



DIGITUS NETWORK INSTALLATION CABLE CAT 6 - F/UTP - 250MHz

Imprint on cable jacket: DIGITUS CAT6 F-UTP SOLID CABLE AWG 23/1 LSOH ISO/IEC 11801 EN 50288 TIA / EIA 568-B.2-1 WWW.DIGITUS.INFO XXM



Application

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

Test Standards

TIA/EIA 568-B.2
 ISO/IEC 11801 2nd ed.; IEC 61156-5
 EN 50173; EN 50288-3-1

Flame Resistance

PVC: IEC 60332-1 **DIGITUS P/N:** DK-1621-V-1 ; DK-1621-V-305
LSHF(LSOH): IEC 60332-1; IEC 60754-2; IEC 61034 **DIGITUS P/N:** DK-1621-VH-1 (Orange); DK-1621-VH-305

Construction

Conductor	Bare copper wire $\varnothing 0.555 \pm 0.015\text{mm}$ (AWG23)
Insulation	HD Polyethylene, $\varnothing 0.98 \pm 0.03\text{mm}$
Rip-cord/Drain wire	Yes, drain wire $\varnothing 0.45\text{mm}$ Tinned-copper
Shielded	AL Foil
Sheath	PVC alt. LSHF(LSOH) Thickness $\varnothing 0.55 \pm 0.05\text{mm}$, External O.D $\varnothing 6.0 \pm 0.2\text{mm}$

Physical Properties

Before Aging	Tensile Strength	13.5Mpa
	Elongation	150%
	Aging Period	100°C x 24h x7d
After Aging	Tensile Strength	12.5
	Elongation	125
Cold Bending	(-20 ± 2°C x 4h)	No visible cracks

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Electrical Properties (at 20°C ± 5°C)

DC Loop Resistance		148.6 /100km
Resistance Unbalance		2%
Insulation Resistance	(500 v)	2000M *km
Mutual Capacitance	(at 800 Hz)	Nom. 51 nF/km
Capacitance Unbalance to earth		1500 pF/km
Characteristic Impedance	(1-100) MHz	100 ± 15
	(100-250) MHz	100 ± 18
Nominal velocity of propagation		Approx. 67 %
Propagation Delay		Nominal 535 ns/100m
Delay Skew		Nominal 45 ns/100m
Test Voltage	(DC, 1 min) Core/Core	1000 V
Transfer Impedance	at 1 MHz	50
	at 10MHz	100
	at 30 MHz	200
Coupling attenuation		40 dB

Electrical Data (Nominal)

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
1.0	3.0	65.0	62.0	62.0	59.0	64.2	61.2	19.1
4.0	3.5	64.1	61.8	60.6	58.3	52.1	49.1	21.0
8.0	5.0	59.4	57.0	54.4	52.1	46.1	43.1	21.0
10.0	5.5	57.8	55.5	52.3	49.9	44.2	41.2	21.0
16.0	7.0	54.6	52.2	47.6	45.2	40.1	37.1	20.0
20.0	7.9	53.1	50.7	45.2	42.8	38.2	35.2	19.5
25.0	8.9	51.5	49.1	42.7	40.2	36.2	33.2	19.0
31.3	10.0	50.0	47.5	40.0	37.6	34.3	31.3	18.5
62.5	14.4	45.1	42.7	30.8	28.3	28.3	25.3	16.0
100.0	18.6	41.8	39.3	23.3	20.7	24.2	21.2	14.0
200.0	27.4	36.9	34.3	9.6	7.0	18.2	15.2	11.0
250.0	31.1	35.3	32.7	4.2	1.6	16.2	13.2	10.0