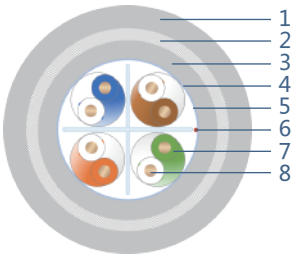
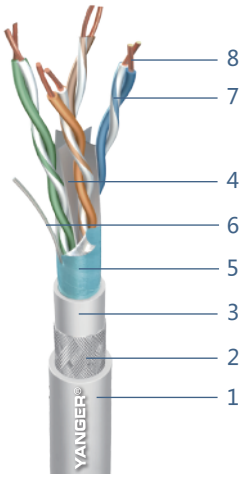
CAT6 F/UTP Armor

Application: Shipboard installations, Maritime Environment, Fixed or portable installations, Indoor & Outdoor use, fixed installations, High data rates, Ships, High speed & Light craft.
Operate at: -40°C to +75°C, Bend minimum: 10~20 times O.D.
Weight: Approximately 120kg/km
Standards: ISO/IEC 11801 , IEC 61156-1, IEC 61156-5, IEC 60092-350, IEC 60092-360, RoHS-2 2011/65/EU, UL 1581



Design & Construction

Conductor: Bare copper, 23 AWG or 24 AWG
Insulation: PE
Pair: 2 insulated conductors stranded together into a pair
Core identification: 1. White/blue + Blue 2. White/orange + Orange
3. White/green + Green 4. White/brown + Brown
Outer shield: Aluminum Foil-Polyester Tape
Drain wire: Tinned copper wire
Inner jacket (optional): LSZH-SHF1, LSZH-SHF2 or LSZH-SHF2-MUD
Armor: GSWB or TCWB
Outer jacket (optional): LSZH-SHF1, LSZH-SHF2 or LSZH-SHF2-MUD
Outer jacket OD: 11.2 ± 1.5 mm
Marking (example): YANGER® CAT6 4x2x23/1 AWG F/UTP GSWB LSZH-SHF1 <dd/mm/yy> <meter marking>
Outer jacket color: Grey (optional)



1. Outer jacket
2. Armor
3. Inner jacket
4. Center skeleton
5. Shield
6. Drain wire
7. Insulation
8. Conductor

Environmental properties and fire performances

Degree of acidity of gases: IEC 60754-1/2
Halogen acid gas: IEC 60754-1/2
Smoke emission: IEC 61034-1/2
Flame retardant: IEC 60332-1-2, IEC 60332-3-22
UV resistance: UL 1581

Halogen free
IEC 60754


Low smoke
IEC 61034


Flame retardant
IEC 60332-3-22

UV resistant
UL 1581

Electrical characteristics

Resistance of the conductor@20°C: ≤145 Ω/km
Insulation resistance: ≥5000 MΩ/km
Transfer impedance: <100 mΩ/m @10 MHz
Average characteristic impedance@100 MHz: 100 ± 5 Ω
Delay skew (4~100 MHz): ≤45 ns/100m
Velocity factor: 67%
Conductor resistance unbalance within pair: ≤2.0%
Conductor resistance unbalance between pair: ≤4.0%
Capacitance unbalance to earth at 800 Hz or 1000 Hz: ≤160 pF/100m
Mutual capacitance: ≤56 nF/km

Electrical properties

Frequency (MHz):	1	4	10	16	20	31.25	62.5	100	200	250
Attenuation dB/100m (Max.)	—	3.8	5.9	7.5	8.4	10.5	15.0	19.1	27.6	31.1
NEXT dB (Min.)	74.3	65.3	59.3	56.2	54.8	51.9	47.4	44.3	39.8	38.3
PS-NEXT (Min.)	72.3	63.3	57.3	54.2	52.8	49.9	45.4	42.3	37.8	36.3
ELFEXT dB (Min.)	67.8	55.8	47.8	43.7	41.8	37.9	31.9	27.8	21.8	19.8
Return loss dB (Min.)	20.0	23.0	25.0	25.0	25.0	23.6	21.5	20.1	18.0	17.3
PSELFEXT dB (Min.)	64.8	52.8	44.8	40.7	38.8	34.9	28.9	24.8	18.8	16.8