

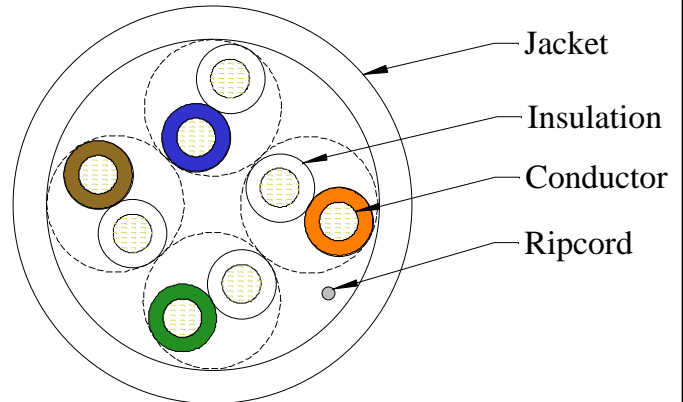
MASTER SPECIFICATION
MegaLAN® CABLE
4 PAIR #24 AWG UTP CAT 5E PLENUM

Design Number:
HT37934

DESCRIPTION

UNSHIELDED TWISTED PAIR (UTP) MEGALAN CABLE FOR USE IN HORIZONTAL CABLING SYSTEMS PER ANSI/TIA-568-C. THE CABLE EXCEEDS CATEGORY 5e ELECTRICAL CHARACTERISTICS AND IS TESTED TO 400 MHz. THE CABLE CONSISTS OF #24 AWG SOLID BARE COPPER INSULATED CONDUCTORS, ASSEMBLED INTO FOUR TIGHTLY TWISTED PAIRS, WITH A RIPCORD, UNDER AN OVERALL JACKET. PRINT INCLUDES DESCENDING FOOTAGE MARKERS FROM 1000 TO 0 ON EACH 1000 FT REEL OR BOX. SEE BELDEN.COM/P FOR ANY/ALL APPLICABLE PATENT DETAILS.

THE CABLE IS PLENUM RATED FOR USE IN AIR HANDLING DUCTS AND SPACES IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CABLE IS ETL (USA) & cETL (CANADA) LISTED FOR THIS APPLICATION BY PASSING NFPA 262 (FT6 OR PREVIOUSLY UL 910 STEINER TUNNEL) TEST.



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 (.5 mm) SOLID BARE COPPER
 DUAL INSULATION, FEP ON ALL 4 PAIRS

PAIR ASSEMBLY: 2 PRIMARIES TWISTED IN VARIED LAYS

COLOR CODE: SEE TABLE 1

CABLE

ASSEMBLY: 4 PAIRS CABLED TOGETHER

JACKET: NO LEAD PLENUM RATED THERMOPLASTIC
 JACKET COLOR: SEE TABLE 2
 NOMINAL OD: .200" (5.08 mm)

LISTING: C(UL)US OR C(ETL)US TYPE CMP
 UL OR ETL VERIFIED CAT 5e

PHYSICAL CHARACTERISTICS

CABLE WEIGHT w/reel: 22 lbs/1000ft (33 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	BLUE
2	WHITE-ORANGE	ORANGE
3	WHITE-GREEN	GREEN
4	WHITE-BROWN	BROWN

TABLE 2

MOHAWK PART NUMBER	MOHAWK DESIGN NUMBER	JACKET COLOR
M55988	HT32083	WHITE
M56168	HT33103	BLUE
M56092	HT32714	PINK
M56093	HT32715	YELLOW
M56882	HT38720	GRAY
M56166	HT33101	GREEN
M56072	HT34757	RED
M56876	HT38674	ORANGE
M56877	HT38675	BLACK
M56878	HT38676	VIOLET
M57286	HT41984	LT. GRAY
M58320	HT50033	BROWN
M58479	HT52673	DK. GREEN

* THE INSTALLATION TEMPERATURE REFERS TO THE TEMPERATURE OF THE CABLE WHILE BEING INSTALLED OR PULLED. DO NOT INSTALL BELOW 0°C (+32°F).



MOHAWK
 Cabling Excellence for Open Architecture

(978) 537-9961 Fax: (978) 537-4358
 (800) 422-9961 www.mohawk-cable.com

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Rev	Description	Date	Init.
AU	UPDATE DIAMETER & ELECTRICALS; ADD SWEEP	01/06/14	JS
AV	UPDATE CAP UNBALANCE, ACR, PS-ACR	03/25/14	JS
AW	UPDATE PATENT INFO & ELECS	12/10/15	JS
AX	UPDATE WEIGHT & FOOTER	01/26/17	JS
Date: 04/17/96		Page 1 of 2	
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ELECTRICAL CHARACTERISTICS (REF TABLE 3)

STANDARDS:	EXCEEDS ANSI/TIA-568-C.2 CAT 5e AND ISO/IEC 11801:2002 CAT 5 HORIZONTAL CABLE	INSERTION LOSS:	$1.967\sqrt{f} + .023f + \frac{.050}{\sqrt{f}}$ dB/100m MAX
CONDUCTOR DCR:	9.38 Ω /100m (28.6 Ω /Mft) MAX	NEAR END CROSSTALK (NEXT):	40.3 - 15 $\log_{10}(f/100)$ dB/100m MIN
DCR UNBALANCE:	5% MAX	POWER SUM NEAR END CROSSTALK (PS-NEXT):	38.3 - 15 $\log_{10}(f/100)$ dB/100m MIN
MUTUAL CAPACITANCE:	46 pF/m NOM	EQUAL LEVEL FAR END CROSSTALK (ELFEXT):	27.8 - 20 $\log_{10}(f/100)$ dB/100m MIN
CAPACITANCE UNBALANCE PAIR/GROUND:	160 pF/100m MAX	POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT):	24.8 - 20 $\log_{10}(f/100)$ dB/100m MIN
CHARACTERISTIC IMPEDANCE:	100 $\Omega \pm 15\%$ (1-200 MHz)	PROPAGATION DELAY:	534 + 36/ \sqrt{f} ns/100m MAX
INPUT IMPEDANCE:	100 $\Omega \pm 15\%$ (1-100 MHz) 100 $\Omega \pm 22\%$ (>100-200 MHz)	DELTA DELAY (SKEW):	45 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)	NOMINAL VELOCITY OF PROPAGATION (NVP):	72%

WHERE f = FREQUENCY IN MHz from .772 to 200 MHz, except for ELFEXT and PS-ELFEXT from 1 to 200 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	max	avg	min	min	avg	min	min	min	min	min
.772	1.6	1.8	5.5	82	72.0	70.2	75	70.0	68.2	-	-	-
1.0	1.8	2.0	6.3	80	70.3	68.3	73	68.3	66.3	67.8	64.8	20.0
4.0	3.8	4.1	13	70	61.3	57.2	63	59.3	55.2	55.8	52.8	23.0
8.0	5.4	5.8	18	66	56.8	51.0	59	54.8	49.0	49.7	46.7	24.5
10.0	6.0	6.5	20	64	55.3	48.8	58	53.3	46.8	47.8	44.8	25.0
16.0	7.6	8.2	25	62	52.2	44.0	56	50.2	42.0	43.7	40.7	25.0
20.0	8.6	9.3	28	60	50.8	41.5	54	48.8	39.5	41.8	38.8	25.0
25.0	9.7	10.4	32	59	49.3	38.9	52	47.3	36.9	39.8	36.8	24.3
31.25	10.9	11.7	36	58	47.9	36.2	51	45.9	34.2	37.9	34.9	23.6
62.5	15.8	17.0	52	54	43.4	26.4	47	41.4	24.4	31.9	28.9	21.5
100.0	20.5	22.0	67	50	40.3	18.3	43	38.3	16.3	27.8	24.8	20.1
155.0	26.2	28.1	86	48	37.4	9.4	41	35.4	7.4	24.0	21.0	18.8
200.0	30.2	32.4	99	46	35.8	3.4	40	33.8	1.4	21.8	18.8	18.0
250.0	34.8	36.9	112	45	34.3	0.9	38	32.3	-	19.8	16.8	17.3
300.0	38.5	41.0	125	44	33.1	-	37	31.1	-	18.3	15.3	16.8
350.0	42.0	44.9	137	43	32.1	-	36	30.1	-	16.9	13.9	16.3
400.0	45.2	48.5	145	42	31.3	-	35	29.3	-	-	-	15.9

SWEEP TESTED TO 400 MHz; VALUES ABOVE 200 MHz ARE FOR ENGINEERING INFORMATION ONLY.



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Mohawk reserves the right to change any specification in the interest of product enhancement.
This cable complies with the EU-RoHS directive 2002/95/EC (restrictions on hazardous substances) regulations.