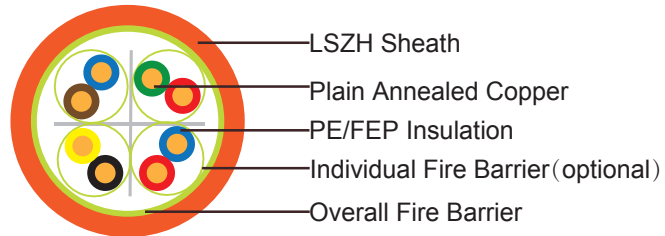
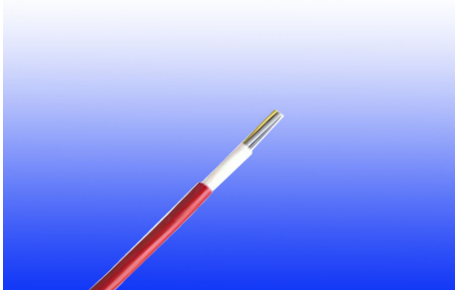




Fire Resistant UTP CAT6 Data Cables

CAT6UTP4P23FR



APPLICATION

Category 6 Cable is a cable standard for Gigabit Ethernet and other network protocol that is backward compatible with the Category 5/5E and Category 3 Cable Standard. Cat. 6 feature more stringent specification for crosstalk and system noise. The cable standard is suitable for 10BaseT, 100BaseTx & 1000BaseT (Gigabit Ethernet) application.

With fire barrier tape, it will continue to transmit data even when being directly attacked by fire.

STANDARDS

Basic design to EN50173

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-23
Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4
Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk * denotes superseded standard.

VOLTAGE RATING

110V

CABLE CONSTRUCTION

Conductors: Plain annealed copper wire, solid according to IEC 60228 class 1.

Insulation: PE DQG6,5 compound.

6HSDUDWRU3ODVWLFVHSDUDWRU

Cabling Elements: Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk. Two-pair cable had four cores laid in quad formation.

)LUH%DUULFid resistance tape wrapped overall core assembly.

Inner sheath: LSZH or armoured a es

Armour: steel re ra or armoured a es

Sheath: Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -20°C - +60°C

Temperature range during installation (mobile state): -5°C - +50°C

Minimum bending radius: 10 x Overall Diameter (unarmoured) 15 x Overall Diameter (armoured)

ELECTRICAL PERFORMANCE

Characteristic Impedance	100±15Ω
Nominal Velocity of Propagation (NVP)	69%
Max. DC Resistance	7.5 Ω/100m
Max. Resistance Unbalance	3%
Max. Mutual Capacitance:	5.6 nF/100m
Max. Capacitance Unbalance	330 pF/100m
Max. Propagation Delay Skew	30 ns/100m
Max. Propagation Delay	536 ns/100m@100mhz
Max. Pulling Load	80 N

TRANSMISSION PROPERTIES

Frequency	Min.RL	Max.Attenuation	NEXT	PSNEXT
MHz	dB	dB/100m	dB	dB
1	18	1.0	74.3	72.3
4	21	2.8	65.3	63.3
8	22.5	4.3	60.8	58.8
10	23	5.0	59.3	57.3
16	23	6.6	56.2	54.2
20	23	7.5	54.8	52.8
25	22.3	8.5	53.3	51.3
31.25	21.6	9.7	51.9	49.9
62.5	19.5	14.4	47.4	45.4
100	18.1	18.8	44.3	42.3

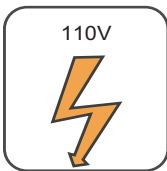


Frequency	Min.RL	Max.Attenuation	NEXT	PSNEXT
MHz	dB	dB/100m	dB	dB
200	16	28	39.8	37.8
250	15.3	31.8	38.3	36.3

Frequency	ELFEXT	PSELFEXT	ACR
MHz	dB	dB	dB
1	67.8	64.8	72.3
4	55.8	52.8	61.5
8	49.7	46.7	55.5
10	47.8	44.8	53.3
16	43.7	40.7	48.6
20	41.8	38.8	46.3
25	39.8	36.8	43.8
31.25	37.9	34.9	41.2
62.5	31.9	28.9	32
100	27.8	24.8	24.5
200	21.8	18.8	10.8
250	19.8	16.8	5.5

CONSTRUCTION PARAMETERS

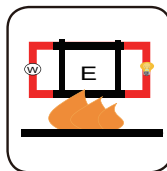
Cable Code	Conductor Diameter	Nominal Insulation Thickness	Nominal Overall Diameter	Approx. Weight
	mm	mm	mm	kg/km
FFX-CAT6UTP-FR	0.58	0.4	11.2±1.0	125
FFX-CAT6UTPSWB-FR	0.58	0.4	14.5±1.0	242



Rated Voltage



Standard



IEC 60331-23
Circuit Integrity



NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4
Reduced Fire Propagation



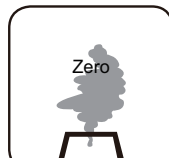
NES 02-713/NF C 20-454
Low Toxicity



IEC60754-2
EN50267-2-2/3
NF C 32-074
Low Corrosivity



IEC 61034-1&2
EN 50268-1&2/NF C32-07
Low Smoke Emission



IEC60754-1
EN50267-2-1
Halogen Free



NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1
Flame Retardancy