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Datasheet

RS 0.5 m Cisco Male to Male VHDCI 68 to VHDCI 68

RS Stock number: 801-1146

ITEM	DESCRIPTION	PART NUMBER	Q'TY
1.	HULC STACK WIRE BACKSHELL KIT	21289XXXX	2
2.	VHDCI PLUG CONN. KIT	20700XXXX	2
3.	MADISON CABLE (30 AWG)	-----	1
4.	DUST COVER	21010-002	2

TABLE	
LENGTH	TOLERANCE
<2M	+5cm/-0cm
2 TO 5M	+10cm/-0cm
>5M	+15cm/-0cm

NOTE: UNLESS OTHERWISE SPECIFIED.

1 LABEL CONTENT: P/N, REVISION, CUSTOMER-DP, DATE CODE(WW/YY)
DIMENSIONS IN () ARE FOR REFERANCE ONLY.
2 CABLE MANUFACTURER AND LENGTH: OPTIONS
3 LOGO: OPTIONS, BY CUSTOMER
4 CONTACT FINISH: SELECTIVE GOLD PLATED ON CONTACT AREA,
TIN-LEAD PLATED ON SOLDERING AREA.
5 APPLICABLE WIRE #28 AWG~~#34 AWG.
6 DETAILS PLS. REFER TO INDIVIDUAL COMPONENT DRAWINGS.
7 ASSEMBLE PER B.O.M AND WIRE LIST. DO NOT SUBSTITUTE ORCHANGE
PARTS WITHOUT WRITTEN APPROVAL FROM NI ENGINEERING.
VENDOR SHALL SUPPLY A FIRST ARTICLE TO NI ENGINEERING FOR
APPROVAL BEFORE CABLE IS MANUFACTURED.
8 VENDOR MAY USE ANY ONE OF THE ALTERNATIVE VERSIONS OF THE
BACKSHELL/CONNECTOR SETS LISTED ON B.O.M.
9 COMPRESS CABLE TO FACILITATE CLOSURE OF CONNECTOR BACKSHELL.
10 THE COMPLETED CABLE ASSEMBLY SHALL BE ELECTRICALLY TESTED TO
ENSURE THAT THERE ARE NO SHORTS OR OPENS AND IT IS WIRED
PER WIRE LIST. A MECHANICAL CHECK SHALL BE PERFORMED TO
ENSURE PROPER ASSEMBLY PER THIS DRAWING.

MATERIALS:
TOP SHELL: ZINC DIE CAST.
BOTTOM SHELL: ZINC DIE CAST.
FRONT SHROUD: ZINC DIE CAST.
THUMBSCREW: STAINLESS STEEL.
LOCK SCREW: STEEL.
CONN.- CONTACT: PHOSPHOR BRONZE.
CONN.- HOUSING: LCP, COLOR- IVORY.
SNAP COVER: PC+ABS, TRANSPARENT.

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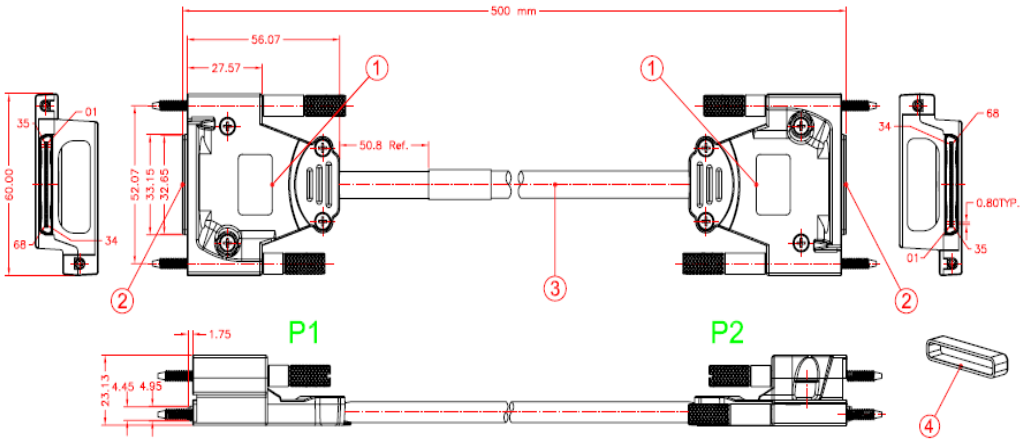

Cable Assembly Overview

New "personality" feature for version 1.1. The termination method for two pins on each connector are unique to the length of assembly. Cable is a crossover assembly with 16 individually shielded, differential pairs and 16 drain wirre.

- Currently five qualified cable vendors

68pin VHDCI (0.8mm) plug (male) possibilities:

- Direct attach – solder cable directly to connector
- Straddle mount – paddle PCB termination.

Concerns

Confidentiality.
High level of automation is desired to maintain lot consistency, and reduce cost.
Signal integrity:

- Pair foil shields moust preserved to within 0.100" (100mils) of pair termnations.
- Differential pairs must not be opened or separated.

Production Testing

Every cable:

- Standard DC testing (continuity, and high-pot).
- High speed test on custom Cisco test fixture – box wuth ten connector pairs. Test will be fast and simple – connect ten cable, push button: Green LEDs = Pass, Red LEDs = Fail

Production lot sample;

- Network analyzer sweep to 6GHz. Eye pattern. TDR

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Signal Connections

table 1 Signal connection Table - must preserve pair and match polarity (+/-) to the table.

P1.1	drain	P267	P2.1	drain	P167
P1.2	drain	P268	P2.2	drain	P168
P1.3	pair 1 +	P235	P23	pair 9 +	P1.35
P1.4	pair 1 –	P236	P24	pair 9 –	P1.36
P1.5	drain	P237	P2.5	drain	P137
P1.6	drain	P238	P2.6	drain	P138
P17	pair 2 +	P239	P27	pair 10 +	P1.39
P1.8	pair 2 –	P240	P28	pair 10 –	P1.40
P1.9	drain	P241	P2.9	drain	P141
P1.10	drain	P242	P2.10	drain	P142
P1.11	pair 3 +	P243	P211	pair 11 +	P1.43
P1.12	pair 3 –	P244	P212	pair 11 –	P1.44
P1.13	drain	P245	P2.13	drain	P145
P1.14	drain	P246	P2.14	drain	P146
P1.15	pair 4 +	P247	P215	pair 12 +	P1.47
P1.16	pair 4 –	P248	P216	pair 12 –	P1.48
P1.17	drain	P249	P2.17	drain	P149
P1.18	Personality/drain	P250	P1.18	Personality/drain	P150
P1.19	Personality/drain	P251	P1.19	Personality/drain	P151
P1.20	drain	P252	P2.20	drain	P152
P1.21	pair 5 +	P253	P221	pair 13 +	P1.53
P1.22	pair 5 –	P254	P222	pair 13 –	P1.54
P1.23	drain	P255	P2.23	drain	P155
P1.24	drain	P256	P2.24	drain	P156
P1.25	pair 6 +	P257	P225	pair 14 +	P1.57
P1.26	pair 6 –	P258	P226	pair 14 –	P1.58
P1.27	drain	P259	P2.27	drain	P159
P1.28	drain	P260	P2.28	drain	P160
P1.29	pair 7 +	P261	P229	pair 15 +	P1.61
P1.30	pair 7 –	P262	P230	pair 15 –	P1.62
P1.31	drain	P263	P2.31	drain	P163
P1.32	drain	P264	P2.32	drain	P164
P1.33	pair 8 +	P265	P233	pair 16 +	P1.65
P1.34	pair 8 –	P266	P234	pair 16 –	P1.66

Pin 50 and 51 are always tired to ground or a drain wire. Termination for pins 18 and 19 are different for each of assembly. Pins are grounded, or unterminated as defined below.

table 2 Personality pin connections — pins 18 & 19 of bouth connectors.

Cable Length	Pin18	Pin19
0.5m	Ground (Drain wire)	Ground (Drain wire)
1.0m	No Connect	Ground (Drain wire)
3.0m	Ground (Drain wire)	No Connect