

Features & Benefits

- Performance exceeding Category 6 specifications of 250MHz
- Performance compliance to ISO/IEC 11801 and ANSI/TIA-568-C2
- Third Party Delta EC verified
- AWG 23, Solid Bare Annealed Copper
- Low Smoke Zero Halogen
- Fire rated to IEC 60332-1
- 25 Years System Warranty

Product Description

DME PROLINK's Category 6 U/UTP cables are manufactured and tested to the TIA/EIA 568-C2, EN50173-1 and ISO/ IEC 11801 Category 6 specifications. DME PROLINK's Category 6 U/UTP cable is designed for optimal support of High-Speed data protocols delivering 1 Gbps performance to the workstation. Each cable consists of 8 colour coded 23AWG polyethylene insulated conductors. Each conductors are twisted together to form 4 pairs with varying lengths. These pairs are then put around a central 'X' shaped polyethylene filler/Separator which helps in maintaining and enhancing the cable performance. DME PROLINK's CAT6 cable is designed for quick and easy installation where no special tools are required. CAT6 cable is supplied in "Reelex" packaging for fast, snag free installation.

Standards Complied and Verified for Category 6 Cable Performance

- ISO/IEC 11801:2011 (Ed.2.2)
- ANSI/TIA-568-C2:2009
- IEC 61156-5:2012 (Ed.2.1)
- EN 50173-1:2011; EN 50173-2:2007 including amendment A1:2010
- EN 50288-6-1:2013

Standards Complied and Verified for Category 6 Cable – Flammability, Halogen acidity & Smoke Performance

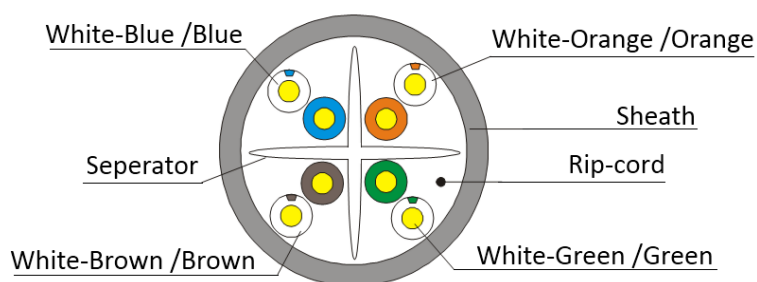
- IEC 60332-1 – [1,2]:2004
- IEC 60754-[1,2]
- IEC 61034-[1,2]

Supporting Applications

- 10G BASE-T (Length <50m)
- 1000BASE-T (Gigabit Ethernet)
- 100BASE-T (IEEE 802.3)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 10BASE-T (IEEE 802.3)
- 1.2 Gbps ATM
- 55/155 Mbps ATM
- 4/16 Mbps TOKEN RING (IEEE 802.5)

Specification

Overall Diameter (mm)	6.0 ± 0.4
Sheath Thickness (mm)	0.55 ± 0.05
Sheath Surface	Clean, Frap, Satiation
Insulation Material	HDPE
Insulation Overall diameter (mm)	0.98 ± 0.03
Conductor Diameter (mm)	0.55 (± 0.005)
Conductor Material	Solid Bare Copper
Impedance (Ω) @ 1-250 MHz	100 ± 15 Ω
Delay Skew (ns/100m) @ 1-250 MHz	≤ 45
Max. DC Resistance (Ω/100m)	9.5
Max. DC Conductor Resistance Unbalance (%)	5.0
Nominal Velocity of Propagation (NVP)	68%
Rip cord	Yes
Drain Wire	No
Max. Pulling Force (N)	100
Min. Bend Radius during Installation	8xD (Overall diameter)
Min. Bend Radius after Installed	4xD (Overall diameter)
Installation Temperature Range	-20°C to +50°C
Operating Temperature Range	-30°C to +50°C
Packing Length (Meters)	305 ± 1.5
305m Reel Weight	12.5 Kg
Box Dimensions	210mm wide x 420mm high x 420mm deep



Technical Performance

Freq. (MHz)	RL (Min. dB)	ATTN (Max. dB/100m)	NEXT (Min. dB)	PSNEXT (Min. dB)	ELFEXT (ACR-F) (Min. dB/100m)	PSELFEXT (PSACR-F) (Min. dB/100m)	Phase Delay (Max. ns)
1	20.0	2.03	74.3	72.3	67.8	64.8	570.00
4.0	23.0	3.78	65.3	63.3	55.8	52.8	552.00
8.0	24.5	5.32	60.8	58.8	49.7	46.7	546.73
10.0	25.0	5.95	59.3	57.3	47.8	44.8	545.38
16.0	25.0	7.55	56.2	54.2	43.7	40.7	543.00
20.0	25.0	8.47	54.8	52.8	41.8	38.8	542.05
25.0	24.3	9.51	53.3	51.3	39.8	36.8	541.20
31.25	23.6	10.67	51.9	49.9	37.9	34.9	540.44
62.5	21.5	15.38	47.7	45.4	31.9	28.9	538.55
100	20.1	19.80	44.3	42.3	27.8	24.8	537.60
200	18.0	28.98	39.8	37.8	21.8	18.8	536.54
250	17.3	32.85	38.3	36.3	19.8	16.8	536.27

Part Number
D0174-UU3LSGY
**Horizontal Cable, Cat-6, U/UTP, 305m,
 LSZH Sheath, AWG 23, Grey**

Requirements & Test Results

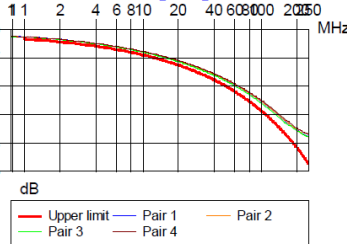
Capacitance

	C [nF/100m]
Upper limit	5.60
Lower limit	4.00
1-2	4.98
2-3	4.55
3-4	4.89
4-1	4.81

E

	E[pF/100m]
Upper limit	330
Lower limit	-330
1-2	0
2-3	170
3-4	225
4-1	3

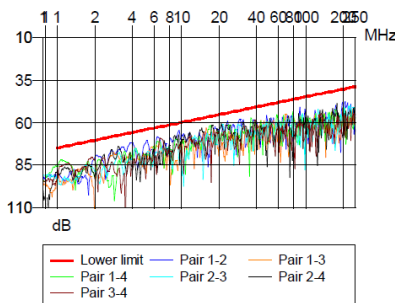
Attenuation[dB]



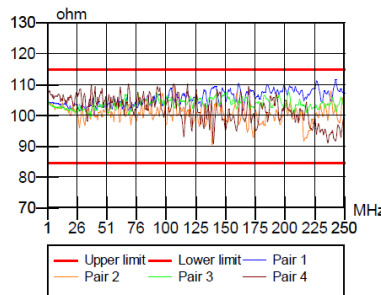
Attenuation Worst case [dB]

Pair	Worst case	Value	Freq.
1	0.39	1.63	1.00
2	0.36	1.66	1.00
3	0.29	2.24	1.68
4	0.35	1.68	1.00

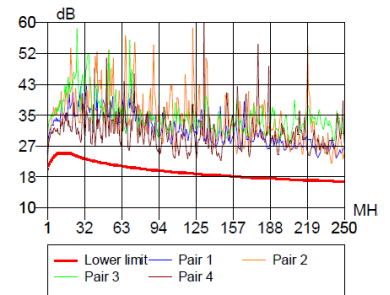
NEAR END XT [dB]



Impedance



RL[dB]



NEXT worst case [dB]

Pair	Worst case	Value	Freq.
1-2	5.09	64.79	9.40
1-3	6.79	63.10	15.82
1-4	5.88	61.72	17.01
2-3	6.33	60.76	21.12
2-4	5.86	60.38	20.82
3-4	7.31	69.18	6.75

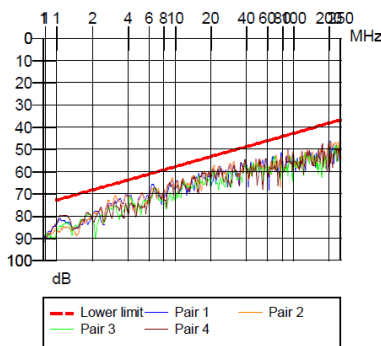
Impedance Statistics

Pair	Minimum	Freq. of min	Maximum	Freq. of max
1	100.01	40.65	111.57	242.52
2	90.36	139.09	109.02	107.94
3	99.32	37.53	107.47	203.27
4	90.73	140.34	111.26	0.77

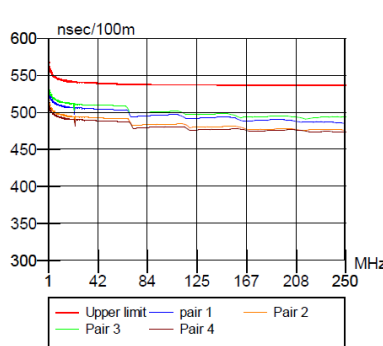
RL Worst case [dB]

Pair	Worst case	Value	Freq.
1	5.97	23.37	243.15
2	4.62	22.08	238.78
3	7.87	30.76	40.03
4	3.58	23.45	107.94

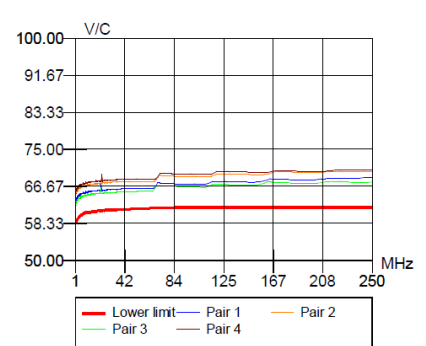
NEXT POWERSUM [dB]



Phase Delay [nsec]



Propagation Speed



NEXT POWER SUM Statistics

Pair	Worst case	Value	Freq.
1	5.46	65.70	6.37
2	4.76	57.09	21.43
3	7.04	59.47	21.12
4	6.24	54.62	39.32

Phase delay Statistics

Pair	Worst case	Value	Freq.
1	34.83	503.76	61.54
2	47.03	491.52	62.44
3	29.74	508.84	61.54
4	50.80	487.92	58.09

Propagation speed Statistics

Pair	Worst case	Value	Freq.
1	4.24	66.24	66.16
2	5.79	64.29	1.00
3	3.58	65.57	65.21
4	6.32	64.82	1.00

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