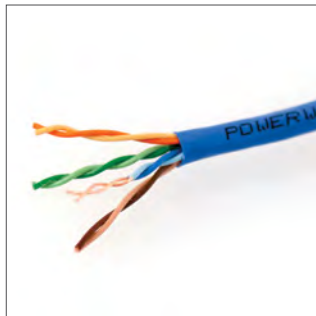
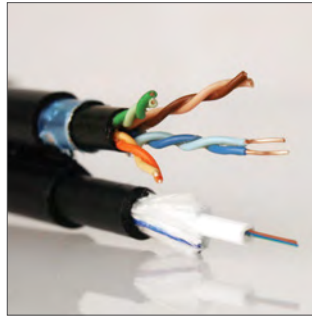


PRODUCT LINE CARD





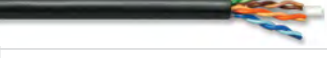


The PIONEER and TRUE Market Leader in Sustainability

		Product Name	Listing	Part Number ¹	Package	EPD	HPD
Category 6A		10Gain® XP CAT 6A	CMR-LP	6H-246-xA	1,000' BrakeBox		
			CMP-LP	6H-246-xB			
		10Gain CAT 6A	CMR	6A-246-xA	1,000' BrakeBox		
			CMP	6A-272-xB	1,000' Reel		
		CAT 6A U/FTP (STP)	CMR	6S-220-xA	1,000' Reel		
			CMP	6S-220-xB			
	CAT 6A F/UTP (ScTP)	CMR	6F-246-xA	1,000' BrakeBox			
		CMP	6F-246-xB				
Category 6		CAT 6+ F/UTP (ScTP)	CMR	6T-246-xA	1,000' BrakeBox		
			CMP	6T-246-xB			
		NextGain® CAT 6eX	CMR	54-246-xA	1,000' BrakeBox®		
			CMP	54-246-xB	1,000' BrakeBox		
		DataGain® CAT 6+	CMR	66-246-xA	1,000' BrakeBox		
				66-240-xA	1,000' POP™ box		
			CMP	66-246-xB	1,000' BrakeBox		
				66-240-xB	1,000' POP box		
		CAT 6+ LSHF	CMR-LSHF	66-246-xM	1,000' BrakeBox		
		CAT 6 with FEP Jacket	CMP	66-246-xP	1,000' BrakeBox		
		CAT 6	CMR	77-246-xA	1,000' BrakeBox		
				77-240-xA	1,000' POP box		
CMP			77-246-xB	1,000' BrakeBox			
			77-240-xB	1,000' POP box			
	CAT 6 Outdoor Sunlight Resistant	CMR/CMX	77-246-E1	1,000' BrakeBox	-	-	
	CAT 6 Outdoor	CMR/CMX	77-246-x1	1,000' BrakeBox	-	-	
	Interlock Armored Premises Copper CAT 6 (single component)	CMR	K4-199-xA ²	1,000' Reel			
			L4-199-xA ³				
Category 5e		Cobra CAT 5e+	CMR	52-200-x5	1,000' Reel-in-a-Box		
				52-240-x5	1,000' POP box		
			CMP	52-200-x8	1,000' Reel-in-a-Box		
				52-241-x8	1,000' POP box		
	CAT 5e+ F/UTP (ScTP)	CMR	5F-220-x5	1,000' Reel			
		CMP	5F-220-x8				
	PowerWise® 1G 4PPoE	CMR-LP	PW52-H46-x5	1,000' BrakeBox			
		CMP-LP	PW52-H46-x8				
	Marathon LAN® CAT 5e	CMR	51-243-x5	1,000' Reel-in-a-Box			
			51-240-x5	1,000' POP box			
		CMP	51-243-x8	1,000' Reel-in-a-Box			
			51-241-x8	1,000' POP box			
	CAT 5e F/UTP (ScTP) Outdoor Sunlight Resistant	CMR/CMX	5F-220-E1	1,000' Reel	-	-	
	CAT 5e F/UTP (ScTP) Outdoor	CMR/CMX	5F-220-x1	1,000' Reel	-	-	
	CAT 5e Outdoor Sunlight Resistant	CMR/CMX	51-240-E1	1,000' POP box	-	-	
	CAT 5e Outdoor	CMR/CMX	51-240-x1	1,000' POP box	-	-	
	25-Pair Power Sum CAT 5e	CMR	51-478-x5	1,000' Reel			
		CMP	51-478-48				
	25-Pair CAT 5e Indoor/Outdoor	CM	51-499-EL	1,000' Reel	-	-	
	Interlock Armored Premises Copper CAT 5e (dual component)	CMR	K2-299-S5 ²	1,000' Reel			
			L2-299-S5 ³				


¹Where "x" = jacket color (see color key below). ²No outer jacket. ³With outer jacket. For single component cables, the outer jacket color matches the internal component jacket color. For dual component cables, the standard outer jacket color is Blue.

KEY	Standard Jacket Colors	Non-standard Jacket Colors ⁴
	¹ Replace "x" with: Blue = 2 Gray = 3 White = 4	Green = 5 Yellow = 6 Purple = 7 Red = 9 Orange = D Black = E













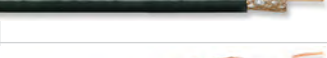

⁴Non-standard jacket colors and other packaging options (types and lengths) available with minimum order quantity and lead time.

PREMISES COPPER	OSP Broadband	Product Name	Category	Part Number	Product Code	Shield	Package
			OSP Broadband BBDG ¹	CAT 6A	04-001-A5	BBDG6A	Copper-clad steel
		CAT 6	04-001-65	BBDG6			
		CAT 5e	04-001-55	BBDGe			
		OSP Broadband BBDN ¹	CAT 6A	04-001-A4	BBDN6A	Coated aluminum tape	1,000' Reel
			CAT 6	04-001-64	BBDN6		
			CAT 5e	04-001-54	BBDNe		
		OSP Broadband BBD ¹	CAT 6	04-001-68	BBD6	None	1,000' Reel
			CAT 5e	04-001-58	BBD6e		
		OSP Broadband Indoor/Outdoor Halogen-Free CM/CMX	CAT 6A	04-001-A3	BBDG6A	Copper-clad steel	1,000' Reel
			CAT 6A	04-001-A2	BBDN6A	Coated aluminum tape	
			CAT 6	04-001-63	BBDG6	Copper-clad steel	
			CAT 6	04-001-62	BBDN6	Coated aluminum tape	
		OSP Broadband Duplex	CAT 5e	04-A01-55	BBDGe	Copper-clad steel	1,000' Reel





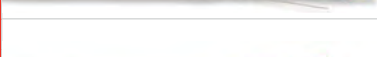

¹Also available with optional aluminum interlock armor with overjacket upon request.

BUNDLED	Product Name	Part Number	Number of Cable Components ²			Package
			CAT 6/5e	RG-6 Quad	62.5 2-Fiber	
	Bundled Composite CMR	D3-B169SA	CAT 6 x 2	1	1	Cut to length on reel
		D1-B169S5	CAT 5e x 2	1	1	Cut to length on reel





²Multiple construction options available, including other fiber types and fiber counts upon request.

PREMISES COPPER	CAT 3	Product Name	Listing	Part Number	Jacket Color	Package	EPD	HPD	
									
Coaxial		CAT 3 100-Pair	CMR	18-789-33	Gray	Cut to length			
			CMP	18-799-36					
		CAT 3 300-Pair	CMR	18-B99-33	Gray	Cut to length			
			CMP	18-B99-36					
		Coax RG-6, Quad Shield CM/CATV, CMR/CATVR and CMP/CL2P	CM/CATV	78-147-9P	White	1,000' POP box	-	-	
				79-147-9P	Black				
				CMR/CATVR	78-148-91	White	1,000' Reel	-	-
					79-148-91	Black			
				CMP/CL2P	78-14C-91	White	1,000' Reel		
		Coax RG-6, Quad Shield Aluminum Interlock Armored	CMR	KC-919-45 ³	White	1,000' Reel	-	-	
				KC-919-E5 ³	Black				
		Coax RG-6, Tri-Shield 70%	CM	78-11A-9R	White	1,000' Reel-in-a-Box	-	-	
				79-11A-9R	Black				
				CMR	79-11B-9R	Black			
	Coax RG-6, 60% Shield	CM	78-107-9P	White	1,000' POP box	-	-		
			79-107-9P	Black					
	Coax RG-59, 95% Shield	CMR/CL2R	78-558-91	White	1,000' Reel	-	-		
			79-558-91	Black					
			CMP/CL2P	78-55C-91	White				
	Coax RG-59, 95% Shield + 18/2	CMP/CL2P	86-57D-A1	White	1,000' Reel	-	-		




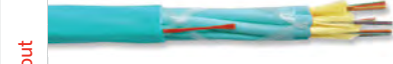


³No outer jacket.

FIRE ALARM/SECURITY	Product Name	Listing	Part Number	Conductor Count	AWG (mm)	Jacket Color	Package	
	Fire Alarm, Non-Shielded Power Limited	FPLR/CL3R/CMR	2F-212-91	2	16 (1.29)	Red	1,000' Ribbed spool	
		FPLP/CL3P/CMP	2F-212-93					
		Fire Alarm, Shielded Power Limited	FPLR/CL3R/CMR	2F-132-92	4	18 (1.02)	Red	1,000' Ribbed spool
			FPLP/CL3P/CMP	2F-132-94				
		Interlock Armored Fire Alarm Riser, Non-Shielded	FPLR/CL3R	K2F-419-91	2	12 (2.05)	Red	1,000' Wood reel
				K2F-339-91	4	14 (1.63)		1,000' Wood reel
		Security Control, Non-Shielded Power Limited	FPLR/CL3R/CMR	2F-D12-31	2	16 (1.46)	Gray	1,000' Ribbed spool
			FPLP/CL3P/CMP	2F-D34-43				4
		Security Control, Shielded Power Limited	FPLR/CL3R/CMR	2F-D12-32	2	16 (1.46)	Gray	1,000' Ribbed spool
			FPLP/CL3P/CMP	2F-D12-44				
		Access Control Composite	CMR/CL3R/FPLR	AC-A12-55	4 x 18 AWG 3 pairs x 22 AWG		Green	1,000' Wood reel
			CMP/CL3P/FPLP	AC-A12-68				
CMR/CL3R/FPLR			AC-A13-55	Green				500' Wood reel
CMP/CL3P/FPLP			AC-A13-68	Yellow				

CENTRAL OFFICE COPPER


Product Name	Part Number	Pair Count	AWG (mm)	Jacket Color	Standard Length ft (m)	Package
 25-Pair CAT 5e Shielded CMR	55-779-19	25	24 (0.51)	Green	5,000 (1,524)	Reel
	55-789-19			Gray		
	55-799-19			Blue		
 Distribution Frame Wire DFW	12-101-13	-	24 (0.51)	Red/White	1,000 (305)	Spool
	12-102-13			Red/Yellow		
	12-105-13			Black/White		
 Heavy Duty Distribution Frame Wire HD-DFW	12-201-15	-	22 (0.64)	White/Blue	3,000 (914)	Parallel Cone
	12-204-15			White/Green		
	12-207-15			Yellow/Black		
 Tight Twist Distribution Frame Wire DFW	12-212-T5	-	22 (0.64)	White/Green	3,000 (914)	Spool
	12-213-T5		24 (0.51)	Violet/Red	1,000 (305)	
	12-214-T5			Violet/Red		
	12-215-T5			Green/Red		

PREMISES LOOSE TUBE FIBER


Product Name	Listing	Part Number ¹	Configuration	Fiber Count	Package	EPD	EPD
 Microarray Data Center Interconnect	OFNR	P3***xx01	3 mm round	2 - 12	Reel	✓	✓
		P3024xxA1	Duplex	24			
	OFNP	V4***xx01	2 mm Round	2 - 12			
		P4024xxC1	3 mm round	2 - 12			
		P4024xxA1	Duplex	24			
 2 mm Microarray Breakout	OFNP	V4***xxB1	Multi-unit	24, 36	Reel	✓	✓
		V4***xx01	Multi-unit	48, 144	Reel	✓	✓
 2 mm Interlock Armored, Microarray Breakout	OFCP	L4***xB1	Multi-unit	24, 36	Reel	✓	-
		L4***xV01	Multi-unit	48, 144	Reel	✓	-
 3 mm Microarray Breakout	OFNR	P3024xxB1	Multi-unit	24	Reel	✓	✓
		P3***xx01		48 - 144			
	OFNP	P4024xxB1	Multi-unit	24			
 3 mm Interlock Armored, Microarray Breakout	OFCR	L3024xxPB1	Multi-unit	24	Reel	✓	✓
		L3***xP01		48 - 144			
	OFCP	L4024xxPB1		24			
		L4***xP01		48 - 144			
 EnduraLite Indoor/Outdoor Loose Tube Sunlight Resistant/Dry Block	OFNR	F360-***Uyy-E991	Single unit	2 - 12	Reel	-	-
		F360-***Uyy-EA51		2 - 12	1,000' BrakeBox		
	OFNP	F460-***Uyy-E991		2 - 12	Reel		
		F460-***Uyy-EA51		2 - 12	1,000' BrakeBox		
	OFNP	F462-xxxUyy-E991		Multi-unit	24, 36, 48		

¹Where "****" = fiber count (i.e. 002, 004, 006, 008, 012, 018, 024, 036, 048, 060, 072, 096, 144) and "x" or "xx" or "yy" = fiber type (refer to key below).

POWERWISE FIBER

Product Name	Listing	Fiber Type	Part Number ¹	Configuration	Fiber Count	Package
 PowerWise® Fiber	CL3R-OF/ CMR-OF/ FPLR-OF	Single mode	F3C3-002U15-6991-CE9	2 - SMF, 2 - 16 AWG	2	Reel

PREMISES RIBBON

Product Name	Listing	Fiber Type	Part Number ¹	Configuration	Fiber Count	Package
 Ribbon Distribution	OFNR	Single mode	F356-***Uyy-6991	Single unit	12 - 288	Reel
		Multimode	F356-***Uyy-K991		12 - 288	
	OFNP	Single mode	F456-***Uyy-6991		12 - 288	
		Multimode	F456-***Uyy-K991		12 - 288	

¹Where "****" = fiber count (i.e. 012, 018, 024, 048, 060, 072, 084, 096, 144, 216, 288) and "yy" = fiber type (refer to key below).

Single Mode Fiber (SMF) Types			
KEY	TeraFlex® Bend Resistant		
	G.657.A1	G.657.A2	G.657.B3
¹ Replace "x" with:	K	J	L
¹ Replace "xx" with:	K1	J1	L1
¹ Replace "yy" with:	13	14	15
Premises Jacket Colors	Yellow		
Indoor/Outdoor Jacket Color	Black		

Multimode Fiber (MMF) Types			
KEY	TeraFlex Bend Resistant Laser Optimized 50/125		
	10G/150	10G/300	10G/550
¹ Replace "x" with:	M	N	P
¹ Replace "xx" with:	MG	NG	PG
¹ Replace "yy" with:	28	30	32
Premises Jacket Colors	Aqua		
Indoor/Outdoor Jacket Color	Black		

		Product Name	Listing	Part Number ¹	Configuration	Fiber Count	Package	EPD	HPD				
Interconnect		Simplex, Duplex and Quad Interconnect	OFNR	33***x01	3 mm Round	1	Reel						
				A3001xx01	2 mm Round	1							
				B3002xx01	3 mm Zip	2							
				C3002xx01	2 mm Zip	2							
				33***xyy	Round	2, 4				Refer to key			
			OFNP	34***x01	3 mm Round	1	Reel						
				A4001xx01	2 mm Round	1							
				B4002xx01	3 mm Zip	2							
				C4002xx01	2 mm Zip	2							
			34***xyy	Round	2, 4	Refer to key							
Distribution		Breakout	OFNR	T3***3201	Multi-unit	6, 12, 24	Reel						
				Single Unit Distribution	OFNR	43***xyy	Single unit	6, 8, 12	Refer to key				
		43***xK01	18, 24			Reel							
		OFNP	44***xyy		6, 8, 12	Refer to key							
			44***xK01		18, 24	Reel							
		Multi-Unit Distribution	OFNR	43***xx01	Multi-unit	18 - 144	Reel						
				OFNP						44***xx01			
		Rugged Indoor MDU Tight Buffer	OFNR	D3001L5yy	Round	1	Refer to key						
		Rugged Indoor/Outdoor MDU Tight Buffer	OFNR	D5001L5yy	Round	1	Refer to key						
		Indoor/Outdoor Sunlight Resistant Tight Buffer	OFNP	24***xx01	Multi-unit	18 - 72	Reel						
Dry Block/Sunlight Resistant Indoor/Outdoor Tight Buffer	OFNR	W3***xyy	Single unit	2 - 12	Refer to key								
		W3***xx01	Multi-unit	18 - 144	Reel								
		OFNP	W4***xyy	Single unit	2 - 24			Refer to key					
Interlock Armored		Interlock Armored, Tight Buffer	OFCR	L3***x301	Single unit	2, 4	Reel						
				L3***x401		6, 8, 12							
				L3***xK1Q		18, 24							
				L3***x401		Multi-unit				18 - 144			
			OFCP	L4***x301	Single unit	2, 4							
				L4***x401		6, 8, 12							
				L4***xK1Q		18, 24							
				L4***x401		Multi-unit				18 - 72			
			Interlock Armored, Indoor/Outdoor Tight Buffer	OFCR	L3***xW01	Single unit				2 - 24	Reel		
					L3***xW01	Multi-unit				18 - 144			
OFCP	L4***xW01	Single unit			2 - 24								

¹Where "****" = fiber count (i.e. 001, 002, 004, 006, 008, 012, 018, 024, 036, 048, 060, 072, 096, 144) and "x" or "xx" = fiber type (refer to keys below).

		Single Mode Fiber (SMF) Types			
KEY		Reduced Water Peak	TeraFlex® Bend Resistant		
			G.657.A1	G.657.A2	G.657.B3
	¹ Replace "x" with:	3	K	J	L
	¹ Replace "xx" with:	31	K1	J1	L1
	Premises Jacket Colors	Yellow			
I/O Jacket Color	Black				

		Multimode Fiber (MMF) Types			
KEY		TeraGain® 62.5/125	TeraFlex Bend Resistant Laser Optimized 50/125		
			10G/150	10G/300	10G/550
	¹ Replace "x" with:	6	M	N	P
	¹ Replace "xx" with:	6G	MG	NG	PG
	Premises Jacket Colors	Orange	Aqua		
I/O Jacket Color	Black				

		Packaging Options			
KEY		Cut to Length Plywood reel	1,000 ft BrakeBox®	1,500 ft BrakeBox	2,000 ft BrakeBox
	¹ Replace "yy" with:	01	BB	BD	BC

		Product Name	Series	Features	Part Number ¹	Fiber Count
Loose Tube		Loose Tube Single Jacket All Dielectric	11D	Dri-Lite® gel-free	11***xD0b	6 - 288
			11	PFM™ gel-filled	11***xz0b	2 - 432
			1NY	PFM gel-filled, nylon overjacket	11***xN0b	2 - 288
		Loose Tube Double Jacket All Dielectric	1GD	Dri-Lite gel-free	1G***xD0b	6 - 288
			1G	PFM gel-filled	1G***xz0b	2 - 288
		Loose Tube Single Jacket Single Armor	12D	Dri-Lite gel-free	12***xD0b	6 - 288
			12	PFM gel-filled	12***xz0b	2 - 432
	Loose Tube Double Jacket Single Armor	1AD	Dri-Lite gel-free	1A***xD0b	6 - 288	
		1A	PFM gel-filled	1A***xz0b	2 - 288	
	Loose Tube Double Jacket Double Armor	1DD	Dri-Lite gel-free	1D***xD0b	6 - 288	
		1D	PFM gel-filled	1D***xz0b	2 - 288	
		Loose Tube Triple Jacket Double Armor	1CD	Dri-Lite gel-free	1C***xD0b	6 - 144
		1C	PFM gel-filled	1C***xz0b	2 - 144	
Outdoor/Indoor		Loose Tube Outdoor/Indoor	13D	Dri-Lite gel-free OFNR	13***xD0b	6 - 288
			13	PFM gel-filled OFNR	13***xz0b	2 - 288
			13I	Interlock armored OFCR	L3***x10b	2 - 144
		Loose Tube Outdoor/Indoor LSZH	HZD	Single jacket, all dielectric OFNR-LS	FH16-***xxx-E99b	6 - 288
		HZA	Single jacket, single armor OFCR-LS	FH25-***xxx-E99b	6 - 288	
ADSS		Heavy Duty Loose Tube	1H	OFNR	1H***xz0b	2 - 216
		All Dielectric Self Supporting (ADSS)	1F100	100 meter span	FE11-***xxx-E99b ²	6 - 288
			1F200	200 meter span	FE12-***xxx-E99b ²	6 - 288
1F400	400 meter span		FE14-***U10-E991	6 - 288		
Miscellaneous		Single Loose Tube	51	All dielectric	51***xz0b	2 - 96
			52	Single armor	52***xz0b	2 - 96
			53	Indoor/Outdoor OFNR	53***xz0b	2 - 96
		Single Flex Tube	F1	All dielectric	F1***xz0b	2 - 96
			F2	Single armor	F2***xz5b	2 - 96
		Flex Tube Locate	FM	Metallic locatable tape	FM***x15b	2 - 96
FTTP		UG FTTP	513	All dielectric	51***xz0b	2 - 12
		Buried FTTP	52S	Steel armor	52***xS0b	2 - 12
			52U	Steel armor with rip cords	52***xU0b	2 - 12
		523	Aluminum armor	52***xz0b	2 - 12	
		Figure 8 FTTP	573Q	21 mm solid steel self support	57***x23Q	1 - 12
		Oval Drop FTTP	6U	MDPE Universal	6U***x1RG	2 - 12
			6T	MDPE Toneable	6T***x1RG	2 - 12
		6S	PVC Universal	6S***x1RG	2 - 12	
		6R	PVC Toneable	6R***x1RG	2 - 12	
	FTTP Tight Buffered I/O Drop	W7U	MDPE Universal	W7***KU0b	1 - 2	
		W7T	MDPE Toneable	W7***K10b	1 - 2	
Ribbon		Ribbon Locate	RM	Metallic locatable tape	RM***x15b ²	60 - 216
		Single Tube Ribbon	R1D	Dri-Lite gel-free, all dielectric	R1***xD0b ²	12 - 432
	R1		PFM gel filled, all dielectric	R1***x10b ²	12 - 432	
	R2D		Dri-Lite gel-free, single armor	R2***xD5b ²	12 - 432	
		R2	PFM gel filled, single armor	R2***x15b ²	12 - 432	
	Stranded Tube Ribbon	S2	Single armor	S2***x10b ²	360 - 1,008	

¹Where "****" = fiber count (i.e. 001, 002, 004, 006, 008, 012...), "x" = fiber type, "z" = special attribute, "b" = jacket print code and "0" = standard product (refer to keys below).





²These products are only available with single mode (SMF) fiber types.

KEY	Single Mode Fiber (SMF) Types						
	Reduced Water Peak	Zero Water Peak	TeraFlex® Bend Resistant			NZDS	LEAF
			G.657.A1	G.657.A2	G.657.B3		
¹ Replace "x" with:	3	2	K	J	L	8	S
¹ Replace "xxx" with:	U10	U17	U13	U14	U15	U19	C19


KEY	Multimode Fiber (MMF) Types			
	TeraGain® 62.5/125	TeraFlex Bend Resistant Laser Optimized 50/125		
		10G/150	10G/300	10G/550
¹ Replace "x" with:	6	M	N	P
¹ Replace "xxx" with:	U23	U28	U30	U32

KEY	Special Attributes		
	12-fiber tubes with		TeraGain MMF 12-fiber tubes
	< 36 fibers	> 36 fibers	
¹ Replace "z" with:	T	1	G


KEY	Jacket Print Codes			
	Dry core		Dry core special	
	Feet	Meters	Feet	Meters
¹ Replace "b" with:	1	2	5	6

OSP FIBER	Product Name	Series	Features	Part Number ¹	Fiber Count	
Loose Tube Self Support		Loose Tube Single Jacket Self Support	11DM	Dri-Lite gel-free	11***xDmB	6 - 288
			11M	PFM gel-filled	11***xzMb	2 - 288
			11MLS	Long-span 1/2" messenger	11***KDLb	6 - 288
				Long-span 3/8" messenger	11***KDKb	6 - 288
		Loose Tube Double Jacket Self Support	1GDM	Dri-Lite gel-free	1G***xDmB	6 - 120
			1GM	PFM gel-filled	1G***xzMb	2 - 120
		Loose Tube Single Jacket Single Armor Self Support	12DM	Dri-Lite gel-free	12***xDmB	6 - 288
			12M	PFM gel-filled	12***xzMb	2 - 288
		Loose Tube Double Jacket Single Armor Self Support	1ADM	Dri-Lite gel-free	1A***xDmB	6 - 120
			1AM	PFM gel-filled	1A***xzMb	2 - 120

¹Where "****" = fiber count (i.e. 002, 004, 006, 008, 012...), "x" = fiber type, "z" = special attribute, "b" = jacket print code and "0" = standard product (refer to keys below).

OSP COMPOSITE	Product Name	Series	Features	Part Number ¹	Copper Pair Count	Fiber Count
	Buried Drop Composite	72	Fiber/copper composite with aluminum armor	72***x32b	2	2 - 12
				72***x33b	3	
				72***x36b	6	
		72S	Fiber/copper composite with steel armor	72***x32S	2	2 - 12
				72***x33S	3	
				72***x36S	6	
	Composite Right of Way	MR	Fiber/copper composite for small conduits	MR0723011	12	72
	Composite CAT 5e Drop	5F	Composite with 4 fibers and CAT 5e	11-003-30	4	4
	Composite Drop Web	5W	Fiber/copper composite with 2 - 12 fibers and 2 or 5 copper pairs	5W***x01Q	2	2 - 12
				5W***x02Q	5	2 - 12
Composite OSP Web	5V	Fiber/copper composite with 6 - 24 fibers and 6 - 25 copper pairs	5V***x061	6	6 - 24	
			5V***x121	12		
			5V***x181	18		
			5V***x251	25		
Composite OSP Overjacket	70 OJ	Fiber/copper composite with 48 - 96 fibers and 50 - 200 copper pairs	70-065-24	50	24	
			70-073-96	200	96	
Composite Round CF	L	Many fiber constructions with 1 - 3 copper pairs	11***C02Q	1	2 - 288	
			12***C103	1 - 3		

¹Where "****" = fiber count (i.e. 001, 002, 004, 006, 008, 012...), "x" = fiber type and "0" = standard product (refer to keys below).









FTTA	Product Name	Part Number	Conductor Count	AWG (mm)	Fiber Component	Fiber Count	
	Fiber-to-the-Antenna (FTTA) Fiber OFNR	53012K01Q	-	-	Central tube	12	
		53024K01Q				24	
		53048K01Q				48	
	Fiber-to-the-Antenna (FTTA) Hybrid Fiber + Power	FHG3-012-U13-E991	6	8 (3.26)	Tight buffer	12	
		FHG2-012-U13-E991					Central tube
		FHG1-012-U13-E991					Loose tube




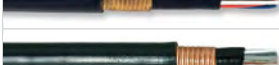
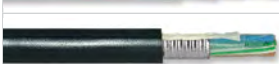





KEY	Single Mode Fiber (SMF) Types						
	Reduced Water Peak	Zero Water Peak	TeraFlex® Bend Resistant			NZDS	LEAF
			G.657.A1	G.657.A2	G.657.B3		
¹ Replace "x" with:	3	2	K	J	L	8	S



	Multimode Fiber (MMF) Types			
	TeraGain® 62.5/125	TeraFlex Bend Resistant Laser Optimized 50/125		
		10G/150	10G/300	10G/550
¹ Replace "x" with:	6	M	N	P

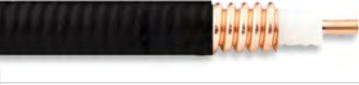





KEY	Special Attributes		
	12-fiber tubes with		TeraGain MMF 12-fiber tubes
	< 36 fibers	> 36 fibers	
¹ Replace "z" with:	T	1	G



	Jacket Print Codes			
	Dry core		Dry core special	
	Feet	Meters	Feet	Meters
¹ Replace "b" with:	1	2	5	6

Product Name	Part Number	Pair Count	AWG (mm)	Standard Length ft (m)	Reel Size F x T x D in	
 SEALPIC® (air core)	01-097-40	25	24 (0.51)	5,000 (1,524)	44 x 18 x 20	
	01-100-40	50			46 x 25 x 20	
	01-104-40	100			58 x 25 x 20	
 SEALPIC-84 (air core self support)	01-092-38	6	24 (0.51)	5,000 (1,524)	46 x 25 x 20	
	01-097-38	25			58 x 25 x 20	
	01-104-38	100			72 x 36 x 36	
 SEALPIC-FSF-84 (filled self support)	09-092-05	6	24 (0.51)	5,000 (1,524)	46 x 25 x 20	
	09-097-05	25			58 x 25 x 20	
	09-104-05	100			72 x 36 x 36	
 SEALPIC-FSF RDUP PE-89	09-062-02	25	22 (0.64)	5,000 (1,524)	46 x 25 x 20	
	09-069-02	100			62 x 30 x 24	
	09-075-02	300		1250 (381)	58 x 25 x 20	
	09-081-02	600	72 x 35 x 36			
		09-092-02	6	24 (0.51)	5,000 (1,524)	36 x 18 x 14
		09-097-02	25			44 x 18 x 20
		09-104-02	100			58 x 25 x 20
09-110-02		300	65 x 30 x 32			
 SEALPIC-F RDUP PE-39	04-092-21	6	24 (0.51)	5,000 (1,524)	36 x 18 x 14	
	04-097-21	25			46 x 25 x 20	
	04-104-21	100			65 x 30 x 32	
 CUPIC-F® RDUP PE-39	04-092-04	6	24 (0.51)	5,000 (1,524)	36 x 18 x 14	
	04-097-04	25			46 x 25 x 20	
	04-104-04	100			65 x 30 x 32	
 GOPIC®-F RDUP PE-39	04-092-27	6	24 (0.51)	5,000 (1,524)	36 x 18 x 14	
	04-097-27	25			46 x 25 x 20	
	04-104-27	100			65 x 30 x 32	
 CASPIC®-FSF RDUP PE-89	09-092-92	6	24 (0.51)	5,000 (1,524)	36 x 18 x 14	
	09-097-92	25			46 x 25 x 20	
	09-104-92	100			58 x 25 x 20	



Product Name	Part Number	Pair Count	AWG (mm)	Wire Color	Standard Length ft (m)	Package
 ADP NMS	12-031-08	1	22 (0.64)	-	750 (229)	POP™ box
	12-004-08	2			750 (229)	
	12-019-08	3			600 (183)	
	12-519-08	5			400 (122)	
	12-009-08	6			1,000 (305)	Reel
 ADP S	12-301-07	3	22 (0.64)	-	1,000 (305)	Reel
 BDW A	04-089-85	2	24 (0.51)	-	2,500 (762)	Reel
	04-104-85	6				
 BDW G	04-053-17	2	22 (0.64)	-	2,500 (762)	Reel
	04-062-16	6				
 BW GDJ	25-360-79	3	22 (0.64)	-	1,200 (366)	Reel
	25-555-79	5			1,000 (305)	
 BW AF	25-069-86	2	22 (0.64)	-	1,300 (396)	Reel
	25-549-86	5			5,000 (1,676)	
 Temporary Drop Wire TDW	12-311-36	2	22 (0.64)	Red/Green, Yellow/Black	1,000 (305)	POP box
	12-331-36	1	24 (0.51)	Red/Green	2,000 (610)	
 Ground Wire Gray Jacketed	12-101-04	-	6 (4.12)	-	200 (61)	Boxed coil
	12-111-04	-	10 (2.59)	-		
 Cross-Connect CAT 5 Wire XCW	02-011-23	1	24 (0.51)	White/Blue	1,000 (305)	Spool
	02-032-23			Violet/Blue		
 Indoor/Outdoor Cross-Connect Wire XCW	02-111-13	1	22 (0.64)	White/Blue	1,000 (305)	Spool
	02-102-13			Yellow/Blue		
	02-001-13		24 (0.51)	White/Blue	600 (183)	
	02-D02-13			Yellow/Blue		

DAS HYBRID	Cables	Part Number	Conductor Count	Conductor Type	AWG (mm)	Fiber Count	Fiber Type	
								
		Interlock Armored DAS Hybrid Fiber + Copper, Plenum	F2C2-012U13-6991-CE5	4	19 x 0.185"	12 (2.05)	12	SMF TeraFlex® Bend Resistant G.657.A1

DAS CABLE AND CONNECTORS	Cables	Compatible DIN Connectors	Compatible N Connectors	Connector Interface Type		
				Gender	Straight or Angle	
Riser		HFSC-12DR ½" Super Flexible, Foam Dielectric Copper Corrugated Outer Conductor ETL listed CMR	CHFS-12DM	CHFS-12NM	Male	Straight
			CHFS-12DF	CHFS-12NF	Female	Straight
			CHFS12DMR	CHFS12NMR	Male	Right Angle
			CHFS12DFR	CHFS12NFR	Female	Right Angle
		LHF-12DR ½" Low Loss, High Flexible, Foam Dielectric Copper Corrugated Outer Conductor ETL Listed CMR	CLH-12DM	CLH-12NM	Male	Straight
			CLH-12DF	CLH-12NF	Female	Straight
			CLH-12DMR	CLH-12NMR	Male	Right Angle
			CLH-12DFR	CLH-12NFR	Female	Right Angle
		HFAC-12DR ½" Low Loss, High Flexible, Foam Dielectric Aluminum Corrugated Outer Conductor ETL Listed CMR	CHFA-12DM	CHFA-12NM	Male	Straight
			CHFA-12DF	CHFA-12NF	Female	Straight
			-	CHFA12NMR	Male	Right Angle
			-	CHFA12NFR	Female	Right Angle
Plenum		HFSC-12DP ½" Super Flexible, Air Dielectric Copper Corrugated Outer Conductor ETL Listed CMP	CHFSP12DM	CHFSP12NM	Male	Straight
			CHFSP12DF	CHFSP12NF	Female	Straight
			CHFSP12DMR	CHFSP12NMR	Male	Right Angle
			CHFSP12DFR	CHFSP12NFR	Female	Right Angle
		LHF-12DP ½" Low Loss, High Flexible, Air Dielectric Copper Corrugated Outer Conductor ETL Listed CMP	CLHP-12DM	CLHP-12NM	Male	Straight
			CLHP-12DF	CLHP-12NF	Female	Straight
			CLHP12DMR	CLHP12NMR	Male	Right Angle
			CLHP12DFR	CLHP12NFR	Female	Right Angle
		HFAC-12DP ½" Low Loss, High Flexible, Air Dielectric Aluminum Corrugated Outer Conductor ETL Listed CMP	CHFAP12DM	CHFAP12NM	Male	Straight
			CHFAP12DF	CHFAP12NF	Female	Straight
			CHFAP12DMR	CHFAP12NMR	Male	Right Angle
			CHFAP12DFR	CHFAP12NFR	Female	Right Angle

DAS JUMPERS	Cables	Part Number ¹	Cable Size and Type	Interface Type	
				End 1	End 2
Riser		JR12xNMNM	½" HFSC-12DR	N Male	N Male
		JR12xNMNF		N Male	N Female
		JR12xNFNF		N Female	N Female
		JR12xNMRM		N Male	N Male Right Angle
		JR12xNMRF		N Male	N Female Right Angle
		JR12xNFRF		N Female	N Female Right Angle
Plenum		JP12xNMNM	½" HFSC-12DP	N Male	N Male
		JP12xNMNF		N Male	N Female
		JP12xNFNF		N Female	N Female
		JP12xNMRM		N Male	N Male Right Angle
		JP12xNMRF		N Male	N Female Right Angle
		JP12xNFRF		N Female	N Female Right Angle

¹Where "x" = jumper cable length (i.e. 1 meter, 2 meters or 3 meters).

CABLE PREP	Tools	Part Number	Description	Compatible Cable/ Tool
T-LHF12DR	Cable Prep Drill Tool	LHF-12DR		
T-HFAC12DR	Cable Prep Drill Tool	HFAC-12DR		
T-HFSC12DP	Cable Prep Drill Tool	HFSC-12DP		
T-LHFA12DP	Cable Prep Drill Tool	LHF-12DP, HFAC-12DP		
Blade Kits		TF-LHFA12	Flare and Foam Separator	LHF-12DP, LHF-12DR, HFAC-12DP, HFAC-12DR
		TF-HFSC12	Flare and Foam Separator	HFSC-12DP, HFSC-12DR
Blade Kits		TBK-LHFA12	Replacement Blade Kit for Automatic Cable Prep Tool	T-LHFA12DP, T-LHF12DR, T-HFAC12DR
		TBK-HFSC12	Replacement Blade Kit for Automatic Cable Prep Tool	T-HFSC12DP, T-HFSC12DR

FTTA	Cable	Part Number	Conductor Count	AWG (mm)	Fiber Component	
					Fiber Component	Fiber Count
	Fiber-to-the-Antenna (FTTA) Fiber OFNR	53012K01Q	-	-	Central tube	12
		53024K01Q				24
		53048K01Q				48
	Fiber-to-the-Antenna (FTTA) Hybrid Fiber + Power	GM012K221	6	8 (3.26)	Tight buffer	12
		GM012K111			Central tube	
		GM012K011			Loose tube	

RF CABLE AND CONNECTORS	Cables	Compatible DIN Connectors	Compatible N Connectors	Connector Interface Type			
				Gender	Straight or Angle		
Super Flex		HFSC-12D ½" Super Flexible Foam Dielectric Copper Corrugated Outer Conductor	CHFS-12DM	CHFS 12NM	Male	Straight	
			CHFS-12DF	CHFS-12NF	Female	Straight	
			CHFS12DMR	CHFS12NMR	Male	Right Angle	
			CHFS12DFR	CHFS12NFR	Female	Right Angle	
Low Loss		LHF-12D ½" Low Loss Feeder Dielectric Copper Corrugated Outer Conductor	CLH-12DM	CLH-12NM	Male	Straight	
			CLH-12DF	CLH-12NF	Female	Straight	
			CLH-12DMR	CLH-12NMR	Male	Right Angle	
			CLH-12DFR	CLH-12NFR	Female	Right Angle	
Ultra Low Loss		LHF-33D 1¼" Low Loss Feeder Dielectric Copper Corrugated Outer Conductor	CLH-33DM	CLH-33NM	Male	Straight	
			CLH-33DF	CLH-33NF	Female	Straight	
			LHF-22DU ¾" Ultra Low Loss Feeder Dielectric Copper Corrugated Outer Conductor	CLH-22DM	CLH-22NM	Male	Straight
				CLH-22DF	CLH-22NF	Female	Straight
Ultra Low Loss		LHF-42DUF 1½" Ultra Low Loss Feeder Dielectric Copper Corrugated Outer Conductor	CLH-42DM	CLH-42NM	Male	Straight	
			CLH-42DF	CLH-42NF	Female	Straight	

RF JUMPERS	Part Number ¹	Cable Assembly Size and Type	Interface Type	
			End 1	End 2
	J12-xDMDM	½" HFSC	DIN Male	DIN Male
	J12-xNMNM		N Male	N Male
	J12-xDMDF		DIN Male	DIN Female
	J12xNMNMR		N Male	N Male Right Angle
	J12xDMDMR		DIN Male	DIN Male Right Angle

¹Where "x" = jumper cable length (see key below).

KEY	RF Jumper Cable Lengths					
	1 meter	2 meters	3 meters	4 meters	5 meters	6 meters
¹ Replace "x" with:	1	2	3	4	5	6

HANGER KITS	Part Number	Description	Unit of Measure
	LBHS22NH	¾" Cable Standard Hangers	Kit of 10
	LBHS33NH	1¼" Cable Standard Hangers	Kit of 10
	LBHS42NH	1½" Cable Standard Hangers	Kit of 10
Stackable Snap-In	L-SH-S12	½" Cable Stackable Snap-In Hangers	Kit of 10
	L-SH-S22	¾" Cable Stackable Snap-In Hangers	Kit of 10
	L-SH-S33	1¼" Cable Stackable Snap-In Hangers	Kit of 10
	L-SH-S42	1½" Cable Stackable Snap-In Hangers	Kit of 10
Universal Snap-In	L-SH-U12	½" Cable Universal Snap-In Hangers	Kit of 10
	L-SH-U22	¾" Cable Universal Snap-In Hangers	Kit of 10
	L-SH-U33	1¼" Cable Universal Snap-In Hangers	Kit of 10
	L-SH-U42	1½" Cable Universal Snap-In Hangers	Kit of 10

ADAPTER KITS	Part Number	Description	Unit of Measure
	RM-A100	1" to 2" Round Adapters	Kit of 10
	RM-A300	3" to 4" Round Adapters	Kit of 10
	SA-SS200	1½" to 3½" Stand-Off Adapters	Kit of 10
	SA-SS300	2" to 4.5" Stand-Off Adapters	Kit of 10
	L-SA-38	3-Way Stand-Off Adapters	Kit of 10
	AA-SL	Angle Adapters	Kit of 10

OTHER ACCESSORIES	Part Number	Description	Unit of Measure
	L-GK-C22	¾" Cable Grounding Kit - Clip-on Type	Kit
	L-GK-C42	1½" Cable Grounding Kit - Clip-on Type	Kit
Hoisting Grips	L-HG-12	½" Cable Hoisting Grip - Lace-Up	Each
	L-HG-22	¾" Cable Hoisting Grip - Lace-Up	Each
	L-HG-33	1¼" Cable Hoisting Grip - Lace-Up	Each
	L-HG-42	1½" Cable Hoisting Grip - Lace-Up	Each
	L-HG-12L	½" Cable Hoisting Grip - Pre-Laced	Each
	L-HG-22L	¾" Cable Hoisting Grip - Pre-Laced	Each
Boots	LBA-12-1A	½" Cable Boot Assembly, 4" with 1 Hole	Kit
	LBA-22-1A	¾" Cable Boot Assembly, 4" with 1 Hole	Kit
	LBA-42-1A	1½" Cable Boot Assembly, 4" with 1 Hole	Kit
Surge Arrestors	AGDMDFO2	Surge Arrestor - Wide Band (DC Pass) DIN Male/DIN Female	Each
	AG-NFNF	Surge Arrestor - Wide Band (DC Pass) N Female/N Female	Each
	ATNMNF700	Surge Arrestor - 700-2,700 Wave 4 N Male/N Female	Each
	ATDMDFO700	Surge Arrestor - 700-2,700 MHz Wave 4 DIN Male/DIN Female	Each
	AT-NMNF-W	Surge Arrestor - 800-2,700 MHz Wave 4 N Male/N Female	Each
	AT-DMDF-W	Surge Arrestor - 800-2,700 MHz Wave 4 DIN Male/DIN Female	Each
Tools	L-CT-12D	½" Cable Cutting Tool - LHF and HFAC	Each
	L-CT-12DS	½" Cable Cutting Tool - HFSC	Each
	L-CT-22D	¾" Cable Cutting Tool - LHF	Each
Miscellaneous	L-FT-42D	1½" Cable Cutting Tool - LHF	Each
	L-WK-U	Universal Weatherproofing Kit	Kit
	GB0424TU	Ground Bus Bar Kit	Kit
	WPSANT12D	Weather Proofing Shell - Antenna to ½" DIN	Each
	WPS12158D	Weather Proofing Shell - ½" to 1½" DIN	Each
	WATS-38	Anti-Theft Hardware Kit	Kit



Identify Your Cable Runs with Ease



**CableID®
Alpha Numeric Coding**

- 4-character code printed every 2 ft. on the cable jacket for each 1000-ft box and reel of copper data cable
- Both ends of each cable run are easily identifiable without the need to separately label or tone the cable
- Reduces installation time and cost for initial installations and for moves, adds and changes



Color Coded Box Labels

- Easily identifies cable jacket color
- Most colors available with no minimum quantity and custom colors available upon request with minimum order quantities



**QuickCount®
Feet/Meters Marking**

- Jacket marking in feet and meters provides remaining length of cable on reel
- Removes the guesswork for cable installers, reducing installation time and cost



**ColorTip®
Circuit Identification**

- Circumferentially colors 100% of the conductor for easily identifiable tip and ring mates
- Distinct colors reduces termination time and errors, even in low light environments
- Permanent, environmentally friendly color that doesn't rub or wear off



BrakeBox® Dual Brake System

The brake allows for back-tension and over-spin control. The spool may be taken from the box for installation or may be left in the box where the cable pays out through a slotted opening.



POP™ Box

In this package, the cable is coiled into a box. The product pays out through a tube opening in the box. This design does not allow for the cable to be removed as a unit from the box.



Reel-in-a-Box

The cable is placed onto a plastic spool, which is placed into a box. The spool may be taken from the box for installation or may be left in the box where the cable pays out through a slotted opening.



Steel Reel

Long lengths of cable are placed onto steel reels. This reel is environmentally-friendly and recycled for years of service.



Wood/Plywood Reel

Reels may be made of plywood or wood. Our wooden reels can be recycled an average of five times before retirement (see Web site for further details).



Spool or Ribbed Spool

Wire is wound onto a spool and placed inside a box for protection during shipment. Cable is wound onto a ribbed, plastic recyclable spool that is rugged, robust and easy to handle. Spools are smaller than reels.



Parallel Cone

This package is designed to fit into the GMP cast aluminum wire dispensing system (80470 or 80471). When placed on the GMP dispenser, the jumper or distribution frame wire pays out smoothly.



Knock-out Box

Cable is coiled and fastened within a box. Knock out boxes can be identified by a perforated "knock-out" that is removed, allowing access to the cable.



Coils

Coils refer to lengths of cable that have been wrapped into a shape (usually a circle) and fastened with multiple ties. Coils can be custom configured to fit a customer's unique cable and wire feeding systems.

The Only Sustainable Cable Manufacturer

Partner with the Leader in Sustainability Efforts and Environmental Stewardship



Published First **Health Product Declarations™** and **Environmental Product Declarations** for copper and optical fiber data cables

50+

Products that
Contribute
to **LEED Credits**



Recycling and Reuse
Prevents Over
8.9 Million lbs
of Waste from Reaching
Landfills Each Year



Water Recycling Conserves
**500 Million
Gallons**
of Fresh Water Per Year



Reduced annual
energy consumption by
8.0 Million kWh

ZERO
WASTE TO LANDFILL
Hoisington, KS Manufacturing Facility



Carbon Footprint
Transparency through
Multi-Attribute Labels

All Cable Products
Meet the
Requirements of

RoHS
&
REACH



Completed
Life Cycle Assessment
for Copper and Optical
Fiber Data Cables