

**Technical Specifications****Product Line: CEBUS-HD****Description**

Composite cable consisting of (1) Quad shield CATV/DBS RG6 coaxial cable, (2) UTP Category 6 cables, and (1) F/UTP Category 6A Shielded Cable 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  
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: 17.0 pF/FT | 55.76 pF/M  
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  
ANSI/TIA-568C Category 6A  
NEC: CMG 75°C  
CEC: CMG FT4 60°C  
EU RoHS-2 2011/65/EU Compliant

**Component 3:**

F/UTP category 6A cable  
23 AWG solid annealed bare copper conductor  
Polyolefin insulation  
Diameter: 0.042" | 1.06mm  
100% Overall Aluminum/Poly Shield, foil in  
Polyvinyl chloride jacket  
Thickness: 0.022" | 0.56mm  
Diameter: 0.296" | 7.52mm

**Packages**

Reel: 500' | 152M  
Weight: 96 Lbs/1000' | 143 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  
Category 6A jackets: Violet  
Pair 1: Orange, White  
Pair 2: Blue, White  
Pair 3: Green, White  
Pair 4: Brown, White

**Installation**

Pull Tension: 250 Lbs | 1112 N  
Bend radius: 6.81" | 173mm unloaded  
Bend radius: 13.62" | 346mm loaded

### Assembly

1 coaxial cables and 3 category 6 cables cabled on a common axis and overall jacketed

### Construct

Ripcord under jacket

### Jacket

Flame rated polyvinyl chloride

Colors: Blue

Wall thickness: 0.030" | .81mm

Diameter: 0.681" | 17.3mm

### Applications

Smart home systems structured wiring support cable  
 General purpose CATV/DBS, cable modem  
 General purpose LAN, voice, and infrared  
 General purpose BALUN support and media transmission  
 Digital Multimedia HDBT and TMDS extension cabling

### Performance

LAN: 300 feet  
 Passive Baluns up to 2500 feet  
 CATV to 236 feet

### Final Outside Diameter (inches)

0.681

Specification Revision Date:

July 6, 2017

### Category 6 Performance Chart

FREQ (MHz)	Insertion Loss (dB/100m) Max.	NEXT (dB) Min.	PSNEXT (dB) Min.	ACR (dB/100m) Min.	PSACR (dB/100m) Min.	ELFEXT (dB/100m) Min.	PSELFEXT (dB/100m) Min.	RL (dB) Min.
0.772	1.8	76	74	74.2	72.2	70	67	19.4
1	2.0	74.3	72.3	72.3	70.3	67.8	64.8	20.0
4	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0
8	5.3	60.8	58.8	55.5	53.5	49.7	46.7	24.5
10	6.0	59.3	57.3	53.3	51.3	47.8	44.8	25.0
16	7.6	56.2	54.2	48.6	46.6	43.7	40.7	25.0
20	8.5	54.8	52.8	46.3	44.3	41.8	38.8	25.0
25	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	19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.1
200	29.0	39.8	37.8	10.8	8.8	21.8	18.8	18.0
250	32.8	38.3	36.3	5.5	3.5	19.8	16.8	17.3
450	46.0	34.5	32.5	-11.5	-13.5	14.7	11.7	15.5
550	51.8	33.2	31.2	-18.6	-20.6	13.0	10.0	14.9



Category 6A Performance Chart

FREQ (MHz)	Attenuation (dB/100m)	NEXT (dB)	PSNEXT (dB)	ACR (dB/100m)	PSACR (dB/100m)	ACRF (dB/100m)	PSACRF (dB/100m)	RL (dB)
	Max.	Min.	Min.	Min.	Min.	Min.	Min.	Min.
1.0	2.1	74.3	72.3	72.2	70.2	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	5.9	59.3	57.3	53.4	51.4	47.8	44.8	25.0
16.0	7.5	56.2	54.2	48.7	46.7	43.7	40.7	25.0
20.0	8.4	54.8	52.8	46.4	44.4	41.8	38.8	25.0
25.0	9.4	53.3	51.3	43.9	41.9	39.8	36.8	24.3
31.25	10.5	51.9	49.9	41.4	39.4	37.9	34.9	23.6
62.5	15.0	47.4	45.4	32.4	30.4	31.9	28.8	21.5
100.0	19.1	44.3	42.3	25.2	23.2	27.8	24.8	20.1
200.0	27.6	39.8	37.8	12.2	10.2	21.8	18.8	18.0
300.0	34.3	37.1	35.1	2.8	0.8	18.3	15.3	16.8
400.0	40.1	35.3	33.3	-4.8	-6.8	15.8	12.8	15.9
500.0	45.3	33.8	31.8	-11.5	-13.5	13.8	10.8	15.2

QUADFLEX (RG6-QUAD) Sweep Test

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

