



Technical Specifications

Product Line: 24-4P-L8SH

Description

4 pair 22 AWG solid, twisted, and shielded cable NEC type CMR and CEC type CMR FT4. Third party verified to IEC 61156-9 Category 8.2 performance. Product manufactured compliant to the requirements of UL444 for installations and applications in accordance with NEC article(s) 725, 800, and 760.

Conductor

22 AWG
Solid annealed bare copper conductors
Diameter: 0.025" | 0.64mm

Electrical

DC resistance: $\leq 21.34 \Omega / 1000'$ | $70 \Omega/\text{KM}$
DCR Unbalance: $\leq 2.0 \%$
Capacitance: 17.0 pF/FT | 56.0 pF/M
Impedance: $100 \pm 15 \Omega$
Propagation Delay (Skew): 25ns/100m MAX
Velocity of Propagation: 74%
Voltage rating: 300V
Pair to ground capacitance Unbalance: $\leq 120 \text{ pF/100M}$
Maximum current: 1.4A@25°C

Insulation

Foam polyolefin
Wall thickness: 0.0185" | 0.47mm
Diameter: 0.062" | 1.58mm

Regulatory

IEC 61156-9 Category 8.2
ANSI/TIA-568-C.2 Category 8
NEC: CMR 75°C
CEC: CMR FT4 60°C
EU RoHS III 2015/863/EU Compliant
REACH (EC) No 1907/2006 Compliant

Color Code

Pair 1: Orange, White
Pair 2: Blue, White
Pair 3: Green, White
Pair 4: Brown, White

Packages

Reel: 1000' | 305M
Weight: 55 Lbs/1000' | 82 Kg/KM

Assembly

Pairs twisted in varying lay lengths
4 twisted shielded pairs cabled on a common axis
overall braided shield over construction

Installation

Pull Tension: 25 Lbs | 111 N
Bend radius: 3.39" | 86mm unloaded
Bend radius: 6.78" | 172mm loaded

Construct

N/A

Applications

LAN system 802.3bq-2016 25/40GBase-T
All LAN legacy systems
Phone, Voice, Video over IP and security video
BALUN support and media infrastructure, Infrared, audio
HDBaseT 4K Video 30/60Hz+

Shield

Each pair aluminum/polyester tape foil out
40% 16/7/38 AWG tinned copper braid overall shield

Performance

LAN: 100 feet 25/40G
LAN: 300 feet all legacy systems
Passive Baluns up to 2500 feet

Jacket

Flame rated polyvinyl chloride
Colors: Blue
Wall thickness: 0.020" | 0.51mm
Diameter: 0.339" | 8.60mm

Final Outside Diameter (inches)

0.339

Specification Revision Date:

December 31, 2018





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Category 8 Test data:

FREQ (MHz)	Insertion Loss (dB/30m)	NEXT (dB/30m)	PSNEXT (dB/30m)	ACRF (dB/30m)	PSACRF (dB/100m)	RL (dB/30m)	Propagation Delay (ns/30m)	Delay Skew (ns/30m)	PS ANEXT (dB/30m)	PS AACRF (dB/30m)
	Max.	Min.	Min.	Min.	Min.	Min.	Max.	Max.	Min.	Min.
4.0	1.12	78.0	75.0	78.0	75.0	23.0	165.6	7.5	80.0	80.0
8.0	1.57	78.0	75.0	78.0	75.0	24.5	164.0		80.0	80.0
10.0	1.75	78.0	75.0	78.0	75.0	25.0	163.6		80.0	80.0
16.0	2.20	78.0	75.0	76.5	73.5	25.0	162.9		80.0	78.1
20.0	2.46	78.0	75.0	74.6	71.6	25.0	162.6		80.0	76.2
25.0	2.75	78.0	75.0	72.6	69.6	25.0	162.4		80.0	74.2
31.25	3.08	78.0	75.0	70.7	67.7	25.0	162.1		80.0	72.3
62.5	4.37	78.0	75.0	64.7	61.7	23.6	161.6		80.0	66.3
100.0	5.56	75.4	72.4	60.6	57.6	22.2	161.3		80.0	62.2
200.0	7.94	70.9	67.9	54.6	51.6	20.1	161.0		80.0	56.2
250.0	8.92	69.4	66.4	52.6	49.6	19.0	160.9		80.0	54.2
300.0	9.81	68.2	65.2	51.1	48.1	18.9	160.8		80.0	52.7
400.0	11.40	66.4	63.4	48.6	45.6	18.0	160.7		78.5	50.2
500.0	12.83	64.9	61.9	46.6	43.6	17.3	160.7		77.0	48.2
600.0	14.13	63.7	60.7	45.0	42.0	16.8	160.6		75.8	46.6
1000.0	18.56	60.4	57.4	40.6	37.6	15.2	160.5		72.5	42.2
1500.0	23.17	57.8	54.8	37.1	34.1	14.0	160.5		69.9	38.7
2000.0	27.15	55.9	52.9	34.6	31.6	13.1	160.4		68.0	36.2

