

MegaLink™

4 Pair #24 AWG UTP Category 5E Patch

DESCRIPTION

ENHANCED UNSHIELDED TWISTED PAIR (UTP) MEGALINK PATCH CABLE FOR USE AS PATCH OR EQUIPMENT CORDS PER TIA 568-B. THE CABLE EXCEEDS CATEGORY 5e ELECTRICAL CHARACTERISTICS AND IS TESTED TO 400 MHz. THE CABLE CONSISTS OF #24 AWG STRANDED TINNED COPPER INSULATED CONDUCTORS, ASSEMBLED INTO FOUR TIGHTLY TWISTED PAIRS UNDER AN OVERALL JACKET. PRINT INCLUDES DESCENDING FOOTAGE MARKERS FROM 1000 TO 0. THIS PRODUCT AND/OR ITS MANUFACTURE IS COVERED BY US PATENT NO. 5424491.

THE CABLE IS RATED FOR GENERAL PURPOSE COMMUNICATIONS USE IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CABLE IS UL (USA) & cUL (CANADA) LISTED FOR THIS APPLICATION BY PASSING UL 1581 VERTICAL TRAY FLAME TEST AND 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 & 1.2 Gbps.

CONSTRUCTION

PRIMARIES: CONDUCTOR: 24 AWG (7/32) STRANDED TIN COPPER
INSULATION: THERMOPLASTIC POLYOLEFIN WITH INTEGRAL STRIPES

PAIR ASSEMBLY: 2 PRIMARIES TWISTED IN VARIED LAYS

COLOR CODE: SEE TABLE 1

CABLE ASSEMBLY: 4 PAIRS CABLED TOGETHER

JACKET: NO LEAD FLAME RETARDANT THERMOPLASTIC
JACKET COLOR: SEE TABLE 2
NOMINAL CABLE OD: .200" (5.1 mm)

PHYSICAL CHARACTERISTICS

CABLE WEIGHT: 25 lbs/1000ft (37 kg/km)
BENDING RADIUS: 1" (25.4 mm) MIN (4 x CABLE OD)
PULLING TENSION: 25 lbf (110 N) MAX
OPERATING TEMP.: -20°C to +60°C (-4°F to +140°F)
STORAGE TEMP.: -20°C to +75°C (-4°F to +167°F)
INSTALLATION TEMP.*: 0°C to +60°C (+32°F to +140°F)

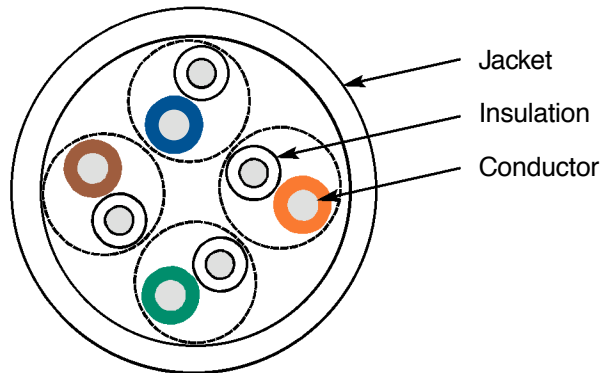


TABLE 1

PAIR NUMBER	PAIR COLOR CODE	
	1	WHITE-BLUE
2	WHITE-ORANGE	ORANGE
3	WHITE-GREEN	GREEN
4	WHITE-BROWN	BROWN

TABLE 2

PART NUMBER	JACKET COLOR
M56726	WHITE
M57076	BLUE
M57071	LT. GRAY
M56985	YELLOW
M57075	GREEN
M57077	VIOLET
M57074	ORANGE
M57073	RED
M57216	BLACK
M57569	DK. GRAY
M57570	PINK
M57604	PASTEL VIOLET
M57823	BROWN
M58411	LM. GREEN
M58583	DK. PURPLE

*THE INSTALLATION TEMPERATURE REFERS TO THE TEMPERATURE OF THE CABLE WHILE BEING INSTALLED OR PULLED.

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ELECTRICAL CHARACTERISTICS (REF TABLE 3)

CONDUCTOR DCR:	9.09 Ω/100m (27.7 Ω/Mft) MAX	INSERTION LOSS:	$2.164 f + .0253 f + \frac{.055}{f}$ dB/100m MAX
DCR UNBALANCE:	3% MAX	NEAR END CROSSTALK (NEXT):	40.3 - 15 log ₁₀ (f/100) dB/100m MIN
MUTUAL CAPACITANCE:	46 pF/m (14 pF/ft) NOM	POWER SUM NEAR END CROSSTALK (PS-NEXT):	38.3 - 15 log ₁₀ (f/100) dB/100m MIN
CAPACITANCE UNBALANCE PAIR/GROUND:	66 pF/100m (200 pF/Mft) MAX	EQUAL LEVEL FAR END CROSSTALK (ELFEXT):	27.8 - 20 log ₁₀ (f/100) dB/100m MIN
CHARACTERISTIC IMPEDANCE:	100 Ω ± 15% (1-400 MHz)	POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT):	24.8 - 20 log ₁₀ (f/100) dB/100m MIN
INPUT IMPEDANCE:	100 Ω ± 15% (1-100 MHz) 100 Ω ± 22% (>100-200 MHz)	PROPAGATION DELAY:	534 + 36 / f ns/100m MAX
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)	DELTA DELAY (SKEW):	25 ns/100m MAX
		NOMINAL VELOCITY OF PROPAGATION (NVP):	68%

WHERE *f* = FREQUENCY IN MHz from .772 to 250 MHz, except for ELFEXT and PS-ELFEXT from 1 to 250 MHz.

TABLE 3

REFERENCE ELECTRICAL CHARACTERISTICS

FREQ (MHz)	INSERTION LOSS (dB/100m)		NEXT (dB/100m)		ACR (dB/100m)	PS-NEXT (dB/100m)		PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	RL (dB)
	avg	max	avg	min	min	avg	min	min	min	min	min
.772	1.8	2.0	82	72.0	70.0	75	70.0	68.0	-	-	-
1.0	2.0	2.2	80	70.3	68.1	73	68.3	66.1	67.8	64.8	20.0
4.0	4.1	4.5	70	61.3	56.8	63	59.3	54.8	55.8	52.8	23.0
8.0	5.8	6.3	66	56.8	50.5	59	54.8	48.5	49.7	46.7	24.5
10.0	6.5	7.1	64	55.3	48.2	58	53.3	46.2	47.8	44.8	25.0
16.0	8.4	9.1	62	52.2	43.1	56	50.2	41.1	43.7	40.7	25.0
20.0	9.4	10.2	60	50.8	40.6	54	48.8	38.6	41.8	38.8	25.0
25.0	10.6	11.5	59	49.3	37.8	52	47.3	35.8	39.8	36.8	24.3
31.25	11.9	12.9	58	47.9	35.0	51	45.9	33.0	37.9	34.9	23.6
62.5	17.2	18.7	54	43.4	24.7	47	41.4	22.7	31.9	28.9	21.5
100.0	22.3	24.2	50	40.3	16.1	43	38.3	14.1	27.8	24.8	20.1
155.0	28.4	30.9	48	37.4	6.5	41	35.4	4.5	24.0	21.0	18.8
200.0	32.8	35.7	46	35.8	0.1	40	33.8	-	21.8	18.8	18.0
250.0	37.3	40.5	45	34.3	-	38	32.3	-	19.8	16.8	17.3
300.0	41.5	45.1	44	33.1	-	37	31.1	-	18.3	15.3	16.8
350.0	45.4	49.3	43	32.1	-	36	30.1	-	16.9	13.9	16.3
400.0	49.1	53.4	42	31.3	-	35	29.3	-	-	-	15.9

VALUES ABOVE 250 MHz ARE FOR ENGINEERING INFORMATION ONLY.

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