

MULTI-PAIR CABLE

CAT5



Features

Application :

- 10Base-T and 100Base-T4 Ethernet
- ATM · TP-PMD Seppch · Telephone
- multimedia · Trunk system

Reference Standards

- UL444 · UL1581 · UL1666 · IEC 60332-1
- IEC 60332-3-24 · EN50399



Testing Standards

- ISO/IEC11801 · ANSI/TIA-568-C.2

The sectional drawings and product photos are only for reference

Physical Parameters

Conductor	Solid bare copper
Insulation Materials	High Density Polyethylene
Insulation Diameter	0.90mm Nom.
Jacket Diameter	13.3mm Nom. (5 Class 25 pairs)
Jacket Material	PVC or LSZH or PE (depending on the jackets) Compliant with RoHS and REACH
Working Temperature	- 30 °C ~ + 50 °C (LSZH/PE) - 20 °C ~ + 50 °C (PVC)

Electrical Parameters (20°C)

Transmission Delay Skew	≤45ns / 100m
Transmission Speed	69%
DC Conductor Resistance	9.5Ω / 100m
DC Conductor Resistance Unbalance	≤ 5%

Frequency (MHz)	Impedance ohm	RL ≥dB	Attenuation ≤dB/100m	NEXT ≥dB/100m	ELFEXT ≥dB/100m	PS NEXT ≥dB/100m	PS ELFEXT ≥dB/100m
1	100± 15	17.0	2.0	62.3	61	62.3	61
4	100± 15	18.8	4.1	53.3	49	53.3	49
10	100± 15	20.0	6.5	47.3	41	47.3	41
16	100± 15	20.0	8.2	44.2	37	44.2	37
20	100± 15	20.0	9.3	42.8	35	42.8	35
31.25	100± 15	18.6	11.7	39.9	31	39.9	31
62.5	100± 15	16.5	17.0	35.4	25	35.4	25
100	100± 15	15.1	22.0	32.3	21	32.3	21

All specifications are subject to change without notice

MULTI-PAIR CABLE

CAT3



Features

Application :

- 10Base-T · 100BASE-T4 · voice

Reference Standards

- UL444 · UL1581 · UL1666 · IEC 60332-1
- IEC 60332-3-24 · EN50399



Testing Standards

- ISO/IEC11801 · ANSI/TIA-568-C.2

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Physical Parameters

Conductor	Solid Bare Copper
Insulation Materials	High Density Polyethylene
Insulation Diameter	0.87mm Nom.
Jacket Diameter	11.3mm Nom. (3 class 25 pairs) 15.0mm Nom. (3 class 50 pairs) 20.2mm Nom. (3 class 100 pairs)
Jacket Material	PVC or LSZH or PE(depending on the jackets) Compliant with RoHS and REACH
Working Temperature	- 30 °C ~ + 50 °C (LSZH/PE) - 20 °C ~ + 50 °C (PVC)





Electrical Parameters (20°C)

transmission Delay Skew	≤45ns / 100m
Transmission Speed	65%
DC Conductor Resistance	9.5Ω / 100m
DC Conductor Resistance Unbalance	≤ 5%

Frequency (MHz)	Impedance ohm	RL ≥dB	Attenuation ≤dB/100m	NEXT ≥dB/100m	PS NEXT ≥dB/100m
1	100± 15	12.0	2.6	41.3	41.3
4	100± 15	12.0	5.6	32.3	32.3
8	100± 15	12.0	8.5	27.8	27.8
10	100± 15	12.0	9.7	26.3	26.3
16	100± 15	10.0	13.1	23.3	23.3

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Telecommunication Cable

Type	Nor. Dia.	Pairs	Structure Diagram	
Air Core Telephone Cable	0.4mm	5-2400P		HYA
	0.5mm	5-1200P		
	0.6mm	5-600P		
Aerial Telephone Cable	0.4mm	5-300P		HYAC
	0.5mm	5-300P		
	0.6mm	5-200P		
Jelly Filled Telephone Cable	0.4mm	5-1000P		HYAT/HYPAT
	0.5mm	5-600P		
	0.6mm	5-400P		
Jelly Filled & Armoured Cable	0.4mm	20-600P		HYAT53/HYPAT53
	0.5mm	10-400P		
	0.6mm	10-200P		

Product Code Generator for Multi-Pair Copper Cables:

SXMPC	CAT	A	Type	BB	Pair Count	CCCC	Package	DD	Jacket	E
	3	3	Air Core	AC	10	0010	Reel 500 m	R1	PVC	A
	5	5	Aerial Cable	AR	50	0050	Reel 1000 m	R2	LSZH	B
			Jelly Filled	JF	100	0100	Reel 2000 m	R3	PE	C
			Jelly Filled Armored	JA	200	0200				
					300	0300				
					600	0600				
					1000	1000				
					1200	1200				
					2400	2400				

Product Code Format: **SXMPC-A-BB-CCCC-DD-E**

Example:

Cat3, Jelly Filled, 1000 pair, Reel 2000 m, PE

Product Code: **SXMPC-3-JF-1000-R2-C**

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Telecommunication Cable

Serial No.	Item	Unit	Standard			
1	single conductor's DC resistance +20°C	Ω/km	Conductor's Norminal DIAM Maximum	0.40 148.0	0.50 95.0	0.60 65.8
2	Pair-to-Pair DC resistance imbalance +20°C	%	Conductor's Norminal DIAM The mean is smaller than Maximum	0.40 1.5 5.0	0.50 1.5 5.0	0.60 1.5 5.0
3	insulation resistance between each insulated conductor and other grounded and shielded insulated conductors +20°C DC100- 500V	MΩ·km	Miximum	Unfilled cable 10×10m ³	Filled cable 3×10m ³	
4	Insulation Electric Strength Time of Applied Voltage Conductor to conductor Conductor to shield	kv	Solid polyolefin Insulation Cable	3s 2.0 6.0	lmin 1.0 3.0	
5	Working Capacitance 0.80kHz/1kHz	nF/km	Cable Nominal pair Maximum Average	10 58.0 52.0± 4.0	>10 57.0 52.0± 2.0	
6	100 pairs and above filled-type cables	%	Maximum	2		
7	Capacitance unbalance(0.8kHz/1kHz) Pair to pair Pair to earth	pF/km	Cable Nominal pair Maximum Average The mean is smaller than	10 250 2630 -	>10 250 2630 570	
8	Intrinsic Attenuation+20°C 10 pairs and above cables 150kHz 150kHz 1024kHz 1024kHz	dB/km	Conductor's Norminal DIAM The mean is smaller than The mean is smaller than The mean is smaller than The mean is smaller than	0.40 12.1 27.3 11.7 23.6	0.50 9.0 22.5 8.2 18.6	0.60 7.2 18.5 6.7 15.8
9	NEXT Attenuation 1024KHz, length °C 0.3km Total combination among inner pairs of 10pair cable All combinations of 12 pairs or 13 pairs All combinations of 20 pairs, 30 pairs or pairs in the basic units Total cmbination of pais among neighbouring 12,13pairs sub-units Total cmbination of pais among neighbouring units All combinations of pairs between two relatively basic units or subunits among super units All combinations of pairs of basic units or subunits among the different super units	dB	(M-S) no less than 53 (M-S) no less than 54 (M-S) no less than 58 (M-S) no less than 63 (M-S) no less than 64 (M-S) no less than 70 (M-S) no less than 79			
10	Defense degree of FEXT:150kHz (arbitrary pair combination) All combinations of pairs in the basic units or 30 pairs All combinations of 12 pairs, 13 pairs in the subunits or 10 pairs and 20 pairs cables	dB/km	Miximum The average power no less than The average power no less than	Non-isolated cable (150kHz) 58 69 69		

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