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Fire Resistant CAT6 Data Cables

- FFX-CAT6U/UTP4P23FR**
- FFX-CAT6F/UTP4P23FR**
- FFX-CAT6SF/UTP4P23FR**

APPLICATION

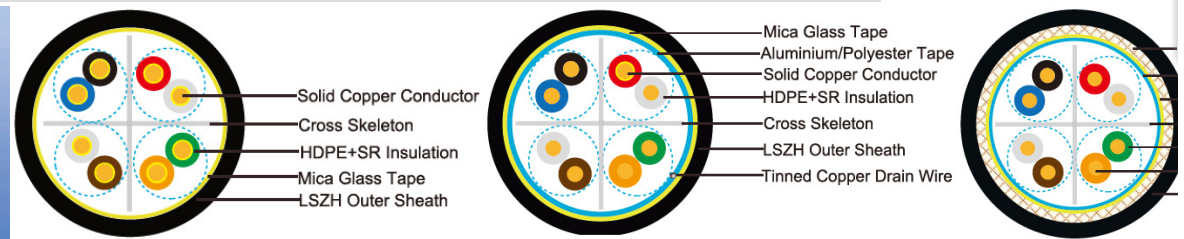
Cat6 Cable is a cable standard for Gigabit Ethernet and other network protocol, suitable for 10BaseT, 100BaseTx & 1000BaseT (Gigabit Ethernet) application. In addition, these cables can be offered with copper wire braid armoured & flame retardant outer sheath, providing additional mechanically protection still maintaining the flexibility of the cable.

STANDARDS

Basic design adapted to EN 50173

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-23; BS 6387 CWZ (Optional)
Flame Retardance (Single Vertical Wire or cable test)	IEC 60332-1-2; EN 60332-1-2
Reduced Fire Propagation (Vertically-mounted bundled wires & cables test)	IEC 60332-3-24; EN 60332-3-24
Halogen Free	IEC 60754-1; EN 50267-2-1
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2
Minimum Smoke Emission	IEC 61034-2; EN 61034-2



CABLE CONSTRUCTION

Conductor	23AWG solid bare copper.
Insulation	HDPE+SR.
Twinning	Two coloured insulated conductors twisted together to form a pair.

Overall Fire Barrier	Mica glass tape.
Outer Sheath	Halogen-free flame retardant thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered).
Outer Sheath Option	UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termite properties can be offered as option.
Cat6F/UTP	These cables have collective shielding of Aluminium/polyester tape with drain wire.
Cat6SF/UTP	These cables have double collective shielding of Aluminium/polyester tape & copper wire braid with drain wire.

PHYSICAL AND THERMAL PROPERTIES

Temperature range	-30°C - +75°C
Minimum bending radius during installation (mobile state)	8 x Overall Diameter
Minimum bending radius during operation (fixed state)	4 x Overall Diameter

ELECTRICAL PROPERTIES

AWG		23
Nominal Conductor Diameter	mm	0.56/0.57/0.58
Maximum DC Resistance@20°C	Ω/100m	9.38
Maximum DCR Unbalance	%	3
Maximum Mutual Capacitance	pf/m	5.8
Maximum Capacitance Unbalance	pf/100m	30
Characteristic Impedance@1-100MHz	Ω	100±15
Maximum Propagation Delay Skew	ns/100m	18

TRANSMISSION PROPERTIES


FREQ	Maximum Attenuation	Minimum NEXT	Minimum PSNEXT	Minimum ELFEXT	Minimum PSELFEXT	Minimum RL
MHz	dB/100m	dB	dB	dB/100m	dB/100m	dB
0.772	1.8	76.0	74.0	70.0	67.0	—
1	2.0	74.3	72.3	67.8	64.8	20.0
4	3.8	65.3	63.3	55.7	52.7	23.0
8	5.3	60.8	58.8	49.7	46.7	24.5
10	6.0	59.3	57.3	47.8	44.8	25.0
16	7.6	56.3	54.3	43.7	40.7	25.0
20	8.5	54.8	52.8	41.7	38.7	25.0
25	9.5	53.3	51.3	39.8	36.8	24.3
31.25	10.7	51.9	49.9	37.9	34.9	23.6
62.5	15.4	47.4	45.4	31.8	28.8	21.5
100	19.8	44.3	42.3	27.8	24.8	20.1

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155	25.2	41.5	39.5	23.9	20.9	18.8
200	29.0	39.8	37.8	21.7	18.7	18.0
250	32.8	38.3	36.3	19.8	16.8	

CONSTRUCTION PARAMETERS

Cable Code	Conductor Diameter	Diameter Over Insulation	Pairs	Screen	Approx Dia
	mm	mm			
CAT6U/UTP4P23FR	0.56/0.57	1.77	4	Nil	8.9
CAT6F/UTP4P23FR	0.57/0.58	1.77	4	Overall Aluminum Tape Screen	9.3
CAT6SF/UTP4P23FR	0.57/0.58	1.77	4	Overall Aluminum Tape Screen & Copper Wire Braid	9.6



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