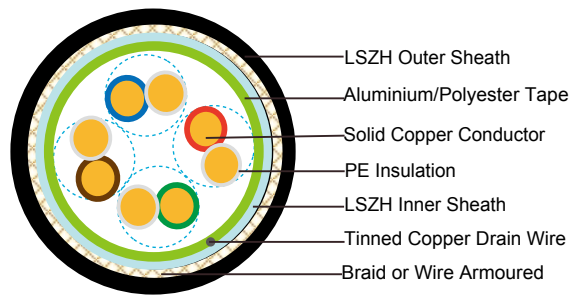




Flame Retardant CAT5E CWB/SWB/SWA Armoured Data Cables

FTX-CAT5E U/UTP4P24 CWB/SWB/SWA
FTX-CAT5E F/UTP4P24 CWB/SWB/SWA
FTX-CAT5E SF/FTP4P24 CWB/SWB/SWA



APPLICATION

Cat5E is a cable standard for Gigabit Ethernet and other network protocol, suitable for basic voice and data installations up to 100 MHz. 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 EN50173

FIRE PERFORMANCE

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Note: Asterisk * denotes superseded standard.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

60V

CABLE CONSTRUCTION

Conductors: 24AWG solid bare copper.

Insulation: HDPE.

Twinning: Two coloured insulated conductors twisted together to form a pair.

Inner Sheath: Flame retardant, low smoke and halogen-free polyolefin, coloured black.

Armouring:

CWB: Copper Wire Braid

SWB: Steel Wire Braid

SWA: Steel Wire Armour

Outer Sheath: Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655:section 2.6 can be offered.). UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

Cat5E F/UTP: These cables have collective shielding of aluminium/Polyester tape with drain wire.

Cat5E SF/UTP: These cables have double collective shieldings of aluminium/Polyester tape & copper wire braid.

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

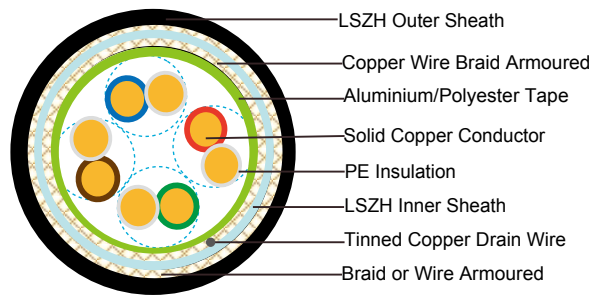
AWG		24
Nominal Conductor Diameter	mm	0.5/0.51/0.53
Maximum DC Resistant@20°C	Ω/100m	9.38
Maximum DCR Unbalance	%	5
Maximum Mutual Capacitance	pF/m	55.8
Maximum Capacitance Unbalance	pF/100m	330
Characteristic Impedance@1-100MHz	Ω	100+/-15
Maximum Propagation Delay Skew	ns/100m	45

TRANSMISSION PROPERTIES

FREQ MHz	Maximum Attenuation dB/100m	Minimum NEXT dB	Minimum PSNEXT dB	Minimum ELFEXT dB/100m	Minimum PSELFEXT dB/100m	Minimum RL dB
0.772	1.8	67.0	64.0	66.0	63.0	—
1	2.0	65.3	62.3	63.8	60.8	20.0
4	4.1	56.3	53.3	51.7	48.7	23.0
8	5.8	51.8	48.8	45.7	42.7	24.5



FREQ MHz	Maximum Attenuation dB/100m	Minimum NEXT dB	Minimum PSNEXT dB	Minimum ELFEXT dB/100m	Minimum PSELFEXT dB/100m	Minimum RL dB
10	6.5	50.3	47.3	43.8	40.8	25.0
16	8.2	47.3	44.3	39.7	36.7	25.0
20	9.3	45.8	42.8	37.7	34.7	25.0
25	10.4	44.3	41.3	35.8	32.8	24.3
31.25	11.7	42.9	39.9	33.9	30.9	23.6
62.5	17.0	38.4	35.4	27.8	24.8	21.5
100	22.0	35.3	32.3	23.8	20.8	20.1



CAT5E SF/UTP

CONSTRUCTION PARAMETERS

Cable Code	Construction No. of elements×No. of cores in element×Conductor Diameter	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Outer Sheath Thickness	Nominal Overall Diameter	Nominal Weight
	mm	mm	mm	mm	mm	kg/km
FTX-CAT5E U/UTP CWB	4×2×0.5/0.51	0.2	0.6	1.0	7.68	97
FTX-CAT5E U/UTP SWB	4×2×0.5/0.51	0.2	0.6	1.0	7.68	93
FTX-CAT5E U/UTP SWA	4×2×0.5/0.51	0.2	0.6	1.0	8.68	165
FTX-CAT5E F/UTP CWB	4×2×0.53	0.2	0.6	1.0	8.28	116
FTX-CAT5E F/UTP SWB	4×2×0.53	0.2	0.6	1.0	8.28	112
FTX-CAT5E F/UTP SWA	4×2×0.53	0.2	0.6	1.0	9.28	192

Cable Code	Construction No. of elements×No. of cores in element×Conductor Diameter	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Outer Sheath Thickness	Nominal Overall Diameter	Nominal Weight
	mm	mm	mm	mm	mm	kg/km
FTX-CAT5E SF/UTP CWB	4×2×0.53	0.2	0.6	1.0	8.76	123
FTX-CAT5E SF/UTP SWB	4×2×0.53	0.2	0.6	1.0	8.76	119
FTX-CAT5E SF/UTP SWA	4×2×0.53	0.2	0.6	1.0	9.76	216



Rated Voltage



Standard



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



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



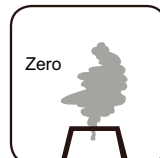
Low Toxicity
NES 02-713/NF C 20-454



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



Low Smoke Emission
IEC 61034-1&2
EN 50268-1&2/NF C32-073



Halogen Free
IEC60754-1
EN50267-2-1