

DSL-Link™

25 Pair #24 AWG ScTP Category 5e Cable Riser

NON-PLENUM PART # M58751

DESCRIPTION

SHIELDED TWISTED PAIR (ScTP) CATEGORY 5E CABLE FOR USE IN BACKBONE CABLING SYSTEMS PER TIA 568-B. THE CABLE MEETS TIA 568-B.2 CATEGORY 5E REQUIREMENTS. THE TINNED CONDUCTORS ARE IDEAL FOR CENTRAL OFFICE APPLICATIONS. THE CABLE CONSISTS OF 24 AWG SOLID TINNED COPPER INSULATED CONDUCTORS, ASSEMBLED INTO TIGHTLY TWISTED PAIRS, WITH AN INNER PVC JACKET, AN OVERALL FOIL AND DRAIN SHIELD AND AN OVERALL PVC OUTER JACKET. THIS PRODUCT AND/OR ITS MANUFACTURE IS COVERED BY US PATENT NOS. 5821466 & 5424491.

THE RISER (NON-PLENUM) RATED CABLE IS FOR USE AS A VERTICAL RUN IN A SHAFT AND FOR GENERAL PURPOSE COMMUNICATIONS USE IN ACCORDANCE WITH ARTICLE 800 OF THE NEC. THE CABLE IS UL (USA) & cUL (CANADA) LISTED FOR THIS APPLICATION BY PASSING THE UL 1666 RISER CABLE FLAMMABILITY TEST. THE CABLE ALSO PASSES THE CSA FT4 VERTICAL FLAME TEST - CABLES IN CABLE TROUGH FROM CLAUSE 4.11.4 OF CSA C22.2 NO. 0.3.

THIS CABLE COMPLIES WITH THE EU-RoHS DIRECTIVE 2002/95/EC (RESTRICTIONS ON HAZARDOUS SUBSTANCES) REGULATIONS.

SUPPORTED APPLICATIONS

IEEE 802.3 10BASE-T (ETHERNET), 100BASE-T (FAST ETHERNET), AND 1000BASE-T (GIGABIT ETHERNET), ANSI.X3.263 FDDI TP-PMD, IEEE 802.5 4 AND 16 Mbps TOKEN RING, ATM UP TO 155 Mbps, 550 MHz BROADBAND VIDEO AND STANDARDS UNDER DEVELOPMENT SUCH AS ATM AT 622 Mbps.

CONSTRUCTION

PRIMARIES: CONDUCTOR: 24 AWG (.5 mm) SOLID TINNED COPPER
INSULATION: FLAME RETARDANT POLYOLEFIN

PAIR ASSEMBLY: 2 PRIMARIES TWISTED IN VARIED LAYS

COLOR CODE: SEE TABLE 1

CABLE ASSEMBLY: 25 PAIRS CABLED TOGETHER WITH AN OVERALL BINDER JACKET

SHIELD: OVERALL ALUMINUM/POLYESTER TAPE AND #24 AWG TINNED COPPER DRAIN, 100% COVERAGE

JACKET: NO LEAD BLUE THERMOPLASTIC
NOMINAL CABLE OD: .522" (13.26 mm)

LISTING: c(UL)US TYPE CMR

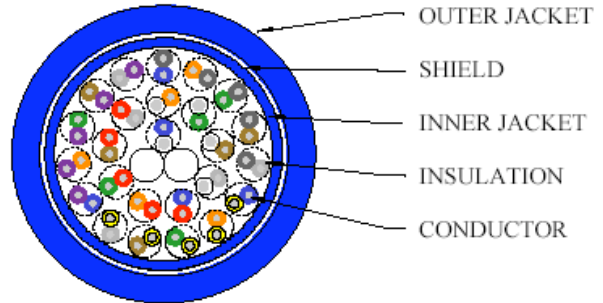


TABLE 1

PAIR NUMBER	PAIR COLOR CODE	
	1	WHITE-BLUE
2	WHITE-ORANGE	ORANGE-WHITE
3	WHITE-GREEN	GREEN-WHITE
4	WHITE-BROWN	BROWN-WHITE
5	WHITE-GRAY	GRAY-WHITE
6	RED-BLUE	BLUE-RED
7	RED-ORANGE	ORANGE-RED
8	RED-GREEN	GREEN-RED
9	RED-BROWN	BROWN-RED
10	RED-GRAY	GRAY-RED
11	BLACK-BLUE	BLUE-BLACK
12	BLACK-ORANGE	ORANGE-BLACK
13	BLACK-GREEN	GREEN-BLACK
14	BLACK-BROWN	BROWN-BLACK
15	BLACK-GRAY	GRAY-BLACK
16	YELLOW-BLUE	BLUE-YELLOW
17	YELLOW-ORANGE	ORANGE-YELLOW
18	YELLOW-GREEN	GREEN-YELLOW
19	YELLOW-BROWN	BROWN-YELLOW
20	YELLOW-GRAY	GRAY-YELLOW
21	PURPLE-BLUE	BLUE-PURPLE
22	PURPLE-ORANGE	ORANGE-PURPLE
23	PURPLE-GREEN	GREEN-PURPLE
24	PURPLE-BROWN	BROWN-PURPLE
25	PURPLE-GRAY	GRAY-PURPLE

PHYSICAL CHARACTERISTICS

CABLE WEIGHT: 149 lbs/1000ft (222 kg/km)

BENDING RADIUS: 5.25" (133 mm) MIN (10 x CABLE OD)

PULLING TENSION: 150 lbf (660 N) MAX

OPERATING TEMP.: 140°F (60°C) MAXIMUM

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ELECTRICAL CHARACTERISTICS (REF TABLE 2)

STANDARDS: TIA 568-B.2 CAT 5e BACKBONE CABLE,
MEETING POWER SUM NEXT

CONDUCTOR DCR: 10.34 Ω /100m (31.5 Ω /Mft) MAX

CAPACITANCE: 46 pF/m (14 pF/ft) NOM

CAPACITANCE UNBALANCE

PAIR/GROUND: 330 pF/100m (1000 pF/Mft) MAX

CHARACTERISTIC

IMPEDANCE: 100 $\Omega \pm 15\%$ (1-100 MHz)

RETURN LOSS (RL): 20 + 5 $\log_{10}(f)$ dB MIN (1-10 MHz)
25 dB MIN (>10-20 MHz)
25 - 7 $\log_{10}(f/20)$ dB MIN (>20 MHz)

INSERTION LOSS: 1.967 $f + .023 f + \frac{.050}{f}$ dB/100m MAX

POWER SUM NEAR END

CROSSTALK (PS-NEXT): 32.3 - 15 $\log_{10}(f/100)$ dB/100m MIN

POWER SUM EQUAL LEVEL FAR END

CROSSTALK (PS-ELFEXT): 20.8 - 20 $\log_{10}(f/100)$ dB/100m MIN

PROPAGATION DELAY: 534 + 36 / f ns/100m MAX

DELTA DELAY (SKEW): 45 ns/100m MAX

NOMINAL VELOCITY OF

PROPAGATION (NVP): 68%

WHERE f = FREQUENCY IN MHz from .772 to 100 MHz.

**TABLE 2
REFERENCE ELECTRICAL CHARACTERISTICS**

FREQ (MHz)	INSERTION LOSS			PS-NEXT		PS-ACR*	PS-ELFEXT	RL
	(dB/100m)	(dB/1000ft)	(dB/1000ft)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB)
	avg	max	max	avg	min	min	min	min
.772	1.5	1.8	5.5	70	64.0	62.2	-	-
1.0	1.9	2.0	6.3	68	62.3	60.3	60.8	20.0
4.0	3.8	4.1	13	57	53.3	49.2	48.7	23.0
8.0	5.4	5.8	18	54	48.8	43.0	42.7	24.5
10.0	6.1	6.5	20	52	47.3	40.8	40.8	25.0
16.0	7.8	8.2	25	50	44.3	36.1	36.7	25.0
20.0	8.8	9.3	28	48	42.8	33.5	34.7	25.0
25.0	9.9	10.4	32	47	41.3	30.9	32.8	24.3
31.25	11.1	11.7	36	46	39.9	28.2	30.9	23.6
62.5	16.0	17.0	52	42	35.4	18.4	24.8	21.5
100.0	20.5	22.0	67	38	32.3	10.3	20.8	20.1

*ACR - ATTENUATION TO CROSSTALK RATIO

Mohawk reserves the right to change specification in the interest of product enhancement.