

PART # M58783

VersaLAN™

Category 5e Indoor/Outdoor CM

25 Pair #24 AWG UTP Category 5e Cable

DESCRIPTION

THIS I/O (INDOOR/OUTDOOR) CABLE IS SUITABLE FOR USE IN BUILDINGS IN WET LOCATIONS AND SUITABLE FOR USE OUTDOOR IN DUCT, FOR AERIAL LASHING AND DIRECT BURIAL. IT IS FULLY WATER BLOCKED AND HAS A BLACK SUNLIGHT RESISTANT JACKET. THIS PRODUCT AND/OR ITS MANUFACTURE IS COVERED BY US PATENT NOS. 5821466 & 5424491.

THE CABLE IS NEC RATED FOR GENERAL PURPOSE COMMUNICATIONS USE IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CABLE IS UL (USA) & cUL (CANADA) LISTED FOR THIS APPLICATION BY PASSING UL 1581 VERTICAL TRAY FLAME TEST.

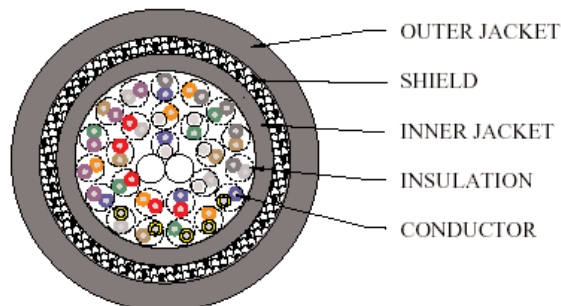
THIS CABLE COMPLIES WITH THE EU-ROHS DIRECTIVE 2002/95/EC (RESTRICTIONS ON HAZARDOUS SUBSTANCES) REGULATIONS.

SUPPORTED APPLICATIONS

10BASE-T (ETHERNET), 100BASE-T (FAST ETHERNET), AND 1000BASE-T (GIGABIT ETHERNET), FDDI TP-PMD, IEEE 802.5 4 AND 16 Mbps TOKEN RING, ATM UP TO 155 Mbps, AND STANDARDS UNDER DEVELOPMENT SUCH AS 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 |
| CABLE ASSEMBLY: | 25 PAIRS CABLED TOGETHER |
| BINDER: | OVERALL OPEN BINDER |
| INNER JACKET: | MATERIAL: MEDIUM DENSITY POLYETHYLENE NOMINAL WALL: .040" (1.0 mm) NOMINAL DIAMETER: .510" (12.95 mm) COLOR: BLACK |
| SHIELD: | CORRUGATED ALUMINUM TAPE .008" (.20 mm) |
| OUTER JACKET: | MATERIAL: FR POLYOLEFIN NOMINAL WALL: .060" (1.5 mm) NOMINAL DIAMETER: .730" (18.54 mm) COLOR: BLACK |
| NOTE: | CABLE IS FLOODED FOR MOISTURE PROTECTION |
| PRINT: | MOHAWK VERSALAN(TM) CAT 5E 25PR 24 AWG C(UL)US CM-LS --- ROHS M58783 (DATE CODE) ☞ (W/SEQ FOOTAGE MARKERS) |
| LISTINGS: | C(UL)US TYPE CM-LS |



PHYSICAL CHARACTERISTICS

| | |
|-----------------------------|------------------------------------|
| CABLE WEIGHT: | 332 lbs/1000ft (494 kg/km) |
| BEND RADIUS: | 11.0" (279 mm) MIN (15 x CABLE OD) |
| PULLING TENSION: | 165 lbf (750 N) MAX |
| 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.

FLAME & SMOKE CHARACTERISTICS

| | |
|---------------------------|--|
| FLAME TESTS: | UL 1581 VERTICAL TRAY, IEEE 383, IEC 332-1, UL VW-1, CSA FT1 |
| LIMITED SMOKE: | -LS PER UL 1685 |
| SMOKE DENSITY: | IEC 1034 |
| COMBUSTION GASSES: | IEC 754-2 |

VersaLAN™ Category 5e Indoor/Outside CM

25 Pair #24 AWG UTP Category 5e Cable

ELECTRICAL CHARACTERISTICS (REF TABLE)

STANDARDS: TIA 568-B.2 CAT 5e BACKBONE CABLE,
MEETING POWER SUM NEXT,
ANSI/ICEA S-99-689-1997

VOLTAGE RATING: 300 VOLTS

CONDUCTOR DCR: 9.38 Ω/100m (28.6 Ω/Mft) MAX

CAPACITANCE: 51.5 pF/m (15.7 pF/ft) NOM

**CAPACITANCE UNBALANCE
PAIR/GROUND:** 330 pF/100m (1000 pF/Mft) MAX

**CHARACTERISTIC
IMPEDANCE:** 100 Ω ± 15% (1-100 MHz)

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)

INSERTION LOSS: $1.967 \sqrt{f} + \frac{.023f}{\sqrt{f}} + \frac{.050}{\sqrt{f}}$ dB/100m MAX

**POWER SUM NEAR END
CROSSTALK (PS-NEXT):** 32.3 - 15 log₁₀(f/100) dB/100m MIN

**POWER SUM EQUAL LEVEL FAR END
CROSSTALK (PS-ELFEXT):** 20.8 - 20 log₁₀(f/100) dB/100m MIN

PROPAGATION DELAY: 534 + 36 / √f ns/100m MAX

DELTA DELAY (SKEW): 45 ns/100m MAX

**NOMINAL VELOCITY OF
PROPAGATION (NVP):** 65%

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

REFERENCE ELECTRICAL CHARACTERISTICS

| FREQ (MHz) | INSERTION LOSS (dB/100m) | | | PS-NEXT (dB/100m) | | PS-ACR* (dB/100m) | PS-ELFEXT (dB/100m) | RL (dB) |
|---------------|-----------------------------|------|-----|----------------------|------|----------------------|------------------------|------------|
| | avg | max | max | avg | min | | | |
| .772 | 1.5 | 1.8 | 5.5 | 70 | 64.0 | 62.2 | - | - |
| 1.0 | 1.9 | 2.0 | 6.3 | 68 | 62.3 | 60.3 | 60.8 | 20.0 |
| 4.0 | 3.8 | 4.1 | 13 | 57 | 53.3 | 49.2 | 48.7 | 23.0 |
| 8.0 | 5.4 | 5.8 | 18 | 54 | 48.8 | 43.0 | 42.7 | 24.5 |
| 10.0 | 6.1 | 6.5 | 20 | 52 | 47.3 | 40.8 | 40.8 | 25.0 |
| 16.0 | 7.8 | 8.2 | 25 | 50 | 44.3 | 36.1 | 36.7 | 25.0 |
| 20.0 | 8.8 | 9.3 | 28 | 48 | 42.8 | 33.5 | 34.7 | 25.0 |
| 25.0 | 9.9 | 10.4 | 32 | 47 | 41.3 | 30.9 | 32.8 | 24.3 |
| 31.25 | 11.1 | 11.7 | 36 | 46 | 39.9 | 28.2 | 30.9 | 23.6 |
| 62.5 | 16.0 | 17.0 | 52 | 42 | 35.4 | 18.4 | 24.8 | 21.5 |
| 100.0 | 20.5 | 22.0 | 67 | 38 | 32.3 | 10.3 | 20.8 | 20.1 |

*ACR -- ATTENUATION TO CROSSTALK RATIO

Mohawk reserves the right to change specification in the interest of product enhancement.

MOHAWK
Cabling Excellence for Open Architecture

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