

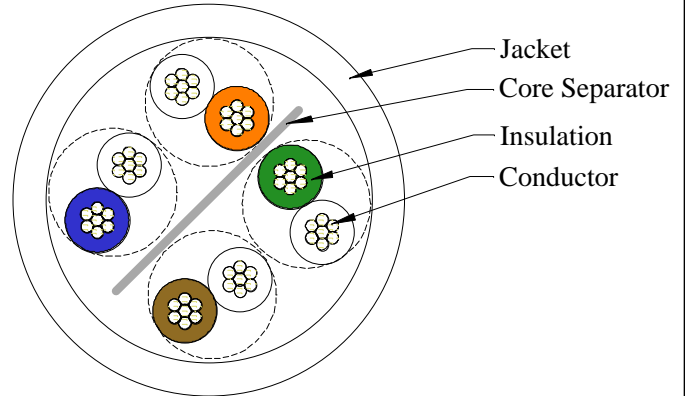
MASTER SPECIFICATION
AdvanceLink™ CABLE
4 PAIR #24 AWG UTP CAT 6e+ PATCH

Design Number:
LT43317

DESCRIPTION

UNSHIELDED TWISTED PAIR (UTP) ADVANCELINK PATCH CABLE FOR USE AS PATCH OR EQUIPMENT CORDS PER ANSI/TIA-568-C. THE CABLE EXCEEDS ANSI/TIA-568-C.2 & ISO/IEC 11801 CATEGORY 6 AND IS TESTED TO 650 MHz. THE CABLE CONSISTS OF #24 AWG STRANDED TINNED COPPER INSULATED CONDUCTORS, ASSEMBLED INTO FOUR TIGHTLY TWISTED PAIRS WITH A CORE SEPARATOR UNDER AN OVERALL JACKET. PRINT INCLUDES DESCENDING FOOTAGE MARKERS FROM 1000 TO 0. SEE BELDEN.COM/P FOR ANY/ALL APPLICABLE PATENT DETAILS.

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) & CSA (CANADA) LISTED FOR THIS APPLICATION BY PASSING UL 1581 VERTICAL TRAY FLAME TEST & CSA FT4 VERTICAL FLAME TEST - CABLES IN CABLE TROUGH FROM CLAUSE 4.11.4 OF CSA C22.2 NO. 0.3.



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 & 2.4 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

CABLE ASSEMBLY: 4 PAIRS CABLED WITH CORE SEPARATOR

COLOR CODE: SEE TABLE 1

JACKET: NO LEAD FLAME RETARDANT THERMOPLASTIC
 JACKET COLOR: SEE TABLE 2
 NOMINAL CABLE OD: .225" (5.72 mm)

LISTING: C(UL)US OR C(ETL)US TYPE CMG
 UL OR ETL VERIFIED CAT 6 PATCH

PHYSICAL CHARACTERISTICS

CABLE WEIGHT w/reel: 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	BLUE
2	WHITE-ORANGE	ORANGE
3	WHITE-GREEN	GREEN
4	WHITE-BROWN	BROWN

TABLE 2

MOHAWK PART NUMBER	MOHAWK DESIGN NUMBER	JACKET COLOR
M57507	LT43365	WHITE
M57508	LT43366	BLUE
M58204	LT48362	PINK
M57511	LT43368	YELLOW
M57509	LT43367	LT. GRAY
M57512	LT43369	GREEN
M57519	LT43372	RED
M57518	LT43371	ORANGE
M57520	LT43373	BLACK
M57517	LT43370	VIOLET
M58695	LT54309	POWDER BLUE
M58954	LT57275	LIME GREEN

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



MOHAWK
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Rev	Description	Date	Init.
V	UPDATE FOOTER	06/20/13	JS
W	UPDATE TAPE PLACEMENT IN DIAGRAM	12/17/13	JS
X	UPDATE PATENT INFO & WEIGHT	08/07/14	JS
Y	UPDATE FOOTER	03/13/17	JS
Date: 11/30/98		Page 1 of 2	
Orig:		Review:	
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ELECTRICAL CHARACTERISTICS (REF TABLE 3)

STANDARDS:	EXCEEDS ANSI/TIA-568-C.2 CAT 6, ISO/IEC 11801:2002 CAT 6 & IEC 61156-6 CAT 6 PATCH CABLE	INSERTION LOSS:	$2.1696\sqrt{f} + .0204f + \frac{.24}{\sqrt{f}}$ dB/100m MAX
CONDUCTOR DCR:	9.09 Ω/100m (27.7 Ω/Mft) MAX	NEAR END CROSSTALK (NEXT):	46.3 – 15 log ₁₀ (f/100) dB/100m MIN
DCR UNBALANCE:	3% MAX	POWER SUM NEAR END CROSSTALK (PS-NEXT):	44.3 – 15 log ₁₀ (f/100) dB/100m MIN
MUTUAL CAPACITANCE:	46 pF/m NOM	EQUAL LEVEL FAR END CROSSTALK (ELFEXT):	30 – 20 log ₁₀ (f/100) dB/100m MIN
CAPACITANCE UNBALANCE PAIR/GROUND:	66 pF/100m MAX	POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT):	28 – 20 log ₁₀ (f/100) dB/100m MIN
CHARACTERISTIC IMPEDANCE:	100 Ω ± 15% (1-300 MHz)	PROPAGATION DELAY:	534 + 36/√f ns/100m MAX
INPUT IMPEDANCE:	100 Ω ± 15% (1-100 MHz) 100 Ω ± 18% (>100-200 MHz) 100 Ω ± 22% (>200-350 MHz)	DELTA DELAY (SKEW):	25 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):	68%

WHERE f = FREQUENCY IN MHz from .772 to 350 MHz
except for ELFEXT and PS-ELFEXT from 1 to 350 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	2.0	2.2	88	78.0	75.8	81	76.0	73.8	-	-	-
1.0	2.2	2.4	86	76.3	73.9	79	74.3	71.9	70.0	68.0	20.0
4.0	4.3	4.5	77	67.3	62.8	70	65.3	60.8	58.0	56.0	23.0
8.0	6.0	6.4	73	62.8	56.4	66	60.8	54.4	51.9	49.9	24.5
10.0	6.8	7.1	71	61.3	54.2	64	59.3	52.2	50.0	48.0	25.0
16.0	8.6	9.1	68	58.2	49.1	61	56.2	47.1	45.9	43.9	25.0
20.0	9.6	10.2	67	56.8	46.6	60	54.8	44.6	44.0	42.0	25.0
25.0	10.8	11.4	65	55.3	43.9	58	53.3	41.9	42.0	40.0	24.3
31.25	12.1	12.8	64	53.9	41.1	57	51.9	39.1	40.1	38.1	23.6
62.5	17.5	18.5	59	49.4	30.9	52	47.4	28.9	34.1	32.1	21.5
100.0	22.5	23.8	56	46.3	22.5	49	44.3	20.5	30.0	28.0	20.1
155.0	28.6	30.2	53	43.4	13.2	46	41.4	11.2	26.2	24.2	18.8
200.0	32.9	34.8	52	41.8	7.0	45	39.8	5.0	24.0	22.0	18.0
250.0	37.2	39.4	50	40.3	0.9	43	38.3	-	22.0	20.0	17.3
300.0	41.4	43.7	49	39.1	-	42	37.1	-	20.5	18.5	16.8
350.0	45.1	47.7	48	38.1	-	41	36.1	-	19.1	17.1	16.3
400.0	48.8	51.6	47	37.3	-	40	35.3	-	18.0	16.0	15.9
500.0	55.5	58.7	46	35.8	-	39	33.8	-	16.0	14.0	15.2
550.0	58.7	62.1	45	35.2	-	38	33.2	-	-	-	14.9
600.0	61.5	64.2	45	34.6	-	38	34.6	-	-	-	14.7
650.0	64.5	66.8	44	34.1	-	37	34.1	-	-	-	14.4

SWEEP TESTED TO 650 MHz; VALUES ABOVE 350 MHz ARE FOR ENGINEERING INFORMATION ONLY.



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