

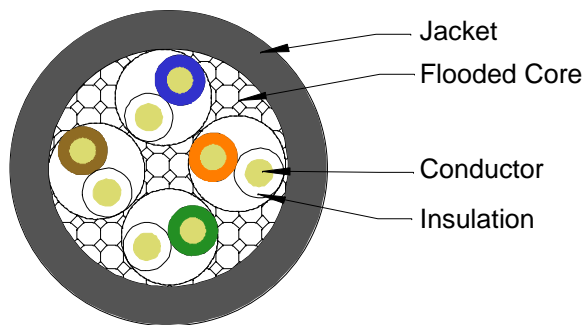
SPECIFICATION  
**4 PAIR #24 AWG LAN-Trak OSP  
 CAT 5E OUTDOOR UTP**  
 (SUITABLE FOR DUCT & AERIAL LASHING)

Design Number:  
**LT43695**

**DESCRIPTION**

UNSHIELDED TWISTED PAIR (UTP) CATEGORY 5E FOR USE IN HORIZONTAL CABLING SYSTEMS PER ANSI/TIA-568-C. THE CABLE EXCEEDS ANSI/TIA-568-C.2 CATEGORY 5e AND ISO/IEC 11801 CATEGORY 5 ELECTRICAL CHARACTERISTICS. THE CABLE CONSISTS OF #24 AWG SOLID BARE COPPER INSULATED CONDUCTORS, ASSEMBLED INTO FOUR TIGHTLY TWISTED PAIRS, FLOODED TO PREVENT MOISTURE INGRESS, UNDER AN OVERALL UV-RESISTANT JACKET. PRINT INCLUDES DESCENDING FOOTAGE MARKERS FROM 1000 TO 0 ON EACH 1000 FT REEL.

THE CABLE IS SUITABLE FOR OUTDOOR USE IN DUCT AND FOR AERIAL LASHING. IT IS WATER BLOCKED AND HAS A BLACK SUNLIGHT RESISTANT JACKET. THE CABLE IS NOT UL OR CSA LISTED, SINCE IT IS NOT FLAME RETARDANT. CONSULT THE NATIONAL ELECTRICAL CODE (NEC) ARTICLE 800 FOR USE IN BUILDINGS.



**SUPPORTED APPLICATIONS**

IEEE 802.3 10BASE-T (ETHERNET), 100BASE-T (FAST ETHERNET), AND 1000BASE-T (GIGABIT ETHERNET), IEEE 802.3af POE, IEEE 802.3at-2009 POE+, ANSI.X3.263 FDDI TP-PMD, IEEE 802.5 4 AND 16 Mbps TOKEN RING, ATM UP TO 1.2 Gbps AND 550 MHz BROADBAND VIDEO

**TABLE 1**

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

**CONSTRUCTION**

**PRIMARIES:** CONDUCTOR: 24 AWG (.5 mm) SOLID BARE COPPER  
 INSULATION: THERMOPLASTIC POLYOLEFIN

**PAIR ASSEMBLY:** 2 PRIMARIES TWISTED IN VARIED LAYS

**COLOR CODE:** SEE TABLE 1 (WHITE CONDS HAVE INTEGRAL STRIPE TO MATCH THEIR MATE)

**CABLE ASSEMBLY:** 4 PAIRS CABLED TOGETHER

**JACKET:** MATERIAL: POLYETHYLENE  
 NOMINAL DIAMETER: .226 (5.74 mm)  
 COLOR: SEE TABLE 2

**NOTE:** CABLE FLOODED FOR MOISTURE PROTECTION

**PHYSICAL/MECHANICAL CHARACTERISTICS & STANDARDS**

**CABLE WEIGHT w/reel:** 25 lbs/1000ft (37 kg/km)  
**BEND RADIUS:** 2.25" (57 mm) MIN (10 x CABLE OD)  
**PULLING TENSION:** 25 lbf (110 N) MAX  
**OPERATING TEMP.:** -40°C to +75°C (-40°F to +167°F)  
**STORAGE TEMP.:** -40°C to +75°C (-40°F to +167°F)  
**\*INSTALLATION TEMP.:** -40°C to +60°C (-40°F to +140°F)

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

**COLD BEND:** -40°C COMPLIANCE PER UL 1581

**WATER PENETRATION:** GR 421-CORE PARA. 4.3.5.1  
 ANSI/ICEA S-107-704 PARA. 8.2.1  
 ANSI/ICEA S-99-689

**OTHER STANSARDS:** OUTDOOR USE ANSI/ICEA S-56-434,  
 BROADBAND OUTDOOR USE ANSI/ICEA S-99-689

**TABLE 2**

PART NO.	COLOR
M57561	BLACK
M57755	LT GRAY
M58963	BLUE
M58964	WHITE
M59192	RED



**MOHAWK**  
 Cabling Excellence for Open Architecture

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Rev	Description	Date	Init.
V	UPDATE FOOTER, WGT, BEND RADIUS	10/17/13	JS
W	ADD RED JKT OPTION TO TABLE 2; UPD ELECS	07/14/15	JS
X	UPD DESC W/UV-RES & SFM	06/21/16	JS
Y	UPDATE SUP APPS, PHYS/MECH, STDS, FTR	12/15/17	JS
Date: 12/18/98		Page 1 of 1	
Orig:		Review:	
			Part Number: <b>M57561</b>

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.

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**ELECTRICAL CHARACTERISTICS** (REF TABLE 3)

<p><b>STANDARDS:</b> ANSI/TIA-568-C.2 CAT 5e HORIZONTAL CABLE          ANSI/ICEA S-90-661-2012 CAT 5e          ISO/IEC 11801 ed. 2.2 (2011) CLASS D          ANSI/NEMA WC-63.1 Category 5e</p> <p><b>VOLTAGE RATING:</b> 300 VOLTS</p> <p><b>CONDUCTOR DCR:</b> 8.9 Ω/100m (27.1 Ω/Mft) MAX</p> <p><b>DCR UNBALANCE:</b> 3% MAX</p> <p><b>MUTUAL CAPACITANCE:</b> 51.5 pF/m NOM</p> <p><b>CAPACITANCE UNBALANCE PAIR/GROUND:</b> 66 pF/100m MAX</p> <p><b>CHARACTERISTIC IMPEDANCE:</b> 100 Ω ± 15% (1-400 MHz)</p> <p><b>INPUT IMPEDANCE:</b> 100 Ω ± 15% (1-100 MHz)          100 Ω ± 22% (&gt;100-200 MHz)</p> <p><b>RETURN LOSS (RL):</b> 20 + 5 log<sub>10</sub>(f) dB MIN (1-10 MHz)          25 dB MIN (&gt;10-20 MHz)          25 - 7 log<sub>10</sub>(f/20) dB MIN (&gt;20 MHz)</p>	<p><b>INSERTION LOSS:</b> <math>1.97\sqrt{f} + .013f + \frac{.050}{\sqrt{f}}</math> dB/100m MAX</p> <p><b>NEAR END CROSSTALK (NEXT):</b> 40.3 - 15 log<sub>10</sub>(f/100) dB/100m MIN</p> <p><b>POWER SUM NEAR END CROSSTALK (PS-NEXT):</b> 38.3 - 15 log<sub>10</sub>(f/100) dB/100m MIN</p> <p><b>EQUAL LEVEL FAR END CROSSTALK (ELFEXT):</b> 27.8 - 20 log<sub>10</sub>(f/100) dB/100m MIN</p> <p><b>POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT):</b> 24.8 - 20 log<sub>10</sub>(f/100) dB/100m MIN</p> <p><b>PROPAGATION DELAY:</b> 534 + 36/√f ns/100m MAX</p> <p><b>DELTA DELAY (SKEW):</b> 25 ns/100m MAX</p> <p><b>NOMINAL VELOCITY OF PROPAGATION (NVP):</b> 65%</p> <p style="font-size: small;">WHERE f = FREQUENCY IN MHz from .772 to 250 MHz, except for ELFEXT and PS-ELFEXT from 1 to 250 MHz.</p>
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**TABLE 3  
 REFERENCE ELECTRICAL CHARACTERISTICS**

FREQ (MHz)	INSERTION LOSS			NEXT		ACR	PS-NEXT		PS-ACR	ELFEXT	PS-ELFEXT	RL
	avg	max	max	avg	min	min	avg	min	min	min	min	min
1.0	1.8	2.0	6.2	80	70.3	70.3	73	68.3	66.3	67.8	64.8	20.0
4.0	3.6	4.0	12.2	70	61.3	59.3	63	59.3	55.3	55.8	52.8	23.0
8.0	5.2	5.7	17.4	66	56.8	53.1	59	54.8	49.1	49.7	46.7	24.5
10.0	5.8	6.4	19.4	64	55.3	50.9	58	53.3	46.9	47.8	44.8	25.0
16.0	7.3	8.1	24.7	62	52.2	46.1	56	50.2	42.1	43.7	40.7	25.0
20.0	8.3	9.1	27.7	60	50.8	43.7	54	48.8	39.7	41.8	38.8	25.0
25.0	9.3	10.2	31.0	59	49.3	41.1	52	47.3	37.1	39.8	36.8	24.3
31.25	10.4	11.4	34.8	58	47.9	38.5	51	45.9	34.5	37.9	34.9	23.6
62.5	15.1	16.4	50	54	43.4	29.0	47	41.4	25.0	31.9	28.9	21.5
100.0	19.6	21.0	64	50	40.3	21.3	43	38.3	17.3	27.8	24.8	20.1
155.0	25.0	26.5	81	48	37.4	12.9	41	35.4	8.9	24.0	21.0	18.8
200.0	28.8	30.5	93	46	35.8	7.3	40	33.8	3.3	21.8	18.8	18.0
250.0	32.8	34.4	105	45	34.3	1.9	38	32.3	-	19.8	16.8	17.3
300.0	36.5	38.0	116	44	33.1	-	37	31.1	-	18.3	15.3	16.8
350.0	40.0	41.4	126	43	32.1	-	36	30.1	-	16.9	13.9	16.3
400.0	43.2	44.6	136	42	31.3	-	35	29.3	-	-	-	15.9

SWEEP TESTED TO 400 MHz; VALUES ABOVE 250 MHz ARE FOR ENGINEERING INFORMATION ONLY.



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