

# Spectrum™ I/O

## 4 Pair #23 AWG UTP Indoor/Outdoor Low Skew Cable

**PART # M58854**

### DESCRIPTION

THIS CABLE IS SUITABLE FOR USE IN BUILDINGS IN WET LOCATIONS AND SUITABLE FOR USE OUTDOOR IN DUCT AND FOR AERIAL LASHING. IT IS FULLY WATER BLOCKED AND HAS A BLACK SUNLIGHT RESISTANT JACKET. IT IS NOT SUITABLE FOR DIRECT BURIAL. IT HAS UNSHIELDED TWISTED PAIRS (UTP) FOR USE IN UTP BASED VIDEO APPLICATIONS. THE CABLE CAN BE TERMINATED IN CATEGORY 5e CONNECTING HARDWARE. THE CABLE CONSISTS OF #23 AWG SOLD BARE COPPER INSULATED CONDUCTORS, ASSEMBLED INTO A FLOODED CORE OF FOUR TIGHTLY TWISTED PAIRS, WITH A RIPCORD, UNDER AN OVERALL JACKET.

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.

### SUPPORTED APPLICATIONS

COMPONENT RGB VIDEO, DOES NOT SUPPORT TIA 568-B CATEGORY TYPE DATA TRANSMISSION APPLICATIONS.

### CONSTRUCTION

**PRIMARIES:** CONDUCTOR: 23 AWG (.6 mm) SOLID BARE COPPER  
INSULATION: THERMOPLASTIC POLYOLEFIN

**PAIR ASSEMBLY:** 2 PRIMARIES TWISTED TOGETHER

**COLOR CODE:** SEE TABLE 1

**CABLE ASSEMBLY:** 4 PAIRS CABLED TOGETHER

**JACKET:** MATERIAL: FR POLYOLEFIN  
NOMINAL CABLE OD: .250" (6.35 mm)  
COLOR: BLACK

**NOTE:** CABLE FLOODED FOR MOISTURE PROTECTION

**PRINT:** MOHAWK SPECTRUM (TM) LOW SKEW 4PR 23 AWG C(UL)US CM-LS INDOORT/OUTDOOR --- ROHS M58854 + (DATE CODE) + (SSEQUENTIAL FOOTAGE MARKS)

**LISTING:** C(UL)US CM-LS

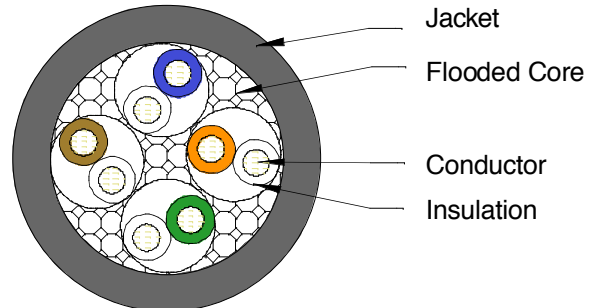


TABLE 1

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

### PHYSICAL CHARACTERISTICS

**CABLE WEIGHT:** 41 lbs/1000ft (61 kg/km)

**BENDING RADIUS:** 1" (25.4 mm) MIN (4 x CABLE OD)

**PULLING TENSION:** 25 lbf (110 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.

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### ELECTRICAL CHARACTERISTICS (REF TABLE 2)

<b>VOLTAGE RATING:</b>	300 VOLTS	<b>INSERTION LOSS:</b>	$1.967 f + .023 f + \frac{.050}{f}$ dB/100m MAX
<b>CONDUCTOR DCR:</b>	7.1 $\Omega$ /100m (21.8 $\Omega$ /Mft) MAX	<b>PROPAGATION DELAY:</b>	534 + 36 / f ns/100m MAX
<b>DCR UNBALANCE:</b>	5% MAX	<b>PROPAGATION DELAY SKEW:</b>	2.2 ns/100m NOM
<b>MUTUAL CAPACITANCE:</b>	46 pF/m (14 pF/ft) NOM	<b>NOMINAL VELOCITY OF PROPAGATION (NVP):</b>	68%
<b>CAPACITANCE UNBALANCE PAIR/GROUND:</b>	132 pF/100m (400 pF/Mft) MAX		
<b>CHARACTERISTIC IMPEDANCE:</b>	100 $\Omega$ $\pm$ 15% (1-100 MHz) (FOR REFERENCE ONLY)		WHERE f = FREQUENCY IN MHz from .772 to 100 MHz

TABLE 2  
REFERENCE ELECTRICAL CHARACTERISTICS

FREQ (MHz)	INSERTION LOSS		
	avg (dB/100m)	max (dB/100m)	max (dB/mft)
.772	1.6	1.8	5.5
1.0	1.8	2.0	6.3
4.0	3.8	4.1	13
8.0	5.4	5.8	18
10.0	6.0	6.5	20
16.0	7.6	8.2	25
20.0	8.6	9.3	28
25.0	9.7	10.4	32
31.25	10.9	11.7	36
62.5	15.8	17.0	52
100.0	20.5	22.0	67

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

**MOHAWK**  
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