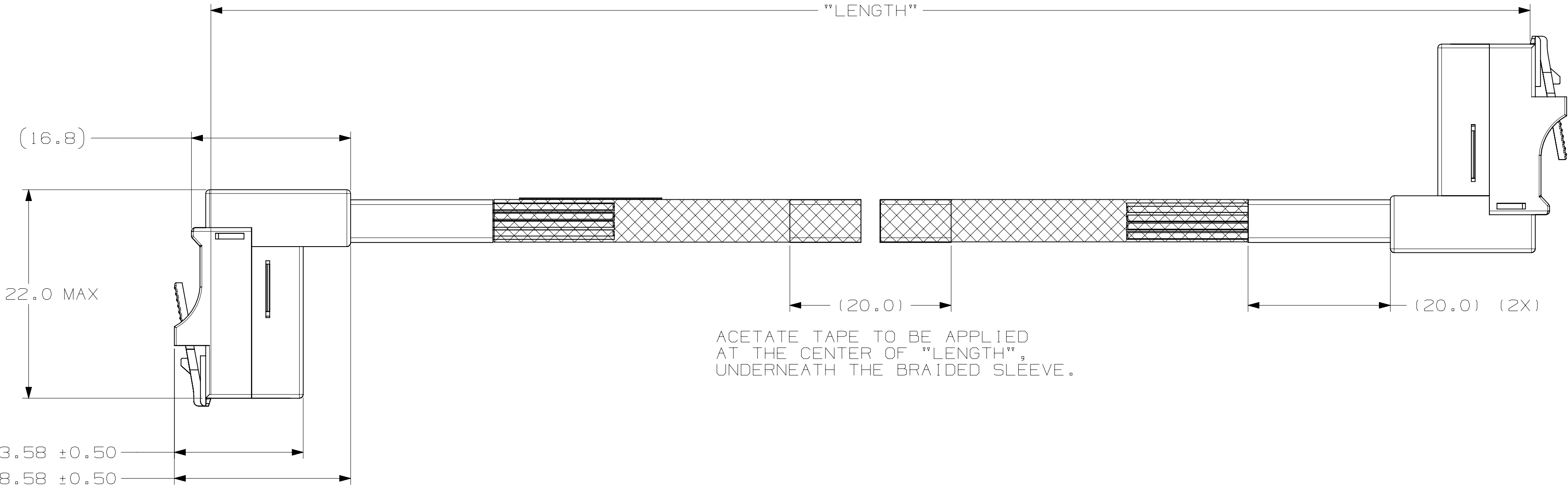
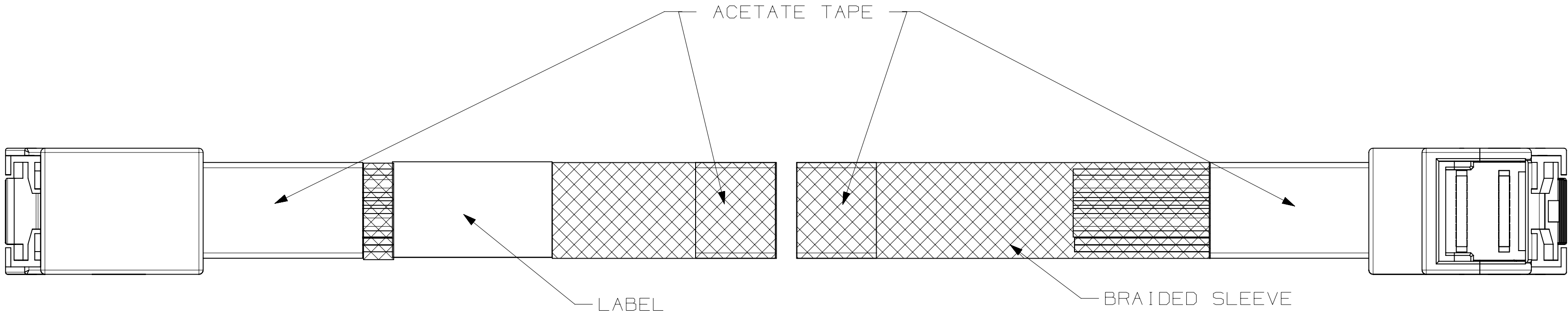
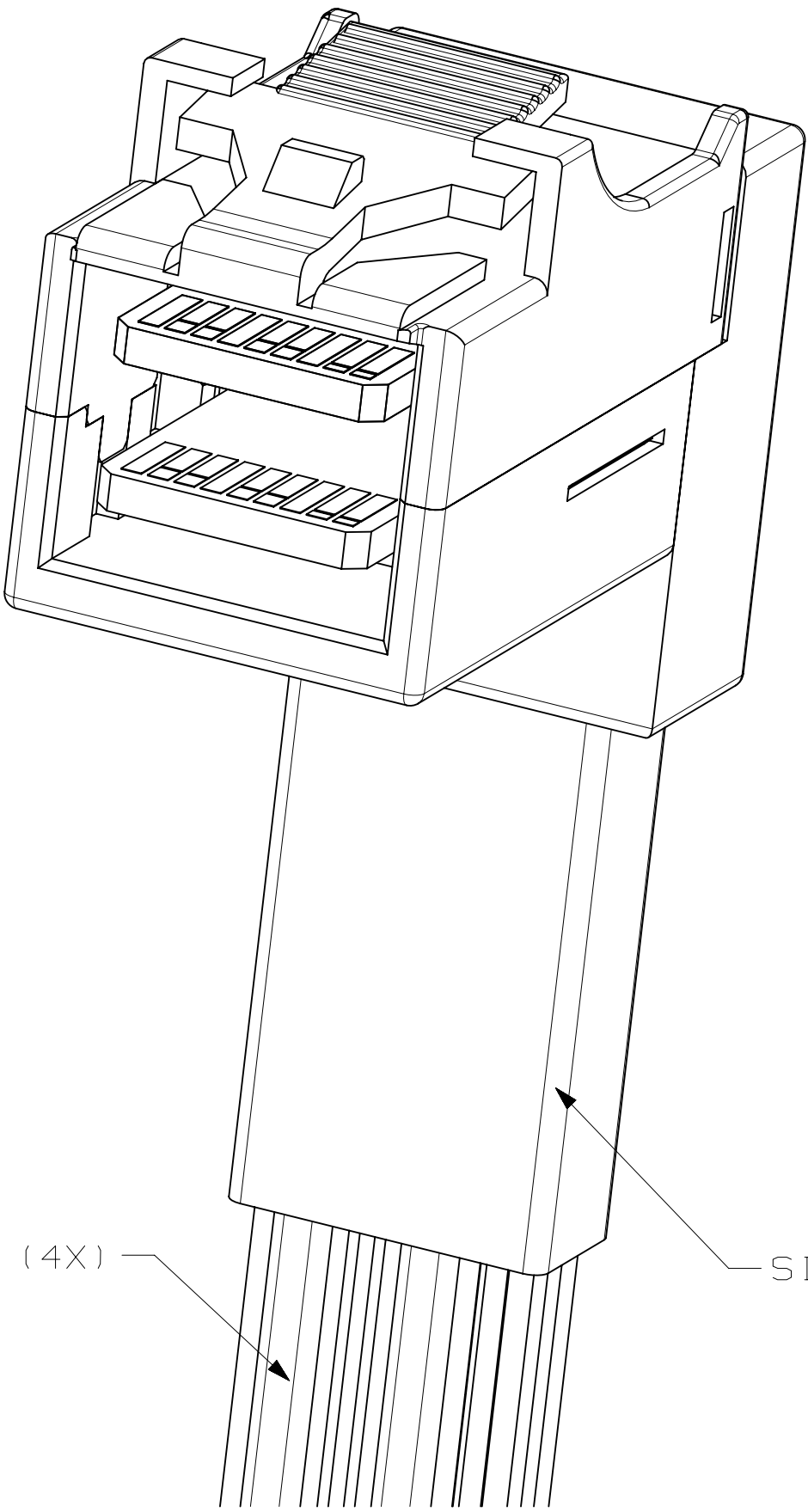
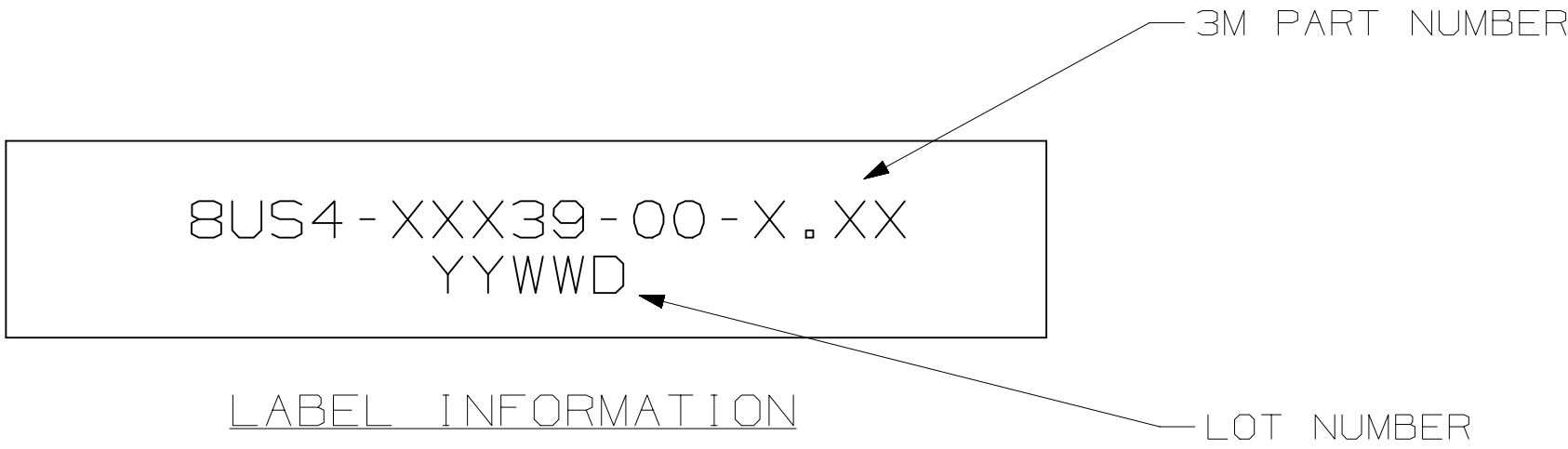


3M™ HIGH ROUTABILITY INTERNAL MINISAS HD CABLE ASSEMBLIES, 8U SERIES

RIGHT-ANGLE - TO - RIGHT-ANGLE INTERNAL MINISAS HD CABLE ASSEMBLY



ACETATE TAPE TO BE APPLIED
AT THE CENTER OF "LENGTH",
UNDERNEATH THE BRAIDED SLEEVE.



DESIGN REFERENCE		NEXT ASSEMBLY		A 0060617		OCT 17,2014		KHL	SB
DISTRIBUTION CODES				REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
				DPT	KOK HOE LEE	DATE	OCT 17,2014	MFG	DATE
				CHKD	YUNLONG QIAO	DATE	OCT 17,2014	APPRV	SAUJIT BANDHU
DIVISION		DESIGN CODE		© 3M COPYRIGHT 2015					
DO NOT SCALE DRAWING		SCALE 1/1		TOLERANCES EXCEPT AS NOTED		3M Center St. Paul, MN 55144			
THIRD ANGLE PROJECTION		INCHES		MILLIMETERS		This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.			
INTERPRET PER ASME Y14.5 - 1994		MAX SURFACE ROUGHNESS 125/		ALL SURFACES MARKED ONLY		TITLE INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT-ANGLE CONNECTOR			
						CAGE NUMBER D		DRAWING NO. 78-5100-2651-7	
						MODEL		REV. A	
								SHT 1 OF 4	

RIGHT-ANGLE - TO - RIGHT-ANGLE INTERNAL MINISAS HD CABLE ASSEMBLY

3M PART NUMBERING SCHEME

8US4 - XXX 39 - 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	BRAIDED SLEEVE
AA1	STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2)	YES
AA2	STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2)	NO
CB1	MINISAS HD 4i WITHOUT SIDEBANDS (SEE TABLE 3)	YES
CB2	MINISAS HD 4i WITHOUT SIDEBANDS (SEE TABLE 3)	NO

NOTES

- ## 1. MATERIALS:

HOUSING: THERMOPLASTIC

INNERMOULD: THERMOPLASTIC

3M™ TWIN AXIAL CABLE:
CONDUCTORS: SOLID COPPER, Ag-PLATED SIGNALS
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

2. ROHS COMPLIANT. SEE REGULATORY INFORMATION APPENDIX IN "ROHS COMPLIANCE" SECTION AT WWW.3M.COM/INTERCONNECT (E1 & C1 APPLY)
3. 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.
4. PRODUCT SPECIFICATION: 78-5102-0200-1

WIRING DIAGRAMS

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	SIDE BAND	6	↔	SIDE BAND	5	D1	
D1	SIDE BAND	5	↔	SIDE BAND	6	D2	
C1	SIDE BAND	4	↔	SIDE BAND	2	C2	
C2	SIDE BAND	2	↔	SIDE BAND	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 -		B8	
B7	Rx2+		←	Tx2+		D7	
B6	GROUND		—	GROUND		D6	
B5	Rx0 -		←	Tx0 -		D5	
B4	Rx0+		←	Tx0+		D4	
B3	GROUND		—	GROUND		D3	
B2	SIDE BAND	1	↔	SIDE BAND	3	B1	
B1	SIDE BAND	3	↔	SIDE BAND	1	B2	
A1	SIDE BAND	7	↔	SIDE BAND	0	A2	
A2	SIDE BAND	0	↔	SIDE BAND	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	

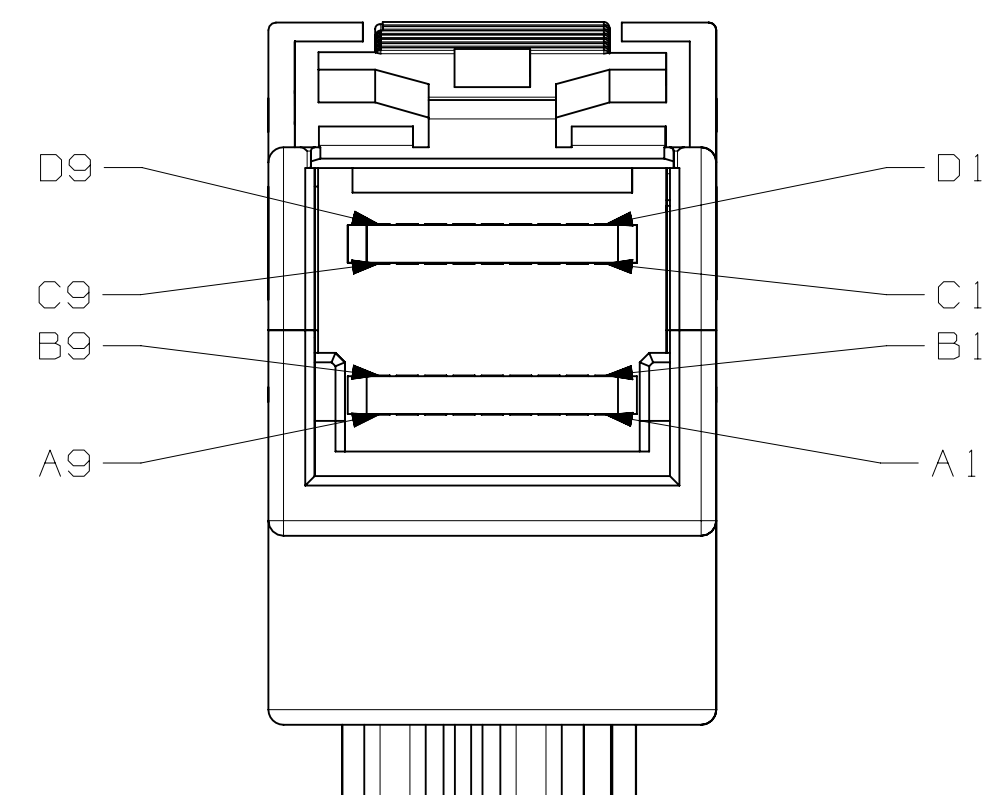
SYMBOLS			
→	←	HIGH SPEED SERIAL DIFFERENTIAL PAIRS	
→	←		
—		SIGNAL RETURN	
↔			
		POWER AND MANAGEMENT INTERFACE	

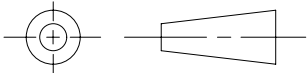
TABLE 2: WITH SIDEBANDS

PINOUT 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

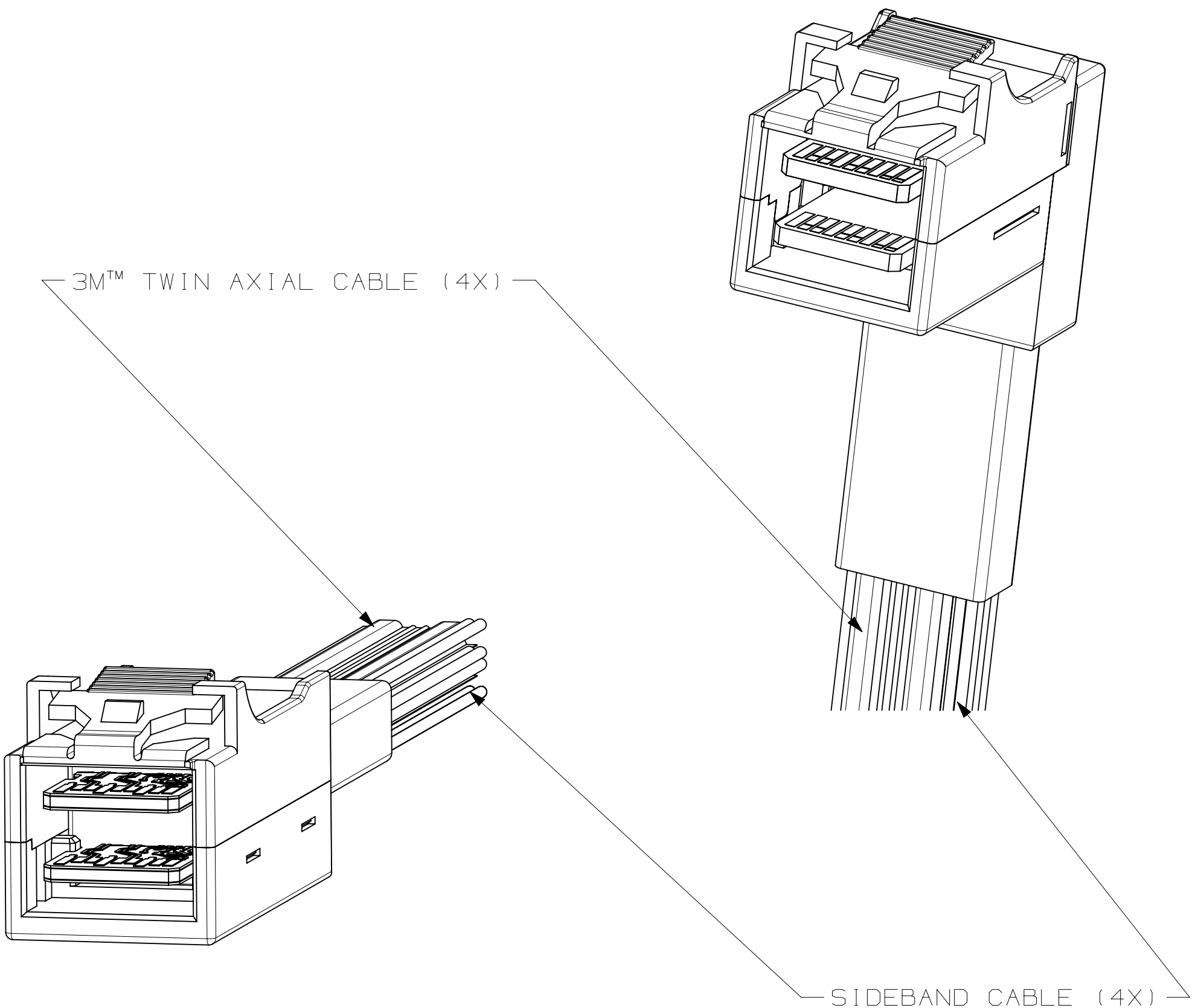
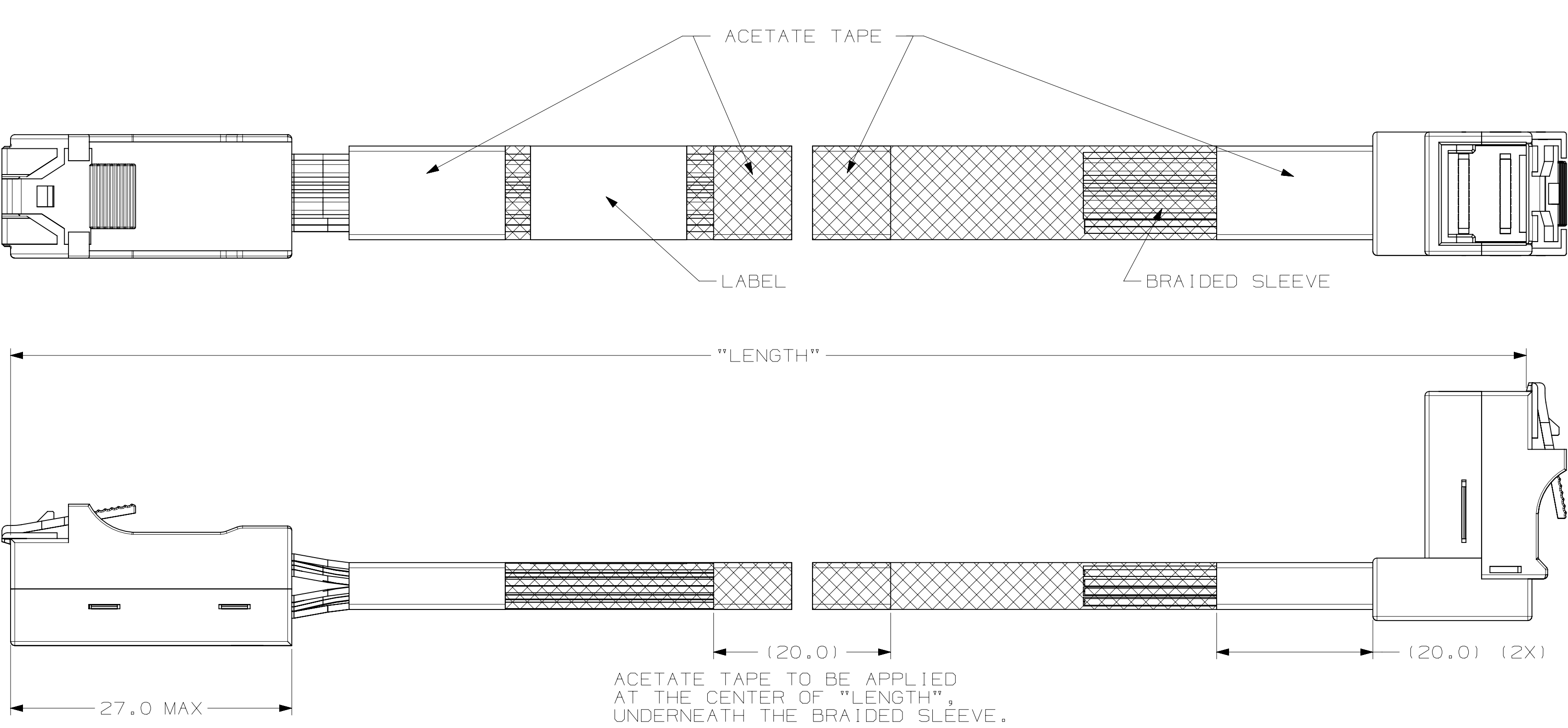
TABLE 3: WITHOUT SIDEBANDS



DESIGN REFERENCE				NEXT ASSEMBLY		A 0060617 REV ECO		OCT 17, 2014		KHL DRFT		SB CHKD	
DISTRIBUTION CODES						CHD KOK YUNLON QIAO		DATE OCT 17, 2014 DATE OCT 17, 2014		MFG SAJJUT BANDHU		DATE OCT 17, 2014	
DIVISION				DIVISION CODE		3M Center St. Paul, MN 55144		© 3M COPYRIGHT 2015 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.					
DO NOT SCALE DRAWING				TOLERANCES EXCEPT AS NOTED		INCHES .00 ± .00 ± .000 ± .0000 ±		TITLE INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT - ANGLE CONNECTOR					
 THIRD ANGLE PROJECTION				MILLIMETERS 0 ± .0 ±.5 .00 ±.05 .000 ±.005		CASE NUMBER D 78-5100-2651-7		SIZE DRAWING NO. 78-5100-2651-7		REV. A			
MAX SURFACE ROUGHNESS 125 ✓ □ ALL SURFACES ☒ MARKED ONLY				ANGLES ±1°		MODEL DET. LISTS ☒ YES ☒ NO		SHT 2 OF 4					

3M™ HIGH ROUTABILITY INTERNAL MINISAS HD CABLE ASSEMBLIES, 8U SERIES

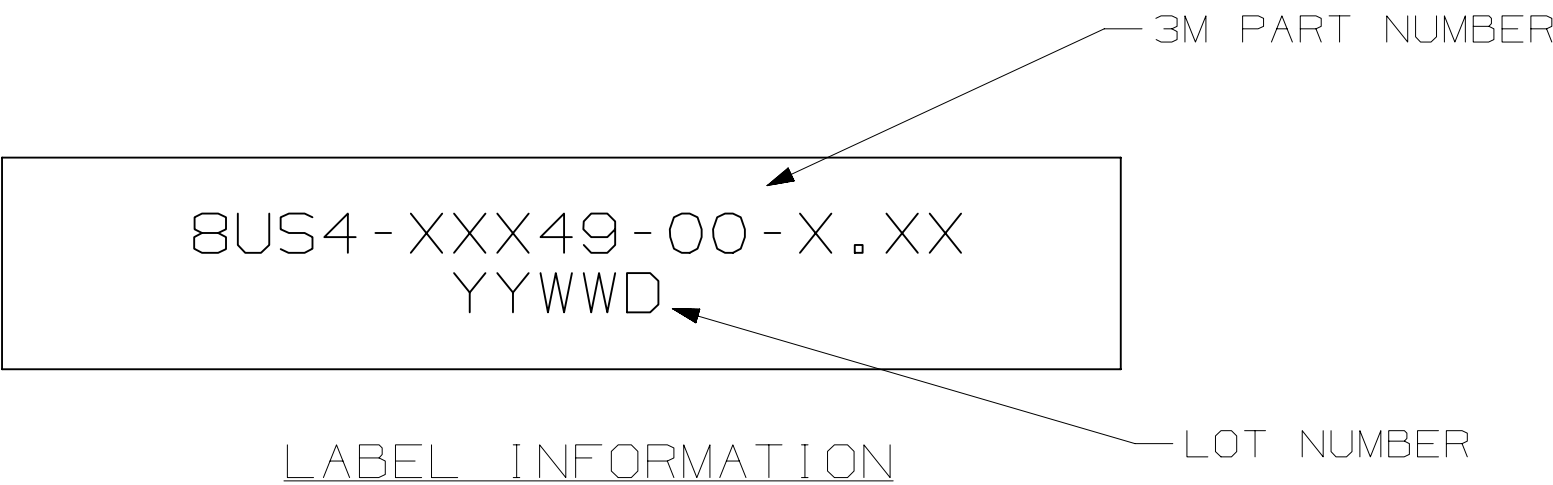
RIGHT-ANGLE - TO - STANDARD INTERNAL MINISAS HD CABLE ASSEMBLY



NOTES

1. FOR DETAILS ON RIGHT-ANGLE INTERNAL MINISAS HD CABLE ASSEMBLY, REFER TO SHEET 1 AND 2.
2. FOR DETAILS ON STANDARD INTERNAL MINISAS HD CABLE ASSEMBLY, REFER TO DRAWING NO. 78-5100-2555-0.

3M PART NUMBERING SCHEME

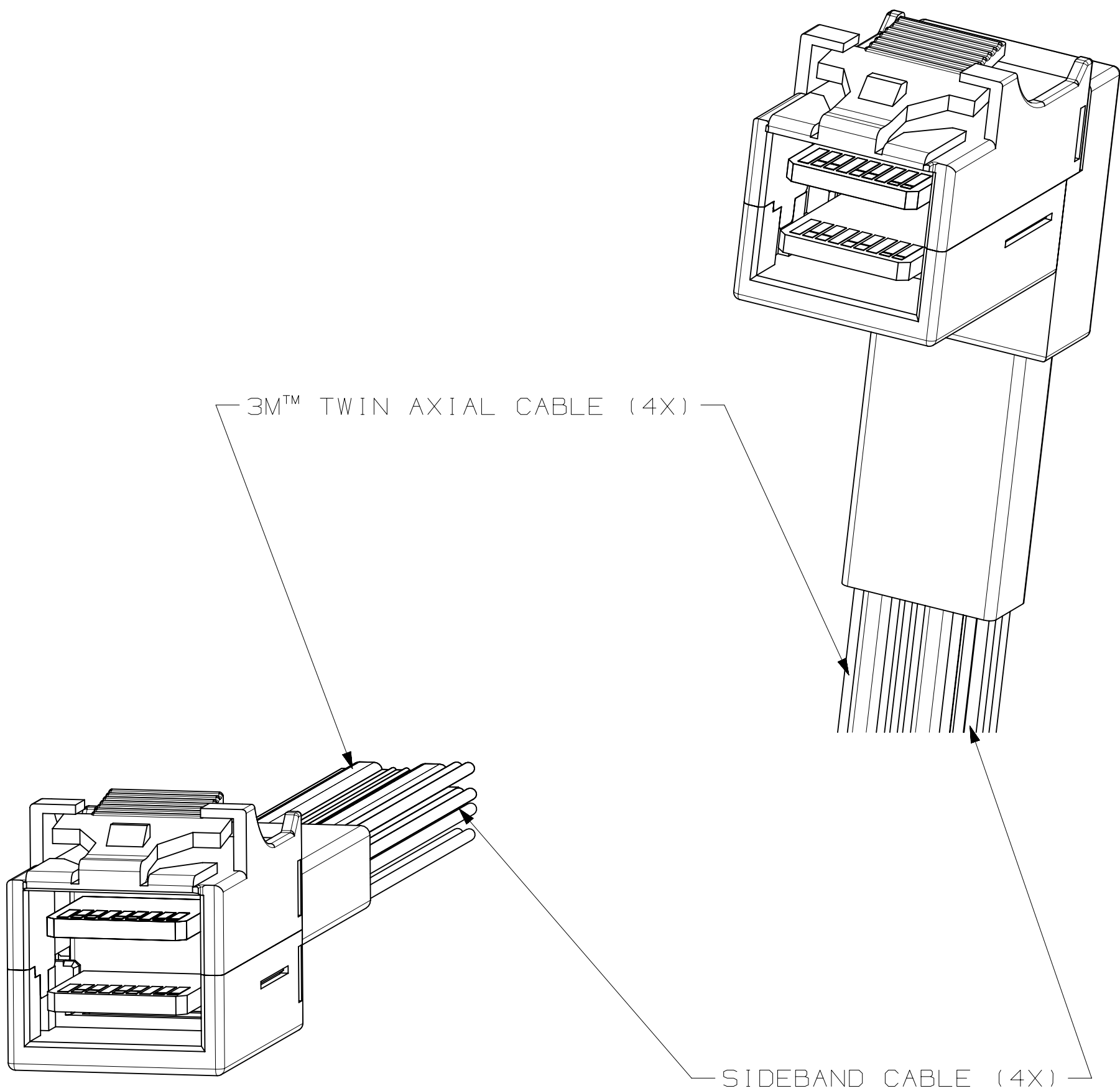
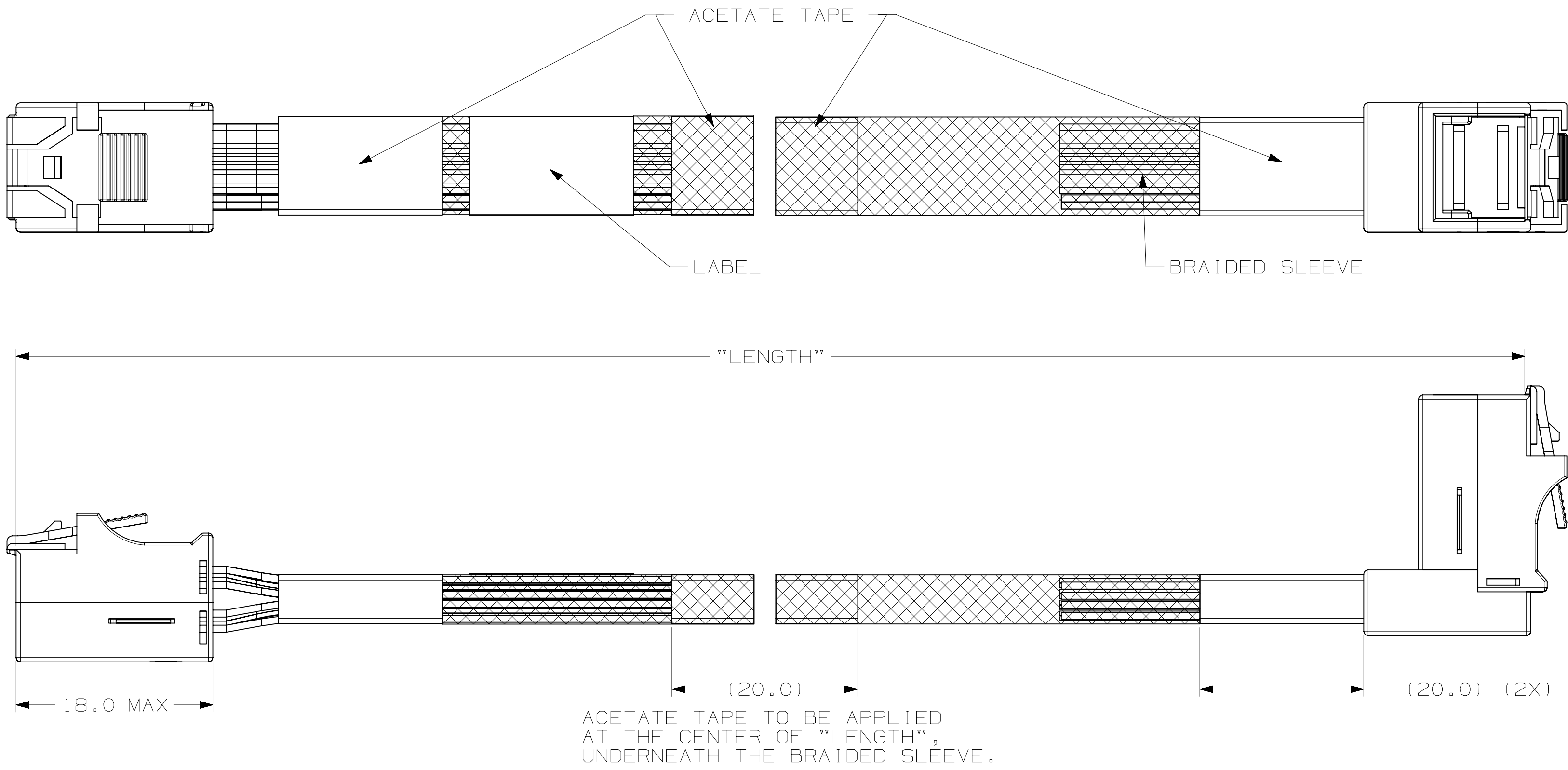


XXX	PINOUT	BRAIDED SLEEVE
AA1	STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2)	YES
AA2	STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2)	NO
CB1	MINISAS HD 4i WITHOUT SIDEBANDS (SEE TABLE 3)	YES
CB2	MINISAS HD 4i WITHOUT SIDEBANDS (SEE TABLE 3)	NO

DESIGN REFERENCE		NEXT ASSEMBLY		A 0060617		OCT 17, 2014		KHL	SB
DISTRIBUTION CODES		DISTRIBUTION CODES		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DIVISION		DIVISION CODE		DRP	KOK HOE LEE	DATE	OCT 17, 2014	MFG	DATE
DO NOT SCALE DRAWING		SCALE 1/1		CHKD	YUNLONG QIAO	DATE	OCT 17, 2014	APPR	SAUJIT BANDHU
THIRD ANGLE PROJECTION		TOLERANCES EXCEPT AS NOTED		© 3M COPYRIGHT 2015					
INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS		3M Center St. Paul, MN 55144					
MAX SURFACE ROUGHNESS		INCHES		This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.					
125/ ALL SURFACES MARKED ONLY		ANGLES ±1°		INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT-ANGLE CONNECTOR					
CAGE NUMBER		DRAWING NO.		REV. A					
D 78-5100-2651-7		MODEL		DET LISTS YES NO SHT 3 OF 4					

3M™ HIGH ROUTABILITY INTERNAL MINISAS HD CABLE ASSEMBLIES, 8U SERIES

RIGHT-ANGLE - TO - SHORTENED INTERNAL MINISAS HD CABLE ASSEMBLY



NOTES

- FOR DETAILS ON RIGHT-ANGLE INTERNAL MINISAS HD CABLE ASSEMBLY, REFER TO SHEET 1 AND 2.
- FOR DETAILS ON SHORTENED INTERNAL MINISAS HD CABLE ASSEMBLY, REFER TO DRAWING NO. 78-5100-2658-2.

3M PART NUMBERING SCHEME

8US4 - XXX 59 - 00 - X.XX

"LENGTH" IN METERS

"LENGTH" TOLERANCE

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

TABLE 5: DESCRIPTION FOR "XXX"

XXX	PINOUT	BRAIDED SLEEVE
AA1	STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2)	YES
AA2	STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2)	NO
CB1	MINISAS HD 4i WITHOUT SIDEBANDS (SEE TABLE 3)	YES
CB2	MINISAS HD 4i WITHOUT SIDEBANDS (SEE TABLE 3)	NO

8US4-XXX59-00-X.XX
YYWWD

LABEL INFORMATION

3M PART NUMBER

LOT NUMBER

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
DISTRIBUTION CODES				DRP	KOK	HOE	LEE	DATE	DATE
				CHD	YUNLONG	QIAO		OCT 17, 2014	OCT 17, 2014
DIVISION		DIVISION CODE		© 3M COPYRIGHT 2015					
DO NOT SCALE DRAWING		SCALE 1/1		3M Center St. Paul, MN 55144					
THIRD ANGLE PROJECTION		TOLERANCES EXCEPT AS NOTED		This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.					
INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS 0 ±.1		TITLE					
MAX SURFACE ROUGHNESS 125/		INCHES .00 ±.0005		INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT-ANGLE CONNECTOR					
ALL SURFACES MARKED ONLY		ANGLES ±1°		CAGE/SIZE/DRAWING NO. REV.					
				D 78-5100-2651-7 A					
				MODEL DET. YES NO SHT 4 OF 4					