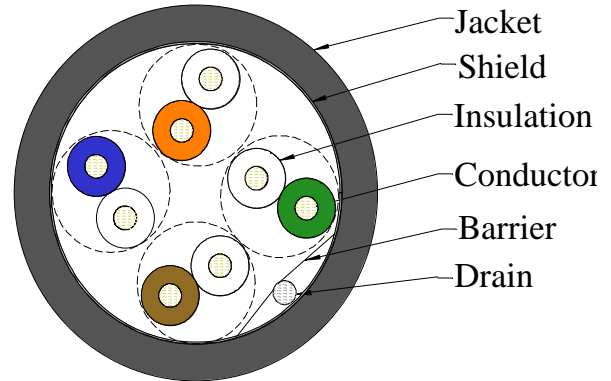


SPECIFICATION
VersaLAN® INDOOR/OUTDOOR
4 PAIR #24 AWG F/UTP CAT 5e CMR/CMX

Design Number:
LT53938

DESCRIPTION

VERSALAN CMR/CMX OUTDOOR CATEGORY 5e 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 ALSO 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.

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

BARRIER: OVERALL POLYESTER TAPE, 25% OVERLAP

DRAIN: #24 AWG SOLID TINNED COPPER

SCREEN (SHIELD): OVERALL ALUMINUM/POLYESTER TAPE, ALUM SIDE FACING IN, 25% OVERLAP, 100% COVERAGE

JACKET: MATERIAL: UV-RESISTANT OUTDOOR GRADE PVC
 NOMINAL WALL: .030" (.76 mm)
 NOMINAL DIAMETER: .265 (6.73 mm)
 COLOR: BLACK

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

PHYSICAL & ENVIRONMENTAL CHARACTERISTICS

- CABLE WEIGHT w/reel:** 36 bs/1000ft (54 kg/km)
- BEND RADIUS:** 2.65" (67 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)

* 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.



MOHAWK
 Cabling Excellence for Open Architecture

324 Clark Street Worcester, MA 01606 USA
 (978) 537-9961 Fax: (978) 537-4358
 (800) 422-9961 www.mohawk-cable.com

This document is the property of Mohawk. The information contained herein is considered proprietary and not to be reproduced by any means without written consent of Mohawk.

Rev	Description	Date	Init.
B	UPD HDR/FTR, STDS, ELEC'S; ADD SWEEP	02/11/13	JS
C	UPDATE WGT, LIST, MUT CAP & CAP UNBAL	08/28/14	JS
D	UPDATE DESC	03/21/16	JS
E	UPDATE DESC WITH SQ FT MKS	06/24/16	JS
Date: 10/30/09		Page 1 of 2	
Orig:		Review:	
Part Number:			M58932

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

Design Number:
LT53938

ELECTRICAL CHARACTERISTICS (SEE TABLE 2)

STANDARDS:	ANSI/TIA-568-C.2 CAT 5e 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):	35.3 - 15 $\log_{10}(f/100)$ dB/100m MIN
DCR UNBALANCE:	5% MAX	POWER SUM NEAR END CROSSTALK (PS-NEXT):	32.3 - 15 $\log_{10}(f/100)$ dB/100m MIN
MUTUAL CAPACITANCE:	46 pF/m NOM	EQUAL LEVEL FAR END CROSSTALK (ELFEXT):	23.8 - 20 $\log_{10}(f/100)$ dB/100m MIN
CAPACITANCE UNBALANCE PAIR/GROUND:	132 pF/100m MAX	POWER SUM EQUAL LEVEL FAR END CROSSTALK (PS-ELFEXT):	20.8 - 20 $\log_{10}(f/100)$ dB/100m MIN
CHARACTERISTIC IMPEDANCE:	100 $\Omega \pm 15\%$ (1-100 MHz)	PROPAGATION DELAY:	534 + 36/ \sqrt{f} 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)	DELTA DELAY (SKEW):	45 ns/100m MAX
		NOMINAL VELOCITY OF PROPAGATION (NVP):	68%

WHERE f = FREQUENCY IN MHz from .772 to 100 MHz

**TABLE 2
REFERENCE ELECTRICAL CHARACTERISTICS**

FREQ (MHz)	INSERTION LOSS			NEXT		ACR	PS-NEXT		PS-ACR	ELFEXT	PS-ELFEXT	RL
	(dB/100m)	(dB/mft)	(dB/mft)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB)
.772	avg 1.6	max 1.8	max 5.5	avg 79	min 67.0	min 65.2	avg 70	min 64.0	min 62.2	min -	min -	min -
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.



MOHAWK
Cabling Excellence for Open Architecture

324 Clark Street Worcester, MA 01606 USA
(978) 537-9961 Fax: (978) 537-4358
(800) 422-9961 www.mohawk-cable.com

This document is the property of Mohawk. The information contained herein is considered proprietary and not to be reproduced by any means without written consent of Mohawk.

Rev	Description	Date	Init.
B	UPD HDR/FTR, STDS, ELEC'S; ADD SWEEP	02/11/13	JS
C	UPDATE WGT, LIST, MUT CAP & CAP UNBAL	08/28/14	JS
D	UPDATE DESC	03/21/16	JS
E	UPDATE DESC WITH SQ FT MKS	06/24/16	JS
Date: 10/30/09		Page 2 of 2	
Orig:		Review:	
			Part Number: M58932