



CAT6



Velocity Category 6 UTP (250 MHz) with PVC / PE External Grade

DESCRIPTION

This cable is used for external applications, exposed or in ducts. The cable includes a black PE outer jacket for UV protection.

APPLICATIONS

Supports Full and Half-Duplex transmission
Digital Video
Analogic Video “Broadband” or “Baseband”
16 Mbps Token Ring
100 Mbps TP-PMDD
100 BASE – T
1000 BASE – T (Gigabit Ethernet)
155/622 Mbps ATM
1.2 Gbps ATM

STANDARDS

IEC60332-1 and EN 60332-1 (flame retardant)
ANSI/TIA/EIA 568-B.2-1 (Category 6)
ISO/IEC 11801
EN50173

COMPOSITION

Conductor	24 AWG (0.51mm) bare annealed solid Copper
Insulation	Polyolefin
Pairs	Twinned pairs with variable lay-lengths
Colours	See Table below
Ripcord	Polyester, under the sheath
Inner sheath	PVC
Oversheath	PE

COLOUR TABLE

Pair Nr.	Colour combination
1	White/Blue and Blue
2	White/Orange and Orange
3	White/Green and Green
4	White/Brown and Brown

ELECTRICAL AND DIMENSIONAL PROPERTIES

DC electrical resistance at 20°C, max. (/100m(328 ft)):	8.90
DC resistance unbalance, max. (Individual pair, %):	3.0
Mutual capacitance (nominal) (nF/100m (328 ft) @ 1kHz):	5,60



Delay skew (nom) (ns/100m): 45

Installation temperature (°C): 0 a 50

Service temperature (°C): -20 a 60

Operating voltage (V): 125

Nominal propagation speed (NPS) (% Light Speed): 70

Characteristic impedance ()

Frequency
 1.0 - 100 MHz 100±15
 100 - 250 MHz 100±22

Return loss (RL)

Frequency
 1.0 - 10 MHz 20+5log(f)
 10 - 20 MHz 25
 20 - 100 MHz 25-7log(f/20)

External diameter max. (mm): 7,65

Weight (kg/km): 56

Min. bending radius after installation: 4 x External Diameter

Frequency MHz	Max. Attenuation dB/100m	NEXT dB (min.)	PS-NEXT dB (min.)	ELFEXT dB (min.)	PS-ELFEXT dB (min.)	ACR (dB/100) min	PS-ACR dB/100m (min.)	Return loss dB (min.)
0,772	1,6	96,4	93,6	90	90,3	94,8	92	---
1	1,8	94,7	91,9	87,9	88	92,9	90,1	37,4
4	3,5	85,5	82,5	76,9	76,1	82	79	35,6
8	5	80,9	77,8	71,4	70,1	75,9	72,8	34,7
10	5,5	79,4	76,3	69,6	68,2	73,9	70,8	34,4
16	7	76,3	73,2	65,9	64,1	69,3	66,2	33,8
25	8,8	73,3	70,1	62,3	60,3	64,5	61,3	33,6
31,25	9,9	71,8	68,6	60,5	58,3	61,9	58,7	33,3
62,5	14,1	67,2	64	55	52,4	53,1	49,9	33
100	18	64,1	60,8	51,3	48,3	46,1	42,8	32,1
155	22,7	61,2	57,8	49,2	46	38,5	35,1	31,5
200	26	59,5	56,1	45,8	42,3	33,5	30,1	30,6
250	29,2	58	54,6	44	40,4	28,8	25,4	30,4
