

HITACHI CABLE AMERICA

Customer Specification

HCM - 38696/8

- C O N F I D E N T I A L -

RFQ #:

54781

ITEM DESCRIPTION:

CATEGORY 5e CABLE, CONSISTING OF 4 PAIRS, 24 AWG, UNSHIELDED, WITH A PVC JACKET. c(UL)us CMR

COMPONENT:

CONDUCTOR:

24 AWG SOLID BARE COPPER
.0201" (.5105mm) NOM OD

INSULATION:

POLYOLEFIN
.035" (.880mm) NOM OD
.0073" (.1842mm) AVG WALL

PAIRING:

THE COMPONENTS ARE TWISTED INTO PAIRS WITH VARYING LEFT HAND LAYS TO MINIMIZE CROSSTALK. FOUR PAIRS ARE THEN CABLED TOGETHER USING A LEFT HAND LAY.

PAIR # COLOR

1 BLU+WHT/BLU
3 GRN+WHT/GRN

PAIR # COLOR

2 ORN+WHT/ORN
4 BRN+WHT/BRN

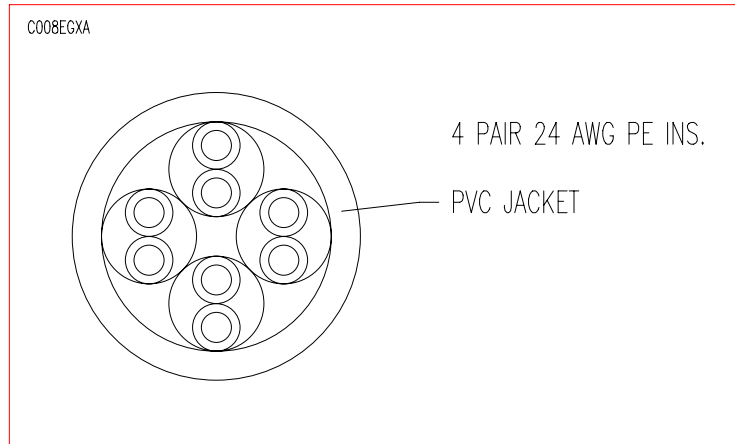
OVERALL JACKET:

PVC LF BLUE (RAL 5012)
.179" (4.547mm) NOM OD
.015" (.381mm) AVG WALL

A RIPCORDER IS PULLED IN UNDER JACKET.

HITACHI CABLE AMERICA 900 Holt Avenue-East Industrial Park Manchester, N.H. 03109 (603) 669-4347	Drawn By: NCM Date: 04/30/97 Checked By: RRC Date: 05/01/97 Issued By: JS Date: 05/01/97	REV# K
	THIS PRODUCT MADE IN THE U.S.A.	
ITEM: 38696-0008-L39-XXX-650-R-01000-5348-00	PAGE 1 of 3 Approved By: _____ Date: _____	

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MARKING:

THE CABLE IS IDENTIFIED WITH THE FOLLOWING PRINT LEGEND:

**HITACHI CABLE AMERICA CATEGORY 5e --- 4PR/24 - 75C - c(UL)us
CMR - VERIFIED (UL) CAT 5e ANSI/TIA 568-C.2 - Z/YY (XXXXX)-
Mx - R# - NNNN FEET**

WHERE: Z = MONTH OF MFG.

YY = YEAR OF MFG.

XXXXX = JOB NUMBER

x = RESPOOL MACHINE #

= MASTER REEL

NNNN = SEQUENTIAL FOOTAGE MARKERS

AGENCY APPROVALS:

UNDERWRITERS LABORATORIES, INC. TYPE CMR COMMUNICATIONS RISER CABLE LISTED AS BEING SUITABLE FOR USE IN A VERTICAL RUN IN A SHAFT OR FROM FLOOR TO FLOOR. ALSO LISTED AS HAVING FIRE-RESISTANT CHARACTERISTICS CAPABLE OF PREVENTING THE CARRYING OF FIRE FROM FLOOR TO FLOOR, IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE.

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CATEGORY 5e
WORST CASE ELECTRICAL CHARACTERISTICS[†]

Characteristic Impedance: 100 ± 15 Ω (1 - 100 MHz)
Maximum Conductor Resistance: 9.38 Ω /100 Meters @ 20°C
Maximum Resistance Unbalance: 5%
Maximum Mutual Capacitance: 5.6 nF/100 Meters @ 1 KHz
Maximum Capacitance Unbalance: 330 pF/100 Meters
Maximum Delay Skew: 45 ns/100 Meters
Voltage Rating: 300 Volts

Frequency (MHz)	Insertion Loss Max. (dB / 100 m)	NEXT Loss Min. (dB / 100 m)		ACR Min. (dB / 100 m)		ELFEXT Min. (dB / 100 m)		Return Loss Min. (dB / 100 m)	Delay Max. (ns / 100 m)
		WP	PS	WP	PS	WP	PS		
1.0	2.0	65.3	62.3	63.3	60.3	63.8	60.8	20.0	570
4.0	4.1	56.3	53.3	52.2	49.2	51.8	48.8	23.0	552
8.0	5.8	51.8	48.8	46.0	43.0	45.7	42.7	24.5	547
10.0	6.5	50.3	47.3	43.8	40.8	43.8	40.8	25.0	545
16.0	8.2	47.2	44.2	39.0	36.0	39.7	36.7	25.0	543
20.0	9.3	45.8	42.8	36.5	33.5	37.8	34.8	25.0	542
25.0	10.4	44.3	41.3	33.9	30.9	35.8	32.8	24.3	541
31.25	11.7	42.9	39.9	31.2	28.2	33.9	30.9	23.6	540
62.5	17.0	38.4	35.4	21.4	18.4	27.9	24.9	21.5	539
100.0	22.0	35.3	32.3	13.3	10.3	23.8	20.8	20.1	538
155.0*	28.1	32.4	29.4	---	---	20.0	17.0	18.8	537
200.0*	32.4	30.8	27.8	---	---	17.8	14.8	18.0	537
250.0*	36.9	29.3	26.3	---	---	15.8	12.8	17.3	536
300.0*	41.0	28.1	25.1	---	---	14.3	11.3	16.8	536
350.0*	44.9	27.1	24.1	---	---	12.9	9.9	16.3	536
400.0*	48.5	26.3	23.3	---	---	11.8	8.8	15.9	536

*Frequencies beyond TIA and ISO requirements are for information only.

†Discrete values are for information only. Equations for swept frequencies govern limits.

THE IMPEDANCE VALUES ABOVE REFLECT ACTUAL INPUT IMPEDANCE DATA. CURVE SMOOTHING OR FITTING IS NOT UTILIZED WHEN MEASURING AND REPORTING IMPEDANCE DATA. THIS CABLE MEETS THE REQUIREMENTS OF ANSI/TIA 568-C.2 FOR CATEGORY 5e AND IS SWEPT TESTED THROUGH 400 MHz.

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