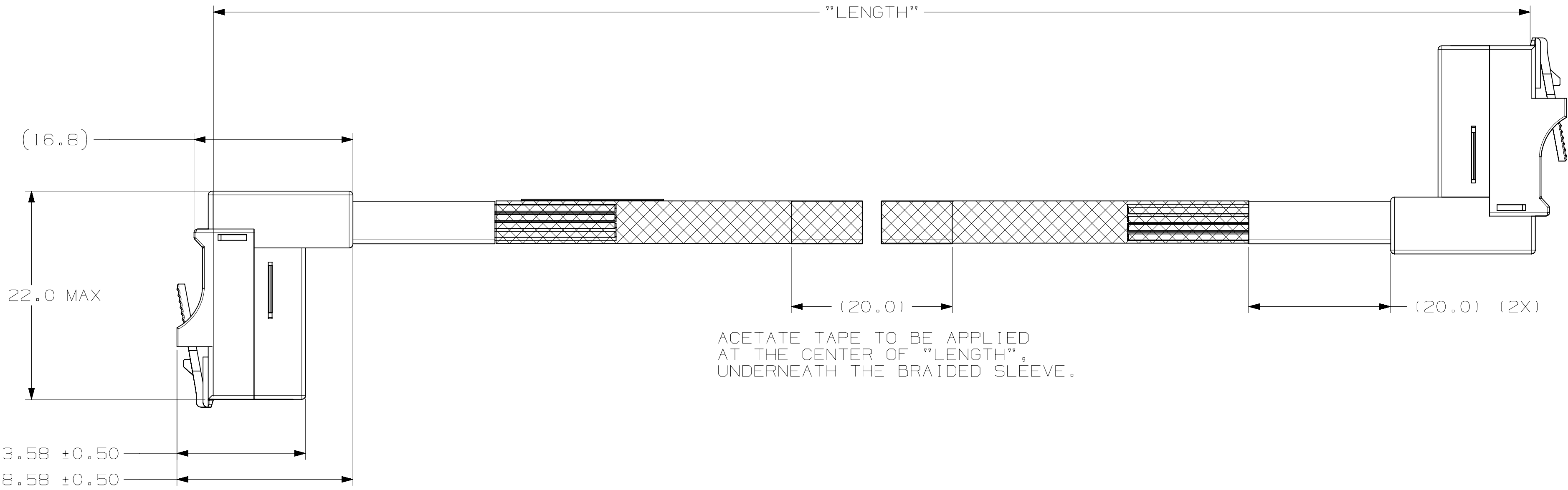
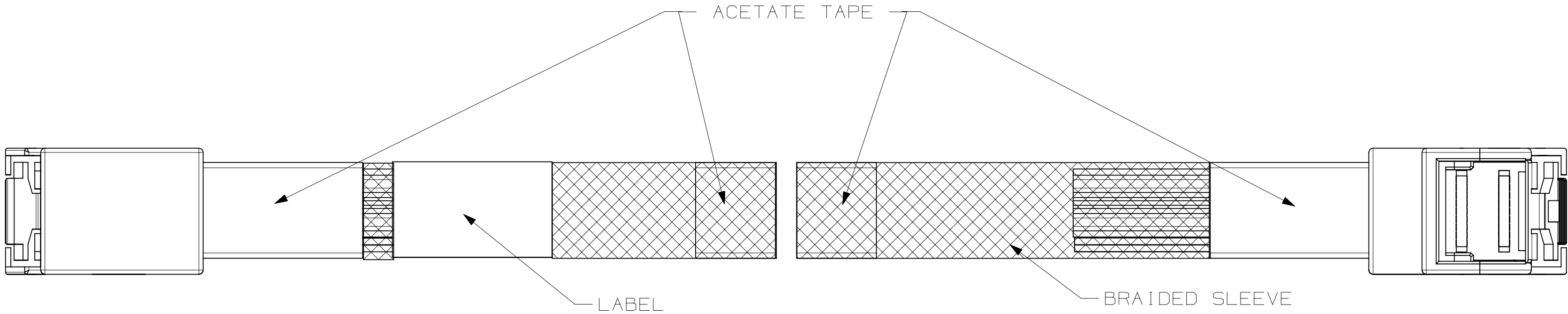
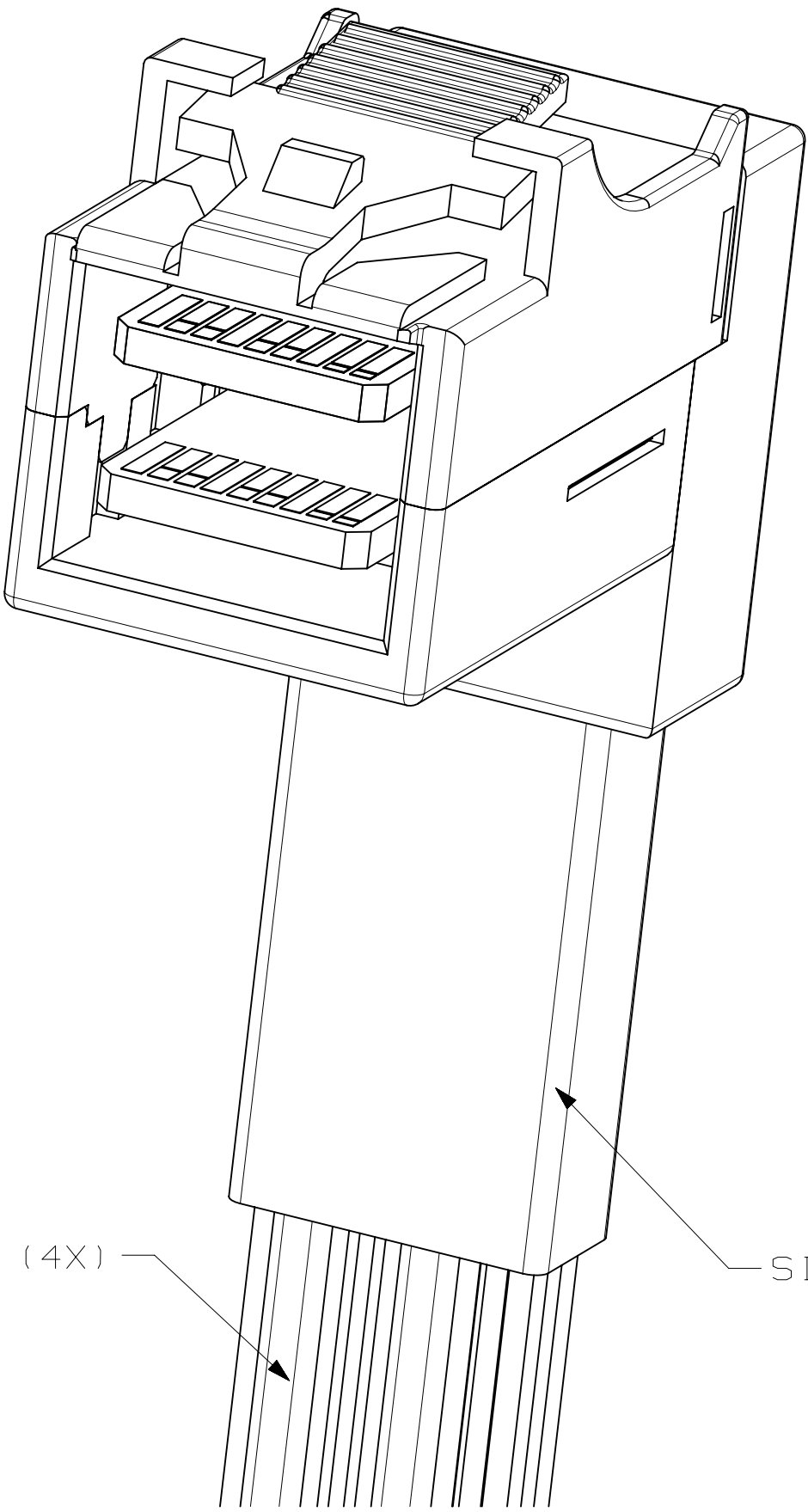
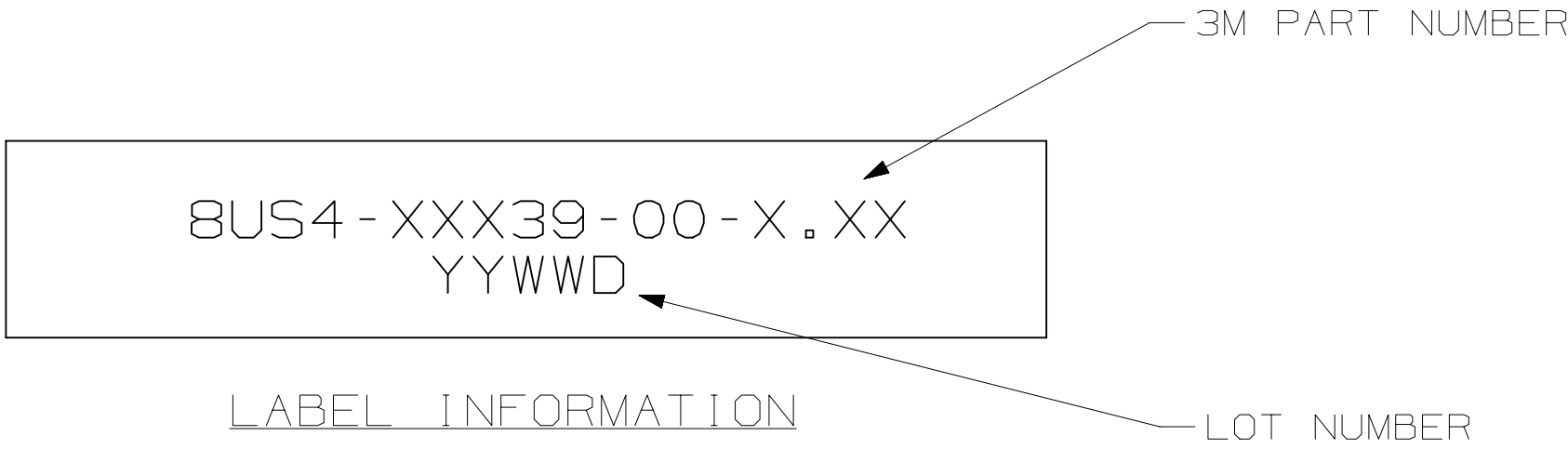


3M™ HIGH ROUTABILITY INTERNAL MINISAS HD CABLE ASSEMBLIES, 8U SERIES

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          |
|                                 |  |                            |  | DRP                        | 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](http://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       | 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       |  |
| A4       | 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       |  |
| SYMBOLS  |            |                                         |   |            |  |          |  |
| →        | ←          | HIGH SPEED SERIAL<br>DIFFERENTIAL PAIRS |   |            |  |          |  |
| →        | ←          |                                         |   |            |  |          |  |
| —        |            | SIGNAL RETURN                           |   |            |  |          |  |
| ↔        |            | POWER AND MANAGEMENT INTERFACE          |   |            |  |          |  |

---

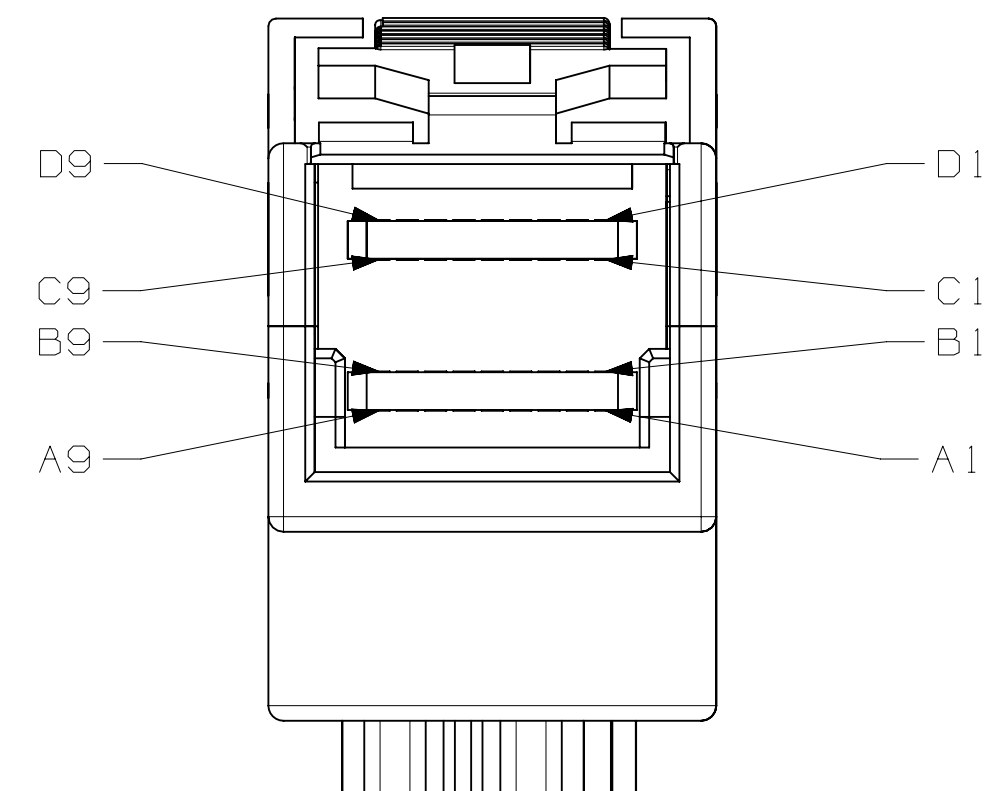
TABLE 2: WITH SIDEBANDS

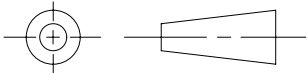
| PINOUT 2 |        |   |        |          |
|----------|--------|---|--------|----------|
| P1       |        |   | P2     |          |
| POSITION | SYMBOL |   | SYMBOL | POSITION |
| D9       | GROUND | — | GROUND | B9       |
| D8       | Tx2-   | → | Rx2-   | B8       |
| D7       | Tx2+   | → | 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<br>DIFFERENTIAL PAIRS |
| →       | ← |                                         |
| —       |   | SIGNAL RETURN                           |
| ↔       |   | POWER AND MANAGEMENT INTERFACE          |

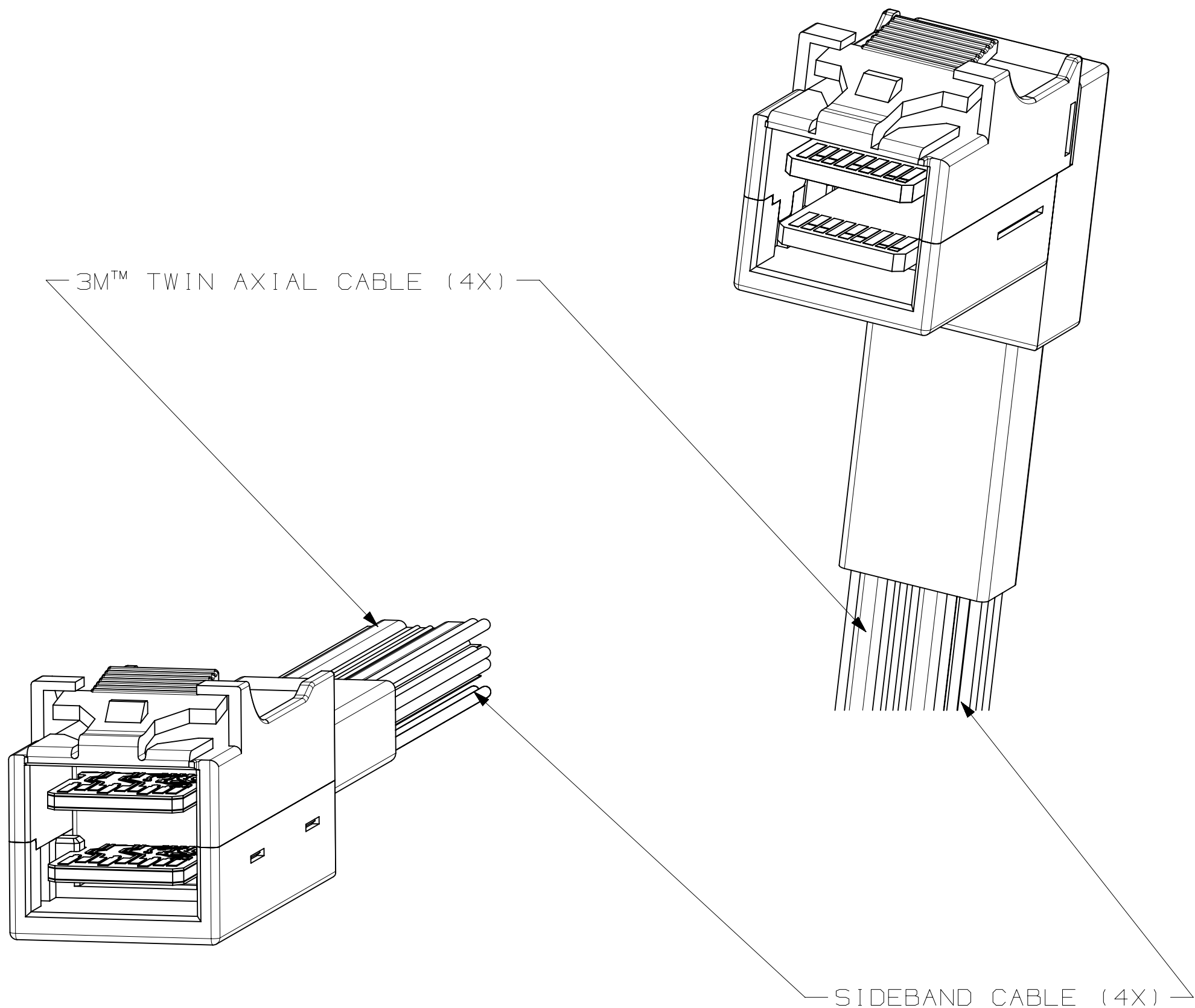
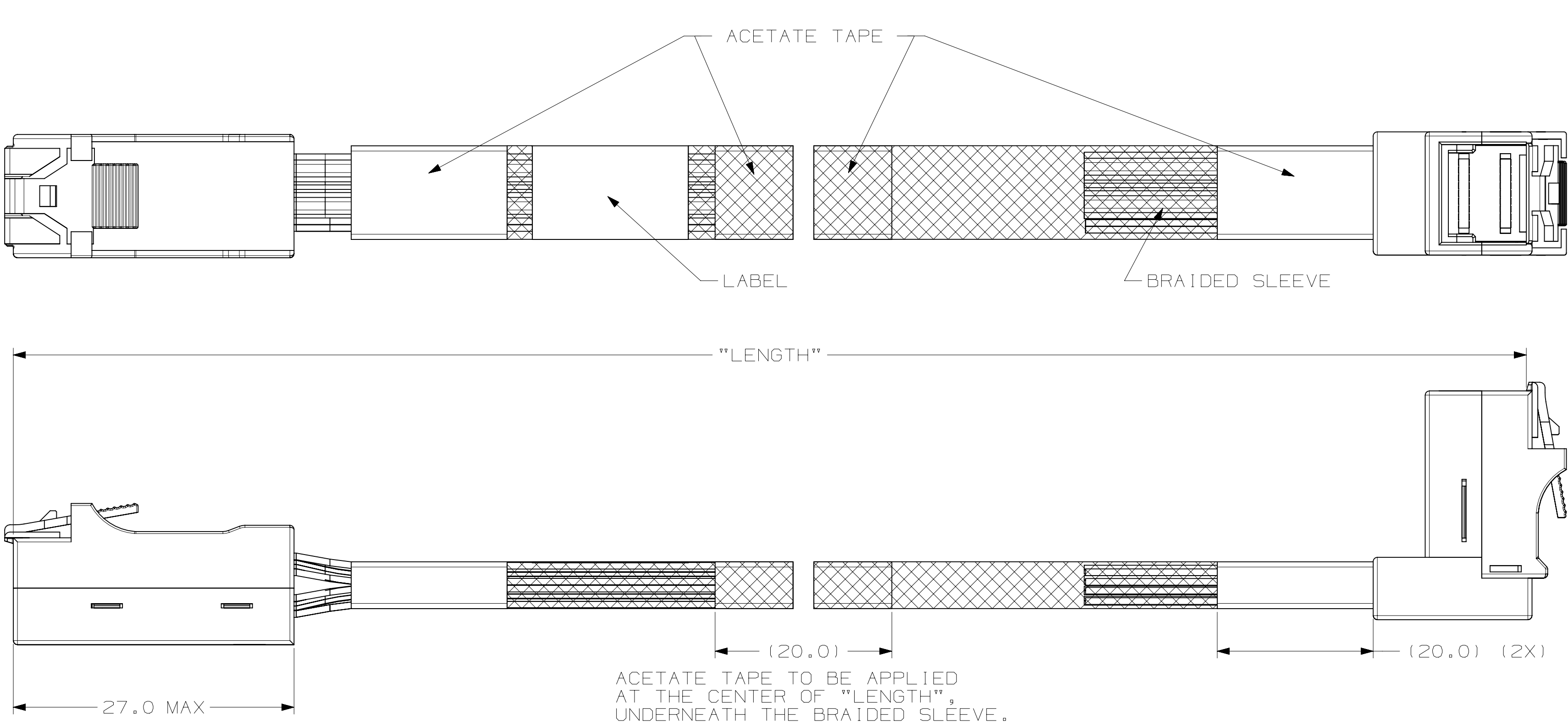
TABLE 3: WITHOUT SIDEBANDS



|                                                                                       |  |  |  |                                                                                          |  |  |  |                                                           |  |                                           |  |                                                                                |  |  |  |                                                                                                                                                                                                                        |  |      |  |              |  |
|---------------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------|--|-------------------------------------------|--|--------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|--|--------------|--|
| DESIGN REFERENCE                                                                      |  |  |  | NEXT ASSEMBLY                                                                            |  |  |  | A                                                         |  | 0060617                                   |  | OCT 17, 2014                                                                   |  |  |  | KHL                                                                                                                                                                                                                    |  | SB   |  |              |  |
| DISTRIBUTION CODES                                                                    |  |  |  |                                                                                          |  |  |  | REV                                                       |  | ECO                                       |  | ISSUE DATE AND DESCRIPTION                                                     |  |  |  | DRFT                                                                                                                                                                                                                   |  | CHKD |  |              |  |
| KOK                                                                                   |  |  |  | HOE LEE                                                                                  |  |  |  | DATE                                                      |  | OCT 17, 2014                              |  | MFG                                                                            |  |  |  | DATE                                                                                                                                                                                                                   |  |      |  |              |  |
| CHD                                                                                   |  |  |  | YUNLON QIAO                                                                              |  |  |  | DATE                                                      |  | OCT 17, 2014                              |  | APPRV                                                                          |  |  |  | SAJUUT BANDHU                                                                                                                                                                                                          |  | DATE |  | OCT 17, 2014 |  |
| DIVISION                                                                              |  |  |  | DIVISION CODE                                                                            |  |  |  | 3M                                                        |  | 3M Center<br>St. Paul,<br>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                                                                  |  |  |  | SCALE<br>1<br>1                                                                          |  |  |  | TOLERANCES EXCEPT AS NOTED                                |  | INCHES<br>0.0<br>0.00<br>0.000<br>0.000 ± |  | TITLE<br>INTERNAL MINISAS HD<br>CABLE ASSEMBLY<br>RIGHT - ANGLE CONNECTOR      |  |  |  |                                                                                                                                                                                                                        |  |      |  |              |  |
|  |  |  |  | THIRD ANGLE PROJECTION                                                                   |  |  |  | MILLIMETERS<br>0 ±<br>0.0 ±.5<br>0.00 ±.05<br>0.000 ±.005 |  | CASE NUMBER<br>D                          |  | SIZE DRAWING NO.<br>78-5100-2651-7                                             |  |  |  | REV.<br>A                                                                                                                                                                                                              |  |      |  |              |  |
| MAX SURFACE ROUGHNESS<br>125                                                          |  |  |  | <input type="checkbox"/> ALL SURFACES<br><input checked="" type="checkbox"/> MARKED ONLY |  |  |  | ANGLES ± 1°                                               |  | MODEL                                     |  | DET. LISTS <input type="checkbox"/> YES <input checked="" type="checkbox"/> 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             |

BUS4-XXX49-00-X.XX  
YYWW

LABEL INFORMATION

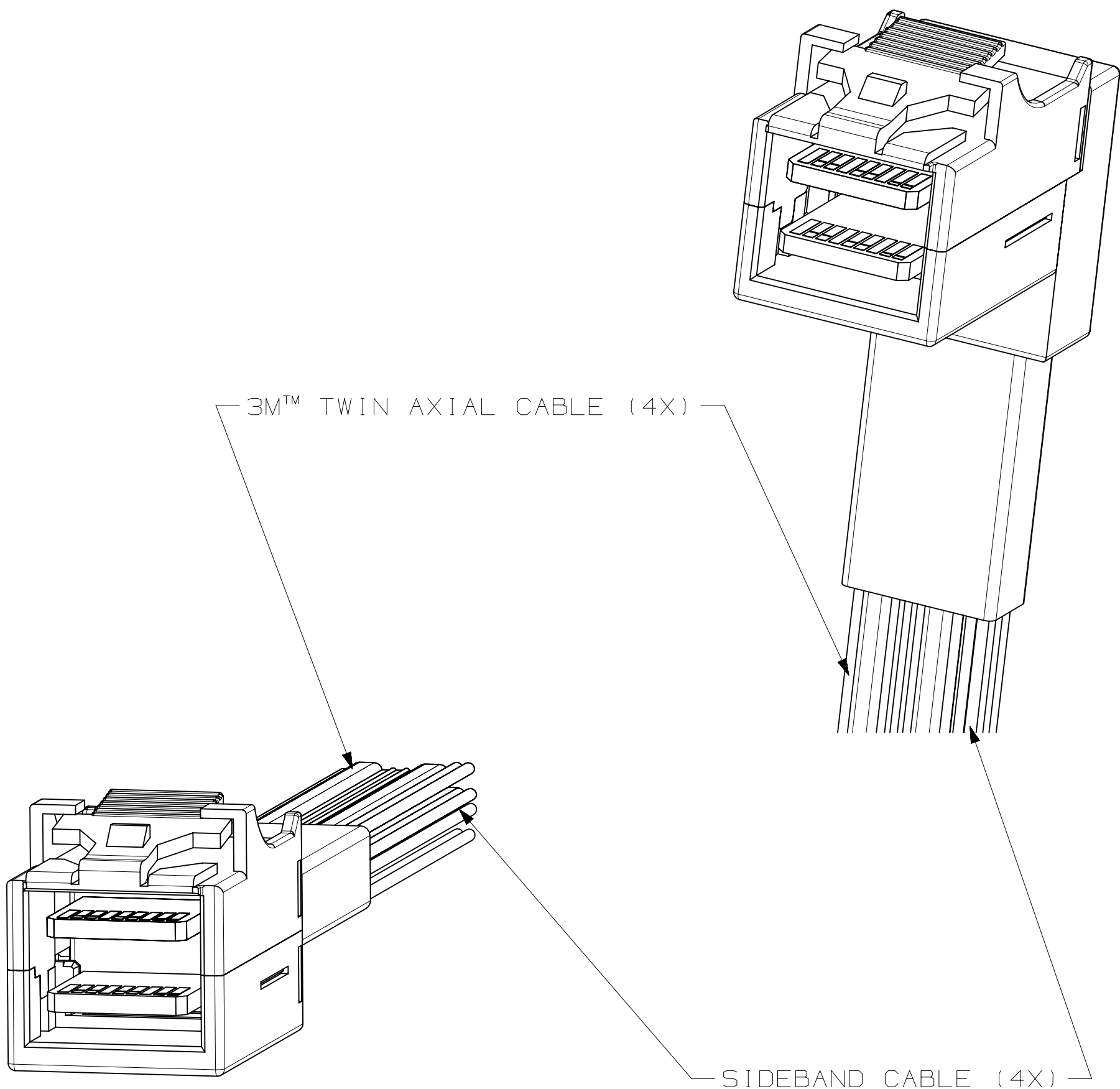
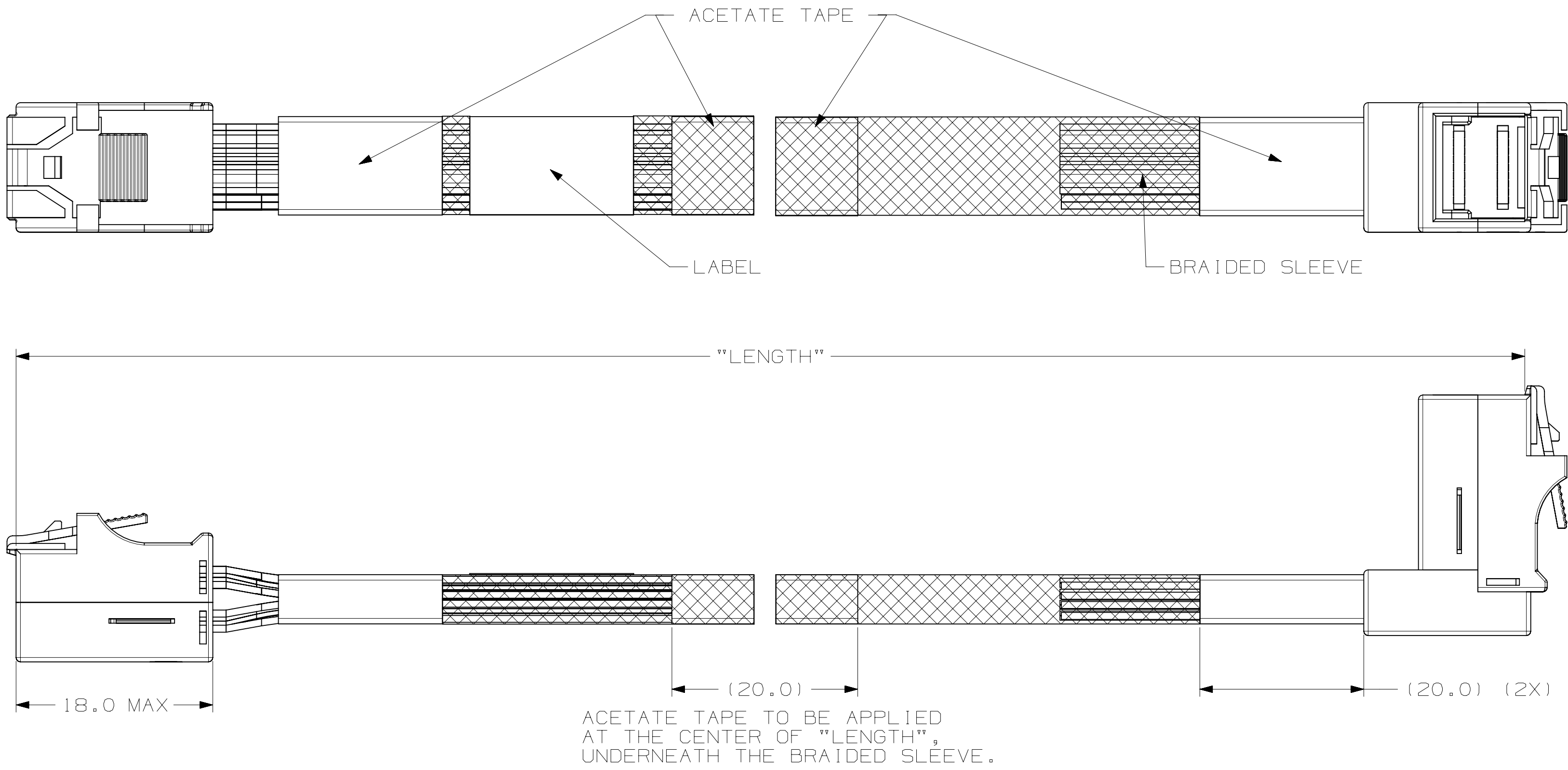
3M PART NUMBER

LOT NUMBER

|                        |  |                                                          |  |                            |              |                 |              |                          |               |
|------------------------|--|----------------------------------------------------------|--|----------------------------|--------------|-----------------|--------------|--------------------------|---------------|
| DESIGN REFERENCE       |  | NEXT ASSEMBLY                                            |  | REV                        | ECO          | OCT 17, 2014    |              | KHL                      | SB            |
| DISTRIBUTION CODES     |  | DISTRIBUTION CODES                                       |  | DRF                        | KOK HOE LEE  | DATE            | OCT 17, 2014 | DRFT                     | CHKD          |
| DIVISION               |  | DIVISION CODE                                            |  | CHD                        | YUNLONG QIAO | DATE            | OCT 17, 2014 | REV                      | SAUJIT BANDHU |
| DO NOT SCALE DRAWING   |  | SCALE 1/1                                                |  | TOLERANCES EXCEPT AS NOTED |              | INCHES          |              | MILLIMETERS              |               |
| THIRD ANGLE PROJECTION |  | 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                |              | D78-5100-2651-7 |              | REV.                     |               |
| MODEL                  |  | DET                                                      |  | 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

1. FOR DETAILS ON RIGHT-ANGLE INTERNAL MINISAS HD CABLE ASSEMBLY, REFER TO SHEET 1 AND 2.
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"

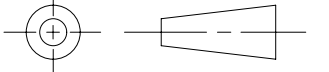
| XXX | PINOUT                                         | BRAIDED SLEEVE |
|-----|------------------------------------------------|----------------|
| AA1 | STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2) | YES            |
| AA2 | STD MINISAS HD 4i WITH SIDEBANDS (SEE TABLE 2) | NO             |
| CB1 | 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                   |  | A 0060617                            |  | OCT 17, 2014        |  | KHL                                                                                                                                                                                                                         |  | SB                    |  |
| REV                                                                                   |  | ECO                             |  | ISSUE DATE AND DESCRIPTION           |  | DRFT                |  | CHKD                                                                                                                                                                                                                        |  |                       |  |
| DISTRIBUTION CODES                                                                    |  |                                 |  | KOK HOE LEE                          |  | OCT 17, 2014        |  | INFO                                                                                                                                                                                                                        |  | DATE                  |  |
| CHD                                                                                   |  | YUNLONG QIAO                    |  | DATE                                 |  | OCT 17, 2014        |  | APPR                                                                                                                                                                                                                        |  | SAJJU BANDHU          |  |
| DATE                                                                                  |  |                                 |  |                                      |  |                     |  | DATE                                                                                                                                                                                                                        |  | OCT 17, 2014          |  |
| DIVISION                                                                              |  | DIVISION CODE                   |  | 3M                                   |  | © 3M COPYRIGHT 2015 |  |                                                                                                                                                                                                                             |  |                       |  |
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|  |  | INCHES 0.000 ± 0.000 ±          |  | MILLIMETERS 0 ± 0.1 ± 0.05 ± 0.005 ± |  | TITLE               |  | INTERNAL MINISAS HD CABLE ASSEMBLY                                                                                                                                                                                          |  | RIGHT-ANGLE CONNECTOR |  |
| THIRD ANGLE PROJECTION                                                                |  | INTERPRET PER ASME Y14.5 - 1994 |  |                                      |  | CAGE NUMBER         |  | SIZE                                                                                                                                                                                                                        |  | DRAWING NO.           |  |
| MAX SURFACE ROUGHNESS 125/                                                            |  | □ ALL SURFACES                  |  | ✓ MARKED ONLY                        |  | D                   |  | 78-5100-2651-7                                                                                                                                                                                                              |  | REV. A                |  |
|                                                                                       |  |                                 |  | ANGLES ±1°                           |  | MODEL               |  | DET                                                                                                                                                                                                                         |  | YES                   |  |
|                                                                                       |  |                                 |  |                                      |  |                     |  | LISTS                                                                                                                                                                                                                       |  | YES                   |  |
|                                                                                       |  |                                 |  |                                      |  |                     |  | SHT                                                                                                                                                                                                                         |  | 4 OF 4                |  |

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

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moschip.ru\_6

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