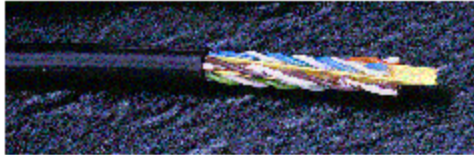


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REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
A	INITIAL RELEASE	12/21/12	D.FRISIELLO

RoHS Compliant ✓



## LAN-Trak OSP Category 6

4 Pair #24 AWG UTP  
Category 6 Outdoor Cable

**PART # M57622**

### DESCRIPTION

ENHANCED UNSHIELDED TWISTED PAIR (UTP) CATEGORY 6 CABLE FOR USE IN HORIZONTAL CABLING SYSTEMS AS DESCRIBED IN TIA/EIA 568-B. THE CABLE EXCEEDS TIA/EIA 568-B.2-1 AND ISO/IEC 11801 CATEGORY 6 ELECTRICAL CHARACTERISTICS. THE CABLE CONSISTS OF #24 AWG SOLID BARE COPPER INSULATED CONDUCTORS, ASSEMBLED INTO FOUR TIGHTLY TWISTED PAIRS, WITH A FLEXWEB® CORE SEPARATOR, FLOODED TO PREVENT MOISTURE INGRESS, UNDER AN OVERALL JACKET. THIS PRODUCT AND/OR ITS MANUFACTURE IS COVERED BY US PATENT NOS. 6074503, 6996944 & 5424491.

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.

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), IEEE 802.3af POWER OVER ETHERNET FOR VoIP, 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 (.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 WITH A FLEXWEB CORE SEPARATOR

**JACKET:** MATERIAL: BLACK POLYETHYLENE  
NOMINAL WALL: .040" (1.02 mm)  
NOMINAL DIAMETER: .271" (6.88 mm)

**NOTE:** CABLE FLOODED FOR MOISTURE PROTECTION



TABLE 1

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

### PHYSICAL CHARACTERISTICS

**CABLE WEIGHT:** 36 lbs/1000ft (54 kg/km)

**BEND RADIUS:** 2.75" (70 mm) MIN (10 x CABLE OD)

**OPERATING TEMP.:** -40°C to +60°C (-40°F to +140°F)

**STORAGE TEMP.:** -40°C to +75°C (-40°F to +167°F)

**INSTALLATION TEMP.:** -20°C to +60°C (-4°F to +140°F)

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

NOTES:

CABLE SHALL BE PACKAGED IN BULK.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES [mm] OVERALL CABLE LENGTH TOLERANCE: ≤12 [305] = +1 [25] / -0 >12 [305] - 60 [1524] = +2 [51] / -0 >60 [1524] - 120 [3048] = +4 [102] / -0 >120 [3048] - 300 [7620] = +6 [152] / -0 >300 [7620] = +5% / -0% ALL OTHER DIMENSIONAL TOLERANCES: .X = .2 .XX = .02 .XXX = .005	APPROVALS	DATE			45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845
	DRAWN BY D.FRISIELLO	12/21/12			
	CHECKED BY D.GALLAGHER	12/21/12	CATEGORY TELECOM/MODULAR		
	APPROVED BY D.GALLAGHER	12/21/12	PRODUCT DESCRIPTION C6 UTP 4PR/24 SLD BLK PE 1K		
PROJECTION	CONFIGURATION DETAILS OF UNDIMENSIONED FEATURES MAY VARY	COLOR VARIATIONS MAY OCCUR	SIZE <b>A</b>	FSCM NO. <b>43321</b>	DWG. NO. <b>TOAC2005</b>
			SCALE: 1:1	CAD FILE: TOAC2005.SLDDRW	SHEET 1 OF 2

# LAN-Trak OSP Category 6

## 4 Pair #24 AWG UTP Category 6 Outdoor Cable

### ELECTRICAL CHARACTERISTICS (REF TABLE 2)

<b>STANDARDS:</b>	EXCEEDS TIA/EIA 568-B.2-1 CAT 6, ISO/IEC 11801:2002 CAT 6, & IEC 61156-5 CAT 6 HORIZONTAL CABLE	<b>RETURN LOSS (RL):</b>	20 + 5 log <sub>10</sub> (f) dB MIN (1-10 MHz) 25 dB MIN (>10-20 MHz) 25 - 7 log <sub>10</sub> (f/20) dB MIN (>20 MHz)
<b>VOLTAGE RATING:</b>	300 VOLTS	<b>INSERTION LOSS:</b>	1.795 √f + .017 f + $\frac{.02}{\sqrt{f}}$ dB/100m MAX
<b>CONDUCTOR DCR:</b>	8.9 Ω/100m (27.1 Ω/Mft) MAX	<b>NEAR END CROSSTALK (NEXT):</b>	45.3 - 15 log <sub>10</sub> (f/100) dB/100m MIN
<b>DCR UNBALANCE:</b>	3% MAX	<b>POWER SUM NEAR END CROSSTALK (PS-NEXT):</b>	43.3 - 15 log <sub>10</sub> (f/100) dB/100m MIN
<b>MUTUAL CAPACITANCE:</b>	51.5 pF/m (15.7 pF/ft) NOM	<b>EQUAL LEVEL FAR END CROSSTALK (ELFEXT):</b>	30 - 20 log <sub>10</sub> (f/100) dB/100m MIN
<b>CAPACITANCE UNBALANCE PAIR/GROUND:</b>	66 pF/100m (200 pF/Mft) MAX	<b>POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT):</b>	28 - 20 log <sub>10</sub> (f/100) dB/100m MIN
<b>CHARACTERISTIC IMPEDANCE:</b>	100 Ω ± 15% (1-350 MHz)	<b>PROPAGATION DELAY:</b>	534 + 36 / √f ns/100m MAX
<b>INPUT IMPEDANCE:</b>	100 Ω ± 15% (1-100 MHz) 100 Ω ± 18% (>100-200 MHz) 100 Ω ± 22% (>200-350 MHz)	<b>DELTA DELAY (SKEW):</b>	25 ns/100m MAX
		<b>NOMINAL VELOCITY OF PROPAGATION (NVP):</b>	65%


WHERE f = FREQUENCY IN MHz from .772 to 350 MHz, except for ELFEXT and PS-ELFEXT from 1 to 350 MHz.

TABLE 2

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	1.6	1.8	86	77.0	75.2	80	75.0	73.2	-	-	-
1.0	1.8	2.0	82	75.3	73.3	75	73.3	71.3	70.0	68.0	20.0
4.0	3.5	3.8	73	66.3	62.5	65	64.3	60.5	58.0	56.0	23.0
8.0	5.0	5.3	69	61.8	56.5	61	59.8	54.5	51.9	49.9	24.5
10.0	5.6	5.9	67	60.3	54.4	60	58.3	52.4	50.0	48.0	25.0
16.0	7.1	7.5	66	57.2	49.7	58	55.2	47.7	45.9	43.9	25.0
20.0	7.9	8.4	64	55.8	47.4	56	53.8	45.4	44.0	42.0	25.0
25.0	8.9	9.4	63	54.3	44.9	54	52.3	42.9	42.0	40.0	24.3
31.25	10.0	10.6	62	52.9	42.3	53	50.9	40.3	40.1	38.1	23.6
62.5	14.4	15.3	58	48.4	33.1	49	46.4	31.1	34.1	32.1	21.5
100.0	18.5	19.7	54	45.3	25.6	45	43.3	23.6	30.0	28.0	20.1
155.0	23.5	25.0	52	42.4	17.4	43	40.4	15.4	26.2	24.2	18.8
200.0	27.2	28.8	50	40.8	12.0	42	38.8	10.0	24.0	22.0	18.0
250.0	30.7	32.6	49	39.3	6.7	40	37.3	4.7	22.0	20.0	17.3
300.0	34.0	36.2	48	38.1	2.0	39	36.1	0.0	20.5	18.5	16.8
350.0	37.2	39.5	47	37.1	-	38	35.1	-	19.1	17.1	16.3
400.0	40.2	42.7	46	36.3	-	37	34.3	-	-	-	15.9
500.0	45.8	48.6	45	34.8	-	36	32.8	-	-	-	15.2
720.0	48.4	51.2	44	34.2	-	35	32.2	-	-	-	14.9

VALUES ABOVE 350 MHz ARE FOR ENGINEERING INFORMATION ONLY.

		45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845	
CATEGORY: TELECOM/MODULAR			
PRODUCT DESCRIPTION: C6 UTP 4PR/24 SLD BLK PE 1K			
SIZE: <b>A</b>	FSCM NO.: <b>43321</b>	DWG. NO.: <b>TOAC2005</b>	REV.: <b>A</b>
SCALE: 1:1		CAD FILE: TOAC2005.SLDDRW	
			SHEET 2 OF 2