



**Technical Specifications**

**Product Line: CEBUS-F**

**Description**

Composite cable consisting of (2) Quad shield CATV/DBS RG6 coaxial cables, (2) UTP Category 6 cables and 2 OM3 50/125 fibers under one jacket

NEC type CMG and CEC type CMG FT4. Product manufactured compliant to the requirements of UL444 for installations and applications in accordance with NEC articles 725 and 800.

**Component 1:**

U/UTP category 6 cable  
23 AWG solid annealed bare copper conductor  
High density polyethylene  
Wall thickness: 0.0087" | 0.22mm  
Diameter: 0.040" | 1.02mm  
Polyvinyl chloride jacket  
Thickness: 0.020" | 0.50mm  
Diameter: 0.228" | 5.8mm

**Electrical**

Cat 6 DC resistance: 22.31  $\Omega$  / 1000' | 73.20  $\Omega$ /KM  
Mutual capacitance: 14.0 pF/FT | 45.92 pF/M  
Impedance: 100  $\pm$  15  $\Omega$   
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Impedance: 100  $\pm$  15  $\Omega$   
Propagation Delay (Skew): 45ns/100m MAX  
Voltage rating: 300V  
RG6 quad DCR: 6.5  $\Omega$  / 1000' | 21.32  $\Omega$ /KM  
Impedance: 75  $\Omega$   
Velocity of Propagation: 82%  
SRL 5-2200 MHz: -20dB  
SRL 2.2-3 GHz:- 17dB

**Component 2:**

RG6 quad shield coaxial cable  
18 AWG solid annealed bare copper conductor  
Foam polyethylene dielectric  
Diameter: 0.180" | 4.57mm  
100% APA tape and 60% 34 AWG aluminum braid  
100% APA tape and 40% 34 AWG aluminum braid  
Polyvinyl chloride jacket  
Thickness: 0.025" | 0.64mm  
Diameter: 0.287" | 7.30mm

**Regulatory**

ANSI/TIA-568C Category 6  
NEC: CMG 75 °C  
CEC: CMG FT4 60 °C  
EU RoHS 2002/95/EC Compliant

**Component 3:**

Fiber Optic 2-Fiber cable  
OM3 50/125 multimode fiber  
2 fiber distribution construction  
Buffer diameter: 0.900 $\mu$ M  
Aramid yarn strength members  
Polyvinyl chloride jacket  
Thickness: 0.016" | 0.40mm  
Diameter: 0.138" | 3.50mm

**Packages**

Reel: 500' | 152M  
Weight: 184 Lbs/1000' | 274 Kg/KM





**Color Code**

Category 6 jackets: Blue, Gray  
 Pair 1: Orange, White/orange stripe  
 Pair 2: Blue, White/blue stripe  
 Pair 3: Green, White/green stripe  
 Pair 4: Brown, White/brown stripe  
 RG6 Quad jackets: White, Black  
 Fiber jacket: Aqua  
 Fiber buffer: Blue, White

**Assembly**

2 coaxial cables, 2 category 6 cables, and a 2-fiber cable cabled on a common axis and overall jacketed

**Construct**

Ripcord under jacket

**Jacket**

Flame retardant polyvinyl chloride  
 Colors: Green  
 Wall thickness: 0.032" | .81mm  
 Diameter: 0.701" | 17.8mm

Specification Revision Date:

**Installation**

Pull Tension: 250 Lbs | 1112 N  
 Bend radius: 7.01" | 178mm unloaded  
 Bend radius: 14.02" | 356mm loaded

**Applications**

Smart home systems structured wiring support cable  
 General purpose CATV/DBS, cable modem  
 General purpose fiber LAN, multimedia  
 General purpose LAN, voice, and infrared  
 General purpose BALUN support and media transmission

**Performance**

LAN: 300 feet  
 Fiber 10GBaseT to 300m  
 Passive Baluns up to 2500 feet  
 CATV to 236 feet

**Final Outside Diameter (inches)**

0.701

January 25, 2008

Category 6 Performance Chart

FREQ (MHz)	Insertion Loss (dB/100m)	NEXT (dB)	PSNEXT (dB)	ACR (dB/100m)	PSACR (dB/100m)	ELFEXT (dB/100m)	PSELFEXT (dB/100m)	RL (dB)
	Max.	Min.	Min.	Min.	Min.	Min.	Min.	Min.
0.772	1.8	76.0	74.0	74.2	72.2	70.0	67.0	19.4
1.0	2.0	74.3	72.3	72.3	70.3	67.8	64.8	20.0
4.0	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0
8.0	5.3	60.8	58.8	55.5	53.5	49.7	46.7	24.5
10.0	6.0	59.3	57.3	53.3	51.3	47.8	44.8	25.0
16.0	7.6	56.2	54.2	48.6	46.6	43.7	40.7	25.0
20.0	8.5	54.8	52.8	46.3	44.3	41.8	38.8	25.0
25.0	9.5	53.3	51.3	43.8	41.8	39.8	36.8	24.3
31.25	10.7	51.9	49.9	41.2	39.2	37.9	34.9	23.6
62.5	15.4	47.4	45.4	32.0	30.0	31.9	28.9	21.5
100.0	19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.1
200.0	29.0	39.8	37.8	10.8	8.8	21.8	18.8	18.0
250.0	32.8	38.3	36.3	5.5	3.5	19.8	16.8	17.3
450.0	46.0	34.5	32.5	-11.5	-13.5	14.7	11.7	15.5
550.0	51.8	33.2	31.2	-18.6	-20.6	13.0	10.0	14.9





RG6 Sweep to 3.0 GHz

Frequency	Attenuation	
	dB/100FT	dB/100m
1	0.28	0.92
50	1.46	4.79
100	2.04	6.69
200	2.83	9.28
400	4.05	13.28
900	6.23	20.43
1000	6.59	21.62
1450	7.93	26.01
1800	8.83	28.96
2200	9.76	32.01
3000	13.26	43.49

Fiber Optic Performance

Numerical Aperature:	0.200	
Wavelength:	850nm	1310nm
Gigabit Ethernet Distance:	1000m	600m
10 Gigabit Ethernet Distance:	300m	300m
Maximum Attenuation:	3.0 dB/Km	1.0 dB/Km
Min Laser bandwidth:	2000 MHz/KM	500 MHz/Km
Min LED bandwidth:	1500 MHz/Km	500 MHz/Km

