

DIGITUS® CAT 6, Class E, F-UTP Twisted Pair Installation Cable



Abstract

DIGITUS® CAT 6, Class E, F-UTP Twisted Pair Installation Cable, LSZH-1, simplex

Application areas:

Primary (Campus), Secondary (Riser), Tertiary (Horizontally)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T
IEEE 802.5: 16 MB; ISDN; FDDI; ATM

Norms:

ANSI/TIA 568-C
ISO/IEC 11801 2nd ed.
EN 50173, EN 50288-5-1

FRNC (Flame retardancy):

IEC 60332-1; IEC 60754; IEC 61034

Physical Description:

Basic conductor	Solid AWG 23/1; bare annealed copper, diameter 0.55 mm nominal
Insulation	HD-PE (High Density Polyethylene)
Total number of insulated conductors	8, twisted in 4 pairs
Color code	Blue-white, orange-white, green-white, brown-white
Individual pair shielding	None
Overall shielding	Aluminum foil, providing 100 % coverage , drain wire
Outer jacket	halogen free (FRNC/LSZH-1)
Outer jacketed diameter	0.6 mm nominal
Color	Purple

Mechanical Properties:

Tensile loading	150 N max.
Dynamic bending radius	8x AD mm min.
Static bending radius	4x AD mm min.
Shipping- and storage temperature range	-20 °C up to +60 °C
Operating temperature range	-20 °C up to +75 °C
Installation temperature range	0 °C up to +50 °C
Overall diameter	7.0 mm nominal
Flame retardancy	IEC 60332-1
Halogen free & smoke-proof	IEC 60754-2 & IEC 61034
Fire load	550 Mj/km

Electrical Properties:

DC loop resistance	< 148.6 Ω /km
Resistance unbalance	< 2%
Insulation resistance	2000M Ω *km
Capacitance	nominal 48 nF/km @ 800 Hz
Capacitance unbalance to ground	1500 pF/km
Characteristic impedance (1-100 MHz)	(100 \pm 15) Ω
Nominal velocity of propagation	0.67%
Propagation delay	nominal < 535 ns/100 m
Delay skew	nominal \leq 45 ns/100 m
Test voltage (DC, 1 min) core to core	1000 V
Voltage resistance	72 Vdc max.
Coupling attenuation	> 40 dB

Transmission Properties:

FREQ. MHz	RL > dB	ATT < dB	NEXT > dB	DELAY < ns	PSNEXT > dB	ELFEXT > dB	PSELFEXT > dB
1	20.0	2.1	74.3	570.0	72.3	68.0	65.0
4	23.0	3.8	35.3	552.0	63.3	56.0	53.0
8	24.5	5.3	60.8	546.7	58.8	49.9	46.9
10	25.0	5.9	59.3	545.4	57.3	48.0	45.0
16	25.0	7.5	56.2	543.0	54.2	43.9	40.9
20	25.0	8.4	54.8	542.1	52.8	42.0	39.0
25	24.3	9.4	53.3	541.2	51.3	40.0	37.0
31.25	23.6	10.5	51.9	540.4	49.9	38.1	35.1
62.5	21.5	15.0	57.4	538.6	45.4	32.1	29.1
100	20.1	19.1	44.3	537.6	42.3	28.0	25.0
200	18.0	27.6	39.3	536.5	37.8	22.0	19.0
250	17.3	31.1	38.3	536.3	36.3	20.0	17.0

Product Number Information

DK-1623-VH-1	DIGITUS [®] CAT 6 F-UTP installation cable, length 100 m, paper box, AWG 23/1, LSZH-1, simplex, color purple
DK-1623-VH-305	DIGITUS [®] CAT 6 F-UTP installation cable, length 305 m, paper box, AWG 23/1, LSZH-1, simplex, color purple
DK-1623-VH-5	DIGITUS [®] CAT 6 F-UTP installation cable, length 500 m, drum, AWG 23/1, LSZH-1, simplex, color purple