

Category 6 STP Solid Cables



Description

Digi-Link P350 Cat6 cable series consists of 4 pair copper solid cable with 100 Ohm impedance. The twisted pair cables are shielded with tinned copper braiding as well as aluminum foil to prevent electro-magnetic interface. Since the shielding is made of braided steel wire, it also serves as a grounding device. Cables meet and exceed category 6/Class E standards requirements in ISO/IEC11801, CENELEC EN50173 and TIA568-B2-1. These cables are UL Listed and UL & ETL verified.

Applications

Digi-Link P350 Horizontal STP cables support all presently available and future LAN applications, including the following protocols:

- 1000BASE-TX Gigabit Ethernet Over Category 6 (TIA/EIA SP-4657)
- ATM 155
- 100BASE-T2
- Token Ring 100 Mbps
- 10BASE-T Ethernet
- ISDN Basic and Primary Access
- ITU V.21 and X.11
- TP-PMD
- 100BASE-T4
- ATM 52
- Token Ring 4 Mbps and 16 Mbps
- 1BASE-5 Starlan
- 1000BASE-T Gigabit Ethernet
- 100BASE-T Fast Ethernet
- 100BASE-TX
- ATM 25
- Broadband and Baseband Video
- ISALAN

Qualifications and Approvals

Digi-Link P350 STP Cables are tested and verified for full compliance with the following standards:

- Category 6 according to ANSI/TIA/EIA-568-B.2-1 extrapolated till 350 MHz
- Class E 6 according to IEC 61156-5 (for ISO/IEC-11801 2nd Edition) extrapolated till 350 MHz
- C UL Listed and ETL Verified

Benefits and Features

- ✓ Testing every box or reel of cable prior to shipment - providing the highest degree of quality assurance.
- ✓ Exceptional material properties and cable design - providing a unique Lifetime Warranty.*
- ✓ High ACR values - providing low BER (Bit-Error-Rate) in all applications.
- ✓ Prevent electro-magnetic interference- thus boost the performance of the entire channel
- ✓ Extremely high pair-balance - 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.
- ✓ Smooth and rigid jacket - proving fast and easy cable pulling and installation.
- ✓ A comprehensive product range - providing all state-of-the-art cable constructions.
- ✓ Performance is optimized up to 350 MHz

Physical and Mechanical Properties

Basic Conductor :	Solid, 23AWG, 0.57 mm, bare annealed copper
Insulation :	Polyolefin
Number of insulated conductors :	8, twisted in 4 pairs.
Color Code of Pairs :	Blue x White/Blue, Orange x White/Orange, Green x White/Green, Brown x White/Brown.
Overall Tape Wrap :	Polyethylene film
Overall shield :	Tinned Copper braiding mesh wire
Drain wire :	Copper wire
Outer Jacket :	Complying to UL CMgrade PVC compound.
Standard Jacket Color :	Light Gray, Other colors available upon request.
Standard Surface Marking :	
Pulling force :	50N/mm ² (Max)
Short Term Bend Radius :	8xOD mm
Long Term Bend Radius :	4xOD mm

*If used in accordance with Digi-Link Lifetime Warranty Scheme.

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Physical and Mechanical Properties

Storage Temperature :	-20°C to +80°C
Temperature operating range :	-20°C to +60°C
Installation temperature range :	0°C to +50°C

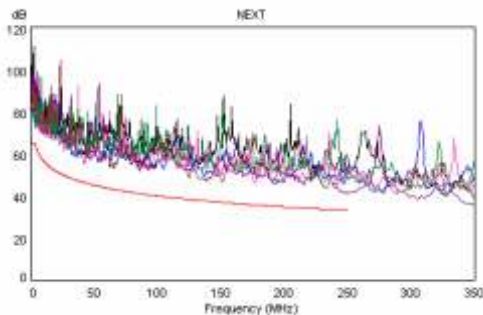
Performance Characteristics TIA/EIA-568-B2-1

FREQUENCY (MHz)	INSERTION LOSS (Attenuation) dB/100m		NEXT (db)		PSNEXT (db)		ELFEXT (db)		PSELFEXT (db)		RETURN LOSS (db)	
	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link
0.72	1.8	1.1	76.0	83.3	74.0	80.2	70.0	87.2	67.0	77.2		28.2
1.00	2.0	1.6	74.3	79.2	72.3	76.7	67.8	82.3	64.8	75.7	19.0	24.7
4.00	3.8	3.2	65.3	72.9	63.3	69.1	55.8	70.2	52.8	63.6	19.0	29.7
8.00	5.3	4.9	60.8	71.1	58.8	65.2	49.7	64.9	46.7	58.7	19.0	27.0
10.00	6.0	5.5	59.3	70.8	57.3	63.6	47.8	64.5	44.8	57.9	19.0	28.1
16.00	7.6	7.1	56.2	71.3	54.2	63.8	43.7	60.1	40.7	55.7	18.0	31.6
20.00	8.5	7.9	54.8	68.4	52.8	60.7	41.8	59.1	38.8	52.5	17.5	28.9
25.00	9.5	8.8	53.3	64.4	51.3	56.0	39.8	57.4	36.8	49.4	17.0	27.9
31.25	10.7	9.2	51.9	60.7	49.9	54.3	37.9	57.3	34.9	47.5	16.5	30.9
62.50	15.4	13.0	47.4	56.0	45.4	48.3	31.9	46.0	28.9	39.4	14.0	20.5
100.00	19.8	16.2	44.3	52.2	42.3	45.3	27.8	44.8	24.8	36.5	12.0	18.2
200.00	29.0	23.6	39.8	46.1	37.8	39.9	21.8	36.4	18.8	28.8	9.0	16.0
250.00	32.9	26.6	38.3	45.2	36.3	38.0	19.8	36.7	16.8	29.7	8.0	16.4
300.00	**	32.0	**	43.3	**	37.5	**	37.4	**	29.4	**	15.2
350.00	**	38.2	**	41.7	**	35.9	**	33.7	**	26.6	**	13.1

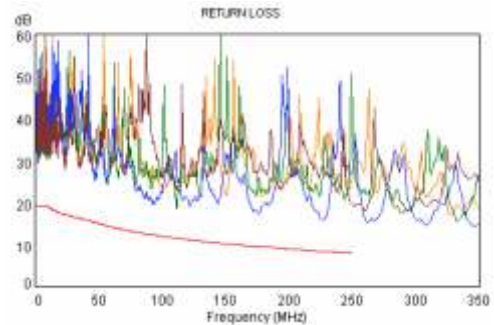
** Extrapolated Values

Characteristic Impedance	100±6 Ω @ 1-300 MHz
DC Resistance	72 Ω/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	1500 V/1 minute min rms
Velocity of Propagation (NVP)	67-69%
Insulation Resistance	500 mΩ km (Min)@500Vdc
Coupling attenuation	40 dB min @ 30-100 MHz 40-20Log(f/100) @100-300 MHz

Typical NEXT Loss



Typical Return Loss



Ordering Information

P/N	Description	Size	Weight Kg/Km	Wiring	Colour	Notes
DC6CASTP4P3X	Solid cable Cat6, STP 4 Pair - 305 m	305m			Grey	