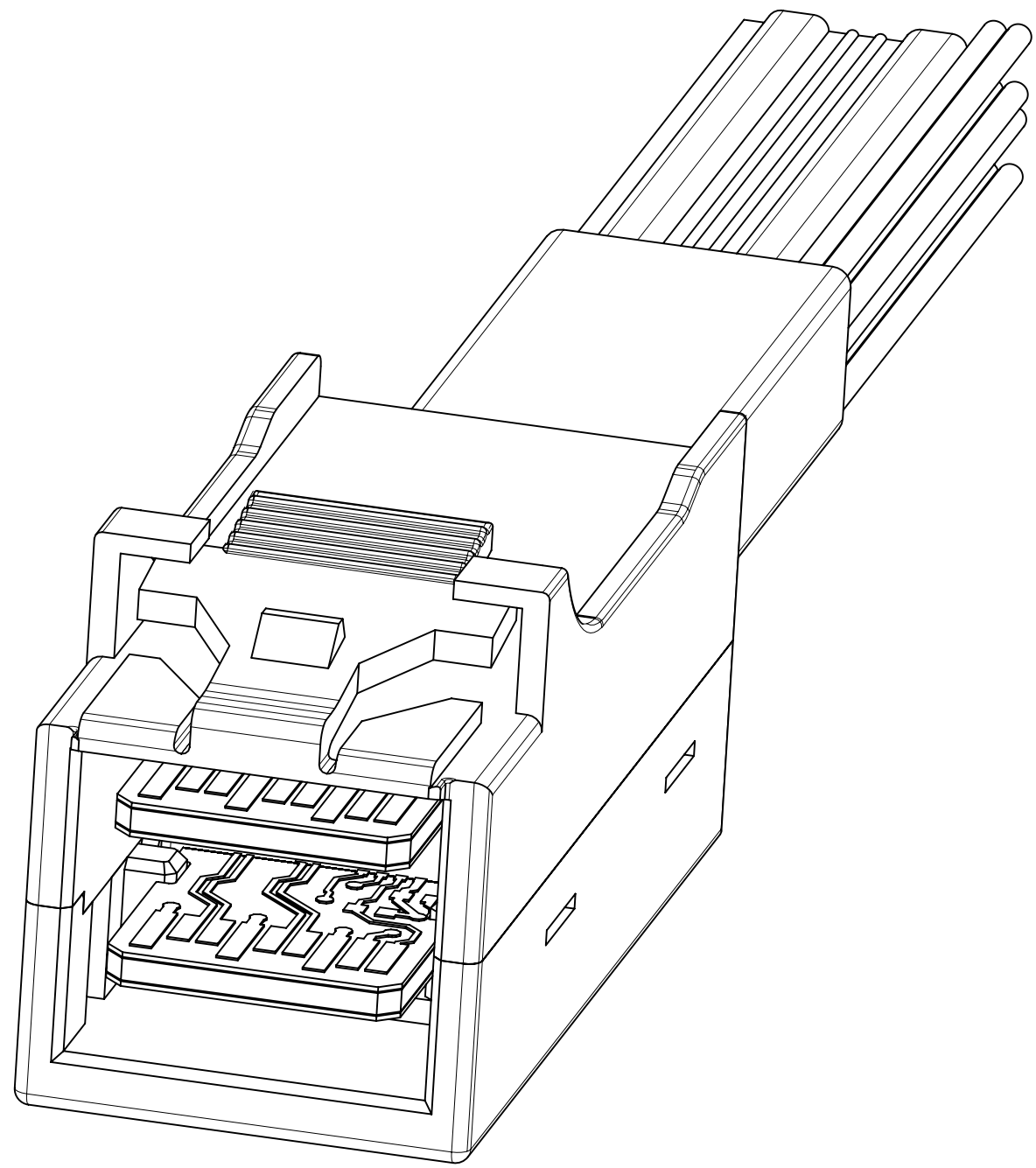
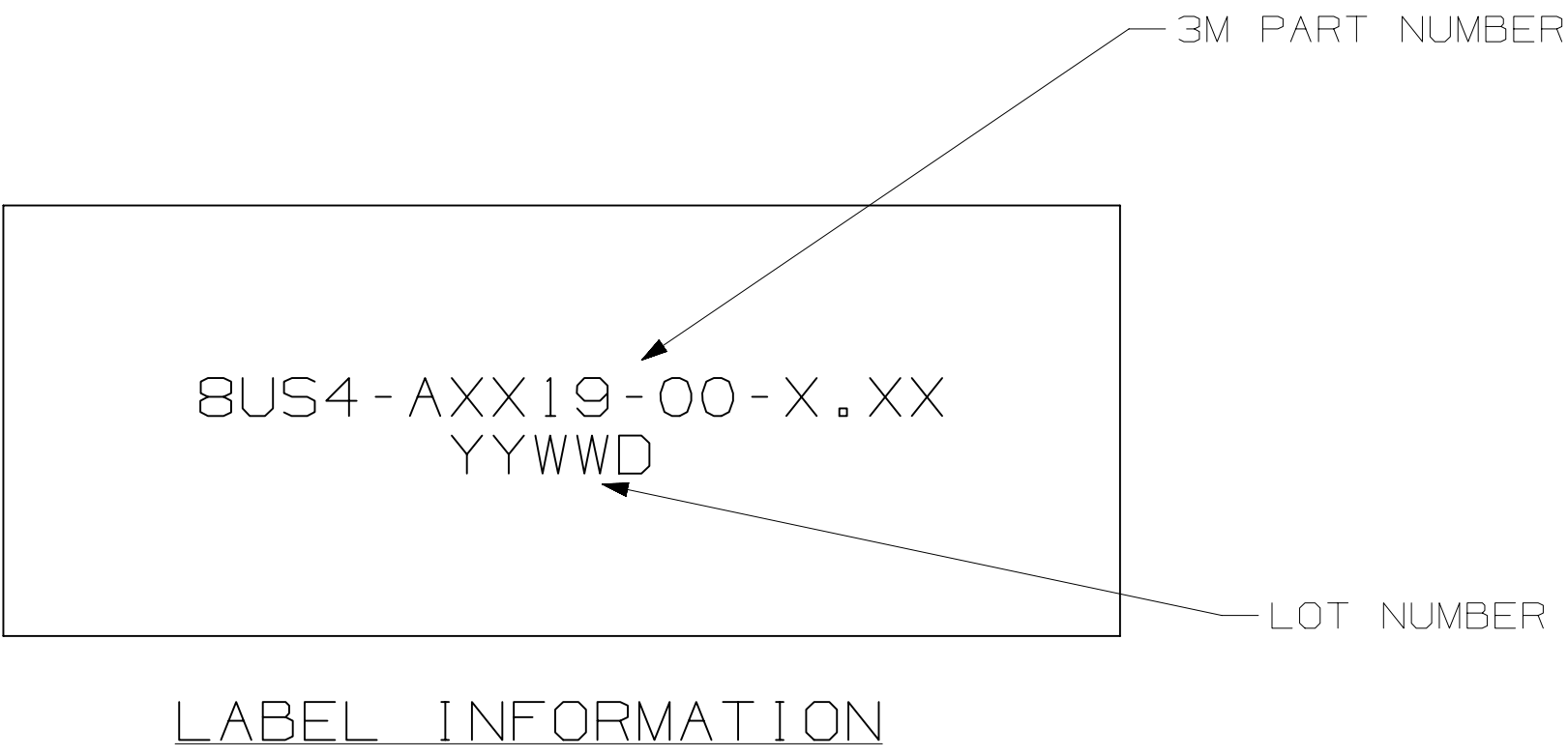
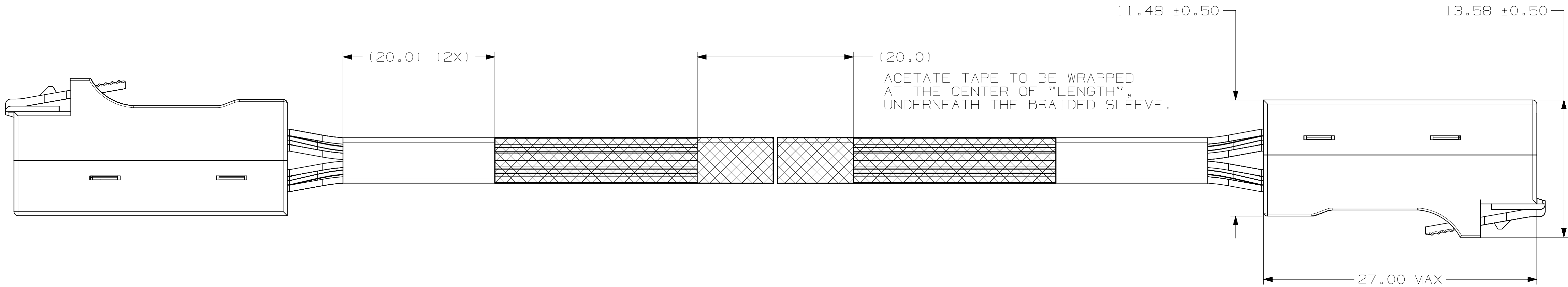
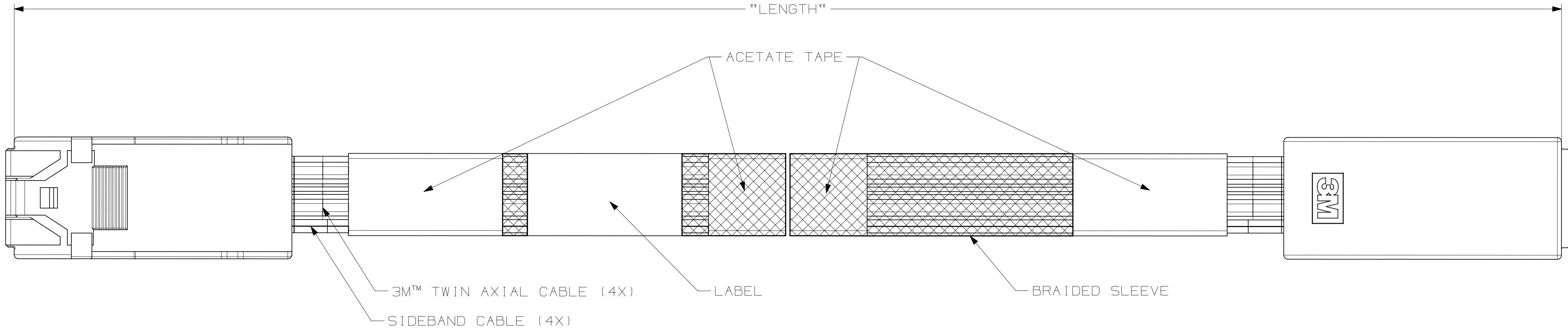


3M™ HIGH ROUTABILITY INTERNAL HD MINISAS CABLE ASSEMBLIES, 8U SERIES
VISIT <http://www.3Mconnectors.com>



DESIGN REFERENCE		NEXT ASSEMBLY	
DISTRIBUTION CODES			
DIVISION		DESIGN CODE	
DO NOT SCALE DRAWING	SCALE 1/4	TOLERANCES EXCEPT AS NOTED	
THIRD ANGLE PROJECTION		INCHES 0.00 ±.000 ±.0000 ±	
INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS 0 ±.0 ±.05 ±.000 ±.0005	
MAX SURFACE ROUGHNESS 125/		ALL SURFACES MARKED ONLY	
ANGLES ±1°			
REV		ECO	
KOK HOE LEE		APR 1, 2013	
CHD YUNLONG QIAO		APR 1, 2013	
3M Center St. Paul, MN 55144		© 3M COPYRIGHT 2013	
TITLE		INTERNAL MINISAS HD CABLE ASSEMBLY	
CAGE NUMBER		DRAWING NO. D78-5100-2555-0	
MODEL		REV. B	
DET		SHT 1 OF 2	

3M PART NUMBERING SCHEME

BUS4 - XXX 19 - 00 - X.XX

"LENGTH" IN METERS

"LENGTH" TOLERANCE

±10MM FOR "LENGTH" 0.5 METER MAX
±15MM FOR "LENGTH" MORE THAN 0.5 METER

TABLE 1: DESCRIPTION FOR "XXX"

XXX	PINOUT
AA1	STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2)
CB1	MINISAS HD 4i WITHOUT SIDEBANDS (SEE TABLE 3)

NOTES

- MATERIALS:
HOUSING: THERMOPLASTIC
INNERMOULD: THERMOPLASTIC
3M™ TWIN AXIAL CABLE:
CONDUCTORS: SOLID COPPER
INSULATOR: POLYOLEFIN
SHIELDING: ALUMINIUM LAYER
SIDEBAND CABLE:
CONDUCTORS: SOLID COPPER
INSULATOR: THERMOPLASTIC ELASTOMER
PCB: LOW DIELECTRIC CONSTANT MATERIAL
FOR HIGH SPEED APPLICATION
BRAIDED SLEEVE: THERMOPLASTIC
- ROHS COMPLIANT. SEE REGULATORY INFORMATION
APPENDIX IN "ROHS COMPLIANCE" SECTION AT
WWW.3MCONNECTORS.COM (E1 & C1 APPLY)
- UNLESS OTHERWISE NOTED, REFERENCES TO INDUSTRY
SPECIFICATIONS ARE INTENDED TO INDICATE
SUBSTANTIAL COMPLIANCE TO THE MATERIAL ELEMENTS
OF THE SPECIFICATION. SUCH REFERENCES SHOULD NOT
BE CONSTRUED AS A GUARANTEE OF COMPLIANCE TO
ALL REQUIREMENTS IN A GIVEN SPECIFICATION.
- PRODUCT SPECIFICATION*: 78-5102-0147-4

WIRING DIAGRAMS

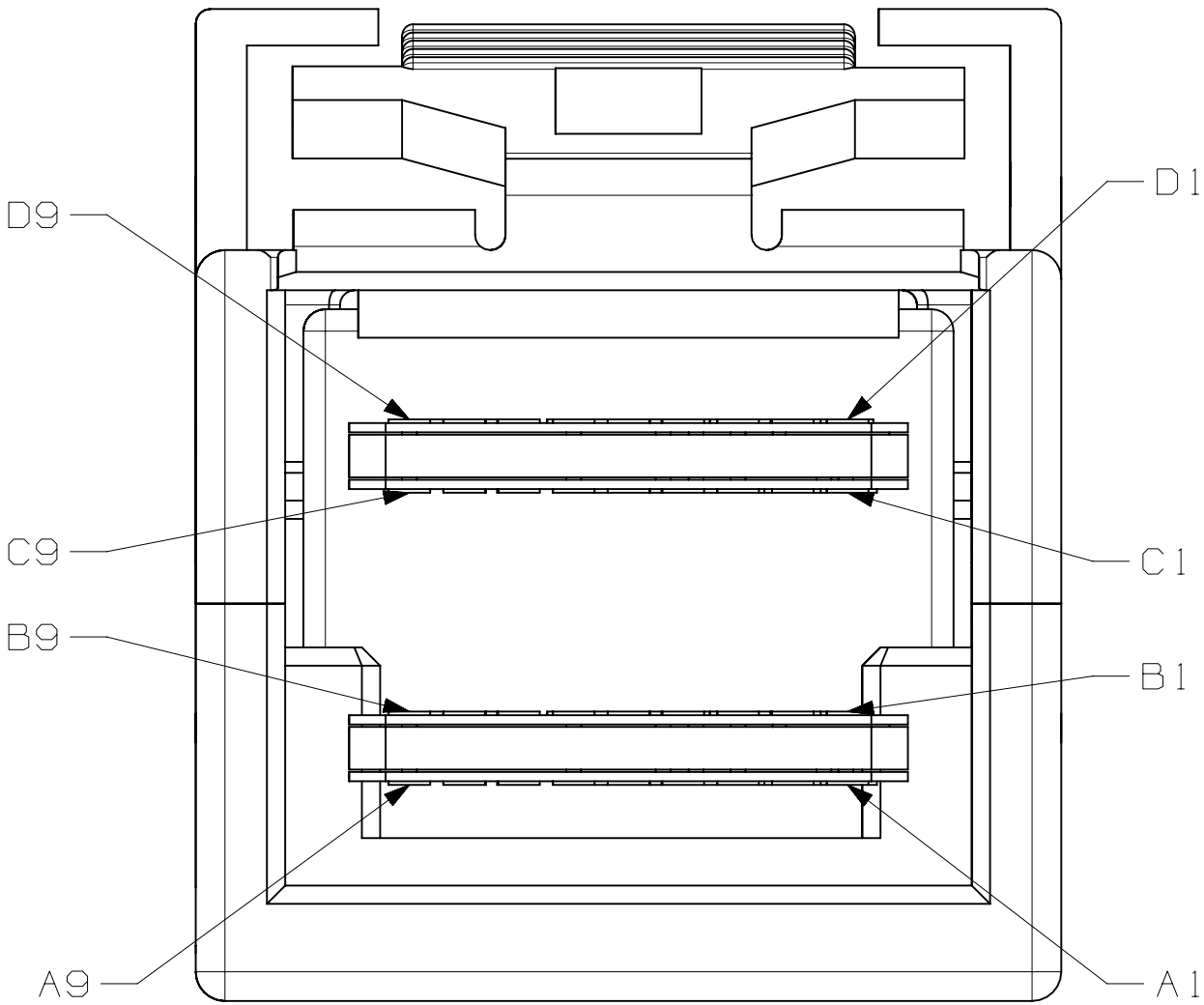
WIRING DIAGRAM 1				
P1			P2	
POSITION	SYMBOL		SYMBOL	POSITION
D9	GROUND	—	GROUND	B9
D8	Tx2-	→→	Rx2-	B8
D7	Tx2+	→→	Rx2+	B7
D6	GROUND	—	GROUND	B6
D5	Tx0-	→→	Rx0-	B5
D4	Tx0+	→→	Rx0+	B4
D3	GROUND	—	GROUND	B3
D2	SIDEBAND 6	↔	SIDEBAND 5	D1
D1	SIDEBAND 5	↔	SIDEBAND 6	D2
C1	SIDEBAND 4	↔	SIDEBAND 2	C2
C2	SIDEBAND 2	↔	SIDEBAND 4	C1
C3	GROUND	—	GROUND	A3
C4	Tx1+	→	Rx1+	A4
C5	Tx1-	→	Rx1-	A5
C6	GROUND	—	GROUND	A6
C7	Tx3+	→	Rx3+	A7
C8	Tx3-	→	Rx3-	A8
C9	GROUND	—	GROUND	A9
B9	GROUND	—	GROUND	D9
B8	Rx2-	←←	Tx2-	D8
B7	Rx2+	←←	Tx2+	D7
B6	GROUND	—	GROUND	D6
B5	Rx0-	←←	Tx0-	D5
B4	Rx0+	←←	Tx0+	D4
B3	GROUND	—	GROUND	D3
B2	SIDEBAND 1	↔	SIDEBAND 3	B1
B1	SIDEBAND 3	↔	SIDEBAND 1	B2
A1	SIDEBAND 7	↔	SIDEBAND 0	A2
A2	SIDEBAND 0	↔	SIDEBAND 7	A1
A3	GROUND	—	GROUND	C3
A4	Rx1+	←	Tx1+	C4
A5	Rx1-	←	Tx1-	C5
A6	GROUND	—	GROUND	C6
A7	Rx3+	←	Tx3+	C7
A8	Rx3-	←	Tx3-	C8
A9	GROUND	—	GROUND	C9

TABLE 2: WITH SIDEBANDS

WIRING DIAGRAM 2				
P1			P2	
POSITION	SYMBOL		SYMBOL	POSITION
D9	GROUND	—	GROUND	B9
D8	Tx2-	→→	Rx2-	B8
D7	Tx2+	→→	Rx2+	B7
D6	GROUND	—	GROUND	B6
D5	Tx0-	→→	Rx0-	B5
D4	Tx0+	→→	Rx0+	B4
D3	GROUND	—	GROUND	B3
C3	GROUND	—	GROUND	A3
C4	Tx1+	→	Rx1+	A4
C5	Tx1-	→	Rx1-	A5
C6	GROUND	—	GROUND	A6
C7	Tx3+	→	Rx3+	A7
C8	Tx3-	→	Rx3-	A8
C9	GROUND	—	GROUND	A9
B9	GROUND	—	GROUND	D9
B8	Rx2-	←←	Tx2-	D8
B7	Rx2+	←←	Tx2+	D7
B6	GROUND	—	GROUND	D6
B5	Rx0-	←←	Tx0-	D5
B4	Rx0+	←←	Tx0+	D4
B3	GROUND	—	GROUND	D3
A3	GROUND	—	GROUND	C3
A4	Rx1+	←	Tx1+	C4
A5	Rx1-	←	Tx1-	C5
A6	GROUND	—	GROUND	C6
A7	Rx3+	←	Tx3+	C7
A8	Rx3-	←	Tx3-	C8
A9	GROUND	—	GROUND	C9

SYMBOLS		
		HIGH SPEED SERIAL DIFFERENTIAL PAIRS
		
		SIGNAL RETURN
		POWER AND MANAGEMENT INTERFACE

TABLE 3: WITHOUT SIDEBANDS



DESIGN REFERENCE		NEXT ASSEMBLY	
DISTRIBUTION CODES			
DIVISION		DESIGN CODE	
DO NOT SCALE DRAWING	SCALE 1/4	TOLERANCES EXCEPT AS NOTED	
THIRD ANGLE PROJECTION			
INTERPRET PER ASME Y14.5 - 1994			
MAX SURFACE ROUGHNESS 125/	☐ ALL SURFACES	☒ MARKED ONLY	
CAGE NUMBER		SIZE	DRAWING NO.
D		78-5100-2555-0	B
MODEL		DET	LISTS
		YES	NO
		SHT	2 OF 2

B	0046310	APR 1, 2013	KHL	SB
A	0044954	DEC 13, 2012	KHL	SB
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRP	KOK HOE LEE	DATE APR 1, 2013	MFG	DATE
CHKD	YUNLONG QIAO	DATE APR 1, 2013	APPR	SAUJIT BANDHU
DATE APR 1, 2013		DATE APR 1, 2013	DATE APR 1, 2013	DATE APR 1, 2013
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INTERNAL MINISAS HD CABLE ASSEMBLY				