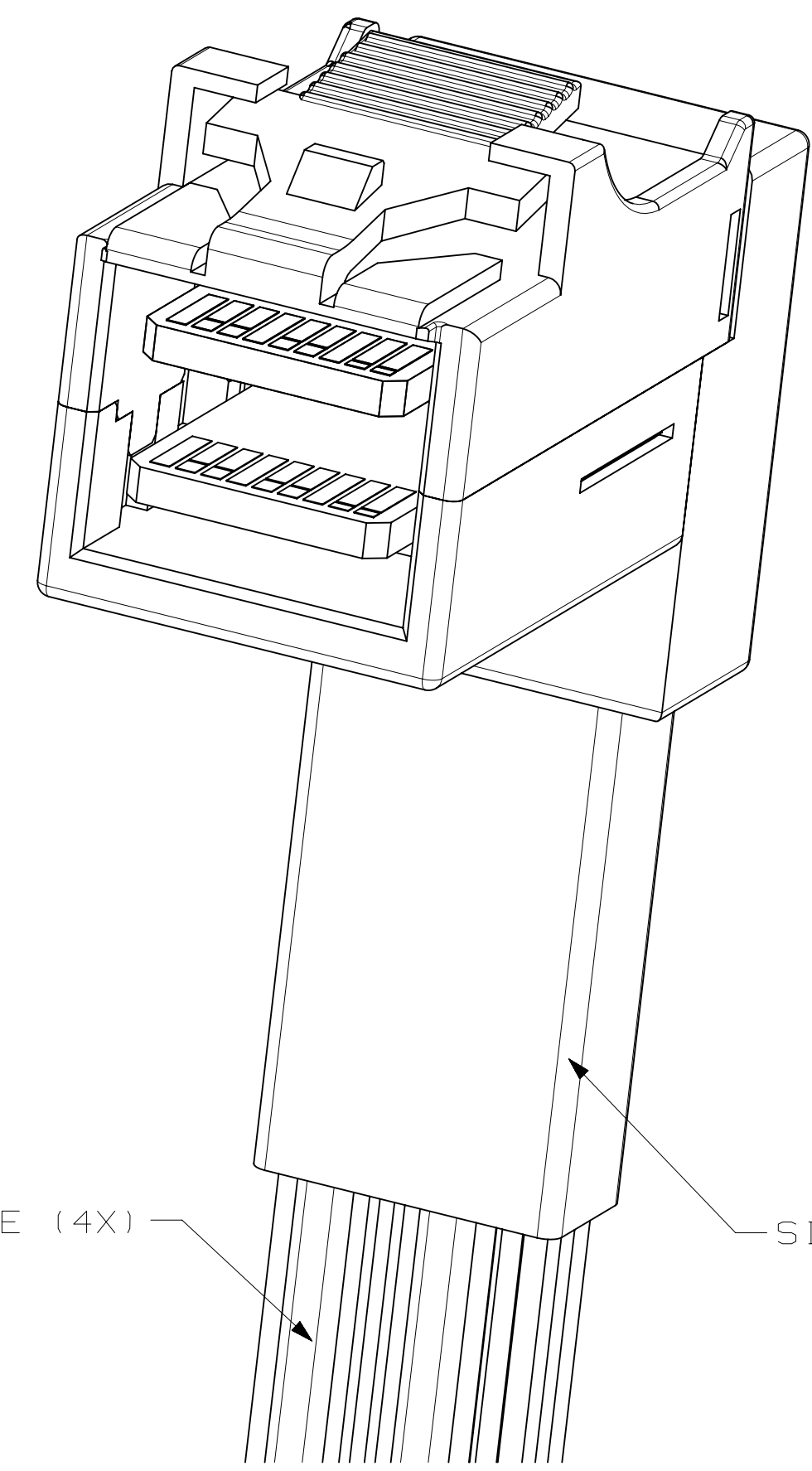
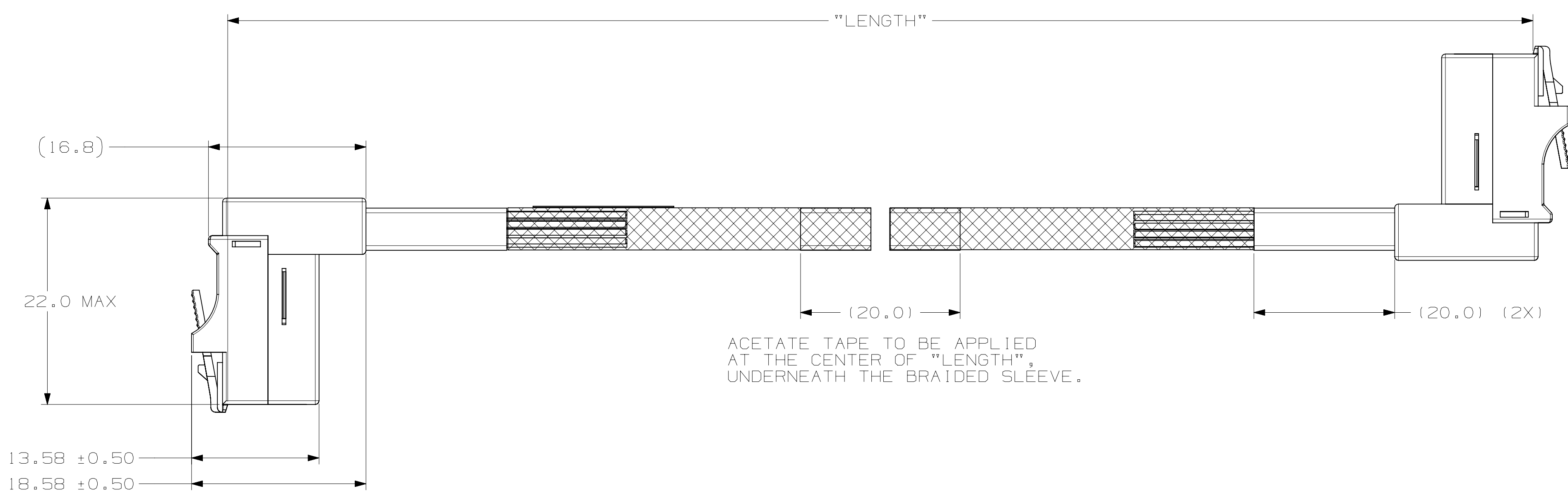
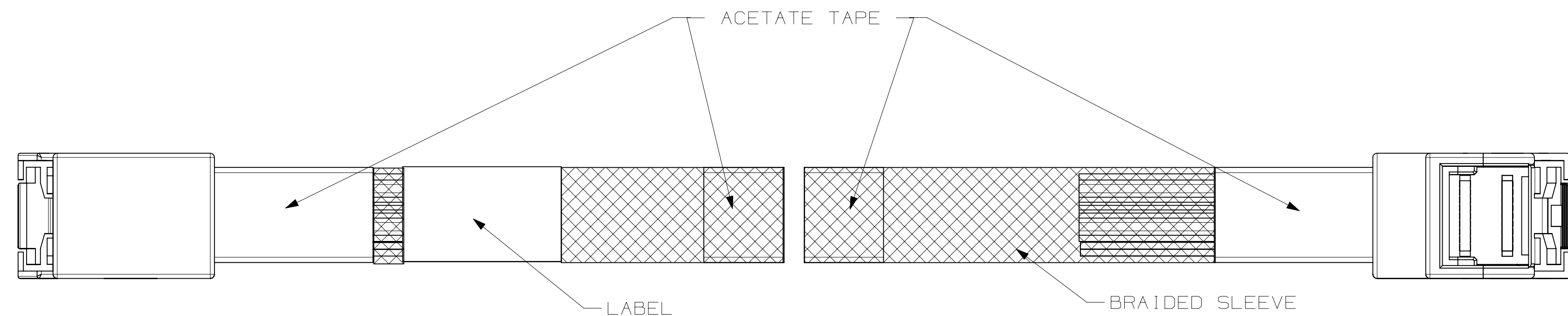


3M™ HIGH ROUTABILITY INTERNAL MINISAS HD CABLE ASSEMBLIES, 8U SERIES

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



3M PART NUMBER

8US4-XXX39-00-X.XX  
YYWWD

LABEL INFORMATION

LOT NUMBER

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DISTRIBUTION CODES				DRFT	KOK HOE LEE	DATE	OCT 17, 2014	MFG DATE
				CHKD	YUNLONG QIAO	DATE	OCT 17, 2014	APPR
								SAJJIT BANDHU
								DATE
								OCT 17, 2014
DO NOT SCALE DRAWING		SCALE 1/1		TOLERANCES EXCEPT AS NOTED		INCHES .00 ± .000 ± .0000 ±		
THIRD ANGLE PROJECTION		MILLIMETERS 0 ± 1		INTERPRET PER ASME Y14.5 - 1994 MAX SURFACE ROUGHNESS 125 <input type="checkbox"/> ALL SURFACES <input checked="" type="checkbox"/> MARKED ONLY		© 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.		
				TITLE		INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT-ANGLE CONNECTOR		
				CAGE NUMBER		DRAWING NO.		REV.
				D		78-5100-2651-7		A
				MODEL		DET. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SHT 1 OF 4		

DRAWING NUMBER 78-5100-2651-7

REVISION A

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

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

WIRING DIAGRAMS

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.

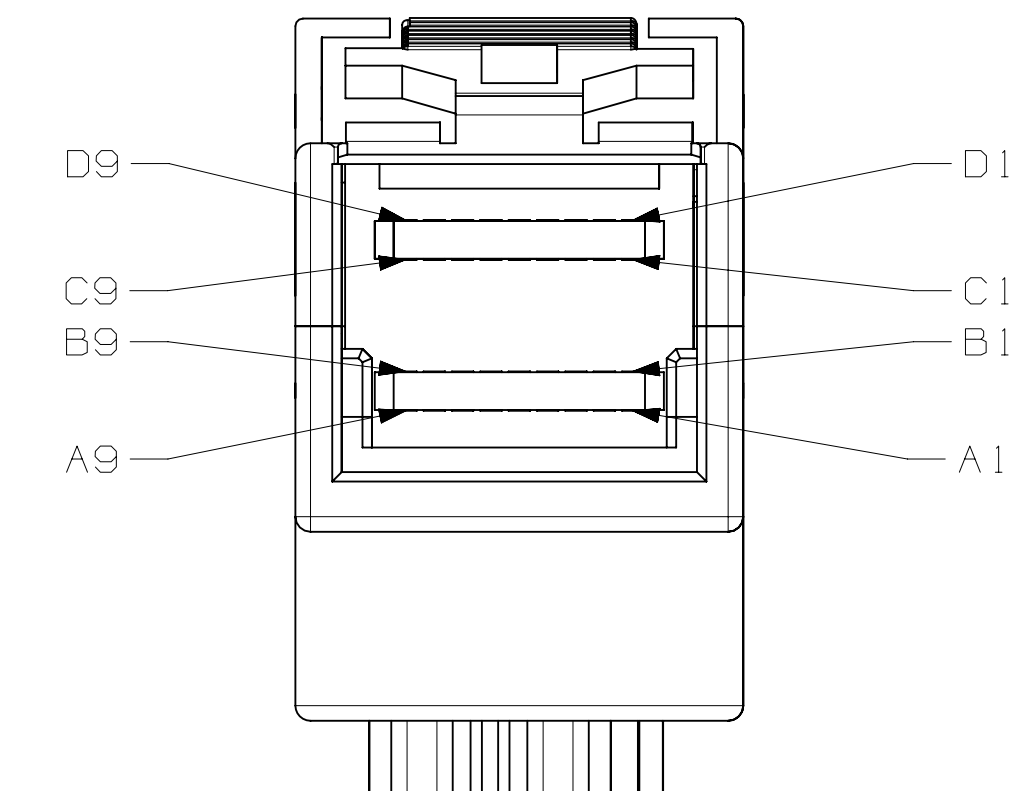
4. PRODUCT SPECIFICATION: 78-5102-0200-1

PINOUT 1				
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

PINOUT 2				
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

TABLE 3: WITHOUT SIDEBANDS

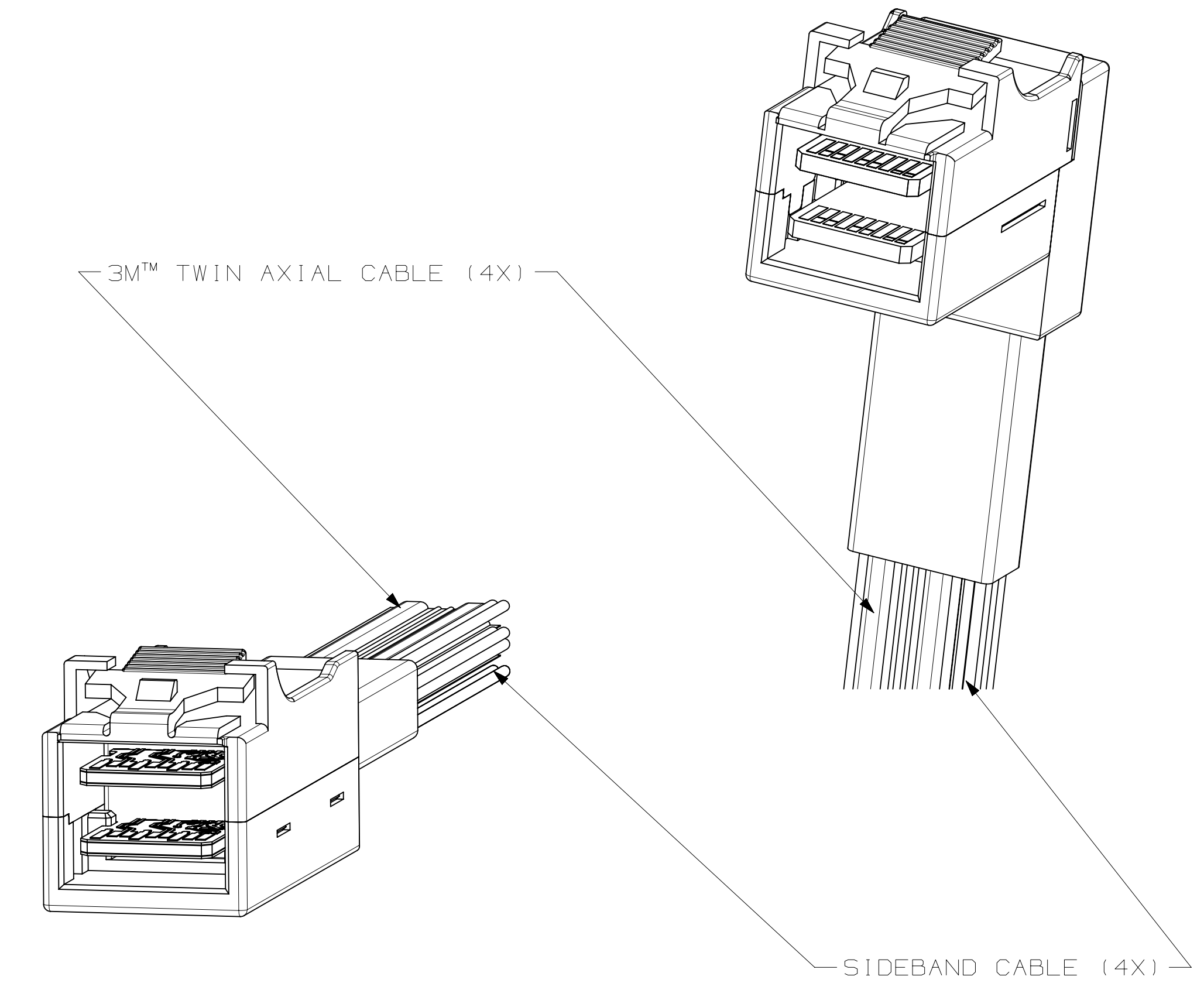
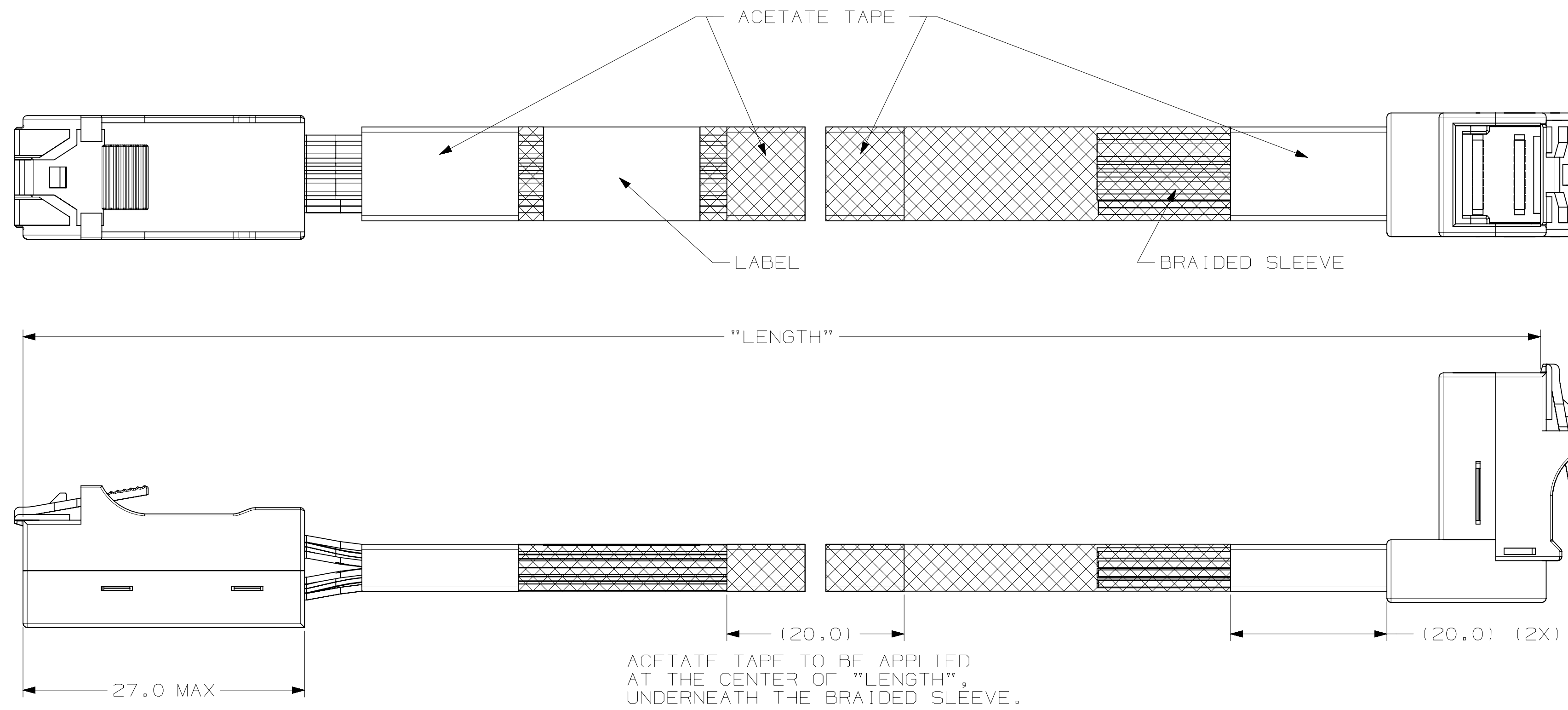


DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DISTRIBUTION CODES		DRY	KOK HOE LEE	DATE	OCT 17, 2014	MFG
		CHKD	YUNLONG QIAO	DATE	OCT 17, 2014	APPR
						SAJJIT BANDHU
						DATE
						OCT 17, 2014
DIVISION		DIVISION CODE		© 3M COPYR [GHT] 2015 This document and the information 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	SCALE 1/1	TOLERANCES EXCEPT AS NOTED		INCHES .01 .005 .0005 .0002		
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 1994	MILLIMETERS		0 .5 .05 .005		
MAX SURFACE ROUGHNESS 125	ALL SURFACES	MARKED ONLY		ANGLES ±1°		
CAGE NUMBER		SIZE		DRAWING NO.		REV.
D		78-5100-2651-7		A		
MODEL		SHT		2 OF 4		

78-5100-2651-7  
DRAWING NUMBER

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

RIGHT-ANGLE - TO - STANDARD 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 STANDARD INTERNAL MINISAS HD CABLE ASSEMBLY, REFER TO DRAWING NO. 78-5100-2555-0.

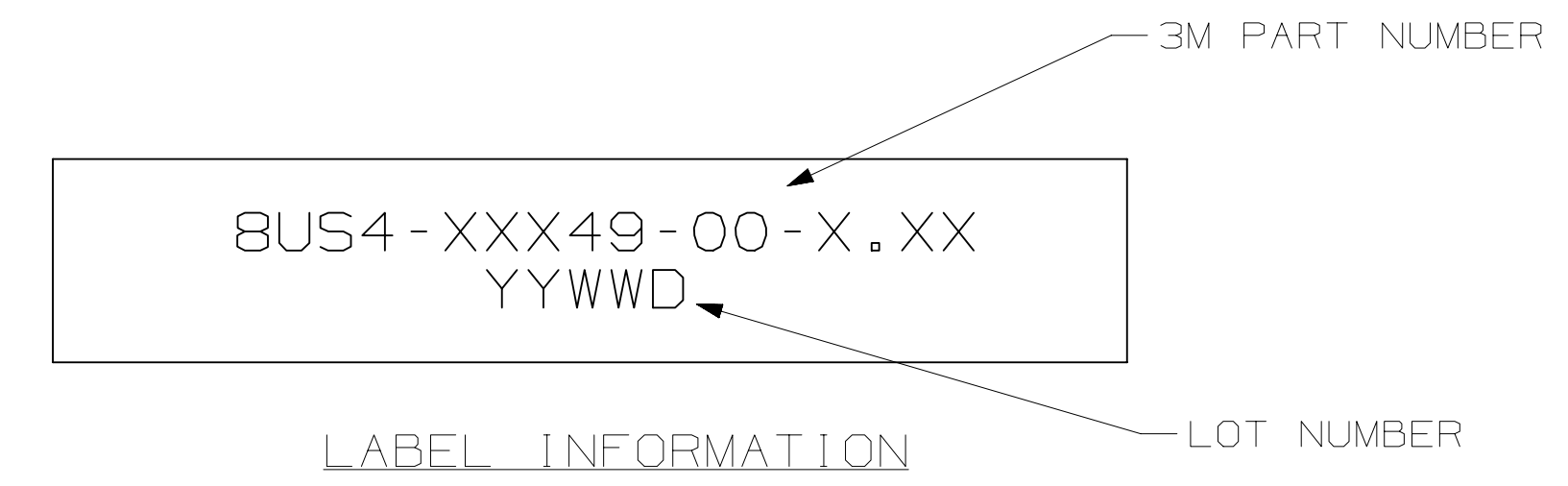
3M PART NUMBERING SCHEME

BUS4 - XXX 49 - 00 - X.XX

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

TABLE 4: 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



REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
KOK	HOE LEE	OCT 17, 2014		
CHKD	YUNLONG QIAO	OCT 17, 2014	APPR	SAJJIT BANDHU
DISTRIBUTION CODES		DATE		
DIVISION		DIVISION CODE		
DO NOT SCALE DRAWING		SCALE 1/1		
THIRD ANGLE PROJECTION		TOLERANCES EXCEPT AS NOTED		
INTERPRET PER ASME Y14.5 - 1994		INCHES		
MAX SURFACE ROUGHNESS 125		MILLIMETERS		
ALL SURFACES MARKED ONLY		0 ± .1		
		.00 ± .05		
		.000 ± .005		
		ANGLES ± 1°		

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
A	0080617	OCT 17, 2014	KHL	SB

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3M Center  
 St. Paul, MN 55144

TITLE  
 INTERNAL MINISAS HD CABLE ASSEMBLY  
 RIGHT-ANGLE CONNECTOR

CAGE NUMBER  
 D 78-5100-2651-7

REV. NUMBER  
 A

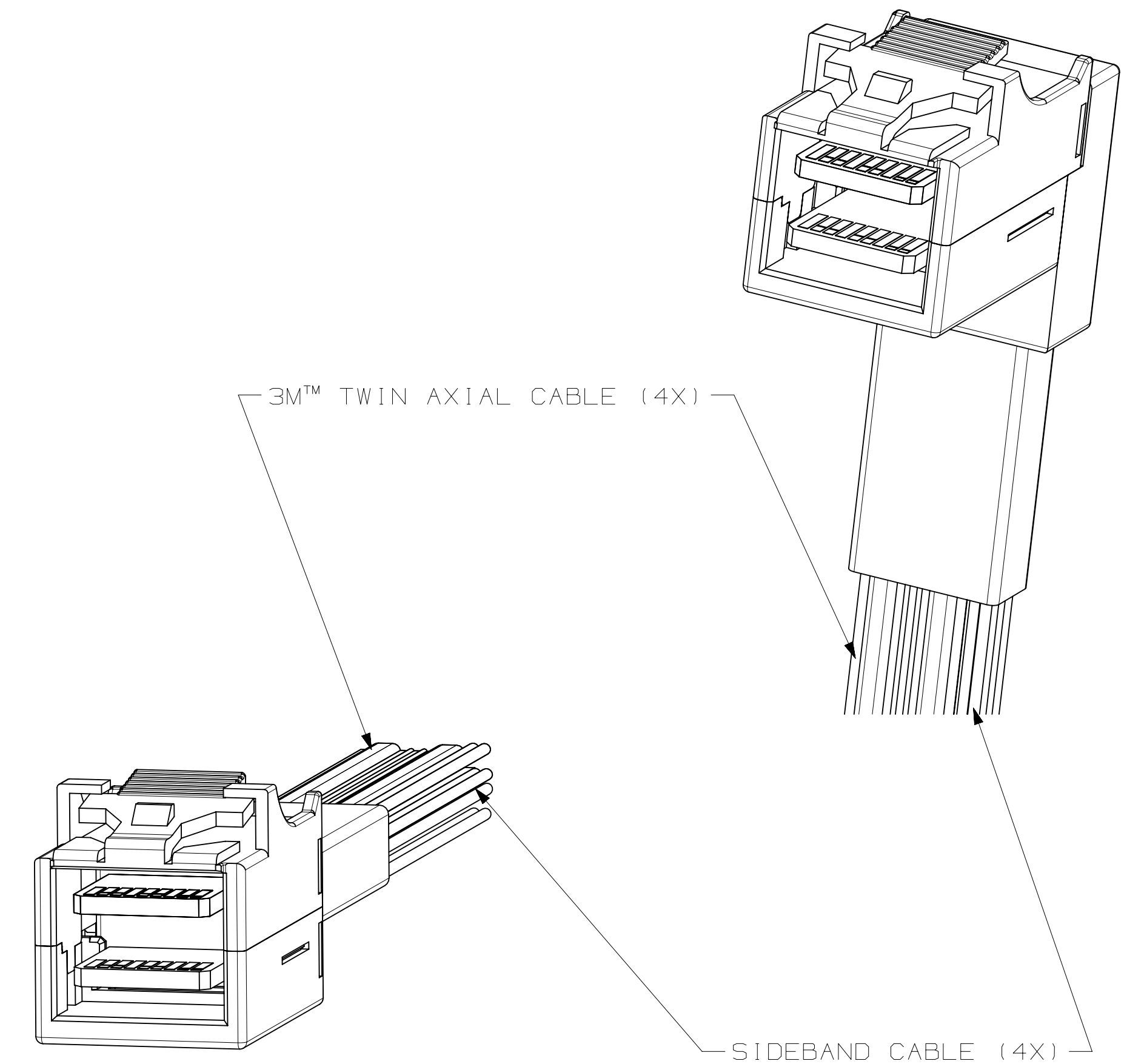
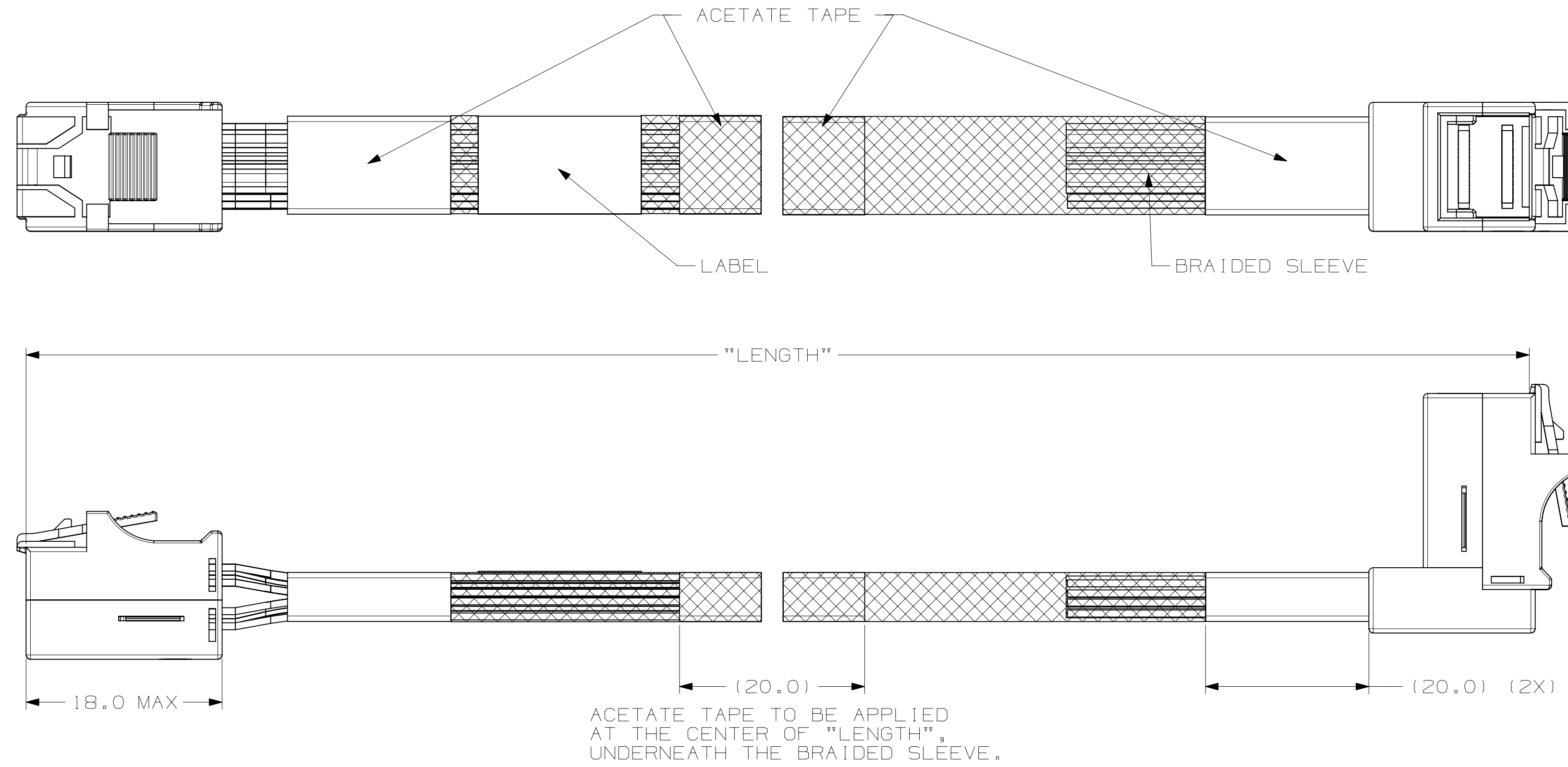
MODEL  
 DET. SHT 3 OF 4

78-5100-2651-7  
DRAWING NUMBER

A

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.

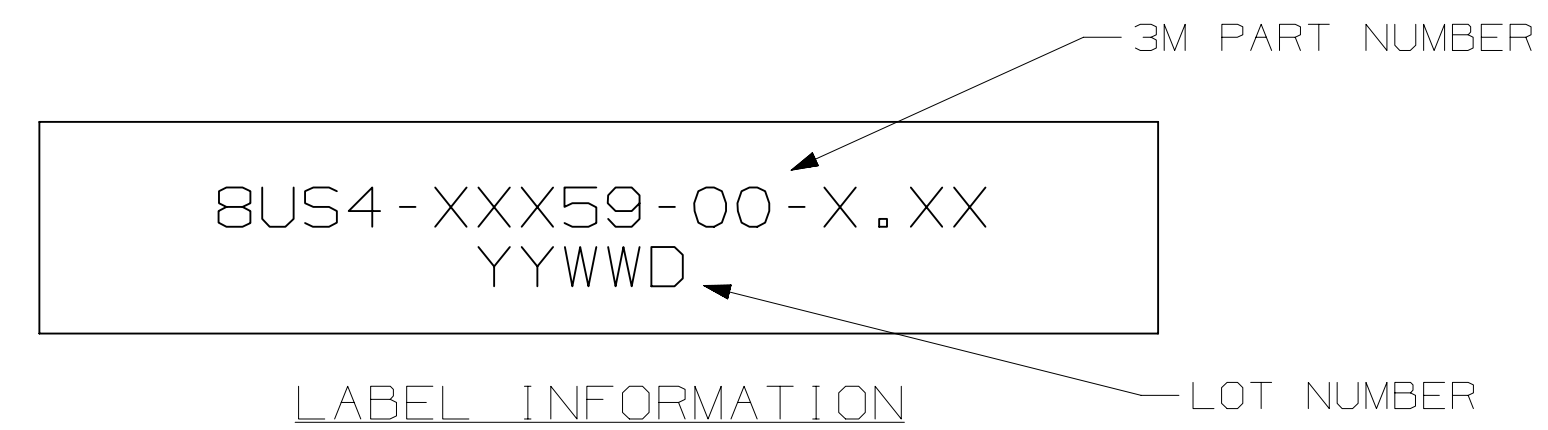
3M PART NUMBERING SCHEME

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



REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRY	KOK HOE LEE	DATE OCT 17, 2014	MFG	DATE
CHKD	YUNLONG QIAO	DATE OCT 17, 2014	APPR	DATE OCT 17, 2014
DIVISION		DISTRIBUTION CODE		
DO NOT SCALE DRAWING		SCALE 1/1	TOLERANCES EXCEPT AS NOTED	
THIRD ANGLE PROJECTION		INCHES		
INTERPRET PER ASME Y14.5 - 1994		MILLIMETERS		
MAX SURFACE ROUGHNESS 125		ALL SURFACES		
MARKED ONLY		ANGLES ±1°		
MODEL		CAGE NUMBER		
REV. A		DRAWING NO. 78-5100-2651-7		
SHT 4 OF 4		REV. A		

78-5100-2651-7  
DRAWING NUMBER