



Technical Specifications

Product Line: AUDIOCAT-SIAMESE

Description

Composite cable consisting of a 16 AWG 4 conductor stranded, twisted, and unshielded jacketed speaker cable and a U/UTP 24 AWG category 5e jacketed cable in parallel and joined by a web.

NEC type CM 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 5e
24 AWG Solid annealed bare copper conductors
High density polyethylene insulation
Conductor diameter: 0.034" | 0.87mm
Polyvinyl chloride jacket
Wall thickness: 0.027" | 0.68mm
Diameter: 0.211" | 5.36mm

Electrical

Cat 5e DC resistance: $\leq 28.6 \Omega / 1000'$ | $93.8 \Omega/KM$
DCR Unbalance: $\leq 5.0\%$
Capacitance: 14.0 pF/FT | 45.9 pF/M
Impedance: $100 \pm 15 \Omega$
Propagation Delay (Skew): 45ns/100m MAX
Velocity of Propagation: 71%
Voltage rating: 300V
Pair to ground capacitance Unbalance: $\leq 330 \text{ pF}/100M$
16 AWG DCR: $4.02 \Omega / 1000'$ | $13.18 \Omega/KM$
Maximum current: 4.38A@25°C

Component 2:

16 AWG 4 conductor speaker
16 AWG 65-strand oxygen free copper conductors
Diameter: 0.0587" | 1.49mm
Polyvinyl chloride insulation
Wall thickness: 0.016" | 0.41mm
Diameter: 0.091" | 2.30mm
Polyvinyl chloride jacket
Wall thickness: 0.031" | 0.80mm
Diameter: 0.283" | 7.20mm

Regulatory

NEC: CMG 75°C
CEC: CMG FT4 60°C
EU RoHS 2002/95/EC Compliant

Color Code

Cat 5e: Pair 1: Orange, White/orange stripe
Pair 2: Blue, White/blue stripe
Pair 3: Green, White/green stripe
Pair 4: Brown, White/brown stripe
Speaker wire: Red, Black, White, Green

Packages

Reel: 500' | 152M
Weight: 60 Lbs/1000' | 90 Kg/KM

Assembly

Jacketed Cat 5e and jacketed 4 16 AWG speaker cables in parallel and joined by a web

Installation

Pull Tension: 109 Lbs | 485 N
Bend radius: 2.83" | 72mm unloaded
Bend radius: 5.66" | 144mm loaded

Construct

Ripcord under jacket

Applications

Smart home systems volume and room speaker control
General purpose speaker level audio
General purpose LAN, infrared and sensor

Shield

N/A

Performance

LAN: 300 feet maximum
Speaker level audio to 50 feet





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Jacket

See individual component descriptions

Cable Diameter: 0.283x0.504" | 7.2x12.8mm

Final Outside Diameter (inches)

0.283x0.504

Specification Revision Date:

November 24, 2008

Category 5e 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	67.0	64.0	65.2	62.2	66.0	63.0	19.4
1.0	2.0	65.3	62.3	63.3	60.3	63.8	60.8	20.0
4.0	4.1	56.3	53.3	52.2	49.2	51.7	48.7	23.0
8.0	5.8	51.8	48.8	46.0	43.0	45.7	42.7	24.5
10.0	6.5	50.3	47.3	43.8	40.8	43.8	40.8	25.0
16.0	8.2	47.3	44.4	39.1	36.2	39.7	36.7	25.0
20.0	9.3	45.8	42.8	36.5	33.5	37.7	34.7	25.0
25.0	10.4	44.3	41.3	33.9	30.9	35.8	32.8	24.3
31.25	11.7	42.9	39.9	31.2	28.2	33.9	30.9	23.6
62.5	17.0	36.4	35.4	19.4	18.4	27.8	24.6	21.5
100.0	22.0	35.3	32.3	13.3	10.3	23.8	20.8	20.1
200.0	32.4	30.8	27.8	-1.6	-4.6	17.8	14.8	18.0
300.0	41.0	28.2	25.2	-12.8	-15.8	14.3	11.3	16.8
350.0	44.9	27.2	24.2	-17.7	-20.7	12.9	9.9	16.3

