



HALLEY CABLES

Category 7 S/FTP 100 Ohm

Data and computer cables

Cable for outdoor installations in local area networks, 600 MHz



Construction, tests, and technical data:

4 color-coded, individually foil shielded twisted pairs cabled together, overall shielded with a tin-coated copper braid and overall jacketed with heavy-duty, black, UV-resistant PVC compound for outdoor use.

Basic Conductor	: solid, 23 AWG bare annealed copper.
Insulation	: polyolefin.
Number of insulated conductors	: 8, twisted in 4 pairs. (8 pairs in FIG-8 cables).
Color Code of Pairs	: Blue x White, Orange x White, Green x White, Brown x White.
Individual pair shield	: polyester-aluminum foil (foil face out), providing 100% coverage.
Overall shield	: tin coated copper braid laid in close contact over the inner foils.
Outer Jacket	: heavy-duty, black, UV-resistant PVC compound for outdoor use.
Jacket Color	: black, RAL 9005.
Standard Surface Marking	: cable description, meter mark and batch Number.
Pulling force	: 50 N/mm ² max.
Short Term Bend Radius	: 8xOD mm.
Long Term Bend Radius	: 4xOD mm.
Storage temperature	: -20 to +60° C.
Operating temperature	: -20 to +60° C.
Installation temperature	: 0 to +50° C.
Flame Test	: IEC 60332-1.
Conductor Size Test	: UL 444.
Characteristic Impedance	: 100±5 Ohm @ 1-600 MHz.
DC Resistance	: 93.0 Ohm/Km max.
Resistance unbalance	: 2% max.
Capacitance	: 45 pF/m nom. @ 1 KHz.
Cap. Unbalance (wire to ground)	: 1500 pF/Km max. @ 1 KHz.
Voltage rating	: 72 Vdc max.
Dielectric strength	: 700 Volts/1 minute min rms.
Velocity of Propagation (NVP)	: 77-80%.
Propagation delay	: 500+36/f ^{1/2} @ 1-600 MHz..
Delay Skew	: 25 nS/100m max @ 1-600 MHz.
Insulation Resistance	: 5000 MegaOhm•Km min. @ 500 Vdc.
Coupling attenuation	: 85 dB min @ 30-100 MHz 85-20Log(f/100) @100-600 MHz.
Screening Attenuation	: 60 dB min @ 30-600 MHz.
Transfer Impedance	: 10 mOhm/m max @ 1-30 MHz 30 MOhm/m max @ 30-100 MHz.

CAT 7 S/FTP 100 Ohm outdoor LAN cables are tested and verified for full compliance with the following standards:

Category 7 according to IEC 61156-5 (for ISO/IEC-11801)

600 MHz according to CENELEC EN 50288-4





Applications:

CAT 7 outdoor cable series consists of 100 Ohm impedance, 4-pair and 8-pair S/FTP cables jacketed with heavy-duty, black, UV-resistant PE compound for horizontal outdoor installations in local area networks (LANs) All cables fully conform to and provide a substantial margin above all Category 7 requirements of IEC 61156-5 (Specified in ISO/IEC 11801) and are tested up to 600 MHz.

CAT 7 S/FTP 100 Ohm outdoor LAN cables support all presently available and future LAN applications, including the following protocols:

- Broadband Digital and Analog CATV signals up to 600 MHz;
- SOHO and multiple simultaneous applications on all 4 pairs;
- 10GBASE-T 10 Gigabit Ethernet;
- 1000BASE-T 1 Gigabit Ethernet;
- ATM 155;
- TP-PMD;
- 100BASE-T "Fast Ethernet";
- 100BASE-T2;
- 100BASE-T4;
- ITU V.21 and X.11;
- 100BASE-TX;
- Token Ring 100 Mbps;
- ATM 52;
- ATM 25;
- 10BASE-T Ethernet;
- Token Ring 4 Mbps and 16 Mbps;
- Broadband and Baseband Video;
- ISDN Basic and Primary Access;
- 1BASE-5 Starlan;
- ISALAN.

Cable Features:

- Exceptional transmission properties - suitable for 10GBE applications on 100m channels.
- Testing every reel of cable prior to shipment - providing the highest degree of quality assurance.
- Exceptional material properties and cable design - providing a unique Century™ Lifetime Warranty.
- High ACR values - providing low BER (Bit-Error-Rate) in all applications.
- Extremely high pair-balance and individual foil shields - providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing noise immunity.
- Revolutionary pair lay scheme - providing an extremely low delay skew.
- Co-extruded crisp and clear spiral color coding of wires - providing positive wire identification and ease of installation.
- Descending sequential meter mark - providing easy stock and left-over handling.
- Heavy-duty, black, UV-resistant jacket - providing low-cost outdoor cables for mild environments.
- Batch number printed every meter - providing fast retrieval of test results from data-base.
- Unique DoubleSafe™ Quality Assurance Program providing lowest rejection rate available.

Transmission Properties and Electrical Specifications

Frequency MHz	Insertion Loss dB/100m Max.	NEXT dB Min.	PS NEXT dB Min.	EL FEXT db/100m Min.	PS EL FEXT dB/100m Min.	RL dB Min.	TCL dB Min.	EL-TCTL dB Min.	PS ANEXT dB Min.	PS AFEXT dB Min.
1	NS	78	75	78	75	20	40	35	67	67
4	3.74	78	75	78	75	23	40	23	67	67
8	5.24	78	75	75.9	72.9	24.5	40	16.9	67	67
10	5.86	78	75	74	71	25	40	15	67	67
16	7.41	78	75	79.9	66.9	26	38	10.9	67	67
20	8.29	78	75	68	65	25	37	9	67	67
25	9.29	78	75	66	63	24.3	36	7	67	65.2
31.25	10.41	78	75	64.1	61.1	23.6	35.1	5.1	67	63.3
62.5	14.88	75.5	72.5	58	55.1	21.5	32	NS	67	57.3
100	19.02	72.4	69.4	54	51	20.1	30	NS	67	53.2
150	23.56	69.8	66.8	50	47.5	18.9	28.2	NS	67	49.7
200	27.47	67.9	64.9	48	45	18	27	NS	67	47.2
250	30.97	66.4	63.4	46	43	17.3	26	NS	67	45.2
300	34.19	65.2	62.2	44.5	41.5	17.3	NS	NS	67	43.7
400	40.01	63.4	60.4	42	39	17.3	NS	NS	67	41.2
500	45.26	61.9	58.9	40	37	17.3	NS	NS	67	39.2
600	50.1	60.7	57.7	38.4	35.4	17.3	NS	NS	65.8	37.6

Ordering Info: 4x2x23# S/FTP CAT 7 Outdoor Black / OD (mm) 9.5 / Kg/km 75 / Packaging (drum) 305/500/1000 m.

