSpeed 10 MTP/ 10,000 Category 6A	10Gain Category 6A
	Category 6E	**GigaLAN**	GenSpeed 6500	—
	Category 6e+	**AdvanceNet**	GenSpeed 6000 Enhanced	NextGain Category 6eX
	Category 6e	**6 LAN Plus**	—	DataGain Category 6+
	Category 6	**6 LAN**	GenSpeed 6	Series 77 Category 6
	Category 5E	**MegaLAN**	GenSPEED 5500/5350	Cobra 5e+
	Category 5e	**5e LAN**	GenSPEED 5000	Marathon LAN
F/UTP Cables	Category 6A	**XGO F/UTP**	GenSpeed 10,000 F/UTP	Category 6A ScTP (F/UTP)
	Category 6	**Category 6 F/UTP**	—	Category 6+ ScTP (F/UTP)
	Category 5E	**MegaLAN F/UTP**	—	Category 5e+ ScTP (F/UTP)
	Category 5e	**5e LAN F/UTP**	GenSpeed 5000 Screened	—

Note:
Products in the Systimax series do not provide cable-only data, only 4-connector channel data. XX=10 for CMR and 20 for CMP.

See pages 4 and 5 for Mohawk part numbers by color.

Product information compiled from competitor websites at current time of this publication. For questions, please consult your Sales Representative.

Copper Product Cross Reference (Cont.)

Category 6e 6 LAN™ Plus
Exceeds the requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class E cable. Delivers an additional 5 dB improvement in PS-NEXT.

Category 6 6 LAN™
Meets the min requirements as stated in ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class E cable.

Category 5E MegaLAN®
Exceeds the ANSI/TIA-568-C.2 requirements for Category 5e UTP cables. Delivers a min of 5 dB PS-ACR at 100 MHz over Category 5e.

Category 5e 5e LAN®
Meets the min requirements as stated in ANSI/TIA-568-C.2 requirements for Category 5e UTP cables and delivers a min of 13.3 dB ACR @ 100 MHz.

Systimax	Uniprise	Hubbell	Hitachi HCM	Berk-Tek Nexans
GigaSPEED X10D xx91 Series	—	—	—	LANmark XTP
GigaSpeed X10D XX91 Series	Ultra 10 10G4	NEXTSPEED Ascent	Supra 10G/10G-XT/10GRD	LANmark-10G2
GigaSpeed Xpress 2088 Series	—	—	Supra 660	LANmark-2000
—	—	NEXTSPEED Category 6 Enhanced	Premium	LANmark-1000
GigaSpeed XL XX71 Series	UltraMedia 6e 7504 (CMP) 75N4 (CMR)	NEXTSPEED Category 6	Plus	—
—	Media 6 6504+ (CMP) 65N4+ (CMR)	NEXTSPEED Link 6	ECO	LANmark-6
—	Ultra II 5504M (CMP) 55N4R (CMR)	SPEEDGAIN Category 5e	5e 350	LANmark-350
XX61 Series	DataPipe 5E55 (CMP) 5EN5 (CMR)	Category 5e UTP	Category 5e	HyperPlus 5e
2291A	Ultra 10 10GS4 F/UTP	NEXTSPEED Ascent 10 GbE ft.P Cable	Supra 10G F/UTP	LANmark-10G F/UTP 6A
1271B	Media 6 65S4+ F/UTP	—	Category 6 F/UTP	LANmark-6 F/UTP
—	—	—	—	—
1261F	DataPipe 5ES4 F/UTP	—	5e F/UTP	LANmark-5e F/UTP

This cross reference was developed as a guide to help cross competitor products to Mohawk products. Both electrical and construction parameters were considered in this process. For questions regarding this table, please contact your Mohawk representative.

Fiber Product Cross Reference

Description	Fiber Count	Fiber Type	Mohawk	General
Plenum Distribution Tight Buffer	6	SM	**FISD006P9**	AP0061PNU
Plenum Distribution Tight Buffer	6	62.5M/OM1	**FI1D006P9**	CG0061PNU
Plenum Distribution Tight Buffer	6	50M/OM2	**FI2D006P9**	BG0061PNU
Plenum Distribution Tight Buffer	6	50M/OM3	**FI3D006P9**	BE0061PNU
Plenum Distribution Tight Buffer	12	SM	**FISD012P9**	AP0121PNU
Plenum Distribution Tight Buffer	12	62.5M/OM1	**FI1D012P9**	CG0121PNU
Plenum Distribution Tight Buffer	12	50M/OM2	**FI2D012P9**	BG0121PNU
Plenum Distribution Tight Buffer	12	50M/OM3	**FI3D012P9**	BE0121PNU
Plenum Distribution Tight Buffer	24	SM	**FISD024P9**	AP0241PNU
Plenum Distribution Tight Buffer	24	62.5M/OM1	**FI1D024P9**	CG0241PNU
Plenum Distribution Tight Buffer	24	50M/OM2	**FI2D024P9**	BG0241PNU
Plenum Distribution Tight Buffer	24	50M/OM3	**FI3D024P9**	BE0241PNU
Riser Distribution Tight Buffer	6	SM	**FISD006R9**	AP0061PNR
Riser Distribution Tight Buffer	6	62.5M/OM1	**FI1D006R9**	CG0061PNR
Riser Distribution Tight Buffer	6	50M/OM2	**FI2D006R9**	BG0061PNR
Riser Distribution Tight Buffer	6	50M/OM3	**FI3D006R9**	BE0061PNR
Riser Distribution Tight Buffer	12	SM	**FISD012R9**	AP0121PNR
Riser Distribution Tight Buffer	12	62.5M/OM1	**FI1D012R9**	CG0121PNR
Riser Distribution Tight Buffer	12	50M/OM2	**FI2D012R9**	BG0121PNR
Riser Distribution Tight Buffer	12	50M/OM3	**FI3D012R9**	BE0121PNR
Riser Distribution Tight Buffer	24	SM	**FISD024R9**	AP0241P1R
Riser Distribution Tight Buffer	24	62.5M/OM1	**FI1D024R9**	CG0241P1R
Riser Distribution Tight Buffer	24	50M/OM2	**FI2D024R9**	BG0241P1R
Riser Distribution Tight Buffer	24	50M/OM3	**FI3D024R9**	BE0241P1R
Plenum Distribution Tight Buffer Interlock Armor	6	SM	**FISD006A9**	AP0061PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	6	62.5M/OM1	**FI1D006A9**	CG0061PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	6	50M/OM2	**FI2D006A9**	BG0061PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	6	50M/OM3	**FI3D006A9**	BE0061PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	12	SM	**FISD012A9**	AP0121PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	12	62.5M/OM1	**FI1D012A9**	CG0121PNU-ILPA

Fiber Product Cross Reference (Cont.)

Corning	OCC	Berk-Tek	Superior	Commscope/ Systimax	Panduit
006E88-31131-29	DX006SSLX9YP	PDP006-AB0707	440063101	5201006AWPYL	FSDP906Y
006K88-31130-29	DX006SWLS9OP	PDP006-CB3510/25	440066G01	5201006AMPOR	FSDP606Y
006T88-31131-29	DX006SALS9OP	PDP006-ZB3010/75	440065G02	—	FSDP506Y
006T88-31180-29	DX006SALT9QP	PDP006-EB3010/25	44006BG01	5201006AZPAQ	FSDPX06Y
012E88-31131-29	DX012SSLX9YP	PDP012-AB0707	440123101	5201012AWPYL	FSDP912Y
012K88-33130-29	DX012SWLS9OP	PDP012-CB3510/25	440126G01	5201012AMPOR	FSDP612Y
012T88-33131-29	DX012SALS9OP	PDP012-ZB3010/75	440125G02	—	FSDP512Y
012T88-33180-29	DX012SALT9QP	PDP012-EB3010/25	44012BG01	5201012AZPAQ	FSDPX12Y
024E88-31131-29	–	PDP024-AB0707	440243101	5201024AWPYL	FSDP924Y
024K88-33130-29	–	PDP024-CB3510/25	440246G01	5201024AMPOR	FSDP624Y
024T88-33131-29	–	PDP024-ZB3010/75	440245G02	—	FSDP524Y
024T88-33180-29	–	PDP024-EB3010/25	44024BG01	5201246AZPAQ	FSDPX24Y
006E81-31131-24	–	PDR006-AB0707	430063101	5200006AWRYL	FSDR906Y
006K81-31130-24	–	PDR006-CB3510/25	430066G01	5200006AMROR	FSDR606Y
006T81-31131-24	–	PDR006-ZB3010/75	430065G02	—	FSDR506Y
006T81-31180-24	–	PDR006-EB3010/25	43006BG01	5200006AZRAQ	FSDRX06Y
012E81-33131-24	–	PDR012-AB0707	430123101	5200012AWRYL	FSDR912Y
012K81-33130-24	–	PDR012-CB3510/25	430126G01	5200012AMROR	FSDR612Y
012T81-33131-24	–	PDR012-ZB3010/75	430125G02	—	FSDR512Y
012T81-33180-24	–	PDR012-EB3010/25	43012BG01	5200012AZRAQ	FSDRX12Y
024E81-33131-24	–	PDR024-AB0707	430243101	5200024AWRYL	FSDR924Y
024K81-33130-24	–	PDR024-CB3510/25	430246G01	5200024AMROR	FSDR624Y
024T81-33131-24	–	PDR024-ZB3010/75	430245G02	—	FSDR524Y
024T81-33180-24	–	PDR024-EB3010/25	43024BG01	5200246AZRAQ	FSDRX24Y
006E88-31131-A3	DX006SSLX9YPI7	PDPK006-AB0707	L40063401	5201006AWPYLAPYL	FSPP906Y
006K88-31130-A3	DX006SWLS9OPI7	PDPK006-CB3510/25	L40066401	5201006AMPORAPOR	FSPP606Y
006T88-31131-A3	DX006SALS9OP17	PDPK006-ZB3010/75	L40065402	—	FSPP506Y
006T88-31180-A3	DX006SALT9QPI7	PDPK006-EB3010/25	L4006N401	5201006AZPAQAPAQ	FSPPX06Y
012E88-31131-A3	DX012SSLX9YPI7	PDPK012-AB0707	L40123401	5201012AWPYLAPYL	FSPP912Y
012K88-31130-A3	DX012SWLS9OPI7	PDPK012-CB3510/25	L40126401	5201012AMPORAPOR	FSPP612Y

Fiber Product Cross Reference (Cont.)

Description	Fiber Count	Fiber Type	Mohawk	General
Plenum Distribution Tight Buffer Interlock Armor	12	50M/OM2	**FI2D012A9**	BG0121PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	12	50M/OM3	**FI3D012A9**	BE0121PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	24	SM	**FISD024A9**	AP0241PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	24	62.5M/OM1	**FI1D024A9**	CG0241PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	24	50M/OM2	**FI2D024A9**	BG0241PNU-ILPA
Plenum Distribution Tight Buffer Interlock Armor	24	50M/OM3	**FI3D024A9**	BE0241PNU-ILPA
Riser Distribution Tight Buffer Interlock Armor	6	SM	**FISD006F9**	AP0061PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	6	62.5M/OM1	**FI1D006F9**	CG0061PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	6	50M/OM2	**FI2D006F9**	BG0061PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	6	50M/OM3	**FI3D006F9**	BE0061PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	12	SM	**FISD012F9**	AP0121PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	12	62.5M/OM1	**FI1D012F9**	CG0121PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	12	50M/OM2	**FI2D012F9**	BG0121PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	12	50M/OM3	**FI3D012F9**	BE0121PNR-ILRA
Riser Distribution Tight Buffer Interlock Armor	24	SM	**FISD024F9**	AP0241P1R-ILRA
Riser Distribution Tight Buffer Interlock Armor	24	62.5M/OM1	**FI1D024F9**	CG0241P1R-ILRA
Riser Distribution Tight Buffer Interlock Armor	24	50M/OM2	**FI2D024F9**	BG0241P1R-ILRA
Riser Distribution Tight Buffer Interlock Armor	24	50M/OM3	**FI3D024F9**	BE0241P1R-ILRA
Plenum Indoor/Outdoor Loose Tube	6	SM	**FDSL006P0**	AP0064M1D-DT
Plenum Indoor/Outdoor Loose Tube	6	62.5M/OM1	**FD1L006P0**	CG0064M1D-DT
Plenum Indoor/Outdoor Loose Tube	6	50M/OM2	**FD2L006P0**	BG0064M1D-DT
Plenum Indoor/Outdoor Loose Tube	6	50M/OM3	**FD3L006P0**	BE0064M1D-DT
Plenum Indoor/Outdoor Loose Tube	12	SM	**FDSL012P0**	AP0124M1D-DT
Plenum Indoor/Outdoor Loose Tube	12	62.5M/OM1	**FD1L012P0**	CG0124M1D-DT
Plenum Indoor/Outdoor Loose Tube	12	50M/OM2	**FD2L012P0**	BG0124M1D-DT
Plenum Indoor/Outdoor Loose Tube	12	50M/OM3	**FD3L012P0**	BE0124M1D-DT

Fiber Product Cross Reference (Cont.)

Corning	OCC	Berk-Tek	Superior	Commscope/ Systimax	Panduit
012T88-33131-A3	DX012SALS9OPI7	PDPK012-ZB3010/75	L40125402	—	FSPP512Y
012T88-33180-A3	DX012SALT9QPI7	PDPK012-EB3010/25	L4012N401	5201012AZPAQAPAQ	FSPPX12Y
024E88-33131-A3	—	PDPK024-AB0707	L40243401	5201024AWPYLAPYL	FSPP924Y
024K88-33130-A3	—	PDPK024-CB3510/25	L40246401	5201024AMPORAPOR	FSPP624Y
024T88-33131-A3	—	PDPK024-ZB3010/75	L40245402	—	FSPP524Y
024T88-33180-A3	—	PDPK024-EB3010/25	L4024N401	5201246AZPAQAPAQ	FSPPX24Y
006E81-31131-A1	—	PDRK006-AB0707	L30063401	5200006AWRYLARYL	FSPR906Y
006K81-31130-A1	—	PDRK006-CB3510/25	L30066401	5200006AMRORARORR	FSPR606Y
006T81-31131-A1	—	PDRK006-ZB3010/75	L30065402	—	FSPR506Y
006T81-31180-A1	—	PDRK006-EB3010/25	L3006N401	5200006AZRAQARAQ	FSPRX06Y
012E81-33131-A1	—	PDRK012-AB0707	L30123401	5200012AWRYLARYL	FSPR912Y
012K81-33130-A1	—	PDRK012-CB3510/25	L30126401	5200012AMRORARORR	FSPR612Y
012T81-33131-A1	—	PDRK012-ZB3010/75	L30125402	—	FSPR512Y
012T81-33180-A1	—	PDRK012-EB3010/25	L3012N401	5200012AZRAQARAQ	FSPRX12Y
024E81-33131-A1	—	PDRK024-AB0707	L3024BK1Q	5200024AWRYLARYL	FSPR924Y
024K81-33130-A1	—	PDRK024-CB3510/25	L30246401	5200024AMRORARORR	FSPR624Y
024T81-33131-A1	—	PDRK024-ZB3010/75	L30245402	—	FSPR524Y
024T81-33180-A1	—	PDRK024-EB3010/25	L3024N401	5200246AZRAQARAQ	FSPRX24Y
006ESP-T4101D20	Not Available	LTP006-AB0403	Not Available	5125006AWPBK	FSCP906Y
006KSP-T4130D20	Not Available	LTP006-CB3510/25	Not Available	—	FSCP606Y
006TSP-T4131D20	Not Available	LTP006-ZB3010/75	Not Available	5125006AMPBK	FSCP506Y
006TSP-T4180D20	Not Available	LTP006-EB3010/25	Not Available	5125006AZPBK	FSCPX06Y
012ESP-T4101D20	Not Available	LTP012-AB0403	Not Available	5125012AWPBK	FSCP912Y
012KSP-T4130D20	Not Available	LTP012-CB3510/25	Not Available	—	FSCP612Y
012CSP-T4131D20	Not Available	LTP012-ZB3010/75	Not Available	5125012AMPBK	FSCP512Y
012SSP-T4180D20	Not Available	LTP012-EB3010/25	Not Available	5125012AZPBK	FSCPX12Y

Color Code Charts

Chart A

Pair No.	Pair Color Code
1	White/Blue & Blue
2	White/Orange & Orange
3	White/Green & Green
4	White/Brown & Brown

Chart C

Fiber	Color	Fiber	Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Pink
6	White	12	Aqua

Chart B

Pair or Group Number	Pair and Binder Color Code
1	White/Blue & Blue/White
2	White/Orange & Orange/White
3	White/Green & Green/White
4	White/Brown & Brown/White
5	White/Slate & Slate/White
6	Red/Blue & Blue/Red
7	Red/Orange & Orange/Red
8	Red/Green & Green/Red
9	Red/Brown & Brown/Red
10	Red/Slate & Slate/Red
11	Black/Blue & Blue/Black
12	Black/Orange & Orange/Black
13	Black/Green & Green/Black
14	Black/Brown & Brown/Black
15	Black/Slate & Slate/Black
16	Yellow/Blue & Blue/Yellow
17	Yellow/Orange & Orange/Yellow
18	Yellow/Green & Green/Yellow
19	Yellow/Brown & Brown/Yellow
20	Yellow/Slate & Slate/Yellow
21	Violet/Blue & Blue/Violet
22	Violet/Orange & Orange/Violet
23	Violet/Green & Green/Violet
24	Violet/Brown & Brown/Violet
25	Violet/Slate & Slate/Violet

Color code repeats for each group of 25-pairs
For cables containing multiple groups of 25-pairs, each group will be identified by a color-coded binder following the above color chart. Example: 50-pair cable will have two groups of 25-pairs; first binder color is white/blue, second binder is white/orange.

Chart D

Pair or Group Number	Pair and Binder Color Code	
	Tip Color	Ring Color
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Slate
6	Red	Blue
7	Red	Orange
8	Red	Green
9	Red	Brown
10	Red	Slate
11	Black	Blue
12	Black	Orange
13	Black	Green
14	Black	Brown
15	Black	Slate
16	Yellow	Blue
17	Yellow	Orange
18	Yellow	Green
19	Yellow	Brown
20	Yellow	Slate
21	Violet	Blue
22	Violet	Orange
23	Violet	Green
24	Violet	Brown
25	Violet	Slate

Color code repeats for each group of 25-pairs
For cables containing multiple groups of 25-pairs, each group will be identified by a color-coded binder following the above color chart. Example: 50-pair cable will have two groups of 25-pairs; first binder color is white/blue, second binder is white/orange.

Insulations

Comparative Properties of Insulations

Property Considered	Cellular Polyethylene	Polyethylene	Nylon	Polypropyl-ene	Polyurethane	PVC	FEP
Acid Resistance	G to E	G to E	P to F	E	F	G to E	E
Abrasion Resistance	G	F to G	E	F to G	O	F to G	G to E
Alcohol Resistance	E	E	P	E	P	G	E
Alkali Resistance	G to E	G to E	E	E	F	G	E
Benzol (Aromatic Hydrocarbons) Resistance	P	P	G	P to F	P	P to F	E
Degreaser Solvents (Halogenated Hydrocarbons)	P	P	G	P	P	P to F	E
Electrical Properties	E	E	F	E	P to F	F to G	E
Flame Resistance	P	P	P	P	P	E	O
Gasoline, Kerosene (Aliphatic Hydrocarbons) Resistance	P to F	P to F	G	P to F	F	P	E
Heat Resistance	G to E	G	E	E	G	G to E	O
Low Temperature Flexibility	E	G to E	G	P	G	P to G	O
Nuclear Radiation Resistance	G	G	P to F	F	G	P to G	O
Oil Resistance	G to E	G to E	E	E	E	P	O
Oxidation Resistance	E	E	E	E	E	E	O
Ozone Resistance	E	E	E	E	E	E	E
Water Resistance	E	E	P to F	E	P	E	E
Weather – Sun Resistance	E	E	E	E	F to G	G to E	O

P = Poor F = Fair G = Good E = Excellent O = Outstanding
Above ratings are based on average performance of compounds. Any specific property can often be improved by the use of selective compounding.

Current Carrying Capacity of Insulated Copper Conductors

Amps	PE. Polyurethane PVC (Semi-Rigid)	Polypropylene PVC	Nylon PVC	PVDF PE (X-linked) Thermoplastic Elastomers	FEP
Temperature Rating					
Size AWG	80°C	90°C	105°C	125°C	200°C
30	2	3	3	3	4
28	3	4	4	5	6
26	4	6	5	6	7
24	6	7	7	8	10
22	8	9	10	11	13
20	10	12	13	14	17
18	15	17	18	20	24
16	19	22	24	26	32
14	27	30	33	40	45
12	36	40	45	50	55
10	47	55	58	70	75
8	65	70	75	90	100
6	95	100	105	125	135
4	125	135	145	170	180
2	170	180	200	225	240

Single Conductor in Free Air 30° Ambient Temperature

Dielectric Constants of Insulations

Insulation Materials	Nominal
PVDF	6.4
Nylon	4.0
Polyester	2.8
Polyethylene (Cellular)	1.5
Polyethylene (High Density)	2.34
Polyethylene (Low Density)	2.28
Polypropylene	2.24
Polyvinyl Chloride (Semi-Rigid)	4.3
Teflon FEP	2.15
Teflon TFE	2.15
Tefzel, Halar	2.6
FEP (Cellular)	1.5

UTP Installation Guide

UTP cables were developed and designed to be used independent of the system application. Set transmission performance criteria (Categories) have been established for the various grades of UTP cables.

Cable Handling Length

The max horizontal cable length is 90 m (295 ft.). 10 m is allowed for cords in the work area and for patch cords or jumpers in the telecommunications closet.

The max backbone cable length is 90 m (295 ft.). This 90 m length assumes that 5 m (16 ft.) are needed at each end for equipment cables connecting to the backbone.

Pulling Tension

Max pulling tension for a 4-pair horizontal cable is 25 lbf. Excessive pulling tensions may occur during installation. Once the damage is done, reversing the effect may not be sufficient enough to correct the problem, and cable replacement is recommended. Intermediate cable pulls within the overall cable run may be necessary to avoid exceeding the max pulling force.

Min Bend Radius

4-pair UTP cables have a 1" min bend radius.

CAUTION: Exceeding the min bend radius can distort the cable geometry and result in degrading of transmission performance.

Repositioning of the cable to the proper bend radii may not correct the fault. Once the damage is done, the best option is replacement of the damaged run.

There are two common places where exceeding the min bend may occur:

- At the workstation wall outlet. After the cable is terminated, too often the remaining cable is jammed into the wall outlet, or worse, wrapped around itself and shoved into the outlet. A better practice would be to gently work the excess cable length back through the wall outlet into the wall.
- At the wiring closet, during routing of the cable to the terminal block or patch panel. Prior cable placement practices may have encouraged making the cable appear as formfitting or tight against the routing structure (cable tray or rack) as possible. A better practice would be to incorporate gentle sweeping curves along the cable path, avoiding sharp bends or changes in direction. Every effort should be made to ensure the path the cable follows has smooth, gradual sweeps at any transition point.

Installation in Temperatures Below Freezing

The minimum installation temperature for plenum cables is 0°C (+32°F). If the cable has to be installed when the temperature is below +32°F, the following precautions should be taken to ensure that the jacket will not crack:

- Store the cable in a heated area whose temperature is above +50°F for 24 hours before installation.
- Transfer only enough cable to the job site for 4 hours of work. The cable will retain enough heat to prevent cracking. Cable that has not been installed after 4 hours should be returned to a heated area.
- Coil service loops in 10" to 12" loops. A tight coil could cause the cable to crack.
- Normally the cables are terminated after the site is enclosed and heated. Do not attempt to terminate the cables when the temperature is below freezing.

Over Stressing

Eliminate cable stress caused by tension in suspended cable runs and tightly cinched cable bundles.

Excessive cable loading or stress can also occur if a cable is incorrectly suspended in a cable run. A recommended cable support spacing is 48" to 60" centers.

Avoid twisting of cable during installation. Excessive twisting may result in distortion of cable geometry and, in severe cases, tears in the jacket.

In addition to the above guidelines extracted from TIA/EIA-568, Mohawk strongly recommends the following supplementary installation tips:

- Do not walk or step on high-performance cable. Do not run over high-performance cable with hand trucks or forklifts. This will exert excessive force on the cable, distorting the geometry and/or crushing the pairs, resulting in electrical shorts.
- Do not use staples, either from a staple gun or mounting in a traditional manner with a hammer. Staples can exert excessive force on the cable and distort the pair geometry.
- D-Rings, nail on clamps or Velcro® straps offer acceptable cable management techniques without compressing the cable.
- Do not run cable near sources of heat, as this may negatively impact cable attenuation.
- Maintain a 6" min spacing between cables and sources of EMI, such as fluorescent lights or unshielded power lines.

UTP Installation Guide (Cont.)

Termination

The installer must be acquainted with the Connector Manufacturer's installation instructions. The correct tools, wire layout and untwist length are critical, especially in Category 6 & 6A installations. Modular jacks usually have the pair color code marked on the jack. The color code can be either T568A or T568B wiring methods. Maintain the same pin-to-pair combination throughout the installation. Changing pin pair assignment can result in crossed pairs. Modular jacks and cross-connect blocks employ IDC connectors to complete the circuit between the cable and the hardware. The manufacturer will recommend the tools needed to terminate the cable.

Terminate with connecting hardware of the same category or higher. Any link that has substituted a lower category component is automatically classified to that lower category.

The max allowable amount of untwisting during cable termination to connecting hardware is 0.5" for Category 5e, 6 and 6A cables. Exceeding the recommended length of untwisting may cause performance problems. The same techniques should be employed when terminating cross-connect blocks. Maintaining jacket integrity to the point of termination aids in maintaining cable geometry and NEXT isolation from adjacent cable pairs.

Bridged taps and splices are not permitted as part of copper horizontal cabling requirements.

Testing

It is best to determine the lengths of several representative cable runs and adjust the NVP to correspond to the known cable lengths. If the readout for the cable length is longer than the known length, the NVP should be decreased. Conversely, if the readout for the cable length is shorter than the known length, the NVP should be increased.

The NVP values for Mohawk's products are generally included in all the popular handheld testers.

A Note of Caution:

Level II or Level III Testers will be required to accurately measure Category 5e and 6 permanent links and channels. A Level III tester is required for Category 6A.

Consult the manufacturer of your test set for clarification.

The Permanent Link requirements include 90 m of horizontal cable and the connectors at each end. The cables to the test equipment are not part of the permanent link and are subtracted out by the test equipment.

Category 5e, 6 and 6A - Permanent Link Requirements at Specific Frequencies

Freq (MHz)	Insertion Loss			NEXT		
	5e	6	6A	5e	6	6A
1.0	2.1	1.9	1.9	60.0	65.0	65.0
4.0	3.9	3.5	3.5	54.8	64.1	64.1
10.0	6.2	5.6	5.5	48.5	57.8	57.8
20.0	8.9	7.9	7.8	43.7	53.1	53.1
25.0	10.0	8.9	8.8	42.1	51.5	51.5
31.25	11.2	10.0	9.8	40.5	50.0	50.0
62.5	16.2	14.4	14.0	35.7	45.1	45.1
100.0	21.0	18.6	18.0	32.3	41.8	41.8
200.0	–	27.4	26.1	–	36.9	36.9
250.0	–	31.1	29.5	–	35.3	35.3
500.0	–	–	43.8	–	–	26.7

Freq (MHz)	ACRF		PSA ACRF	RL		
	5e	6	6A	5e	6	6A
1.0	58.6	64.2	67.7	19.0	19.1	19.1
4.0	46.6	52.1	65.7	19.0	21.0	21.0
10.0	38.6	44.2	57.7	19.0	21.0	21.0
20.0	32.6	38.2	51.7	19.0	21.0	21.0
25.0	30.7	36.2	49.7	18.0	19.5	19.5
31.25	28.7	34.3	47.8	17.1	18.5	18.5
62.5	22.7	28.3	41.8	14.1	16.0	16.0
100.0	18.6	24.2	37.7	12.0	14.0	14.0
200.0	–	18.2	31.7	–	11.0	11.0
250.0	–	16.2	29.7	–	10.0	10.0
500.0	–	–	23.7	–	–	8.0

Channel requirements include 90 m of horizontal cable and 10 m of equipment cords, patch cords and jumpers. The max length of cross-connect jumpers and patch cords in the cross-connect facility should not exceed 5 m.

For additional information and an ANSI-referenced list, please contact: Global Engineering Documents at 1-800-854-7179.

For additional information on cable selection, please call (800) 422-9961 or email techsupport@mohawk-cable.com.

These guides have been prepared by Mohawk as an aid for installers of Mohawk Category and Fiber Optic Cables and are not a warranty by Mohawk and should not be construed as such.

Mohawk's sole warranty with respect to its cables is set forth in the document entitled "Mohawk Warranty," which has been or will be provided separately to installers of Mohawk Category and Fiber Optic Cables.

Fiber Installation Guide

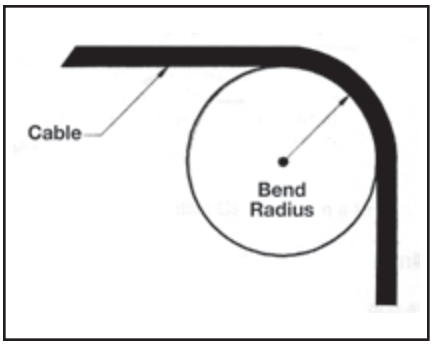


Figure 1 - Bend Radius

Table 1: Typical Bend Radius Specification

	Short Term (Installation)	Long Term (Installed)
Outside Plant Cable	20x Cable Diameter	15x Cable Diameter
Premise Cable	15x Cable Diameter	10x Cable Diameter

Always follow the manufacturer's guidelines for min bend radius and tension. Failure to do so may result in high attenuation (macrobends) and possible damage to the cable and fiber. Guidelines are normally supplied with the cable manufacturer specification sheets. If the bend radius specifications are unknown, the industry de facto standard is to maintain a min radius of 20X the diameter of the cable.

The min bend radius must also be adhered to when using service loops. Fiber optic splice trays and patch panels are designed to accommodate the bend radii of the individual fibers, but outside of the hardware, extra care must be taken.

Foreword

It is assumed that the reader has a general understanding of fiber optic cable constructions and terminology. BICSI (www.bicsi.org) is an excellent resource for general information.

Safety Precautions

- When installed on a live system, invisible laser radiation may be present. Do not stare into connector endface or view directly with optical instruments.
- Wear safety glasses when working with optical fiber.
- Dispose of all scrap fibers to avoid getting fiber slivers.

Scope

The following guidelines are intended as a general overview of important issues related to the installation of fiber optic cable

Installation Specifications

For a proper cable installation, it is important to understand the cable specification. The two most important specifications are the tensile-loading and bend-radius specifications. It is very important to adhere to these limits.

Tensile loading

Although there are two different types of tension in fiber optic cables, the important tension for the installation is the max load the cable can be subjected to without causing permanent damage. We call it the "maximum load installation," and it is measured in Newtons or pounds. The "maximum load installation" can also be known as "short-term tension," "dynamic load," "installation load" or "installation tension."

Whenever possible, the tension of the installation should be monitored. The tension can be measured with a dynamometer or with a pulling wheel. Breakaway pulling eyes are available, which separate if the tension reaches a pre-set level. The use of a swivel is recommended when pulling the cable in tray. The swivel allows the cable and pulling rope to twist independently.

If pulling a cable in an outside plant conduit, the use of approved lubricants can help minimize friction. The use of corrugated inner ducts can also help reduce the amount of tension needed to pull the cable. When installing loose tube cables, the use of a sealer is recommended to prevent gel migration.

If a run is too long, or if several bends are in the conduit, intermediate pull boxes should be used to separate one pull into two or more shorter pulls. A cable should not be pulled through more than two 90° bends at one time. If three or more 90° bends in a continuous run are unavoidable, the cable should be installed from a central point, unreeled into a figure-eight, and then back-fed to complete the installation. Sharp bends may increase cable tension, so it is best to install cable in sequences that minimize stress and labor costs.

When running cable vertically, take note of the cable weight. Install cables in a sequence that applies the least amount of strain on the cable. For example, most vertical chases in buildings tend to be congested at the lower floors; instead, try to start your installation at the top and work down the building, thereby eliminating most of the cable installation by the time you reach the lower floors. After installation, the strength member of the cable will need to support the hanging cable. If a long vertical run is necessary, cable should be secured at each floor, and service loops should be placed every three floors, at a min. This procedure will help distribute the weight of the cable vertically and will facilitate access to moves, adds and changes (MACs), if needed at a later date.

Bend Radius

There are two types of bend radii. (See figure 1)

- The short-term min bend radius, or dynamic bend radius, is the tightest recommended bend while installing cable at the max-rated tension. It is the larger of the two specified bend radii. Throughout the pull, the min bend radius must be strictly followed. If a location exists in the middle of a run where a relatively tight bend is unavoidable, the cable should be hand-fed around the bend or a pulley can be used.
- The long-term bend radius, or static bend radius, is the tightest recommended bend while the cable is under a min tension. It is the smaller of the two specified bend radii. After the pull is complete, the cable can be bent more tightly to fit into existing space, but not to exceed the long-term min bend radius.

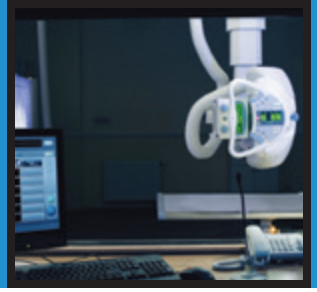
Installation Tools

Gripping Techniques General: To effectively utilize all of the available strength in the cable, the strength member must be used. The manufacturer's specification will identify the strength member(s) in the cable.

Cables With Aramid Yarn As The Strength Member: For cables using Aramid yarn alone as the strength member, the jacket can be removed, exposing the Aramid. The Aramid should be tied in a knot with the pull rope so that the jacket will not be inadvertently used for strength.

Optionally, the jacket can be tied into a tight knot before pulling. After pulling, the knot should be cut off.

Cables With Aramid Yarn And An E-Glass Central Member: For cables using Aramid yarn and an e-glass central member, a pulling grip should be used. The strength member(s) should be attached independently. This can be accomplished by weaving the strength member into the fingers of the grip, and then taping it together. All strength members should be gripped equally to ensure a proper distribution of tension.



Fiber Installation Guide (Cont.)

Cable Preparation For The Termination

It is acceptable to directly terminate the 900 µm tight buffer from a distribution cable with a connector, if the above precautions are taken. It can be acceptable to directly terminate the 250 µm coated fiber from a loose buffer tube with a connector in certain applications. However, it is usually recommended to use a breakout kit which converts a six- or twelve-fiber loose buffer tube to a six- or twelve-fiber 900 µm distribution style ready for termination.

If outside plant cables are used, the gel flooding material (if present) needs to be cleaned with the appropriate solvent (please consult the cable manufacturer for recommendation on the choice of solvent). The more thorough the cleaning, the easier the termination procedure will be.

Cable Preparation

To prepare the cable for termination, the outer jacket must be properly removed. One ring cut should be made in the jacket about 2" from the end. The 2" piece is removed from the end of the cable exposing the core and the Aramid yarn. Mark the underlying fiber with a felt tip marker at the cut point. Make small longitudinal cut in the jacket along side the ripcord (do not cut the ripcord). Pull the exposed 2" ripcord (with needle-nose pliers, or similar) until the desired amount of fiber is exposed. Fold the jacket back and cut with scissors being careful not to cut any fiber. Complete by cutting off fiber where previously marked 2" from the end to avoid accidental fiber damage caused during the initial ring cut.

Cable is now ready for termination. Follow the instructions provided by the connectivity vendor.

Testing

Once the cable is installed and terminated, it is recommended to test the fiber optic segment. The testing should be done according to TIA TSB-140. This document provides guidelines for field-testing length, loss and polarity of a completed fiber optic link.

It is necessary to perform an end-to-end attenuation test to verify the quality of installations and to ensure high-quality system performance. The best way to verify whether an end-to-end link meets the link loss budget is to divide the end-to-end link into segments at each cross-connect and measure the attenuation of each link segment. In order for the system to operate properly, the sum of the attenuation for the multiple link segments that form an end-to-end link must be less than the link loss budget calculated in the design phase.

Test Equipment

Various types of testing equipment are available on the market, such as Optical Loss Test Set (OLTS), Visual Fault Locator (VFL) sets or the Optical Time Domain Reflectometer (OTDR). For troubleshooting, the OTDR is recommended.

Optical Loss Test Set (OLTS)

The OLTS consists of a light source and an optical power meter. The main function of this equipment is to measure the optical power or loss.

Visual Fault Locator (VFL) or tracer

The VFL is a red laser source; the tracer is an LED source. Either instrument can be used to trace fibers and troubleshoot faults on optical fiber cables. The main function of this equipment is to check continuity of the fiber, as well as to identify fibers and connectors in patch panels or outlets.

Optical Time Domain Reflectometer (OTDR)

The OTDR is a more sophisticated measurement instrument. It uses a technology that injects a series of optical pulses into the fiber under test and analyzes the light scattering and the light reflection. This allows the instrument to estimate the intensity of the return pulse in functions of time and fiber length. The OTDR is used to measure the optical power loss and the fiber length, as well as to locate all faults resulting from fiber breaks, splices or connectors.

Fiber testing guidelines

TIA-568.C3 testing guidelines promote efficient and accurate testing:

- Clean all connections and adapters at the optical test points prior to taking measurements, as per IEC 61300-3-35.
- The light source or OTDR must operate within the range of 850 ± 30 nm, or 1300 ± 20 nm for multimode testing.
- Tier I testing utilizes an OLTS. A 1-cord reference method is recommended. (A 3-cord reference is the recommended alternative if connector configuration does not allow a 1-cord reference.) Encircled Flux (EF) launch conditions are required, combined with appropriate Test Reference Cords (Non-BI multimode fiber with 0.1 dB max IL or 0.2 dB max IL for singlemode).
- Tier II testing includes OTDR testing in addition to Tier I (OLTS) testing. A bidirectional test method using both launch and tail cord is recommended.

A detailed attenuation test report is available, upon request, for every reel of fiber optic cable shipped from Mohawk.

If several fibers off of the same cable show high attenuation, or if a single fiber attenuation remains high after retermination, an OTDR should be used to isolate the problem. An OTDR is an excellent tool for troubleshooting a failing link by identifying the location of the faulty component.

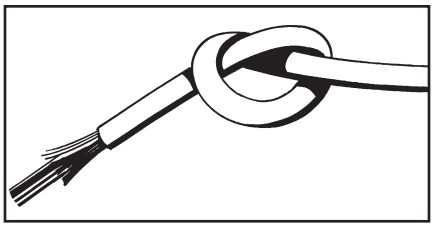


Figure 2 - Distribution Cable Tied in a Knot

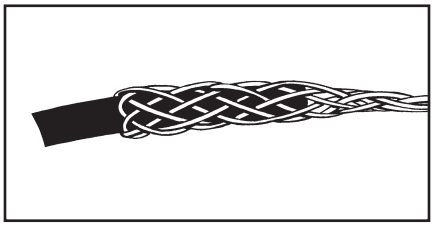


Figure 3 - Pulling Grip

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Copper Cable Selector Guide

Match your application to the corresponding cable category. Use the selector guide to determine which copper product best suits your needs, from legacy 10BASE-T to 10 Gigabit Ethernet, to emerging networking protocols. Worst-case performance is stated at two frequencies for all categories of performance, from minimally compliant Category 5e to our Category 6A series. Products highlighted in green are the min recommended cables. For additional headroom and upgrade ability, select a product highlighted in yellow.

	UTP	5e 5e LAN		5E MegaLAN		6 6 LAN		6e 6 LAN Plus		6e+ AdvanceNet		6E GigaLAN		6A GigaLAN 10®		6A GigaLAN 10® Small Diameter	
	Test Freq. MHz	100	200	100	200	100	250	100	250	100	250	100	250	100	500	100	500
10 BASE-T 4 & 16 Mbps TOKEN RING 100 BASE-T 155 Mbps ATM	Insertion Loss max	22.0	32.4	22.0	32.4	19.8	32.8	19.8	32.8	19.3	32.1	18.0	29.6	19.0	45.3	19.0	44.8
	NEXT min	35.3	30.8	40.3	35.8	44.3	38.3	47.3	41.3	49.3	43.3	51.3	45.3	45.3	34.8	45.3	34.8
	PS-NEXT min	32.3	27.8	38.3	33.8	42.3	36.3	47.3	41.3	47.3	41.3	49.3	43.3	43.3	32.8	43.3	32.8
	PS-ACR min	10.3	—	16.3	1.4	22.5	3.5	27.5	8.5	28.0	9.2	31.3	13.8	24.3	—	24.3	—
	PS-ELFEXT min	20.8	14.8	24.8	18.8	24.8	16.8	29.8	21.8	29.8	21.8	32.8	24.8	28.8*	14.8*	28.8*	14.8*
	Return Loss min	20.1	18.0	20.1	18.0	20.1	17.3	20.1	17.3	20.8	18.0	20.8	18.0	22.1	17.2	20.1	15.2
ANSI/TIA-568-C.2 Full Duplex Ethernet Specification for 1000 (Mbps BASE-TX) 500 MHz Broadband Video	Insertion Loss max	22.0	32.4	22.0	32.4	19.8	32.8	19.8	32.8	19.3	32.1	18.0	29.6	19.0	45.3	19.0	44.8
	NEXT min	35.3	30.8	40.3	35.8	44.3	38.3	47.3	41.3	49.3	43.3	51.3	45.3	45.3	34.8	45.3	34.8
	PS-NEXT min	32.3	27.8	38.3	33.8	42.3	36.3	47.3	41.3	47.3	41.3	49.3	43.3	43.3	32.8	43.3	32.8
	PS-ACR min	10.3	—	16.3	1.4	22.5	3.5	27.5	8.5	28.0	9.2	31.3	13.8	24.3	—	24.3	—
	PS-ELFEXT min	20.8	14.8	24.8	18.8	24.8	16.8	29.8	21.8	29.8	21.8	32.8	24.8	28.8*	14.8*	28.8*	14.8*
	Return Loss min	20.1	18.0	20.1	18.0	20.1	17.3	20.1	17.3	20.8	18.0	20.8	18.0	22.1	17.2	20.1	15.2
Technologies such as 10GBASE-T Operating over Category 6 Balanced Twisted Pair Cabling TSB-155 limited distance	Insertion Loss max	22.0	32.4	22.0	32.4	19.8	32.8	19.8	32.8	19.3	32.1	18.0	29.6	19.0	45.3	19.0	44.8
	NEXT min	35.3	30.8	40.3	35.8	44.3	38.3	47.3	41.3	49.3	43.3	51.3	45.3	45.3	34.8	45.3	34.8
	PS-NEXT min	32.3	27.8	38.3	33.8	42.3	36.3	47.3	41.3	47.3	41.3	49.3	43.3	43.3	32.8	43.3	32.8
	PS-ACR min	10.3	—	16.3	1.4	22.5	3.5	27.5	8.5	28.0	9.2	31.3	13.8	24.3	—	24.3	—
	PS-ELFEXT min	20.8	14.8	24.8	18.8	24.8	16.8	29.8	21.8	29.8	21.8	32.8	24.8	28.8*	14.8*	28.8*	14.8*
	Return Loss min	20.1	18.0	20.1	18.0	20.1	17.3	20.1	17.3	20.8	18.0	20.8	18.0	22.1	17.2	20.1	15.2
ANSI/TIA-568-C.2 Category 6A full 100 m	Insertion Loss max	22.0	32.4	22.0	32.4	19.8	32.8	19.8	32.8	19.3	32.1	18.0	29.6	19.0	45.3	19.0	44.8
	NEXT min	35.3	30.8	40.3	35.8	44.3	38.3	47.3	41.3	49.3	43.3	51.3	45.3	45.3	34.8	45.3	34.8
	PS-NEXT min	32.3	27.8	38.3	33.8	42.3	36.3	47.3	41.3	47.3	41.3	49.3	43.3	43.3	32.8	43.3	32.8
	PS-ACR min	10.3	—	16.3	1.4	22.5	3.5	27.5	8.5	28.0	9.2	31.3	13.8	24.3	—	24.3	—
	PS-ANEXT min	20.8	14.8	24.8	18.8	24.8	16.8	29.8	21.8	29.8	21.8	32.8	24.8	62.5	52.0	70.0	59.5
	Return Loss min	20.1	18.0	20.1	18.0	20.1	17.3	20.1	17.3	20.8	18.0	20.8	18.0	22.1	17.2	20.1	15.2
	Max. Test Freq.	200 MHz		400 MHz		550 MHz		625 MHz		650 MHz		750 MHz		750 MHz		750 MHz	

*PS-ACRF **PS-AACRF

Not Recommended Recommended Exceeds Recommendation

F/UTP	5e LAN		MegaLAN		Category 6		XGO	
Test Freq. MHz	100	200	100	200	100	250	100	500
Insertion Loss max	22.0	32.4	22.0	32.4	19.8	32.8	19.1	45.3
NEXT min	35.3	30.8	40.3	35.8	44.3	38.3	44.3	33.8
PS-NEXT min	32.3	27.8	38.3	33.8	42.3	36.3	42.3	31.8
PS-ACR min	10.3	–	16.3	1.4	22.5	3.5	24.8*	10.8*
PS-ELFEXT min	20.8	14.8	24.8	18.8	28.0	20.0	38.2**	24.2**
Return Loss min	20.1	18.0	20.1	18.0	20.1	17.3	20.1	15.2

Fiber Cable Selection Guide

Use the Grade Selector to determine which multimode fiber type best suits your application. Legacy and emerging networking protocols are identified and the guaranteed performance of each fiber is given along with the appropriate optical specifications.

Long Wavelength — 1,300nm		OM1	OM3	OM4
FDDI 100 BASE-F ATM 155	Fiber Type	62.5/125	50/125	50/125
	OFL BW	500 MHz-km	500 MHz-km	500 MHz-km
	EMB BW	NS	NS	NS
	Distance	2 km	2 km	2 km
ATM 622	Fiber Type	62.5/125	50/125	50/125
	OFL BW	500 MHz-km	500 MHz-km	500 MHz-km
	EMB BW	NS	NS	NS
	Distance	500 m	500 m	500 m
1000 BASE-LX	Fiber Type	62.5/125	50/125	50/125
	OFL BW	500 MHz-km	500 MHz-km	500 MHz-km
	EMB BW	NS	NS	NS
	Distance	550 m	600 m	600 m
10G BASE-LR/LW	Fiber Type	62.5/125	50/125	50/125
	OFL BW	500 MHz-km	500 MHz-km	500 MHz-km
	EMB BW	NS	NS	NS
	Distance	300 m	300 m	300 m
Short Wavelength — 850nm		**OM1**	**OM3**	**OM4**
10 BASE-F TOKEN RING	Fiber Type	62.5/125	50/125	50/125
	OFL BW	200 MHz-km	1500 MHz-km	3000 MHz-km
	EMB BW	220 MHz-km	2000 MHz-km	4700 MHz-km
	Distance	2 km	2 km	2 km
FIBER CHANNEL 531	Fiber Type	62.5/125	50/125	50/125
	OFL BW	200 MHz-km	1500 MHz-km	3000 MHz-km
	EMB BW	220 MHz-km	2000 MHz-km	4700 MHz-km
	Distance	350 m	2 km	2 km
FIBER CHANNEL 1063	Fiber Type	62.5/125	50/125	50/125
	OFL BW	200 MHz-km	1500 MHz-km	3000 MHz-km
	EMB BW	220 MHz-km	2000 MHz-km	4700 MHz-km
	Distance	175 m	1500 m	1500 m
1000 BASE-SX	Fiber Type	62.5/125	50/125	50/125
	OFL BW	200 MHz-km	1500 MHz-km	3000 MHz-km
	EMB BW	220 MHz-km	2000 MHz-km	4700 MHz-km
	Distance	300 m	1 km	1 km
10G BASE-SR/SW	Fiber Type	62.5/125	50/125	50/125
	OFL BW	200 MHz-km	1500 MHz-km	3000 MHz-km
	EMB BW	220 MHz-km	2000 MHz-km	4700 MHz-km
	Distance	33 m	300 m	550 m

OM1

62.5/125 fiber that complies with TIA-568-C.3 (ISO 11801 OM1) and provides up to 550 m link lengths for Gigabit Ethernet.

OM3

50/125 fiber that complies with TIA-568-C.3 (ISO 11801 OM3) for 300 m lengths at 10 Gigabit data rates.

OM4

50/125 fiber that exceeds TIA-568-C.3-1 (ISO 11801 OM4) for 550 m lengths at 10 Gigabit data rates.

Packaging

Color-Coded Cartons for Ease of Category Identification

Easybox
For Category 3–6 UTP Cables
The cable is packaged directly in the box and dispenses in a tangle-free payout, as if on a reel, in 1000 ft. lengths.

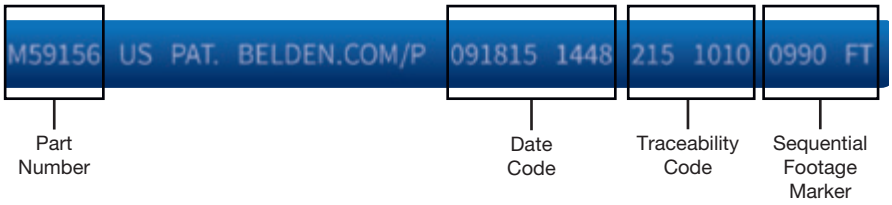
Cable Caddy — Reel-in-a-box
For Category 3–6A UTP Cables
The 1000 ft. length of cable is placed on a plastic reel and is dispensed from the front of the Cable Caddy.

Reels
Mohawk's standard UTP and F/UTP copper cables are available on 1000 ft. reels from inventory. Non-standard put-ups are available on request.

Fiber Optic Cables
Mohawk's fiber optic cables are only supplied on reels and are available in specified lengths with a –0+10% tolerance on standard size reels. Non-standard put-ups are available on request.

Smart Legend®
Mohawk's Smart Legend includes:

- Product Identification
- Safety and Verification Listing
- Part Number
- Date Code and Traceability Code
- Reverse Sequential Footage Markers



Shipping and Packaging Guide

Package	Number Per Pallet	Size of Pallet
Category 5e 5e LAN® • Category 5E MegaLAN®		
12" Reels	56	48" x 42"
Boxes 13.75" x 10.5" x 12.75"	36	48" x 42"
Reel-in-a-box 12.75" x 9"x 12.75"	45	48" x 42"
Category 6 6 LAN™ • Category 6e 6 LAN™ Plus		
12" Reels	42	48" x 42"
Boxes 15" x 10.25" x 14.5"	30	48" x 42"
Reel-in-a-box 12.75"x 11.5"x 12.75"	36	48" x 42"
Category 6A Giga*LAN 10*® Small Diameter		
14" Reels	27	48" x 42"
Reel-in-a-box 14.75" x 14.06"x 14.75"	18	48" x 42"
Category 6A Giga*LAN 10*®		
18" Reels	20	48" x 42"
Reel-in-a-box 14.75" x 16" x 14.75"	12	48" x 42"

Package	Number Per Pallet	Size of Pallet
Category 6e+ AdvanceNet™		
12" Reels	42	48" x 42"
Boxes 16" x 10.5" x 14.75"	22	48" x 42"
Reel-in-a-box 12.75" x 11.5" x 12.75"	36	48" x 42"
Category 6E GigaLAN®		
12" Reels	27	48" x 42"
Reel-in-a-box 14.75" x 14" x 14.75"	18	48" x 42"
Category 6A XGO™ F/UTP		
18" Reels	20	48" x 42"
Category 6 F/UTP		
18" Reels	20	48" x 42"
Category 5e F/UTP		
12" Reels	42	48" x 42"

Category 3 High Pair Count Packaging Options

Category 3		Riser UTP		Plenum UTP	
Pair Count	Put-up	Reel Size	Gross Weight (lbs)	Reel Size	Gross Weight (lbs)
25	1000 ft	18 x 10.5 x 8	97	18 x 10.5 x 8	110
25	5000 ft	36 x 12 x 10	477	36 x 12 x 10	542
25	10000 ft	42 x 20 x 18	960	42 x 20 x 18	1090
50	1000 ft	24 x 12 x 10	201	24 x 14 x 10	236
50	5000 ft	36 x 20 x 13	1043	42 x 20 x 18	1150
100	1000 ft	36 x 12 x 10	398	36 x 12 x 10	444
100	4000 ft	50 x 28 x 24	1667	50 x 28 x 24	1851
100	5000 ft	50 x 28 x 24	2037	—	—
200	1000 ft	30 x 20 x 13	839	38 x 20 x 13	902
300	1000 ft	45 x 20 x 13	1165	45 x 20 x 13	1358

25-pair Category 5e Packaging Options

Plenum	Gross Weight
24" Reel 1000 ft	152 lbs
30" Reel 2000 ft	292 lbs
36" Reel 5000 ft	773 lbs

Riser	Gross Weight
24" Reel 1000 ft	155 lbs
30" Reel 2000 ft	298 lbs
38" Reel 5000 ft	795 lbs

ANSI/TIA-568-C.2 Performance Reference Tables

Insertion Loss or Attenuation (Signal Strength)

Insertion Loss, expressed as a figure in dB, directly impacts the signal strength. All cables have loss but some are better than others. The loss is primarily controlled by the amount of copper (AWG size) in the conductor and the conductor length. Since all manufacturers have similar constraints in the size of copper, this parameter, though important, is more restricted from a design point of view. When comparing specifications, the loss value at each of the key frequencies should be equal to or better than the TIA standard. It is desirable to have cables with less loss, a smaller number.

- Loss — the smaller the dB the better

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
0.772	2.2	n/s	n/s	n/s
1.0	2.6	2.0	2.0	2.1
4.0	5.6	4.1	3.8	3.8
8.0	8.5	5.8	5.3	5.3
10.0	9.7	6.5	6.0	5.9
16.0	13.1	8.2	7.6	7.5
20.0	-	9.3	8.5	8.4
25.0	-	10.4	9.5	9.4
31.25	-	11.7	10.7	10.5
62.5	-	17.0	15.4	15.0
100.0	-	22.0	19.8	19.1
200.0	-	-	29.0	27.6
250.0	-	-	32.8	31.1
300.0	-	-	-	34.3
400.0	-	-	-	40.1
500.0	-	-	-	45.3

Near End Crosstalk (NEXT) (Noise)

NEXT, expressed as a figure in dB, is the result of one pair coupling some amount of signal energy (noise) into an adjacent pair in the same cable. In a simplex system, the noise source is the near-end transmitter and the target is the near-end receiver. Noise is undesirable, so the better the cable is able to minimize the crosstalk (noise coupling between pairs), the less the impact on transmission quality. Cable design, specifically the lay length of the individual pairs in relation to each other, has the greatest impact on NEXT performance isolation. Additionally, many Category 6 and above constructions use a physical barrier (Rod, Tape or Cross web) placed between the pairs to minimize NEXT. Improved NEXT is the first line of defense in preserving signal quality. It is easier for the cable designer to reduce the noise or crosstalk than it is to increase the signal strength. This makes NEXT one of the most important parameters.

- NEXT — the bigger the dB the better

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
0.772	43.0	n/s	n/s	n/s
1.0	41.3	65.3	74.3	74.3
4.0	32.3	56.3	65.3	65.3
8.0	27.8	51.8	60.8	60.8
10.0	26.3	50.3	59.3	59.3
16.0	23.2	47.2	56.2	56.2
20.0	-	45.8	54.8	54.8
25.0	-	44.3	53.3	53.3
31.25	-	42.9	51.9	51.9
62.5	-	38.4	47.4	47.4
100.0	-	35.3	44.3	44.3
200.0	-	-	39.8	39.8
250.0	-	-	38.3	38.3
300.0	-	-	-	37.1
400.0	-	-	-	35.3
500.0	-	-	-	33.8

ANSI/TIA-568-C.2 Performance Reference Tables (Cont.)

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
1.0	n/s	62.3	72.3	72.3
4.0	n/s	53.3	63.3	63.3
8.0	n/s	48.8	58.8	58.8
10.0	n/s	47.3	57.3	57.3
16.0	n/s	44.2	54.2	54.2
20.0	-	42.8	52.8	52.8
25.0	-	41.3	51.3	51.3
31.25	-	39.9	49.9	49.9
62.5	-	35.4	45.4	45.4
100.0	-	32.3	42.3	42.3
200.0	-	-	37.8	37.8
250.0	-	-	36.3	36.3
300.0	-	-	-	35.1
400.0	-	-	-	33.3
500.0	-	-	-	31.8

Power Sum NEXT (PS-NEXT) (Noise)

Power Sum Crosstalk, expressed as a figure in dB, measures how much coupling or noise can be contributed to one pair in the cable as a result of signals coupling from all the other pairs within the same cable. In other words, if multiple pairs in the cable are used to transmit a portion of the data, then each of the other pairs will be impacted by the noise created by the crosstalk between all the pairs internal to the cable. The better the cable's ability to isolate one pair from another, either by changes in pair lay or a physical barrier between pairs, the less coupling impact there is on adjacent pairs.

- Power Sum NEXT — the bigger the dB the better

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
1.0	n/s	63.8	67.8	67.8
4.0	n/s	51.8	55.8	55.8
8.0	n/s	45.7	49.7	49.7
10.0	n/s	43.8	47.8	47.8
16.0	n/s	39.7	43.7	43.7
20.0	-	37.8	41.8	41.8
25.0	-	35.8	39.8	39.8
31.25	-	33.9	37.9	37.9
62.5	-	27.9	31.9	31.9
100.0	-	23.8	27.8	27.8
200.0	-	-	21.8	21.8
250.0	-	-	19.8	19.8
300.0	-	-	-	18.3
400.0	-	-	-	15.8
500.0	-	-	-	13.8

Attenuation to Crosstalk Ratio, Far End (ACRF)

Attenuation to Crosstalk Ratio (ACR) is the difference, expressed as a figure in dB, between the signal attenuation produced in a pair and the NEXT. ACRF is also referred to as headroom. Attenuation and crosstalk must both be minimized in order for a signal to be received with an acceptable bit error rate. ACR is a quantitative indicator of how much stronger the attenuated signal is than the crosstalk at the destination (receiving) end of a communications circuit. The ACR figure must be at least several decibels for proper performance. If the ACR is not large enough, errors will be frequent. In many cases, even a small improvement in ACR can cause a dramatic reduction in the bit error rate.

- ACRF — the bigger the dB the better

ANSI/TIA-568-C.2 Performance Reference Tables (Cont.)

Power Sum Attenuation to Crosstalk Ratio, Far End (PS-ACRF)

PS-ACRF, expressed as a figure in dB, is done in the same way as ACRF but using the PS-ACRF value in the calculation rather than ACRF.

- PS-ACRF — the bigger the dB the better

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
1.0	n/s	60.8	64.8	64.8
4.0	n/s	48.8	52.8	52.8
8.0	n/s	42.7	46.7	46.7
10.0	n/s	40.8	44.8	44.8
16.0	n/s	36.7	40.7	40.7
20.0	-	34.8	38.8	38.8
25.0	-	32.8	36.8	36.8
31.25	-	30.9	34.9	34.9
62.5	-	24.9	28.9	28.9
100.0	-	20.8	24.8	24.8
200.0	-	-	18.8	18.8
250.0	-	-	16.8	16.8
300.0	-	-	-	15.3
400.0	-	-	-	12.8
500.0	-	-	-	10.8

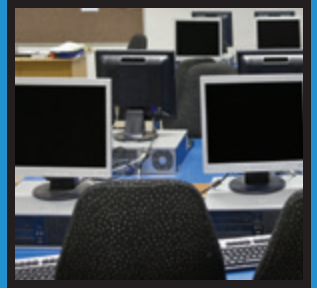
Delay

Delay of a signal is measured in nanoseconds per 100 m (ns/100 m). In the cable, it is a function of individual pair length; the longer the pair length in the cable, the greater delay. Delay is not critical to transmission quality as long as it is less than the max allowed for the channel. Values shown are for delay.

Skew

Skew is a measure of the difference in signal delay between the fastest pair and the slowest pair in a cable. This happens because the twist rate of each pair is slightly different and the delay is therefore different. The electronics can handle a max of 45 nanoseconds of skew. Skew is not a critical parameter as long as it is less than 45 nanoseconds between any adjacent pairs within a cable.

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
1.0	570	570	570	570
4.0	552	552	552	552
8.0	547	547	547	547
10.0	545	545	545	545
16.0	543	543	543	543
20.0	-	542	542	542
25.0	-	541	541	541
31.25	-	540	540	540
62.5	-	539	539	539
100.0	-	538	538	538
200.0	-	-	537	537
250.0	-	-	536	536
300.0	-	-	-	536
400.0	-	-	-	536
500.0	-	-	-	536



ANSI/TIA-568-C.2 Performance Reference Tables (Cont.)

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
1.0	n/s	n/s	n/s	67.0
4.0	n/s	n/s	n/s	67.0
8.0	n/s	n/s	n/s	67.0
10.0	n/s	n/s	n/s	67.0
16.0	n/s	n/s	n/s	67.0
20.0	-	n/s	n/s	67.0
25.0	-	n/s	n/s	67.0
31.25	-	n/s	n/s	67.0
62.5	-	n/s	n/s	65.6
100.0	-	n/s	n/s	62.5
200.0	-	-	n/s	58.0
250.0	-	-	n/s	56.5
300.0	-	-	-	55.3
400.0	-	-	-	53.5
500.0	-	-	-	52.0

Power Sum Alien Near End Crosstalk (PS-ANEXT)

PS-ANEXT, expressed as a figure in dB, is the sum of electromagnetic interference, noise coupling, from pairs in one cable to pairs in an adjacent cable. It approximates the energy present when all cabling pairs in a bundle (lab environment) or close proximity (tray or jay hooks, real world) to each other are energized. High power sum alien crosstalk compromises the operation of the 10GBASE-T application by significantly reducing expected signal-to-noise (SNR) margins and potentially causing re-transmissions or even auto-negotiation of the switch to a lower Ethernet speed. Power sum alien crosstalk measured at the near end of the transmitter is called power sum alien near-end crosstalk loss (PS-ANEXT loss).

- PS-ANEXT — the bigger the dB the better

Frequency (MHz)	Category 3 (dB)	Category 5e (dB)	Category 6 (dB)	Category 6A (dB)
1.0	n/s	n/s	n/s	67.0
4.0	n/s	n/s	n/s	66.2
8.0	n/s	n/s	n/s	60.1
10.0	n/s	n/s	n/s	58.2
16.0	n/s	n/s	n/s	54.1
20.0	-	n/s	n/s	52.2
25.0	-	n/s	n/s	50.2
31.25	-	n/s	n/s	48.3
62.5	-	n/s	n/s	42.3
100.0	-	n/s	n/s	38.2
200.0	-	-	n/s	32.2
250.0	-	-	n/s	30.2
300.0	-	-	-	28.7
400.0	-	-	-	26.2
500.0	-	-	-	24.2

Power Sum Attenuation to Alien Crosstalk Ratio Far End (PS-AACRF)

PS-AACRF, expressed as a figure in dB, is similar to ACRF, except it sums the energy (adjacent pair noise) of the pairs from the adjacent cables measured at the far end of the transmitter.

- PS-AACRF — the bigger the dB the better

MOHAWK

Campus-Wide ChannelMATE™ Program

Freedom of Choice – MAC Accredited Contractor Program

The ANSI/TIA-568-C document states, "This Standard specifies a generic telecommunication cabling system for commercial buildings that will support a multi-product, multi-vendor environment." Mohawk not only embraces this standard, it has adopted and incorporated the Standard's purpose into our "Open Architecture" philosophy.

Mohawk is dedicated to Open Architecture, which allows flexible and warranted options for your complete Campus-Wide network system installation. Mohawk's ChannelMATE warranty combines Mohawk's high-performance cable with our connectivity partners and a large network of MACs.

ChannelMATE is offered exclusively through our MAC contractor network to ensure your system is designed and installed to meet the specified performance grade and performance requirements of ANSI/TIA-568-C.2.

Warranty Information

Mohawk is dedicated to Open Architecture, which allows flexible and warranted options for your network system. All Mohawk products have been independently third-party verified for performance to the applicable category grade, and we will warranty these products with any connectivity that is also independently third-party verified.

Mohawk offers two levels of warranty protection:

Standard Warranty (for non-MAC contractors)
Mohawk's Standard Warranty guarantees our products are free from material and workmanship defects one (1) year from shipment. The warranty covers performance on products that receive normal and proper use, due care and handling. To obtain complete warranty information, contact Mohawk at (800) 422-9961 or visit our website, www.mohawk-cable.com.

ChannelMATE™ 25-Year Extended Warranty
Mohawk's ChannelMATE warranty is offered exclusively through our network of MAC contractors. By using one of Mohawk's MAC-certified contractors, you are ensured that the work is performed to current industry standards and accepted practices. The MAC training program has recently been modified with the latest TIA standards and practices.

Mohawk's Open Architecture ChannelMATE warranty is in alliance with the following connectivity partners:

Copper Products:

- Belden
- Hubbell Premise Wiring Inc.
- Leviton Premise Wiring Inc.
- Molex Incorporated
- Ortronics
- Panduit Network Systems Division
- The Siemon Company
- AllenTel
- Other Third-Party Verified Performance Products

Fiber Products:

- Belden
- Corning Cable Systems
- Hubbell Premise Wiring Inc.
- Leviton Premise Wiring Inc.
- Ortronics
- Panduit Network Systems Division
- The Siemon Company
- Other Third-Party Verified Performance Products

For the warranty to be in effect, Mohawk requires the connectivity components to be independently third-party verified to the specified ANSI/TIA-568-C category performance grade. The system must be designed and installed to meet the specified performance grade and performance requirements of ANSI/TIA-568-C. Supporting field test documentation is required for each warranty link.

Campus-Wide ChannelMATE™ Program (Cont.)

Technical Advisory

Mohawk has had their jacket compound supplier's lab analyze the effects that paint has on the cable compounds to see what potential issues we could expect with painted cables. Due to the chemicals involved in the PVC jacket compound and the chemicals used in the paint, the supplier would not be able to confirm, without extensive long-term testing across multiple paint brands, the possible effects this may have on the cables. Further, they would not recommend Mohawk providing any guarantees due to potential adverse effects of the painted cable over time. Complicating this are the vast number of paint brands, available from both domestic and international sources.

Paint can have a detrimental effect on cables if there are chemicals in the paint that attack the jacket material. The jacket is the primary flame barrier preventing a fire from spreading into areas not initially involved in the fire. The paint can act as a source of combustible materials that is not accounted for in assigning flame ratings to the cable. Paint on the cable will also make it difficult for inspectors to see the print to identify the cable safety listing.

If the cable has already been painted, Mohawk can no longer warranty the cable's ability to perform to the mechanical, electrical, optical and environmental requirements. The owner will have to assume the liability should the cable fail in the future.

Removing the paint may have even more of a detrimental impact on the cable and is not recommended and will also void the warranty.

For these reasons, Mohawk will not be responsible for holding the warranty on the cables in question.

Should you have any questions or require additional information, please do not hesitate to call (800) 422-9961.

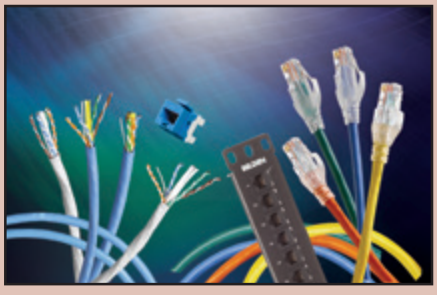
This and other Technical Advisories (TAs) are available on our website at www.mohawk-cable.com under Support/Technical Advisories.

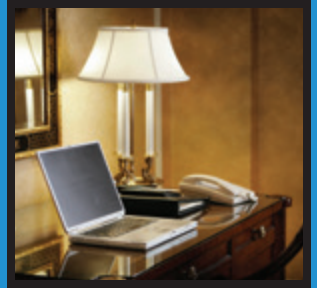
Did You Know...

In 2004, Mohawk, then Mohawk CDT, became a part of Belden, Inc., instantly gaining access to a global supply chain and support network. For nearly a decade following, Mohawk operated as an independent business unit based out of Leominster, MA, providing copper, fiber, and broadcast cabling to Open Architecture customers throughout North America. Our goal was simple: to make great cable supportive of the ANSI/TIA-568-C.2 standard which provides for a "cabling system for commercial buildings that will support a multi-product, multi-vendor environment."

Our cable, your choice of connectivity, backed by the ChannelMATE Warranty.

Today, our dedication to Open Architecture continues to be at the core of everything we do. As a Belden product brand, we now benefit from unlimited access to some of the industry's leading connectivity products, including the KeyConnect Family. Belden connectivity products are one of many brands supported by our commitment to Open Architecture. Contact (800) 422-9961 for more information.





MOHAWK

Conduit Fill Guide

Plenum

No. of Cables at 40% Conduit Fill* Based on Trade Size of the Conduit (inches)

Cable	Type	O.D.	0.75	1.00	1.25	1.50	2.00	2.50	3.00	3.50	4.00
Category 6A											
Giga*LAN 10*® Small Diameter	4 pr UTP	0.265	4	6	11	14	24	42	64	83	107
Giga*LAN 10*®	4 pr UTP	0.309	3	4	8	11	18	31	47	61	78
XGO	4 pr F/UTP	0.290	3	5	9	12	20	35	53	70	89
Category 6E											
GigaLAN	4 pr UTP	0.255	4	6	11	16	26	46	69	90	115
Category 6e+ & 6e											
AdvanceNet	4 pr UTP	0.238	4	7	13	18	30	52	79	104	132
6 LAN Plus	4 pr UTP	0.224	5	8	15	20	34	59	89	117	149
Category 6											
Category 6	4 pr F/UTP	0.290	3	5	9	12	20	35	53	70	89
6 LAN	4 pr UTP	0.220	5	9	15	21	35	61	93	121	155
Category 5E											
MegaLAN	4 pr UTP	0.200	6	11	19	26	42	74	112	147	188
MegaLAN	4 pr F/UTP	0.235	5	8	13	18	31	54	81	106	136
Category 5e & 5											
5e LAN & 5	4 pr UTP	0.190	7	12	21	28	47	82	124	163	208
5e LAN & 5	4 pr F/UTP	0.235	5	8	13	18	31	54	81	106	136
5e LAN & 5	25 pr UTP	0.450	1	1	3	5	8	14	22	29	37
5e LAN & 5	25 pr F/UTP	0.490	1	1	3	4	7	12	18	24	31
Category 3											
Category 3	4 pr UTP	0.165	10	16	28	38	62	109	165	216	276
Category 3	4 pr F/UTP	0.189	7	12	21	29	48	83	126	164	210
Category 3	25 pr UTP	0.375	1	3	5	7	12	21	32	42	53
Category 3	50 pr UTP	0.539	1	1	2	3	6	10	15	20	26
Category 3	100 pr UTP	0.775	0	1	1	1	3	5	7	9	12
Category 3	200 pr UTP	1.085	0	0	1	1	1	2	4	5	6
Category 3	300 pr UTP	1.350	0	0	0	0	1	1	2	3	4

Riser

No. of Cables at 40% Conduit Fill Based on Trade Size of the Conduit (inches)

Cable	Type	O.D.	0.75	1.00	1.25	1.50	2.00	2.50	3.00	3.50	4.00
Category 6A											
Giga*LAN 10*® Small Diameter	4 pr UTP	0.273	3	6	10	14	23	40	60	79	101
Giga*LAN 10*®	4 pr UTP	0.309	3	4	8	11	18	31	47	61	78
XGO	4 pr F/UTP	0.303	3	4	8	11	18	32	49	64	82
Category 6E											
GigaLAN	4 pr UTP	0.255	4	6	11	16	26	46	69	90	115
Category 6e+ & 6e											
AdvanceNet	4 pr UTP	0.231	5	8	14	19	32	56	84	110	141
6 LAN Plus	4 pr UTP	0.223	5	9	15	21	34	60	90	118	151
Category 6											
Category 6	4 pr F/UTP	0.288	3	5	9	12	20	36	54	71	90
6 LAN	4 pr UTP	0.220	5	9	15	21	35	61	93	121	155
Category 5E											
MegaLAN	4 pr UTP	0.200	6	11	19	26	42	74	112	147	188
MegaLAN	4 pr F/UTP	0.260	4	6	11	15	25	44	66	87	111
Category 5e & 5											
5e LAN & 5	4 pr UTP	0.190	7	12	21	28	47	82	124	163	208
5e LAN & 5	4 pr F/UTP	0.260	4	6	11	15	25	44	66	87	111
5e LAN & 5	25 pr UTP	0.505	1	1	3	4	6	11	17	23	29
5e LAN & 5	25 pr F/UTP	0.522	1	1	2	4	6	11	16	21	27
5e LAN & 5	50 pr UTP	0.842	0	1	1	1	2	4	6	8	10
Category 3											
Category 3	4 pr UTP	0.161	10	17	29	40	66	115	174	227	290
Category 3	4 pr F/UTP	0.210	6	10	17	23	38	67	102	133	170
Category 3	25 pr UTP	0.345	1	3	6	8	14	25	38	49	63
Category 3	50 pr UTP	0.497	1	1	3	4	7	12	18	24	30
Category 3	100 pr UTP	0.693	0	1	1	1	3	6	9	12	15
Category 3	200 pr UTP	1.014	0	0	1	1	1	3	4	5	7
Category 3	300 pr UTP	1.300	0	0	0	1	1	1	2	3	4
VersaLAN											
Category 6	4 pr UTP	0.275	3	6	10	13	22	39	59	77	99
Category 5e	4 pr UTP	0.251	4	7	12	16	27	47	71	93	119
Category 5e	25 pr F/UTP	0.730	0	1	1	1	3	5	8	11	14

Mohawk reserves the right to revise any specifications in the interest of product enhancement.

Mohawk will not be responsible for holding the warranty on painted cables. For more information, please see page 67 or see our Technical Advisory on our website.

To calculate 40% fill, use the following formula: (conduit inside dia^2/cable dia^2) x .40. If the decimal is ≥ .8, round up to the next whole number of cables.

* One cable in conduit: NEC allows 53% fill
Two cables in conduit: NEC allows 31% fill