



NOTE: UNLESS OTHERWISE SPECIFIED.

- 1 LABEL CONTENT: P/N, REVISION, CUSTOMER-DP, DATE CODE(WW/YY)
DIMENSIONS IN () ARE FOR REFERENCE 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 OR CHANGE
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.

TABLE I

P/N	CABLE	LENGTH "L"
21329XX01	30AWG	300 MM
21329XX02	30AWG	500 MM
21329XX03	30AWG	1.0 M
21329XX04	30AWG	1.5 M
21329XX05	30AWG	2.0 M
21329XX06	30AWG	2.5 M
21329XX07	30AWG	3.0 M
21329XX08	30AWG	5.0 M
21329XX09	30AWG	10.0 M
21329XX10	30AWG	15.0 M
21329XX11	30AWG	20.0 M
21329XX12	30AWG	25.0 M

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

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.

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

△					Date	2007,08,24	Black Box No.	CAB-STACK-1M			
△					Design				Cisco Part No.	CAB-STACK-1M	
△					Check						
Revision	Data	Content	Confirm	Design	Confirm		DWG.No.	CAB-STACK-1M	Version	1.0	

Signal Connections

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

P1.1	drain	P267
P1.2	drain	P268
P1.3	pair 1 +	P2.35
P1.4	pair 1 -	P2.36
P1.5	drain	P237
P1.6	drain	P238
P1.7	pair 2 +	P239
P1.8	pair 2 -	P240
P1.9	drain	P241
P1.10	drain	P242
P1.11	pair 3 +	P243
P1.12	pair 3 -	P244
P1.13	drain	P245
P1.14	drain	P246
P1.15	pair 4 +	P247
P1.16	pair 4 -	P248
P1.17	drain	P249
P1.18	Personality/drain	P250
P1.19	Personality/drain	P251
P1.20	drain	P252
P1.21	pair 5 +	P253
P1.22	pair 5 -	P254
P1.23	drain	P255
P1.24	drain	P256
P1.25	pair 6 +	P257
P1.26	pair 6 -	P258
P1.27	drain	P259
P1.28	drain	P260
P1.29	pair 7 +	P261
P1.30	pair 7 -	P262
P1.31	drain	P263
P1.32	drain	P264
P1.33	pair 8 +	P265
P1.34	pair 8 -	P266

P2.1	drain	P1.67
P2.2	drain	P1.68
P2.3	pair 9 +	P1.35
P2.4	pair 9 -	P1.36
P2.5	drain	P1.37
P2.6	drain	P1.38
P2.7	pair 10 +	P1.39
P2.8	pair 10 -	P1.40
P2.9	drain	P1.41
P2.10	drain	P1.42
P2.11	pair 11 +	P1.43
P2.12	pair 11 -	P1.44
P2.13	drain	P1.45
P2.14	drain	P1.46
P2.15	pair 12 +	P1.47
P2.16	pair 12 -	P1.48
P2.17	drain	P1.49
P1.18	Personality/drain	P1.50
P1.19	Personality/drain	P1.51
P2.20	drain	P1.52
P2.21	pair 13 +	P1.53
P2.22	pair 13 -	P1.54
P2.23	drain	P1.55
P2.24	drain	P1.56
P2.25	pair 14 +	P1.57
P2.26	pair 14 -	P1.58
P2.27	drain	P1.59
P2.28	drain	P1.60
P2.29	pair 15 +	P1.61
P2.30	pair 15 -	P1.62
P2.31	drain	P1.63
P2.32	drain	P1.64
P2.33	pair 16 +	P1.65
P2.34	pair 16 -	P1.66

Pin 50 and 51 are always tied 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 both 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

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 wire.

- 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 must be preserved to within 0.100" (100mils) of pair terminations.
- 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 with 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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