H I T A C H I C A B L E M A N C H E S T E R

Customer Specification

HCM - 30245/8

RFQ #: 43137

ITEM DESCRIPTION: CATEGORY 7 CABLE, CONSISTING OF 4 SHIELDED PAIRS, 22 AWG, BRAID SHIELDED, WITH A PVDF JACKET. FT6 c(UL)us CMP

COMPONENT:

CONDUCTOR: 22 AWG SOLID BARE COPPER
.026'' NOM OD

INSULATION: FLUOROPOLYMER
.061'' NOM OD
.0176'' AVG WALL

PAIRING:

PAIR #	***COLOR***	***PAIR #***	***COLOR***
1	BLU+WHT	2	ORN+WHT
3	GRN+WHT	4	BRN+WHT

FOUR TWISTED PAIRS ARE INDIVIDUALLY WRAPPED WITH AN ALUMINUM/MYLAR SHIELD.

THE FOUR PAIRS ARE THEN CABLED TOGETHER AT A LEFT HAND LAY.

BRAID SHIELD:

CONDUCTOR: 5 ENDS 38 AWG TINNED COPPER
50% MIN COVERAGE

OVERALL JACKET:

PVDF BLUE
.305'' NOM OD
.015'' AVG WALL

A RIPCORD IS PULLED IN UNDER JACKET.

HITACHI CABLE MANCHESTER, INC. 900 Holt Avenue-East Industrial Park Manchester, N.H. 03109 (603) 669-4347	Drawn By: JLA Date: 05/16/11 Checked By: EGA Date: 05/16/11 Issued By: JLA Date: 05/16/11	REV# A
	THIS PRODUCT MADE IN THE U.S.A.	
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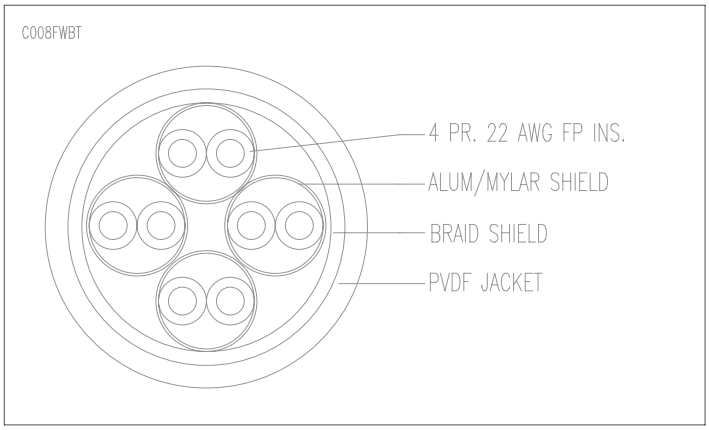

MARKING: THE CABLE IS IDENTIFIED WITH THE FOLLOWING PRINT LEGEND:

HITACHI CABLE MANCHESTER CATEGORY 7 S/FTP --- 4PR/22
FT6 c(UL)us CMP - COMPLIANT TO CAT 7 ISO/IEC 11801 -
Z/YY (XXXX) - Mx - R# - NNNN
WHERE: Z = MONTH OF MFG.
YY = YEAR OF MFG.
XXXX = JOB NUMBER
x = RESPOOL MACHINE #
 # = MASTER REEL #
NNNN = SEQUENTIAL FOOTAGE MARKERS

AGENCY APPROVALS: UNDERWRITERS LABORATORIES, INC. TYPE CMP, COMMUNICATIONS PLENUM CABLE, LISTED AS BEING SUITABLE FOR USE IN DUCTS, PLENUMS, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR. ALSO LISTED AS HAVING ADEQUATE FIRE-RESISTANT AND LOW SMOKE-PRODUCING CHARACTERISTICS, IN ACCORDANCE WITH ARTICLE 800 OF THE NATIONAL ELECTRICAL CODE.

WORST CASE CATEGORY 7 ELECTRICAL CHARACTERISTICS[†]

Characteristic Impedance: In Accordance With 6.3.10 of IEC 61156-5[††]
Maximum Conductor Resistance: 9.5 Ω /100 Meters @ 20°C
Maximum Resistance Unbalance: 2% (within a pair), 4% (between pairs)
Maximum Capacitance Unbalance: 160 pF/100 Meters
Maximum Delay Skew: 25ns/100 Meters

Frequency (MHz)	**Insertion Loss** Max (dB / 100 m)	**NEXT** Min (dB / 100 m)		**ELFEXT** Min (dB / 100 m)		**Return Loss** Min (dB / 100 m)	**Delay** Max (dB / 100 m)
		WP	PS	WP	PS		
0.772	X	X	X	X	X	X	X
1	X	X	X	X	X	X	X
4	3.74	78.00	75.00	78.00	75.00	23.01	552
8	5.24	78.00	75.00	77.24	74.24	24.52	547
10	5.86	78.00	75.00	75.30	72.30	25.00	545
16	7.41	78.00	75.00	71.22	68.22	25.00	543
20	8.29	78.00	75.00	69.28	66.28	25.00	542
25	9.29	78.00	75.00	67.34	64.34	24.32	541
31.25	10.41	78.00	75.00	65.40	62.40	23.64	540
62.5	14.88	75.46	72.46	59.38	56.38	21.54	539
100	19.02	72.40	69.40	55.30	52.30	20.11	538
200	27.47	67.88	64.88	49.28	46.28	18.00	537
300	34.19	65.24	62.24	45.76	42.76	17.30	536
400	40.01	63.37	60.37	43.26	40.26	17.30	536
500	45.26	61.92	58.92	41.32	38.32	17.30	536
600	50.10	60.73	57.73	39.74	36.74	17.30	535

[†]Not all Characteristics are shown. Refer to IEC 61156-5 for complete list of all required Characteristics and their limits. Discrete values are for information only. Equations for swept frequencies govern limits.

[††]Cables that meet the Return Loss requirements of 6.3.11 of IEC 61156-5 are not required to be measured for Characteristic Impedance.

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