

**DATA SHEET**

# Category 6 F/UTP Solid Cable PVC, LSZH, PE Jacket

23AWG\* 4 Pair

Our category 6 twisted pair cables are characterized and tested to 250MHz and standardized to 23 AWG. We provide a positive PSACR up to 300 MHz for evolving and subsequent bandwidth requirements. They are tape design engineered for smaller overall diameter and ease of installation.

### Construction

Solid bare copper conductors insulated with PVC. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit. A cross filler is cabled in between to separate the 4 pairs insulated conductors. The overall double jacket is with PVC, LSZH, PE compound.

### Applications

IEEE 802.3 : 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T

ANSI/TIA / EIA-854 : 1000BASE-TX

155 Mb/s, 1.2 Gb/s ATM

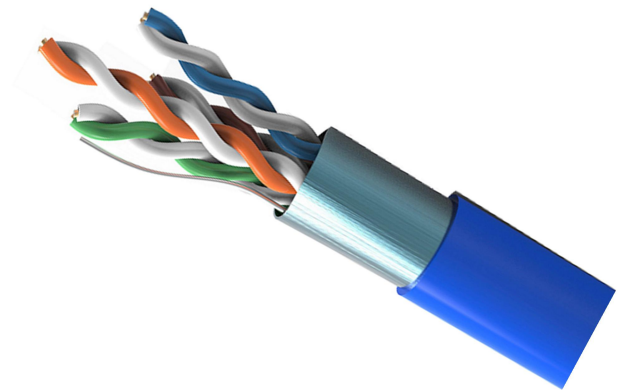
ANSI X3.263 : 100 Mb/s

IEEE 802.3af DTE Power (POE)

4/16 Mb/s Token Ring

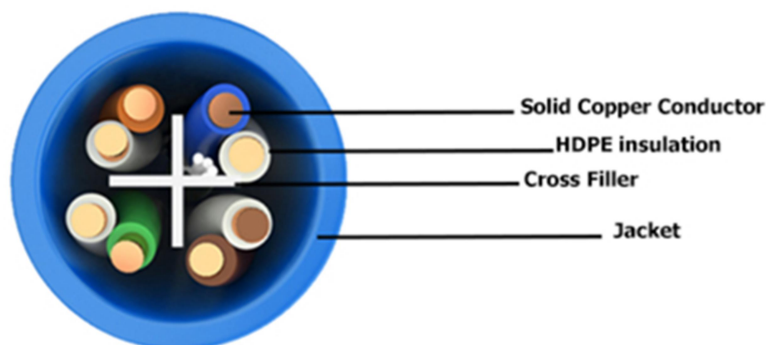
Digital Video

Broadband & Baseband Analog Video Technical details



### Standard Compliance

- ISO/IEC 11801:2011 (Ed. 2.2)
- IEC 61156-5: 2009 (Ed.2.0)
- EN 50173-1:2011
- EN 50173-2:2007 including amendment A1:2010
- ANSI / TIA – 568-C.2:2009



**Cable Description**

Conductor	
Size	23 AWG
Type	Solid bare copper
Diameter (mm)	0.55± 0.01
Insulation	
Type	PE
Diameter (mm)	1.08± 0.05
Min. thickness (mm)	0.24
Pairs with color code	
Pair 1	Blue / White – blue strip
Pair 2	Orange / White – orange strip
Pair 3	Green / White – green strip
Pair 4	Brown / White – brown strip
Central Element	
Type	PE cross separator
Jacket	
Type	PVC, LSZH, PE
Overall Diameter (mm) inner	6.86 ± 0.3
Shield	
TPYE OVERALL	Polyester Tape
Tinned copper drain wire (mm)	0.495 ± 0.008
TPYE OVERALL	Aluminum Polyester Tape

**Technical data- Physical**

Cold bend test		-20 ± 2°C X 4hrs no. crack
Dielectric strength		AC 1.7 KV for 2S.
Insulation	Before Aging	After aging
Min. Tension strength (psi)	2400	75% before aging (100°C X 48hrs)
Min elongation (%)	300	75% before aging (100°C X 48hrs)
Jacket		
Min. Tension strength (psi)	2000	60% before aging (100°C X 168hrs)
Min elongation (%)	100	60% before aging (100°C X 168hrs)
Min. bending radius (mm)	55	
Max. pulling tension (lbs)	25	
Installation temperature	-10°C to +60°C	
Operating temperature	-10°C to +60°C	

**Technical data- Electrical**

Pair to ground capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km)	1600	
Conductor DC Resistance (max) Ω / km @ 20°C	9.5	
Resistance unbalance within a pair (max.) (%)	2	
Resistance unbalance between pairs (max.) (%)	4	
Delay Skew (max.) ns/100m @ 20°C	45	
Mean input impedance @100 MHz	100 ± 5 Ω	
Dielectric strength Mean	Min 1.0 kVdc or 0.7 kVac for 1 min.	Min 2.5 kVdc or 1.7 kVac for 2 sec

Electrical Performance

IEC 61156-5 Ed.2.0 Category 6 Horizontal Cable Parameters							
Freq (MHz)	Ins. Loss (dB/100m)	RL (dB)	Pair to Pair		Power Sum		Po. Delay (ns/100m)
			NEXT	ELFEXT	NEXT	ELFEXT	
	Max.	Min	(dB/100m)		(dB/100m)		
			Min.	Min	Min.	Min	
1	--	20	--	--	--	--	--
4	3.8	23	66.3	56.0	63.3	53.0	552.0
10	6.0	25	60.3	48.0	57.3	45.0	545.4
16	7.6	25	57.2	43.9	54.2	40.9	543.0
20	8.5	25	55.8	42.0	52.8	39.0	542.0
31.25	10.7	23.6	52.9	38.1	49.9	35.1	540.4
62.5	15.5	21.5	48.4	32.1	45.4	29.1	538.6
100	19.9	20.1	45.3	28.0	42.3	25.0	537.6
200	29.1	18	40.8	22.0	37.8	19.0	536.5
250	33.0	17.3	39.3	20.0	36.3	17.0	536.3

Note: All tests include 401 points on swept frequency measurements and also all electrical characteristics are given at 20°C.

<b>Packing</b>
305 mtr / 1000 ft reel in box or customizable rolls up to 500 meters

Ordering guide

Part Number	Description
<b>PVC Cable</b>	
1975P1010	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Blue
1975P1011	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Gray
1975P1012	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, White
1975P1013	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Green
1975P1014	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Red
1975P1015	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Violet
1975P1016	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Yellow
1975P1017	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Black
1975P1018	Category 6 - F/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Orange
<b>LSZH Cable</b>	
1975P1018	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Blue
1975P1019	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Gray
1975P1020	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, White
1975P1021	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Green
1975P1022	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Red
1975P1023	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Violet
1975P1024	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Yellow
1975P1025	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Black
1975P1026	Category 6 - F/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Orange
<b>Outdoor Cable</b>	
1975P1027	Category 6 - 23 AWG*4 Pair, F/UTP solid cable PE/PVC jacket, 305 m, Black