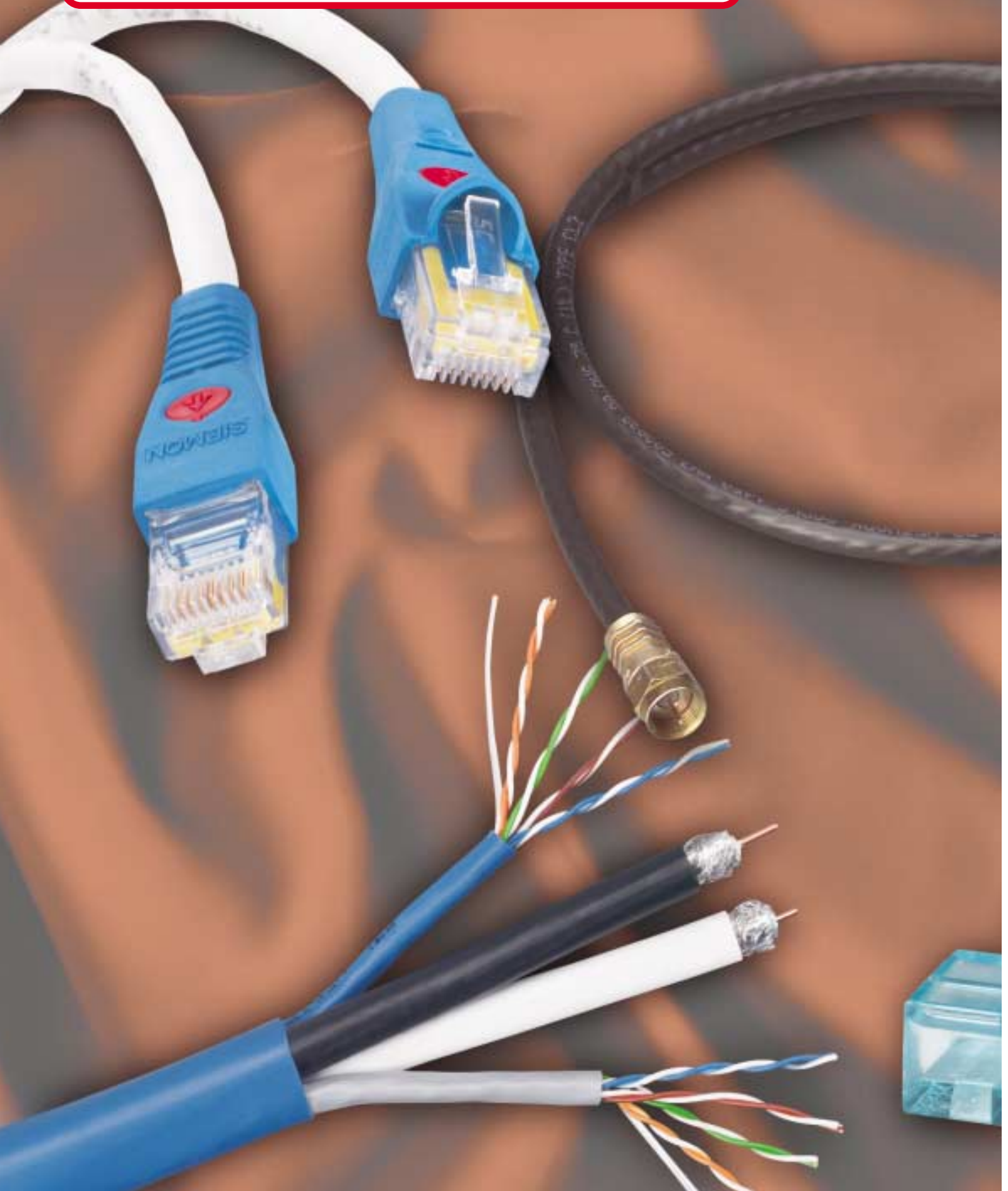


PATCH CORDS, PLUGS & CABLES



SECTION CONTENTS

Modular Cords	3.2
Cable Assemblies	3.3
Plugs & Connectors	3.4
Bundled Cable	3.5
Category 5e & 6 UTP Cable	3.6
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MC® 5 MODULAR CORDS



Siemon MC® 5 modular cords can be used as patch cords within the Command Center™ enclosure or as equipment cords between the data outlet and computer. Made from premium stranded cable, every MC® 5 cord is factory tested to ensure optimum category 5e performance and reliability.

Part #	Description
MC5-8T-(XX)-B(XX)	Double-ended, 4-pair modular stranded cord, white jacket with colored boot, T568A/T568B wiring

Use 1st (XX) to specify cord length:

.5 = 0.15m (6 in.)*, 01 = 0.30m (1 ft.), 03 = 0.91m (3 ft.), 05 = 1.52m (5 ft.), 07 = 2.13m (7 ft.), 10 = 3.05m (10 ft.), 15 = 4.57m (15 ft.), 20 = 6.10m (20 ft.), 25 = 7.62m (25 ft.)

Use 2nd (XX) to specify boot color:

02 = white, 04 = gray, 06 = blue

ⓑ Add "B" for bulk project pack of 100 modular cords.

*6 inch cords are designed for use in Command Center™ Enclosures



RELATED PRODUCTS

COMMAND CENTER™ ENCLOSURES PAGES 1.2 — 1.4, MAX™ MODULES PAGES 2.6 — 2.7

- Siemon MC® 5 modular cords are constructed using high performance category 5e cable
- Siemon modular plugs exceed FCC CFR 47 part 68 subpart F and IEC 603-7 specifications and have 50 microinches minimum of gold plating over nickel. The result is superior transmission performance and long-term resistance to corrosion from humidity, extreme temperatures, and airborne contaminants
- Stringent factory transmission test procedures ensure category 5e component and channel compliance

MC® 6 MODULAR CORDS



To achieve category 6* performance, match MC® 6 modular cords with MAX™ 6 modules throughout the home network. MC® 6 cords utilize patented technology to arrange and maintain conductor position for optimum pair balancing.

Part #	Description
MC6-8T-(XX)-B(XX)	MC® 6, double-ended, 4-pair stranded modular cord, T568A/B wiring white jacket with colored insert-molded boot

Technical Tip!

Factory terminated modular cords are required to achieve consistent category 5e or 6* channel performance. Field termination is not recommended.

Use 1st (XX) to specify cord length:

.5 = 0.15m (6 in.)*, 01 = 0.30m (1 ft.), 03 = 0.9m (3 ft.), 05 = 1.5m (5 ft.), 07 = 2.1m (7 ft.), 10 = 3.1m (10 ft.), 15 = 4.6m (15 ft.), 20 = 6.1m (20 ft.), 25 = 7.6m (25 ft.)

Use 2nd (XX) to specify boot color:

01 = black, 02 = white, 06 = blue

ⓑ Add "B" for bulk project pack of 100 modular cords.

*6 inch cords are designed for use in Command Center™ Enclosures

*At the time of this catalog printing, category 6/class E specifications were under development by TIA/EIA and ISO/IEC.

RELATED PRODUCTS

COMMAND CENTER™ ENCLOSURES PAGES 1.2 — 1.4, MAX™ 6 MODULES PAGES 2.8 — 2.9



Siemon Modular Plugs with Yellow[®] KeyBar™

Patented KeyBar™ technology perfectly positions conductors for optimum pair balance to the point of termination

Insert-Molded Strain and Bend Relief

Provides improved plug-to-cable retention and maximum performance by preventing pair deformation, as caused by mechanical strain

100% Transmission Testing

All cords are 100% transmission tested to 250 MHz using a network analyzer to guarantee field performance

RG59 COAX CABLE ASSEMBLY

The RG59F-(XX) uses 75 ohm cable and includes an RG59 F-type connector on each end. It is factory assembled and tested to ensure continuity. The assembly meets all applicable SCTE and Bellcore specifications and exhibits superior levels of return loss, insertion loss, and shield effectiveness.

Part #	Description
RG59F-(XX)	RG59-to-RG59 cable assembly, black jacket

Use (XX) to specify length: 01 = 0.30m (1 ft.), 03 = 0.91m (3 ft.), 07 = 2.13m (7 ft.), 10 = 3.05m (10 ft.)



RELATED PRODUCTS F-TYPE CONNECTORS AND BULKHEADS PAGE 3.4

25-PAIR CABLE ASSEMBLY



Used to join a key system to a connecting block, our 25-pair cable assemblies are 100% factory-tested for opens, shorts, and continuity. They feature FCC compliant gold plated contacts for extended reliability. Category 3 connector ends are available in single-ended male or female, double-ended male or female, or one male/one female configurations. All 25-pair cable assemblies are made with ANSI/TIA/EIA-568-B.2 category 3 compliant cable.



CATEGORY 3 CABLE ASSEMBLIES

Part #	Description
A25B-DE-(XX)	25-pair, double-ended, cable assembly with female connectors
A25B-SE-(XX)	25-pair, single-ended, cable assembly with female connectors
B25A-(XX)	25-pair, double-ended, cable assembly with one male and one female connector
B25B-DE-(XX)	25-pair, double-ended, cable assembly with male connectors
B25B-SE-(XX)	25-pair, single-ended, cable assembly with one male connector

Use (XX) to specify length: 5 = 1.52m (5 ft.), 10 = 3.05m (10 ft.), 15 = 4.57m (15 ft.), 25 = 7.62m (25 ft.)

RELATED PRODUCTS PRE-WIRED S66® CONNECTING BLOCKS PAGE 5.9

HYDRA



The category 3 Hydra gathers multiple modular cords and terminates them into a single male or female 25-pair connector. Each of the individual cords is labeled, which provides easy identification during installations, moves, or changes. All Hydras are made using FCC compliant 25-pair connectors and modular plugs.

Part #	Description
HYD(X)-24-(XX)	24, 1-pair legs, 6-position plugs, USOC wiring
HYD(X)-12-(XX)	12, 2-pair legs, 6-position plugs, USOC wiring

Use (X) to specify 25-pair connector gender: M = Male connector, F = Female connector
 Use (XX) to specify length: 03 = 0.91m (3 ft.), 07 = 2.13m (7 ft.), 10 = 3.05m (10 ft.)



RELATED PRODUCTS PRE-WIRED S66® CONNECTING BLOCKS PAGE 5.9

EZ-TWIST COAX CONNECTOR

For use with RG59 and RG6 cable, Siemon's EZ-Twist is a rugged, feature-rich coax connector. It is easy to install and delivers outstanding performance. Without using tools, the push-to-lock design produces tight connections for optimized signal transmission. The EZ-Twist is supplied with an installation aid to assist in terminating connectors onto cable.

Part # Description

HC-EZ-(X)-(X) EZ-Twist coax connector, bag of 50

Use 1st (X) to specify cable type: 5 = RG59, 6 = RG6

Use 2nd (X) to specify shield type: T = Tri-shield, Q = Quad-shield



HC-EZ Exploded View

Terminated HC-EZ

RELATED PRODUCTS HOMENET CABLE PAGE 3.5, COAX CABLE PAGE 3.7

RG6 F-TYPE COAX CONNECTORS

The RG6 connector is a high quality coaxial connector designed to terminate RG6 coaxial cable that has a standard diameter over jacket (DOJ) of 6.9mm (0.27 in.). The connector meets SCTE and Bellcore specifications and is constructed of high quality brass with corrosion-resistant plating. The long ribbed ferrule ensures maximum connector to cable retention.

The FB is a high quality coax bulkhead that allows the connection of video inputs to installed coax cable runs. These high quality bulkheads can also accommodate satellite feed signals. When used in conjunction with the HC-RF-HP-80 or HC-RF-FP-80 panels, they can be used to build a coax patching field for added video distribution.

Part # Description

HC-RG6F RG6 F-type connector, bag of 50

HC-FB F-type coax bulkhead, bag of 50

HC-RG6F

HC-FB



RELATED PRODUCTS COAX CABLE PAGE 3.7, COAXIAL CRIMP TOOL PAGE 4.7

UNIVERSAL MODULAR PLUG

Our patented "universal" modular plug eliminates the need to stock more than one size modular plug. The UP-2468 permits field-termination of modular cords in 2-, 3-, or 4-pair increments and terminates twisted pair cable with 26 - 22 AWG (0.40mm - 0.64mm) solid or 7-strand conductors with insulated conductor diameter of 0.86 - 0.99mm (0.034 - 0.039 in.).

Part # Description

UP-2468 "Universal" modular plug

PATENTED



RELATED PRODUCTS PT908 CRIMP TOOL PAGE 4.6

MODULAR PLUGS

We offer modular plugs in standard configurations to terminate modular cords for patching or equipment connection applications. Modular plugs can be terminated to the exact cable length needed in order to maintain a neater, more organized installation. The plugs terminate twisted-pair cable with 26 - 22 AWG (0.40mm - 0.64mm) solid or 7-strand conductors with an insulated conductor diameter of 0.86 - 0.99mm (0.034 - 0.039 in.).

P-8 8-position modular plug with 8 contacts (compatible with Siemon and Amp crimp tools)



PS-8 8-position shielded modular plug with 8 contacts (compatible with Siemon and Amp crimp tools)



P-6-6 6-position modular plug with 6 contacts*



P-8-8SS 8-position modular plug with 8 contacts (compatible with Siemon and Stewart crimp tools)



Technical Tip!
Factory terminated and tested modular cords are required to achieve consistent category 5 or higher compatibility. Field termination is not recommended.

P-6-4 6-position modular plug with 4 contacts*



RELATED PRODUCTS PT908 CRIMP TOOL PAGE 4.6

*Siemon 6-position plugs provide empty slots in the outer positions to prevent deformation of jack pins 1 & 8 when inserted into an 8-position modular jack.

HOMENET II CABLE

Siemon Homenet II bundled cable is the easiest solution for meeting TIA 570-A Grade 2 requirements. By combining two category 5e and two RG6 Quad Shield coax cables, the Homenet II bundled design meets the Grade 2 standard without the need to pull individual cables.

The performance of Homenet II cable "future proofs" the home. The bundled design also differentiates it from other high and low voltage cables running throughout the home.

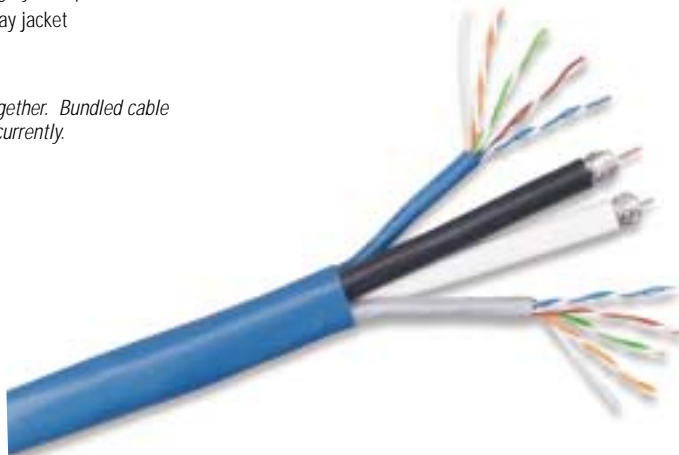
Part#	Description
HC-HMNT-2-06	Bundled cable consisting of 1 RG6 Quad Shield white jacket, 1 RG6 Quad Shield black jacket, 1 category 5e 4-pair UTP blue jacket, and 1 category 5e 4-pair UTP gray jacket

For detailed specifications, see pages 3.6 & 3.7.

Note: Performance of individual cables may change when bundled together. Bundled cable performance cannot be measured due to multiple signals running concurrently.

Note:

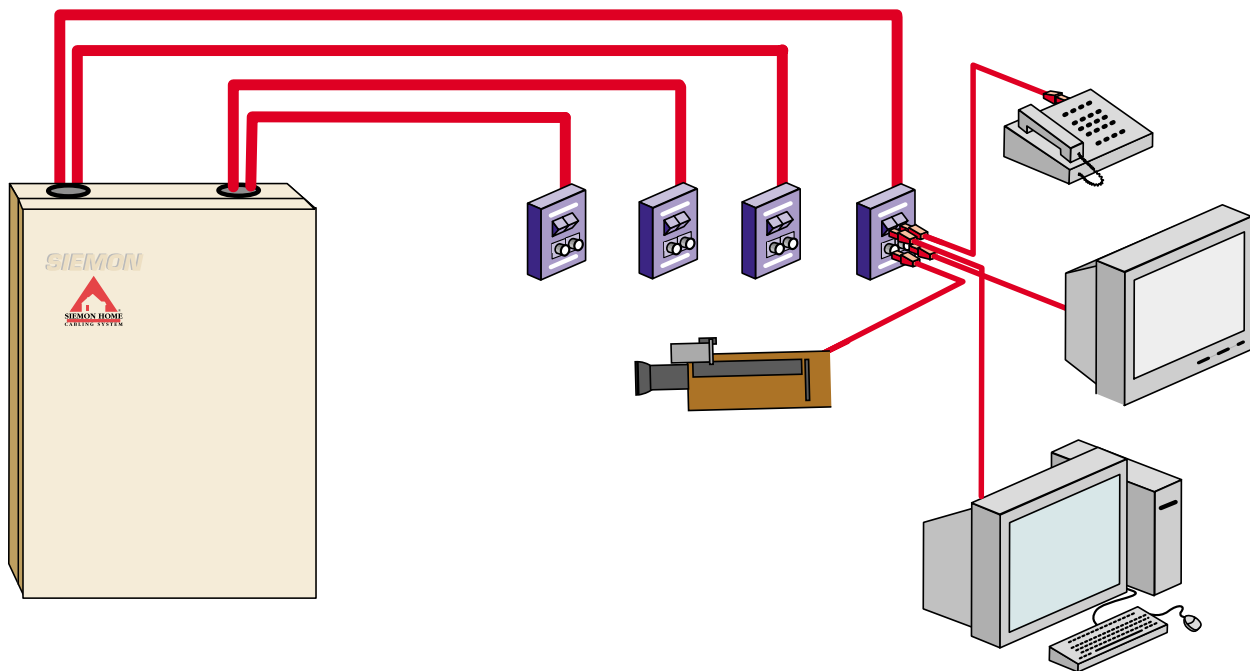
Cable supplied on reels 152m (500 ft.)



Contact your local sales representative for cable availability and delivery lead time.

Cable designs and specifications subject to change without notice.

Application Example: The Siemon Home Cabling SystemSM utilizing Homenet II cable. Pull one cable from the Command CenterTM to each outlet. This will allow distribution of multiple applications to every room.



CATEGORY 5e & 6 4-PAIR SOLID CABLE



5e COMPLIANCE

- ANSI/TIA/EIA-568-B.2 category 5e
- ISO/IEC 11801:2000 Edition 1.2

Part#	Description
9C5R4	Riser (CMR, CSA FT4), gray Jacket
9C5R4-06	Riser (CMR, CSA FT4), blue Jacket

5e & 6 APPLICATIONS

- Voice
- T1
- 10BASE-T, 100BASE-T, 1000BASE-T
- 4/16 Mbps Token Ring
- 51/155 Mbps ATM, 100Mbps TP-PMD
- 100VG-AnyLAN

5e & 6 PRODUCT CONSTRUCTION

- 0.51mm (24 AWG) solid bare copper
- 4-pairs cabled together with a rip cord
- 5.46mm (0.22 in.) max jacket diameter
- 0.97mm (0.04 in.) max conductor insulation diameter
- Sequential meter markings on jacket

5e ELECTRICAL CHARACTERISTICS

DC Resistance (max)	9.4 ohms/100m @ 20° C
Delay Skew (max)	35 ns/100m
Return Loss (min)	
1 ≤ f < 10	20 + 5log(f) dB
10 ≤ f < 20	25 dB
20 ≤ f < 100	25 - 7log(f/20) dB
Input Impedance (no impedance averaging allowed)	100 ohms ± 15%

Contact your local sales representative for cable availability and delivery lead time.

Cable designs and specifications subject to change without notice.

6 ELECTRICAL CHARACTERISTICS

DC Resistance (max)	9.4 ohms/100m @ 20° C
Delay Skew (max)	25 ns/100m
Return Loss (min)	
1 ≤ f < 10	20 + 5log(f) dB
10 ≤ f < 20	25 dB
20 ≤ f < 100	25 - 7log(f/20) dB
Input Impedance (no impedance averaging allowed)	
1 ≤ f ≤ 100	100 ohms ± 15%
1 ≤ f ≤ 200	100 ohms ± 22%
1 ≤ f ≤ 300	100 ohms ± 32%

6 COMPLIANCE

- Proposed ISO/IEC and TIA category 6
- Exceeds ANSI/TIA/EIA/-568-B.2, ISO/IEC 11801:2000 Edition 1.2

Part#	Description
9C6R4	Riser (CMR, CSA FT4), gray Jacket
9C6R4-06	Riser (CMR, CSA FT4), blue Jacket



Note:

Cable supplied on a reel in a tangle-free dispenser carton, 305m (1,000 ft.)

5e TRANSMISSION PERFORMANCE

Frequency (MHz)	Maximum Attenuation (dB/100m)	Minimum NEXT Loss (Power Sum) (dB/100m)	Minimum ELFEXT (Pair-to-Pair) (dB/100m)	Maximum Propagation Delay (ns/100m)
0.772	1.8	64	—	—
1	2.0	62	61	570
4	4.1	53	49	552
8	5.8	49	43	547
10	6.5	47	41	545
16	8.2	44	37	543
20	9.3	43	35	542
25	10.4	41	33	541
31.25	11.7	40	31	540
62.5	17.0	35	25	539
100	22.0	32	21	538

6 TRANSMISSION PERFORMANCE

Frequency (MHz)	Maximum Attenuation (dB/100m)	Minimum NEXT Loss (Pair-to-Pair) (dB)	Minimum NEXT (Power Sum) (dB)	Minimum ELFEXT (Power Sum) (dB)	Maximum Propagation Delay (ns/100m)
1	2.0	74	72	65	570
4	3.7	65	63	53	552
10	5.9	59	57	45	547
16	7.6	56	54	41	545
20	8.5	55	53	39	543
25	9.5	53	51	37	542
31.25	10.7	52	50	35	541
62.5	15.5	47	45	29	540
100	19.9	44	42	25	539
200	29.1	40	38	19	538
250	33.0	38	36	17	537

RG6 QUAD SHIELDED COAX CABLE

COMPLIANCE

- NEC article 725 & 820
- UL Subject 13 & 1581 types CL2/CATV

APPLICATIONS

- CATV broadcast
- LAN controls
- Video displays
- Satellite
- Cable Internet
- Closed Circuit Television (CCTV)
- High Definition Television (HDTV)

PRODUCT CONSTRUCTION

- Broadcast coaxial 75 ohm RG6/U
- 18 AWG solid bare copper
- Cellular polyethylene dielectric (PE)
- Dual, bonded coaxial shielding tape, 100%
- Dual aluminum braid shield @ 60%/40%
- Polyvinyl chloride jacket (PVC)
- Temperature rating: -20C to +60C

Part#	Description
RG6-01	RG6 quad shield,coax cable, black jacket
RG6-02	RG6 quad shield coax cable, white Jacket

Note:
Cable supplied on reels 305m (1,000 ft.)



ELECTRICAL CHARACTERISTICS

AWG Size	18 Solid	Shield Coverage	O/A Dual Tape 100% O/A Dual Braid 1-60% , 1-40%
RG Type	6/U	Nominal Impede.	75 Ohms
Stranding	Solid Bare Copper	Nominal Velocity	84%
Rating	CL2/CATV	Insulation Type	Cellular PE
Jacket Type	PVC	Nominal Core O.D.	4.52mm (0.18 in.)
Jacket Thickness	0.686mm (0.027 in.)	Nominal Cap.	16.2 pF/ft.

TRANSMISSION PERFORMANCE

Frequency MHz/GHz	Nominal Attenuation dB100
100 MHz	2.5 dB
400 MHz	4.0 dB
1.0 GHz	6.5 dB
1.45 GHz	7.0 dB
2.2 GHz	9.0 dB

Contact your local sales representative for cable availability and delivery lead time.
Cable designs and specifications subject to change without notice.

DUPLEX ZIPCORD FIBER OPTIC CABLE

COMPLIANCE

RISER RATED:

- ANSI/TIA/EIA-568-B.3
- ISO/IEC 11801:2000 Edition 1.2
- Communications Type OFNR (UL) and CSA FT4 c(UL)

APPLICATIONS

- Fiber to the desk
- Connect network to network

PRODUCT CONSTRUCTION/FEATURES

- Flexible resilient jacket
- Aramid yarn strength members
- Flexible tight buffer for easy connectorization



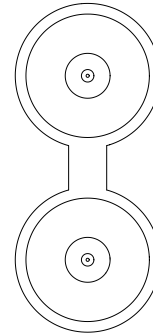
9F(X)C1-2E.305

Part#	Fiber Count	# of Sub-Units (Fibers/Sub Unit)
9F(X)C1-2E.305	2	2 (1)

Use (X) to specify fiber type: 5 = 50/125µm Multimode, 6 = 62.5/125µm Multimode, 8 = Singlemode

Note:

Fiber cable supplied on wooden reels 305m (1,000 ft.)



Duplex cable side view (Not to scale)

OPTICAL CHARACTERISTICS

FIBER TYPE	Wavelength nm	Typical Attenuation (dB/Km)		Maximum Attenuation (dB/Km)		Minimum Modal Bandwidth (MHz-Km)		Guaranteed Transmission Distance* Meters	
		Standard	Premium	Standard	Premium	Standard	Premium	Standard	Premium
50/125	850	2.6	2.6	3.5	3.0	500	500	550	600
	1300	0.6	0.6	1.0	1.0	500	1000	550	600
62.5/125	850	2.9	2.9	3.5	3.5	200	220	275	300
	1300	0.9	0.9	1.0	1.0	500	1000	550	550

*The protocol pertinent to the transmission distance as noted is gigabit ethernet per IEEE 802.3Z.

Contact your local sales representative for cable availability and delivery lead time.

Cable designs and specifications subject to change without notice.

RELATED PRODUCTS FIBER ADAPTER MODULES AND CONNECTORS PAGE 2.15

CATEGORY 3 25-PAIR SOLID CABLE



COMPLIANCE

- ANSI/TIA/EIA-568-B.2 category 3
- Qualified for Propagation Delay and Delay Skew

APPLICATIONS

- Voice

PRODUCT CONSTRUCTION

- 0.51mm (24 AWG) solid bare copper
- 25-pairs cabled together with a rip cord and colored core binder
- 9.14mm (0.36 in.) max jacket diameter
- 0.97mm (0.04 in.) max conductor insulation diameter
- Sequential meter markings on jacket



9C3R25

Part#	Description
9C3R25	25-Pair, Riser (CMR, CSA FT4), gray Jacket

Note:
25-Pair cable supplied on a reel, 305m (1,000 ft.)

ELECTRICAL CHARACTERISTICS

DC Resistance (max) @ 20° C (max)	9.4 ohms/100m
Delay Skew (max)	35 ns/100m
Structural Return Loss (min) 1-10 MHz	12 dB
10-16 MHz	12-10log(f/10) dB
Characteristic Impedance	100 ohms ± 15%

TRANSMISSION PERFORMANCE

Frequency (MHz)	Maximum Attenuation (dB/100m)	Minimum NEXT Loss (Worst Pair) (dB)	Maximum Propagation Delay (ns/100m)
0.772	2.2	43	—
1	2.6	41	570
4	5.6	32	552
8	8.5	27	547
10	9.7	26	545
16	13.1	23	543

Contact your local sales representative for cable availability and delivery lead time.
Cable designs and specifications subject to change without notice.