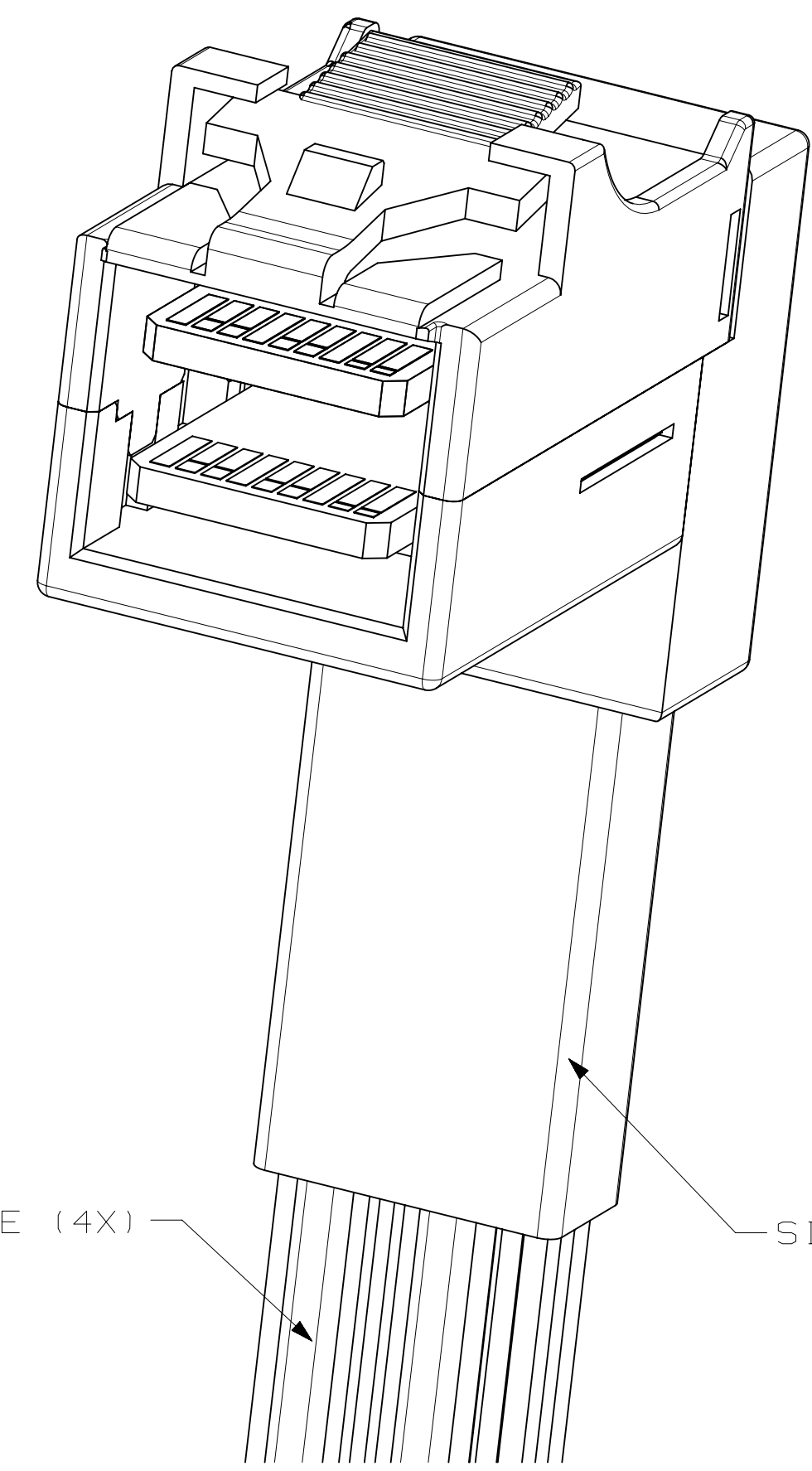
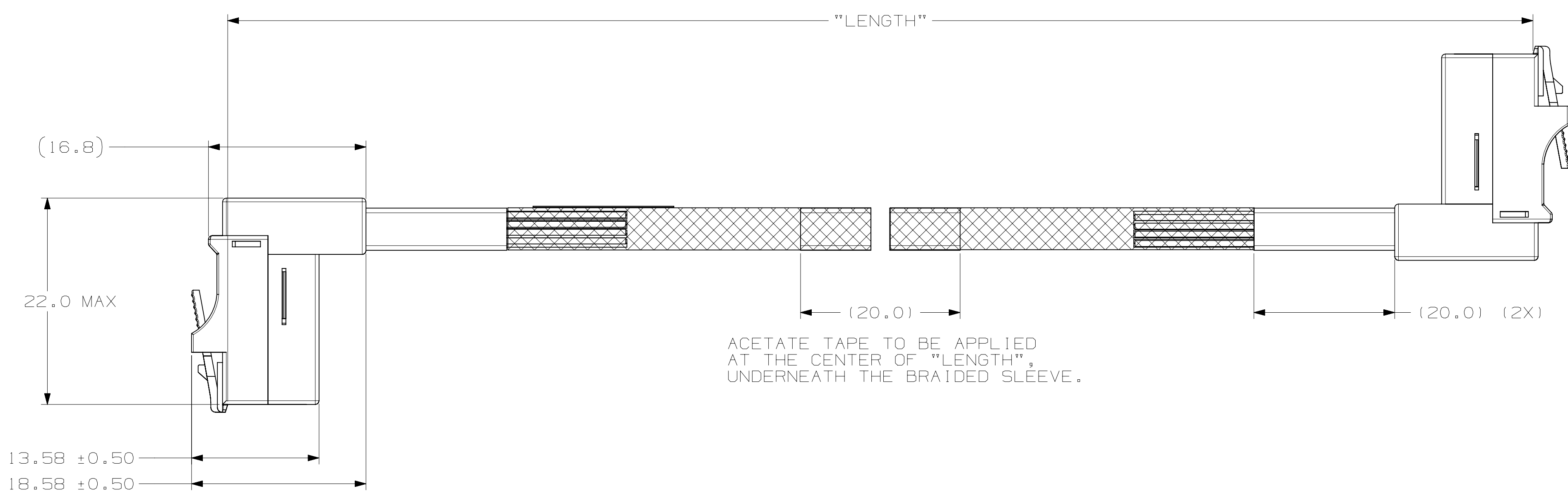
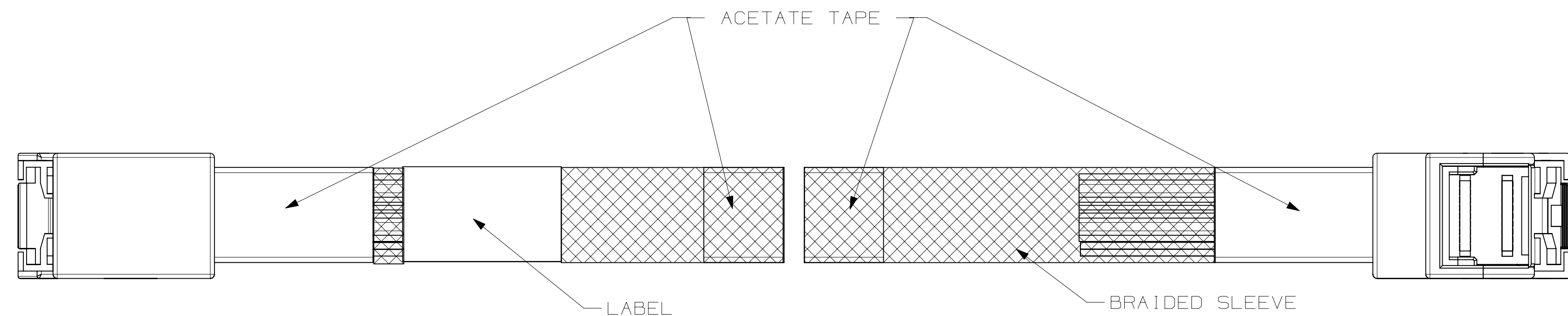


3M™ HIGH ROUTABILITY INTERNAL MINISAS HD CABLE ASSEMBLIES, 8U SERIES

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 | | | | DRY | KOK HOE LEE | DATE | OCT 17, 2014 | MFG | DATE |
| DIVISION | | DIVISION CODE | | CHKD | YUNLONG QIAO | DATE | OCT 17, 2014 | APPR | DATE |
| DO NOT SCALE DRAWING | | SCALE 1/1 | | TOLERANCES EXCEPT AS NOTED | | © 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. | | | |
| THIRD ANGLE PROJECTION | | INCHES | | MILLIMETERS | | TITLE INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT-ANGLE CONNECTOR | | | |
| INTERPRET PER ASME Y14.5 - 1994 | | .00 ± | | 0 ± .1 | | CAGE NUMBER | | REV. | |
| MAX SURFACE ROUGHNESS 125 | | .000 ± | | .00 ± .05 | | D 78-5100-2651-7 | | A | |
| ALL SURFACES MARKED ONLY | | .0000 ± | | .000 ± .005 | | MODEL | | SHT 1 OF 4 | |
| | | ANGLES ±1° | | | | | | | |

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

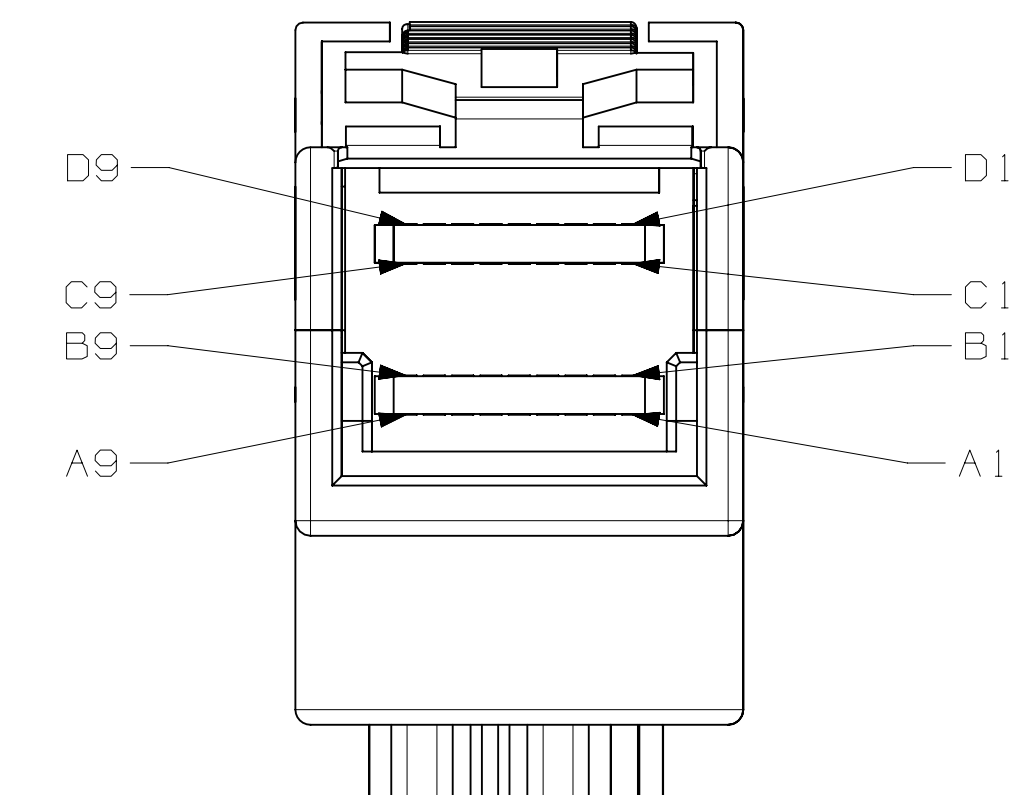
- MATERIALS:
 - HOUSING: THERMOPLASTIC
 - INNERMOULD: THERMOPLASTIC
 - 3M™ TWIN AXIAL CABLE:
 - CONDUCTORS: SOLID COPPER, Ag-PLATED SIGNALS
 - INSULATOR: POLYOLEFIN
 - SHIELDING: ALUMINIUM LAYER
 - SIDEBAND CABLE:
 - CONDUCTORS: SOLID COPPER
 - INSULATOR: THERMOPLASTIC ELASTOMER
 - PCB: LOW DIELECTRIC CONSTANT MATERIAL FOR HIGH SPEED APPLICATION
 - BRAIDED SLEEVE: THERMOPLASTIC
- ROHS COMPLIANT. SEE REGULATORY INFORMATION APPENDIX IN "ROHS COMPLIANCE" SECTION AT WWW.3M.COM/INTERCONNECT (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: 78-5102-0200-1

| 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 |

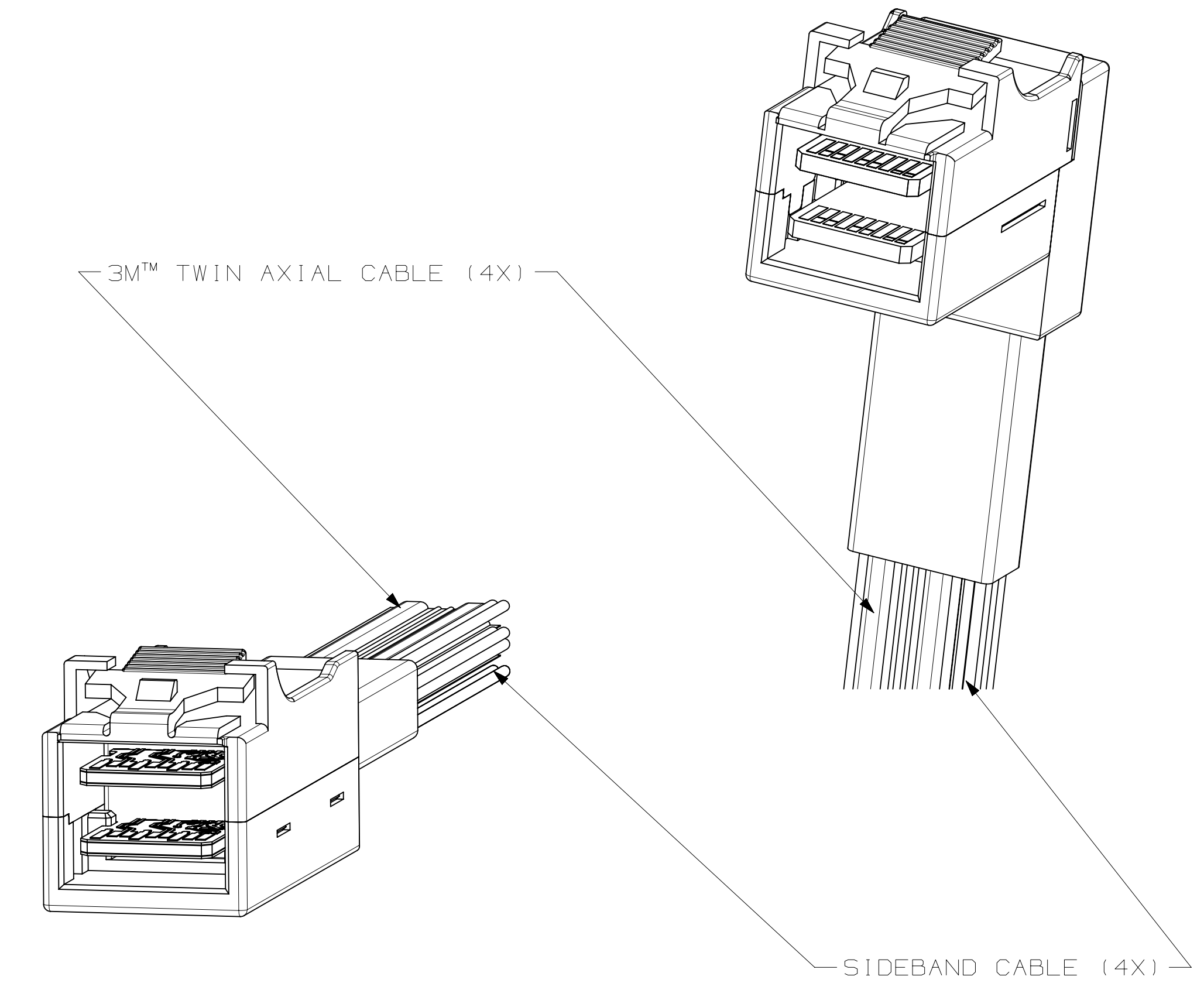
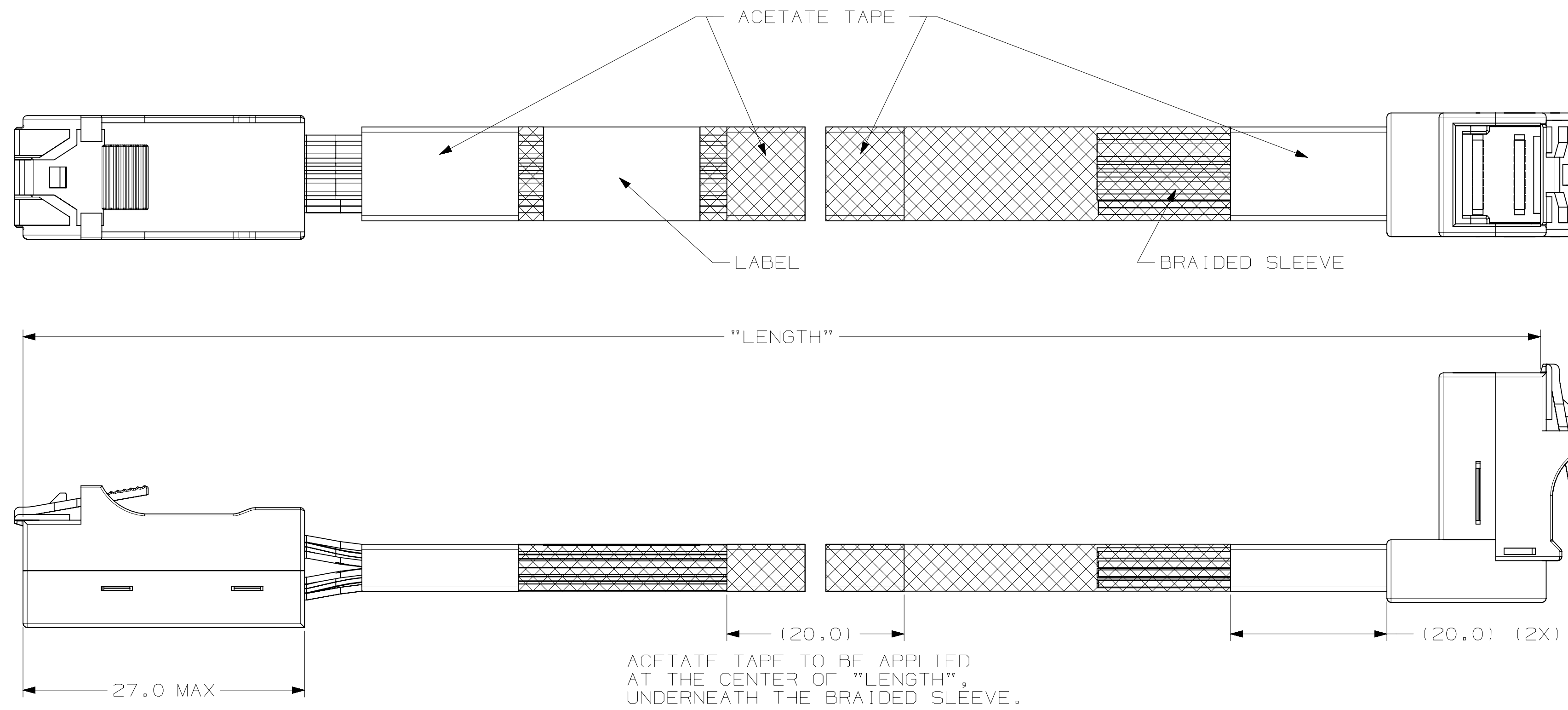
TABLE 3: WITHOUT SIDEBANDS



| | | | | | | |
|---------------------------|---------------------------------|----------------------------|--------------|---|--------------|-------------------|
| 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 |
| | | | | DATE | OCT 17, 2014 | SAJJIT BANDHU |
| 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 .00 ± .000 ± .0000 ± | | |
| THIRD ANGLE PROJECTION | INTERPRET PER ASME Y14.5 - 1994 | MILLIMETERS | | 0 ±.1 .0 ±.05 .000 ±.005 | | |
| MAX SURFACE ROUGHNESS 125 | ALL SURFACES MARKED ONLY | ANGLES ±1° | CAGE NUMBER | SIZE | DRAWING NO. | REV. |
| | | | D | 78-5100-2651-7 | A | A |
| MODEL | | | | DET | ISTS | 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

- 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.

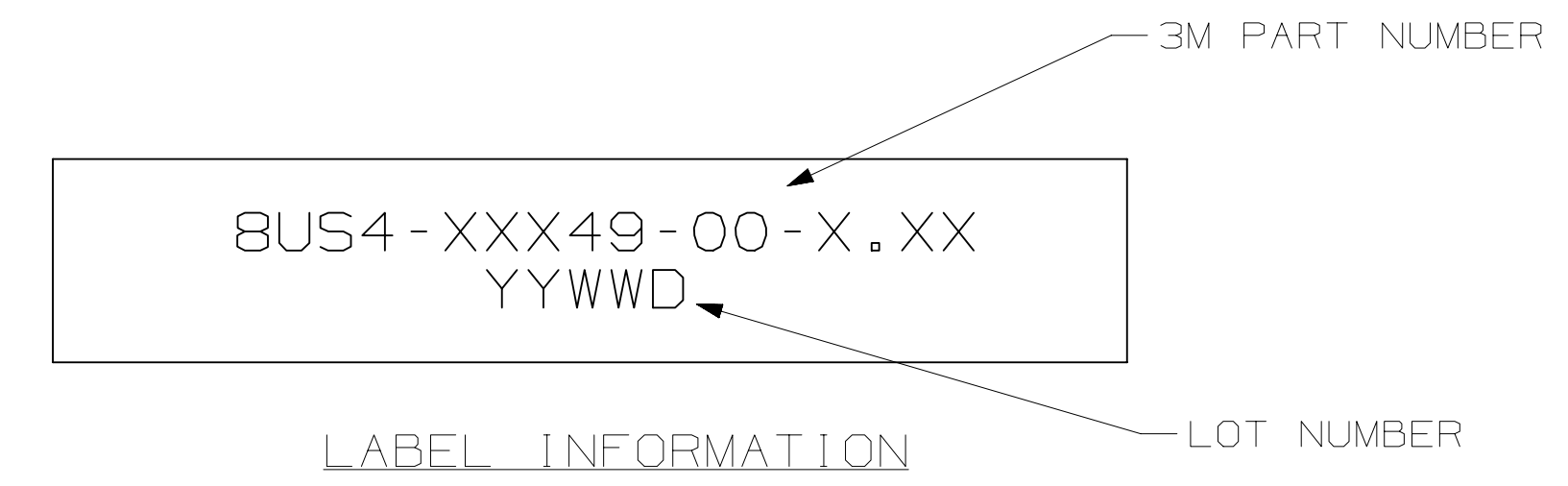
3M PART NUMBERING SCHEME

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 |

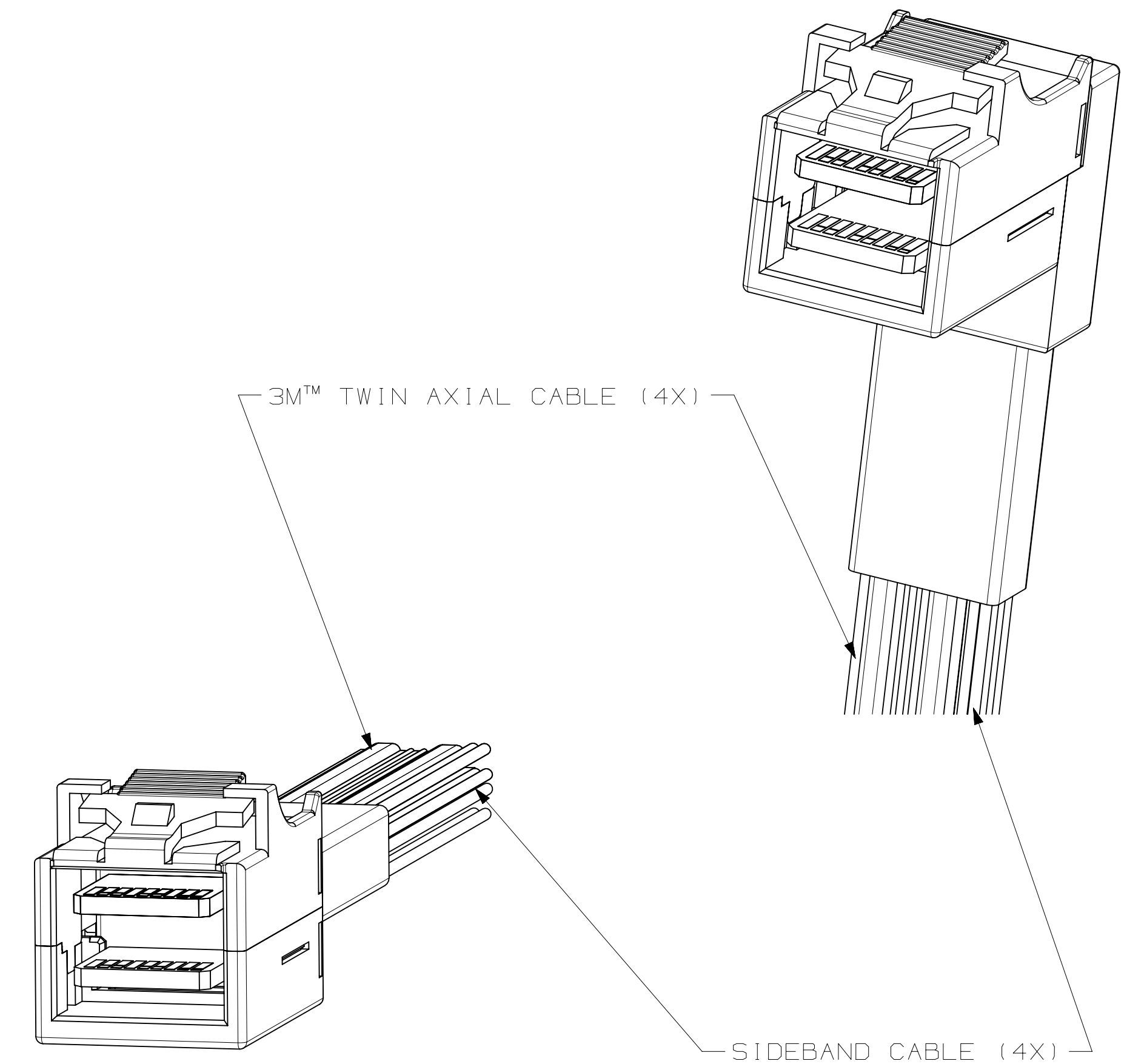
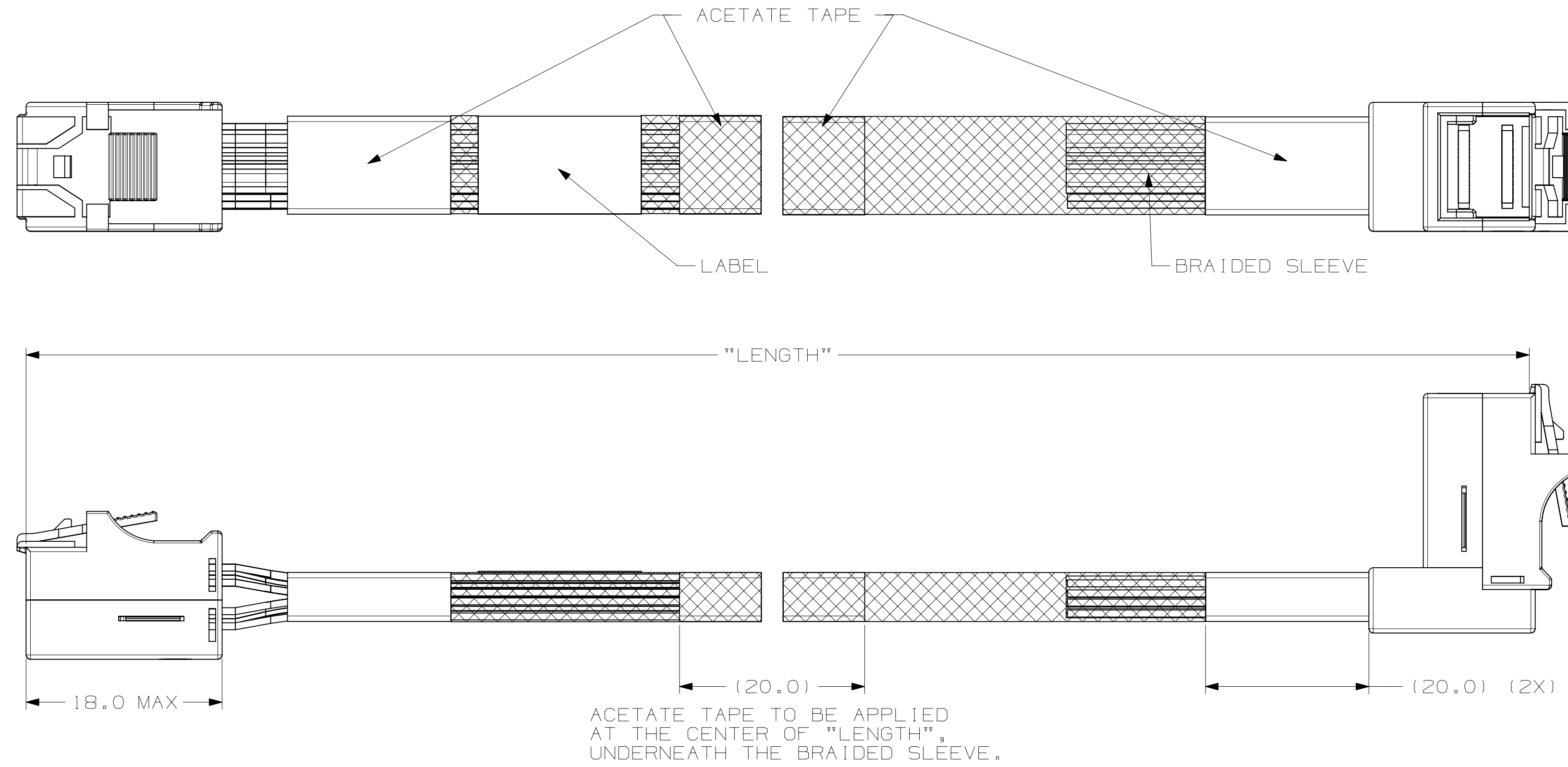


| | | | | |
|--|---------------|--|-------------------|--------------------|
| REV | ECO | ISSUE DATE AND DESCRIPTION | DRFT | CHKD |
| | | | | |
| DESIGN REFERENCE | NEXT ASSEMBLY | A 0080617 OCT 17, 2014 KHL SB ECO ISSUE DATE AND DESCRIPTION DRFT CHKD | | |
| DISTRIBUTION CODES | | DRY KOK HOE LEE | DATE OCT 17, 2014 | MFG DATE |
| | | CHKD YUNLONG QIAO | DATE OCT 17, 2014 | APPR SAJJIT BANDHU |
| | | | | DATE OCT 17, 2014 |
| DO NOT SCALE DRAWING | | TOLERANCES EXCEPT AS NOTED INCHES .00 ± .00 .000 ± .000 .0000 ± .0000 | | |
| THIRD ANGLE PROJECTION INTERPRET PER ASME Y14.5 - 1994 | | MILLIMETERS 0 ± .1 .0 ± .1 .00 ± .05 .000 ± .005 | | |
| MAX SURFACE ROUGHNESS 125 / ALL SURFACES MARKED ONLY | | TITLE INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT-ANGLE CONNECTOR CAGE NUMBER D 78-5100-2651-7 MODEL | | |
| | | REV. A SHT 3 OF 4 | | |

78-5100-2651-7
DRAWING NUMBER

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.

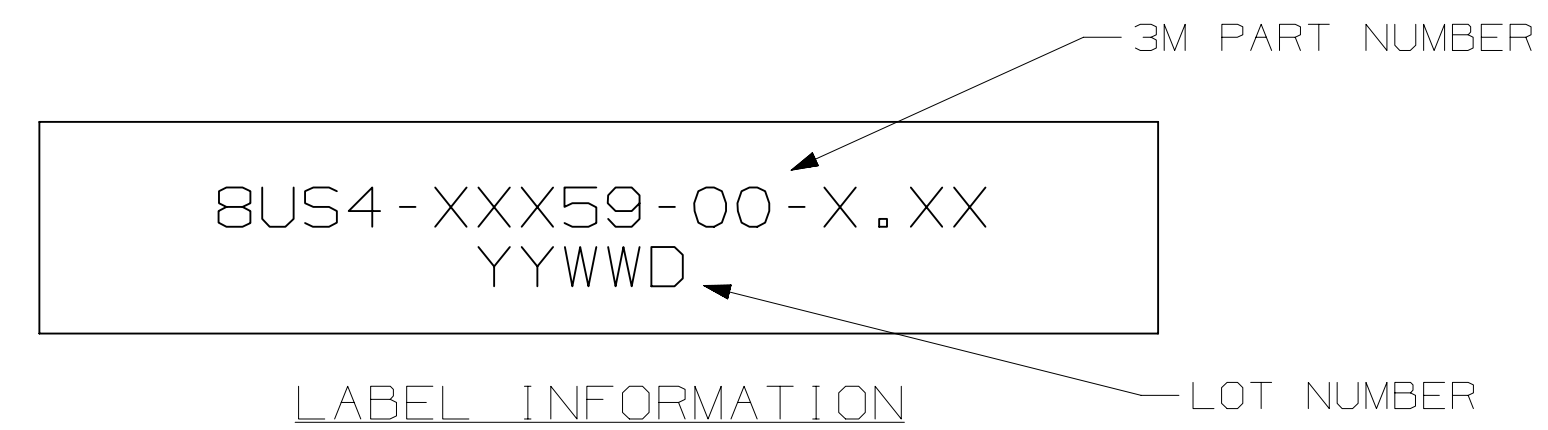
3M PART NUMBERING SCHEME

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 |
| | | | | |
| DESIGN REFERENCE | | NEXT ASSEMBLY | | |
| DISTRIBUTION CODES | | DISTRIBUTION CODES | | |
| DO NOT SCALE DRAWING | | SCALE 1/1 | | |
| THIRD ANGLE PROJECTION | | TOLERANCES EXCEPT AS NOTED | | |
| INTERPRET PER ASME Y14.5 - 1994 | | MILLIMETERS 0 ± 1 | | |
| MAX SURFACE ROUGHNESS 125 | | INCHES .00 ± .05 | | |
| ☐ ALL SURFACES | | .000 ± .005 | | |
| ☒ MARKED ONLY | | ANGLES ± 1° | | |
| MODEL | | TITLE | | |
| CAGE NUMBER | | INTERNAL MINISAS HD CABLE ASSEMBLY RIGHT-ANGLE CONNECTOR | | |
| SIZE | | DRAWING NO. | | |
| DRAWING NO. | | 78-5100-2651-7 | | |
| REV. | | REV. | | |
| REV. | | A | | |
| SHT 4 OF 4 | | REV. DATE | | |
| SHT 4 OF 4 | | REV. DATE | | |

78-5100-2651-7
DRAWING NUMBER

A