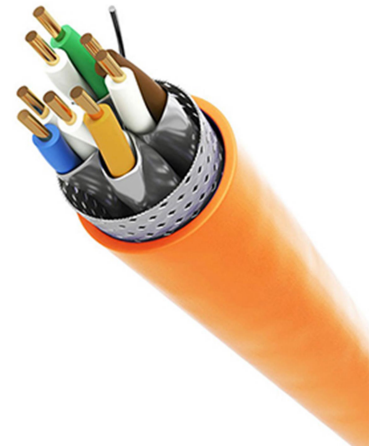


DATA SHEET

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

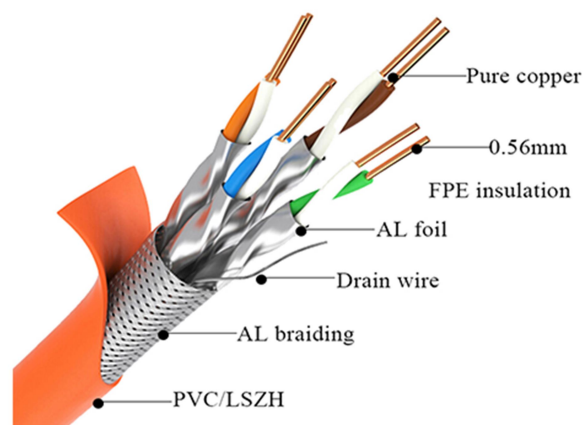
Solid bare copper conductors insulated with PVC. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit. A cross filler is cabled in between to separate the 4 pairs insulated conductors. The overall double jacket is with PVC, LSZH, PE compound.

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)	1.13± 0.05
Min. thickness (mm)	0.26
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	7.29 ± 0.3
Shield	
TPYE OVERALL	Polyester Tape
Tinned copper drain wire (mm)	0.495 ± 0.008
TPYE OVERALL	Aluminum Polyester Tape
TPYE (OVERALL Braiding)	Tinned Copper 40% to 60% Braiding

Technical data- Electrical

Conductor resistance ($\Omega/100m$ @ 20°C)	Max	9.5	
DC resistance unbalance (%)	Max	4	
Pair-to-ground capacitance unbalance (pF/km)	Max	1600	
Delay skew (ns/100m)	Max	45	$4 \leq f \leq 250MHz$
Insertion Loss (dB/100m)	Max	$1.82\sqrt{f} + 0.0169 * f + 0.25/\sqrt{f}$	$4 \leq f \leq 250MHz$
Pair to Pair NEXT (dB/100m)	Min	$75.3 - 15 * \log(f)$	$4 \leq f \leq 250MHz$
PowerSum pr-pr NEXT (dB/100m)	Min	$72.3 - 15 * \log(f)$	$4 \leq f \leq 250MHz$
ELFEXT (dB/100m)	Min	$68 - 20 * \log(f)$	$4 \leq f \leq 250MHz$
PowerSum ELFEXT (dB/100m)	Min	$65 - 20 * \log(f)$	$4 \leq f \leq 250MHz$
Return Loss (dB)	Min	$20 + 5 * \log(f)$	$1 \leq f < 10MHz$
		25	$10 \leq f < 20MHz$
		$25 - 7 * \log(f / 20)$	$20 \leq f \leq 250MHz$
Propagation Delay (ns/100m)	Max	$534 + 36 / \sqrt{f}$	$4 \leq f \leq 250MHz$
Input Impedance (Ω)		100 ± 15%	$1 \leq f \leq 100MHz$
		100 ± 22%	$100 < f \leq 250MHz$

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)		60	
Max. pulling tension (lbs)		25	
Installation temperature		-10°C to +60°C	
Operating temperature		-10°C to +60°C	

Electrical Performance

IEC 61156-5 ed2.0 Category 6 horizontal cable parameters							
Freq. (MHz)	Ins. Loss (dB/100 m)	RL (dB)	Pair to Pair		Power Sum		Po. Delay (ns/100)
			NEXT	ELFEXT	NEXT	ELFEXT	
			(dB/100m)		(dB/100m)		
	Max.	Min.	Min.	Min.	Min.	Min.	Max.
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.

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

Ordering guide

Part Number	Description
PVC Cable	
1975P1027	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Blue
1975P1028	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Gray
1975P1029	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, White
1975P1030	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Green
1975P1031	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Red
1975P1032	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, box, Violet
1975P1033	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Yellow
1975P1034	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Black
1975P1035	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, PVC jacket, 305 m, Orange
LSZH Cable	
1975P1036	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Blue
1975P1037	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Gray
1975P1038	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, White
1975P1039	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Green
1975P1040	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Red
1975P1041	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Violet
1975P1042	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Yellow
1975P1043	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Black
1975P1044	Category 6 - SF/UTP solid cable 23 AWG*4 Pair, LSZH jacket, 305 m, Orange
Outdoor Cable	
1975P1045	Category 6 - U/UTP solid cable 23 AWG*4 Pair, PE jacket, 305 m, Black