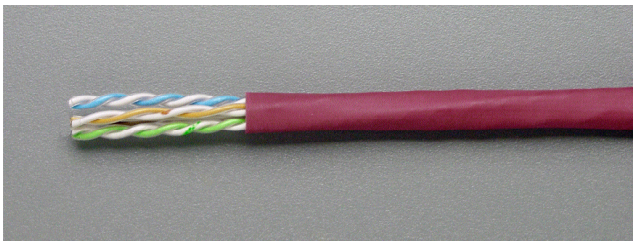

Spectrum™

4 Pair #24 AWG UTP
Low Skew Cable

PLENUM PART # M58814
NON-PLENUM PART # M58813

DESCRIPTION

UNSHIELDED TWISTED PAIR (UTP) CABLE FOR USE IN UTP BASED VIDEO APPLICATIONS. THE CABLE CAN BE TERMINATED IN CATEGORY 5e CONNECTING HARDWARE. THE CABLE CONSISTS OF #24 AWG SOLID BARE COPPER INSULATED CONDUCTORS, ASSEMBLED INTO FOUR TIGHTLY TWISTED PAIRS, WITH A RIPCORD, UNDER AN OVERALL JACKET. PRINT INCLUDES DESCENDING FOOTAGE MARKERS FROM 1000 TO 0 ON EACH 1000 FT REEL. THIS PRODUCT AND/OR ITS MANUFACTURE IS COVERED BY US PATENT NO. 5563377 (PL).

THE PLENUM RATED CABLE IS FOR USE IN AIR HANDLING DUCTS AND SPACES IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CABLE IS ETL (USA) & ETL (CANADA) LISTED FOR THIS APPLICATION BY PASSING NFPA 262 (FT6 OR PREVIOUSLY UL 910 STEINER TUNNEL) TEST.

THE RISER (NON-PLENUM) RATED CABLE IS FOR USE AS A VERTICAL RUN IN A SHAFT AND FOR GENERAL PURPOSE COMMUNICATIONS USE IN ACCORDANCE WITH ARTICLE 800 OF THE NEC. THE CABLE IS ETL (USA) & cETL (CANADA) LISTED FOR THIS APPLICATION BY PASSING UL 1666 RISER CABLE FLAMMABILITY TEST. THE CABLE ALSO PASSES THE CSA FT4 VERTICAL FLAME TEST - CABLES IN CABLE TROUGH FROM CLAUSE 4.11.4 OF CSA C22.2 NO. 0.3.

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

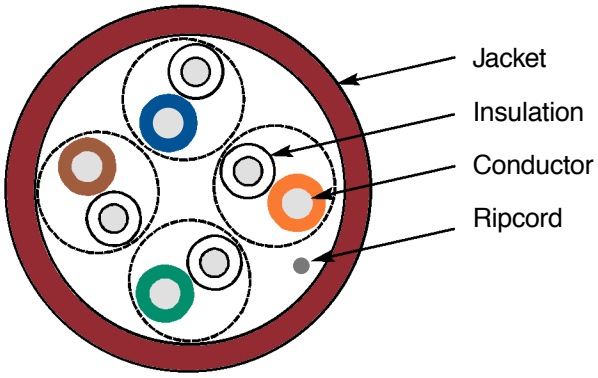

TABLE 1

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

SUPPORTED APPLICATIONS

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

CONSTRUCTION

PRIMARIES: CONDUCTOR: 24 AWG (.5 mm) SOLID BARE COPPER
INSULATION:
PL: DUAL INSULATION, FEP ON ALL 4 PAIRS
NP: THERMOPLASTIC POLYOLEFIN

PAIR ASSEMBLY: 2 PRIMARIES TWISTED IN VARIED LAYS

COLOR CODE: SEE TABLE 1

CABLE ASSEMBLY: 4 PAIRS CABLED TOGETHER

JACKET: PL – NO LEAD PLENUM RATED THERMOPLASTIC
NP – NO LEAD FLAME RETARDANT THERMOPLASTIC
JACKET COLOR: MAROON
NOMINAL CABLE OD: PL: .185" (4.7 mm)
NP: .190" (4.8 mm)

LISTING: PL – C(ETL)US TYPE CMP
NP – C(ETL)US TYPE CMR

PHYSICAL CHARACTERISTICS

CABLE WEIGHT: PL: 23 lbs/1000ft (34 kg/km)
NP: 20 lbs/1000ft (30 kg/km)

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

PULLING TENSION: 25 lbf (110 N) MAX

OPERATING TEMP.: –20°C to +60°C (–4°F to +140°F)

STORAGE TEMP.: –20°C to +75°C (–4°F to +167°F)

INSTALLATION TEMP.*: 0°C to +60°C (+32°F to +140°F)

*THE INSTALLATION TEMPERATURE REFERS TO THE TEMPERATURE OF THE *CABLE* WHILE BEING INSTALLED OR PULLED. DO NOT INSTALL PLENUM CABLE BELOW 0°C (+32°F).

PL = PLENUM
NP = NON-PLENUM

MOHAWK
Cabling Excellence for Open Architecture

RoHS

Spectrum™

4 Pair #24 AWG UTP Low Skew Cable

ELECTRICAL CHARACTERISTICS (REF TABLE 2)

VOLTAGE RATING: 300 VOLTS

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

DCR UNBALANCE: 5% MAX

MUTUAL CAPACITANCE: 46 pF/m (14 pF/ft) NOM

CAPACITANCE UNBALANCE PAIR/GROUND: 132 pF/100m (400 pF/Mft) MAX

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

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)

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

PROPAGATION DELAY: $534 + 36 / \sqrt{f}$ ns/100m MAX

PROPAGATION DELAY (SKEW): 2.2 ns/100m NOM

NOMINAL VELOCITY OF PROPAGATION (NVP): 72% PLENUM
68% NON-PLENUM

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

TABLE 2

REFERENCE ELECTRICAL CHARACTERISTICS

FREQ (MHz)	INSERTION LOSS (dB/100m)		(dB/mft)	RL (dB)
	avg	max	max	min
.772	1.6	1.8	5.5	-
1.0	1.8	2.0	6.3	20.0
4.0	3.8	4.1	13	23.0
8.0	5.4	5.8	18	24.5
10.0	6.0	6.5	20	25.0
16.0	7.6	8.2	25	25.0
20.0	8.6	9.3	28	25.0
25.0	9.7	10.4	32	24.3
31.25	10.9	11.7	36	23.6
62.5	15.8	17.0	52	21.5
100.0	20.5	22.0	67	20.1
155.0	26.2	28.1	86	18.8
200.0	30.2	32.4	99	18.0

VALUES ABOVE 100 MHz ARE FOR ENGINEERING INFORMATION ONLY.

MOHAWK
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