

SPECIFICATION
VersaLAN® INDOOR/OUTDOOR
4 PAIR #24 AWG UTP CAT 5e CMR/CMX

Design Number:
LT57165

DESCRIPTION

UNSHIELDED TWISTED PAIR (UTP) CATEGORY 5e CABLE FOR USE IN HORIZONTAL CABLING SYSTEMS PER ANSI/TIA-568-C. VERSALAN CMR/CMX OUTDOOR CABLE IS DESIGNED FOR RESIDENTIAL INDOOR/OUTDOOR LAN APPLICATIONS. CATEGORY 5e COMPLIANCE ENSURES THIS CABLE WILL SUPPORT 1000BASE-T GIGABIT ETHERNET. THE CABLE EXCEEDS THE GRADE 2 REQUIREMENTS SPECIFIED IN THE ANSI/TIA/EIA-570-B; "RESIDENTIAL TELECOMMUNICATIONS STANDARD". CMR/CMX-OUTDOOR CABLE IS SPECIALLY DESIGNED TO RESIST CRACKING AFTER LONG-TERM UV EXPOSURE, MAKING IT IDEAL FOR INSTALLATION RUNS THAT REQUIRE THE CABLE TO BE EXPOSED TO THE ELEMENTS. WHILE THIS GEL-FREE CABLE CAN GET WET, IT IS NOT SUITABLE FOR EXTENDED EXPOSURE TO WATER. IT IS NOT SUITABLE FOR DIRECT BURIAL. PRINT INCLUDES DESCENDING FOOTAGE MARKERS FROM 1000 TO 0 ON EACH 1000 FT REEL.

THE CABLE IS RISER (NON-PLENUM) RATED FOR USE AS A VERTICAL RUN IN A SHAFT AND FOR GENERAL PURPOSE COMMUNICATIONS USE IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CABLE IS ALSO RATED FOR OUTDOOR CMX LIMITED USE SUITABLE FOR USE IN DWELLINGS AND IN RACEWAYS. THE CABLE IS UL (USA) & cUL (CANADA) LISTED FOR THIS APPLICATION BY PASSING UL 1666 VERTICAL TRAY & 1581 VERTICAL WIRE FLAME TESTS.

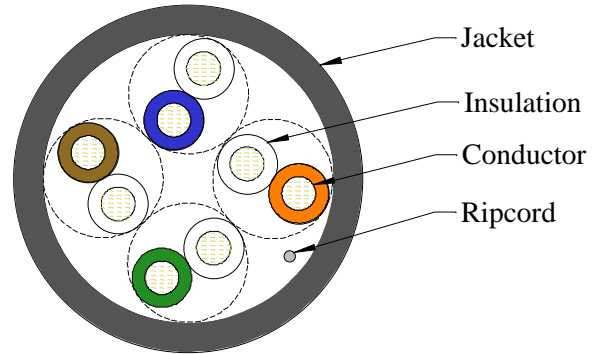


TABLE 1

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

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, 550 MHz BROADBAND VIDEO AND ATM AT 622 Mbps.

PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

- CABLE WEIGHT w/reel:** 25 lbs/1000ft (37 kg/km)
- BEND RADIUS:** 2.2" (56 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.:** -20°C to +75°C (-4°F to +167°F)
- *INSTALLATION TEMP.:** -20°C to +75°C (-4°F to +167°F)

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: UV-RESISTANT OUTDOOR GRADE PVC
 NOMINAL WALL: .030" (.76 mm)
 NOMINAL DIAMETER: .220 (5.59 mm)
 COLOR: SEE TABLE 2

LISTINGS: UL TYPE CMR/CMX OUTDOOR; cUL CMG
 UL OR ETL VERIFIED CAT 5e

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

- CABLE HAS BEEN TESTED AND LISTED AS UL 444 SUNLIGHT RESISTANT COMPLIANT. THIS DESIGNATION REQUIRES THE CABLE TO RESIST 720 HOURS OF HARSH UV AND HEAT, AND IS MORE THAN TWICE THE EXPOSURE TIME OF THE STANDARD 300 HOURS REQUIRED.
- CABLE PASSES -40°C COLD BEND PER UL1581.
- CABLE PASSES IEEE 1202 FLAME TEST.

TABLE 2

PART NUMBER	DESIGN NUMBER	JACKET COLOR
M58926	LT57165	BLACK
M58950	LT57262	WHITE
M59144	LT57883	BLUE

MOHAWK
 Cabling Excellence for Open Architecture

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Rev	Description	Date	Init.
C	ADD THIRD PARTY VERIFICATION	08/01/13	JS
D	ADD PATENT INFO; UPD TABLE 2, WGT & ELECS	08/28/14	JS
E	UPDATE DESC	03/21/16	JS
F	UPDATE DESC WITH SQ FT MKS	06/24/16	JS
Date: 10/05/09		Page 1 of 2	
Orig:		Review:	
			Part Number: M58926

SPECIFICATION
VersaLAN[®] INDOOR/OUTDOOR
4 PAIR #24 AWG UTP CAT 5e CMR/CMX

Design Number:
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ELECTRICAL CHARACTERISTICS (SEE TABLE 3)

<p>STANDARDS: ANSI/TIA-568-C.2 CAT 5e HORIZONTAL CABLE</p> <p>CONDUCTOR DCR: 9.38 Ω/100m (28.6 Ω/Mft) MAX</p> <p>DCR UNBALANCE: 5% MAX</p> <p>MUTUAL CAPACITANCE: 46 pF/m NOM</p> <p>CAPACITANCE UNBALANCE PAIR/GROUND: 132 pF/100m MAX</p> <p>CHARACTERISTIC IMPEDANCE: 100 Ω ± 15% (1-100 MHz)</p> <p>RETURN LOSS (RL): 20 + 5 log₁₀(f) dB MIN (1-10 MHz) 25 dB MIN (>10-20 MHz) 25 - 7 log₁₀(f/20) dB MIN (>20 MHz)</p>	<p>INSERTION LOSS: $1.967\sqrt{f} + .023f + \frac{.050}{\sqrt{f}}$ dB/100m MAX</p> <p>NEAR END CROSSTALK (NEXT): 35.3 - 15 log₁₀(f/100) dB/100m MIN</p> <p>POWER SUM NEAR END CROSSTALK (PS-NEXT): 32.3 - 15 log₁₀(f/100) dB/100m MIN</p> <p>EQUAL LEVEL FAR END CROSSTALK (ELFEXT): 23.8 - 20 log₁₀(f/100) dB/100m MIN</p> <p>POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT): 20.8 - 20 log₁₀(f/100) dB/100m MIN</p> <p>PROPAGATION DELAY: 534 + 36/√f ns/100m MAX</p> <p>DELTA DELAY (SKEW): 45 ns/100m MAX</p> <p>NOMINAL VELOCITY OF PROPAGATION (NVP): 68%</p> <p style="text-align: center;">WHERE f = FREQUENCY IN MHz from .772 to 100 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 (dB/100m)	max (dB/mft)	max (dB/100m)	avg (dB/100m)	min (dB/100m)	min (dB/100m)	avg (dB/100m)	min (dB/100m)	min (dB/100m)	min (dB/100m)	min (dB/100m)	min (dB)
.772	1.6	1.8	5.5	79	67.0	65.2	70	64.0	62.2	-	-	-
1.0	1.8	2.0	6.3	77	65.3	63.3	68	62.3	60.3	63.8	60.8	20.0
4.0	3.8	4.1	13	68	56.3	52.2	57	53.3	49.2	51.7	48.7	23.0
8.0	5.4	5.8	18	64	51.8	46.0	54	48.8	43.0	45.7	42.7	24.5
10.0	6.0	6.5	20	62	50.3	43.8	52	47.3	40.8	43.8	40.8	25.0
16.0	7.6	8.2	25	60	47.3	39.0	50	44.3	36.0	39.7	36.7	25.0
20.0	8.6	9.3	28	58	45.8	36.5	48	42.8	33.5	37.7	34.7	25.0
25.0	9.7	10.4	32	57	44.3	33.9	47	41.3	30.9	35.8	32.8	24.3
31.25	10.9	11.7	36	56	42.9	31.2	46	39.9	28.2	33.9	30.9	23.6
62.5	15.8	17.0	52	52	38.4	21.4	42	35.4	18.4	27.8	24.8	21.5
100.0	20.5	22.0	67	48	35.3	13.3	38	32.3	10.3	23.8	20.8	20.1
155.0	26.2	28.1	86	45	32.4	4.3	35	29.4	1.3	20.0	17.0	18.8
200.0	30.2	32.4	99	43	30.8	-	33	27.8	-	17.8	14.8	18.0

SWEEP TESTED TO 200 MHz; VALUES ABOVE 100 MHz ARE FOR ENGINEERING INFORMATION ONLY.



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