

| PRODUCT NUMBER   | DESCRIPTION      | NOTES      |
|------------------|------------------|------------|
| 10117947-XXXXLF  | NON-HF           | SEE SHT. 3 |
| 10117947-XXXXHLF | HALOGEN FREE (H) | SEE SHT. 3 |



CABLE TIE  
COLOR: BLACK  
SEE NOTE 14



SECTION C-C  
Mini SAS  
CABLE ORIENTATION ONLY  
END P2 & END P3

|             |                |                        |                                  |              |           |               |       |          |   |
|-------------|----------------|------------------------|----------------------------------|--------------|-----------|---------------|-------|----------|---|
| dr          | Deborah Ingram | 2011/05/23             | projection                       | mm           | size      | A3            | scale | 1:1      |   |
| eng         | Tommy Lin      | 2014/01/06             |                                  |              | ecn no    | ELX-N-16648-1 |       |          |   |
| chr         | -              | -                      |                                  |              | rel level | Released      |       |          |   |
| appr        | Roger Cheng    | 2014/01/07             | product family                   | MiniSAS/SATA | rev       | D             |       |          |   |
|             |                | title                  | MINI SAS HD 8X TO 2 MINI SAS 2.1 |              | dwg no    | 10117947      |       | cat. no. | - |
| www.fci.com |                | Product - Customer Drw |                                  | sheet 1 of 5 |           |               |       |          |   |

| PRODUCT NUMBER   | DESCRIPTION      | NOTES      |
|------------------|------------------|------------|
| 10117947-XXXXLF  | NON-HF           | SEE SHT. 3 |
| 10117947-XXXXHLF | HALOGEN FREE (H) | SEE SHT. 3 |



END P1  
MINI SAS HD 8X  
ISOMETRIC VIEW



END P2 & END P3  
MINI SAS  
ISOMETRIC VIEW



KEY 3 & KEY SLOT 2, 4 & 6  
○◇ UNIVERSAL PORT

END P2 & END P3  
MINI SAS

|             |                |   |                |                        |           |               |       |     |
|-------------|----------------|---|----------------|------------------------|-----------|---------------|-------|-----|
| dr          | Deborah Ingram | 2011/05/23  | projection<br> | mm<br>                 | size      | A3            | scale | 4:5 |
| eng         | Tommy Lin      | 2014/01/06  |                |                        | ecn no    | ELX-N-16648-1 |       |     |
| chr         | -              | -   |                |                        | rel level | Released      |       |     |
| appr        | Roger Cheng    | 2014/01/07  | product family | C&A                    |           |               |       |     |
|             |                | title<br>MINI SAS HD 8X TO 2 MINI SAS 2.1<br>TRAINED UNIVERSAL FINAL ASSEMBLY (6Gb/s) |                | dwg no<br>10117947     | rev<br>D  |               |       |     |
| www.fci.com |                | cat. no.  | -              | Product - Customer Drw |           | sheet 2 of 5  |       |     |



| PRODUCT NUMBER   | DESCRIPTION      | NOTES      |
|------------------|------------------|------------|
| 10117947-XXXXLF  | NON-HF           | SEE SHT. 3 |
| 10117947-XXXXHLF | HALOGEN FREE (H) | SEE SHT. 3 |

| PRODUCT NUMBER<br>(NON-HALOGEN FREE)<br>SEE NOTE 16 | AWG    | "DIM L"<br>LENGTH<br>(Meters) | "DIM M"<br>HEIGHT<br>(mm) |
|---|--------|-------------------------------|---------------------------|
| 10117947-5020LF                                     | 24 AWG | 2 M                           | (20.1)                    |
| 10117947-5030LF                                     | 24 AWG | 3 M                           | (20.1)                    |
| 10117947-5040LF                                     | 24 AWG | 4 M                           | (20.1)                    |
| 10117947-5050LF                                     | 24 AWG | 5 M                           | (20.1)                    |
| 10117947-5060LF                                     | 24 AWG | 6 M                           | (20.1)                    |
| 10117947-5070LF                                     | 24 AWG | 7 M                           | (20.1)                    |
| 10117947-5080LF                                     | 24 AWG | 8 M                           | (20.1)                    |
| 10117947-5090LF                                     | 24 AWG | 9 M                           | (20.1)                    |
| 10117947-5100LF                                     | 24 AWG | 10 M                          | (20.1)                    |
| 10117947-4020LF                                     | 26 AWG | 2 M                           | (20.1)                    |
| 10117947-4030LF                                     | 26 AWG | 3 M                           | (20.1)                    |
| 10117947-4040LF                                     | 26 AWG | 4 M                           | (20.1)                    |
| 10117947-4050LF                                     | 26 AWG | 5 M                           | (20.1)                    |
| 10117947-4060LF                                     | 26 AWG | 6 M                           | (20.1)                    |
| 10117947-4070LF                                     | 26 AWG | 7 M                           | (20.1)                    |
| 10117947-4080LF                                     | 26 AWG | 8 M                           | (20.1)                    |
| 10117947-3010LF                                     | 28 AWG | 1 M                           | (17.3)                    |
| 10117947-3020LF                                     | 28 AWG | 2 M                           | (17.3)                    |
| 10117947-3030LF                                     | 28 AWG | 3 M                           | (17.3)                    |
| 10117947-3040LF                                     | 28 AWG | 4 M                           | (17.3)                    |
| 10117947-3050LF                                     | 28 AWG | 5 M                           | (17.3)                    |
| 10117947-3060LF                                     | 28 AWG | 6 M                           | (17.3)                    |
| 10117947-2005LF                                     | 30 AWG | 0.5 M                         | (17.3)                    |
| 10117947-2010LF                                     | 30 AWG | 1 M                           | (17.3)                    |
| 10117947-2020LF                                     | 30 AWG | 2 M                           | (17.3)                    |
| 10117947-2030LF                                     | 30 AWG | 3 M                           | (17.3)                    |
| 10117947-2040LF                                     | 30 AWG | 4 M                           | (17.3)                    |

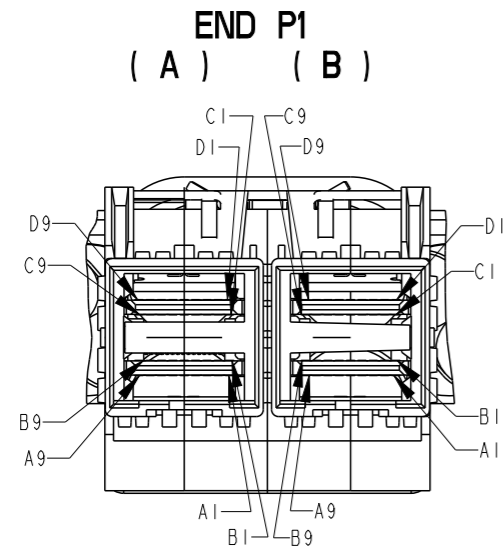
| PRODUCT NUMBER<br>(HALOGEN FREE)<br>SEE NOTE 9 AND 16 | AWG    | "DIM L"<br>LENGTH<br>(Meters) | "DIM M"<br>HEIGHT<br>(mm) |
|---|--------|-------------------------------|---------------------------|
| 10117947-5020HLF                                      | 24 AWG | 2 M                           | (20.1)                    |
| 10117947-5030HLF                                      | 24 AWG | 3 M                           | (20.1)                    |
| 10117947-5040HLF                                      | 24 AWG | 4 M                           | (20.1)                    |
| 10117947-5050HLF                                      | 24 AWG | 5 M                           | (20.1)                    |
| 10117947-5060HLF                                      | 24 AWG | 6 M                           | (20.1)                    |
| 10117947-5070HLF                                      | 24 AWG | 7 M                           | (20.1)                    |
| 10117947-5080HLF                                      | 24 AWG | 8 M                           | (20.1)                    |
| 10117947-5090HLF                                      | 24 AWG | 9 M                           | (20.1)                    |
| 10117947-5100HLF                                      | 24 AWG | 10 M                          | (20.1)                    |
| 10117947-4020HLF                                      | 26 AWG | 2 M                           | (20.1)                    |
| 10117947-4030HLF                                      | 26 AWG | 3 M                           | (20.1)                    |
| 10117947-4040HLF                                      | 26 AWG | 4 M                           | (20.1)                    |
| 10117947-4045HLF                                      | 26 AWG | 5 M                           | (20.1)                    |
| 10117947-4060HLF                                      | 26 AWG | 6 M                           | (20.1)                    |
| 10117947-4070HLF                                      | 26 AWG | 7 M                           | (20.1)                    |
| 10117947-4080HLF                                      | 26 AWG | 8 M                           | (20.1)                    |
| 10117947-3010HLF                                      | 28 AWG | 1 M                           | (17.3)                    |
| 10117947-3020HLF                                      | 28 AWG | 2 M                           | (17.3)                    |
| 10117947-3030HLF                                      | 28 AWG | 3 M                           | (17.3)                    |
| 10117947-3040HLF                                      | 28 AWG | 4 M                           | (17.3)                    |
| 10117947-3050HLF                                      | 28 AWG | 5 M                           | (17.3)                    |
| 10117947-3060HLF                                      | 28 AWG | 6 M                           | (17.3)                    |
| 10117947-2005HLF                                      | 30 AWG | 0.5 M                         | (17.3)                    |
| 10117947-2010HLF                                      | 30 AWG | 1 M                           | (17.3)                    |
| 10117947-2020HLF                                      | 30 AWG | 2 M                           | (17.3)                    |
| 10117947-2030HLF                                      | 30 AWG | 3 M                           | (17.3)                    |
| 10117947-2040HLF                                      | 30 AWG | 4 M                           | (17.3)                    |

|   |                |            |  |                        |               |              |     |
|---|----------------|------------|--|------------------------|---------------|--------------|-----|
| dr  | Deborah Ingram | 2011/05/23 | <br>projection<br>mm<br> | size                   | A3            | scale        | 1:1 |
| eng   | Tommy Lin      | 2014/01/06 |  | ecn no                 | ELX-N-16648-1 |              |     |
| chr   | -              | -          |  | rel level              | Released      |              |     |
| appr  | Roger Cheng    | 2014/01/07 |  | product family         | C&A           |              |     |
|  |                | title      | MINI SAS HD 8X TO 2 MINI SAS 2.1<br>TRAINED UNIVERSAL FINAL ASSEMBLY (6Gb/s)   | dwg no                 | 10117947      | rev          | D   |
| www.fci.com   |                | cat. no.   | -  | Product - Customer Drw |               | sheet 3 of 5 |     |



Copyright FCI.

| PRODUCT NUMBER   | DESCRIPTION      | NOTES      |
|------------------|------------------|------------|
| 10117947-XXXXLF  | NON-HF           | SEE SHT. 3 |
| 10117947-XXXXHLF | HALOGEN FREE (H) | SEE SHT. 3 |

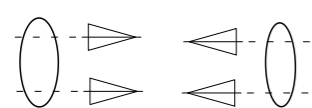


VIEW A  
SCALE: 2:1



VIEW B  
SCALE: 2:1

LEGEND:



HIGH-SPEED SERIAL  
DIFFERENTIAL PAIRS



SIGNAL RETURN



POWER AND MANAGEMENT  
INTERFACE

WIRING LIST (SEE NOTE 7)

| END P1 (B)<br>MINI SAS HD |      | CONDUCTOR #           | END P2<br>(MINI SAS) |        |
|---------------------------|------|-----------------------|----------------------|--------|
| SIGNAL                    | PIN# |                       | PIN#                 | SIGNAL |
| GND                       | A9   | PAIR 2                | B7                   | GND    |
| Rx 1-                     | A5   |                       | B6                   | Tx 1-  |
| Rx 1+                     | A4   |                       | B5                   | Tx 1+  |
| GND                       | A3   | PAIR 4                | B4                   | GND    |
| Rx 3-                     | A8   |                       | B12                  | Tx 3-  |
| Rx 3+                     | A7   |                       | B11                  | Tx 3+  |
| GND                       | A6   |                       | B13                  | GND    |
| N/C                       | A1   | NO THRU<br>CONNECTION |                      |        |
| Interrupt                 | A2   |                       |                      |        |
| GND                       | B9   | PAIR 1                |                      | GND    |
| RX 0-                     | B5   |                       | B3                   | TX 0-  |
| RX 0+                     | B4   |                       | B2                   | TX 0+  |
| GND                       | B3   | PAIR 3                | B1                   | GND    |
| RX 2-                     | B8   |                       | B9                   | TX 2-  |
| RX 2+                     | B7   |                       | B8                   | TX 2+  |
| GND                       | B6   |                       | B10                  | GND    |
| N/C                       | B1   | NO THRU<br>CONNECTION |                      |        |
| Mod_PRS_L<br>(GND)        | B2   |                       |                      |        |
| GND                       | C9   |                       | A7                   | GND    |
| TX 1-                     | C5   | PAIR 2                | A6                   | RX 1-  |
| TX 1+                     | C4   |                       | A5                   | RX 1+  |
| GND                       | C3   | PAIR 4                | A4                   | GND    |
| TX 3-                     | C8   |                       | A12                  | RX 3-  |
| TX 3+                     | C7   |                       | A11                  | RX 3+  |
| GND                       | C6   |                       | A13                  | GND    |
| SCL                       | C1   | NO THRU<br>CONNECTION |                      |        |
| SDA                       | C2   |                       |                      |        |
| GND                       | D9   |                       |                      | GND    |
| TX 0-                     | D5   | PAIR 1                | A3                   | RX 0-  |
| TX 0+                     | D4   |                       | A2                   | RX 0+  |
| GND                       | D3   | PAIR 3                | A1                   | GND    |
| TX 2-                     | D8   |                       | A9                   | RX 2-  |
| TX 2+                     | D7   |                       | A8                   | RX 2+  |
| GND                       | D6   |                       | A10                  | GND    |
| N/C                       | D1   | NO THRU<br>CONNECTION |                      |        |
| V+3.3 for<br>EEPROM       | D2   |                       |                      |        |
| SHELL                     |      | BRAID                 |                      | SHELL  |

SHIELD-----SHIELD

WIRING LIST (SEE NOTE 7)

| END P1 (A)<br>MINI SAS HD |      | CONDUCTOR #           | END P3<br>(MINI SAS) |        |
|---------------------------|------|-----------------------|----------------------|--------|
| SIGNAL                    | PIN# |                       | PIN#                 | SIGNAL |
| GND                       | A9   | PAIR 2                | B7                   | GND    |
| Rx 1-                     | A5   |                       | B6                   | Tx 1-  |
| Rx 1+                     | A4   |                       | B5                   | Tx 1+  |
| GND                       | A3   | PAIR 4                | B4                   | GND    |
| Rx 3-                     | A8   |                       | B12                  | Tx 3-  |
| Rx 3+                     | A7   |                       | B11                  | Tx 3+  |
| GND                       | A6   |                       | B13                  | GND    |
| N/C                       | A1   | NO THRU<br>CONNECTION |                      |        |
| Interrupt                 | A2   |                       |                      |        |
| GND                       | B9   | PAIR 1                |                      | GND    |
| RX 0-                     | B5   |                       | B3                   | TX 0-  |
| RX 0+                     | B4   |                       | B2                   | TX 0+  |
| GND                       | B3   | PAIR 3                | B1                   | GND    |
| RX 2-                     | B8   |                       | B9                   | TX 2-  |
| RX 2+                     | B7   |                       | B8                   | TX 2+  |
| GND                       | B6   |                       | B10                  | GND    |
| N/C                       | B1   | NO THRU<br>CONNECTION |                      |        |
| Mod_PRS_L<br>(GND)        | B2   |                       |                      |        |
| GND                       | C9   |                       | A7                   | GND    |
| TX 1-                     | C5   | PAIR 2                | A6                   | RX 1-  |
| TX 1+                     | C4   |                       | A5                   | RX 1+  |
| GND                       | C3   | PAIR 4                | A4                   | GND    |
| TX 3-                     | C8   |                       | A12                  | RX 3-  |
| TX 3+                     | C7   |                       | A11                  | RX 3+  |
| GND                       | C6   |                       | A13                  | GND    |
| SCL                       | C1   | NO THRU<br>CONNECTION |                      |        |
| SDA                       | C2   |                       |                      |        |
| GND                       | D9   |                       |                      | GND    |
| TX 0-                     | D5   | PAIR 1                | A3                   | RX 0-  |
| TX 0+                     | D4   |                       | A2                   | RX 0+  |
| GND                       | D3   | PAIR 3                | A1                   | GND    |
| TX 2-                     | D8   |                       | A9                   | RX 2-  |
| TX 2+                     | D7   |                       | A8                   | RX 2+  |
| GND                       | D6   |                       | A10                  | GND    |
| N/C                       | D1   | NO THRU<br>CONNECTION |                      |        |
| V+3.3 for<br>EEPROM       | D2   |                       |                      |        |
| SHELL                     |      | BRAID                 |                      | SHELL  |

SHIELD-----SHIELD

|             |                |            |                                  |     |        |               |                        |          |
|-------------|----------------|------------|----------------------------------|-----|--------|---------------|------------------------|----------|
| dr          | Deborah Ingram | 2011/05/23 | projection                       | mm  | size   | A3            | scale                  | 1:2      |
| eng         | Tommy Lin      | 2014/01/06 |                                  |     | ecn no | ELX-N-16648-1 | rel level              | Released |
| chr         | -              | -          |                                  |     |        |               |                        |          |
| appr        | Roger Cheng    | 2014/01/07 | product family                   | C&A |        |               |                        |          |
|             |                |            | MINI SAS HD 8X TO 2 MINI SAS 2.1 |     | dwg no |               | 10117947               |          |
| www.fci.com |                |            | cat. no.                         |     | -      |               | Product - Customer Drw |          |
|             |                |            | sheet 4 of 5                     |     | rev    |               | D                      |          |

| PRODUCT NUMBER   | DESCRIPTION      | NOTES      |
|------------------|------------------|------------|
| 10117947-XXXXLF  | NON-HF           | SEE SHT. 3 |
| 10117947-XXXXHLF | HALOGEN FREE (H) | SEE SHT. 3 |

NOTES:

- MATERIALS MINI SAS HD (END P1)  
BACK SHELLS: ZINC DIE CAST/ COPPER UNDER PLATE/NICKEL OVER PLATE  
PULL TAB: THERMOPLASTIC POLYMER  
LATCH: STAINLESS STEEL  
FERRULE: BRASS  
EMI GASKETS: STAINLESS STEEL  
LOCTITE  
HEAT SHRINK: HIGH POLYMER  
PADDLE CARD: PRINTED CIRCUIT SUBSTRATE

- MATERIALS MINI SAS (END P2 & END P3)  
BACK SHELLS: ZINC DIE CAST  
PULL TAB: THERMOPLASTIC POLYMER  
LATCH: STAINLESS STEEL  
JET MELT: POLYAMIDE POLYMER  
HEAT SHRINK: POLYOLEFIN  
PADDLE CARD: PRINTED CIRCUIT SUBSTRATE

- ELECTRICAL PERFORMANCE PER CURRENT REVISION: T10/SAS-2.1

- THIS PRODUCT MEETS THE RESTRICTION OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (RoHS) DIRECTIVE (2011/65/EU)

- PRODUCT SPECIFICATIONS: Mini SAS HD GS-12-651, MINI SAS 2.1 GS-12-548

- UNLESS OTHERWISE SPECIFIED ASSEMBLED LENGTH TOLERANCE IS TO BE:  
"DIM L" < 1 METERS = ±25mm  
"DIM L" 1 METER TO 10 METER = 2% OF "DIM L"

- LABEL DETAILS:

FCI CHINA  
FCI P/N  
FCI CUSTOMER DRAWING REVISION  
FCI SERIAL NUMBER

FONT SHALL BE CLEARLY VISIBLE AND BLACK IN COLOR

- ALL CABLE ASSEMBLIES SHALL BE 100% TESTED FOR CONTINUITY AS DEFINED IN WIRING LIST.
- PACKAGING OF LEAD FREE PRODUCTS MEETS LABELING AND PACKAGING PER SPECIFICATION GS-14-920. PACKAGE CABLE ASSEMBLIES PER GS-14-1272. DUST COVER IS TO BE APPLIED TO MINI SAS HD CONNECTOR PRIOR TO SHIPPING. FCI PACKAGE TRACKING BAG LABEL IS ONLY FOR REFERENCE.

- "H" PRODUCT NUMBERS DESIGNATE THE USE OF HALOGEN FREE RAW CABLE.

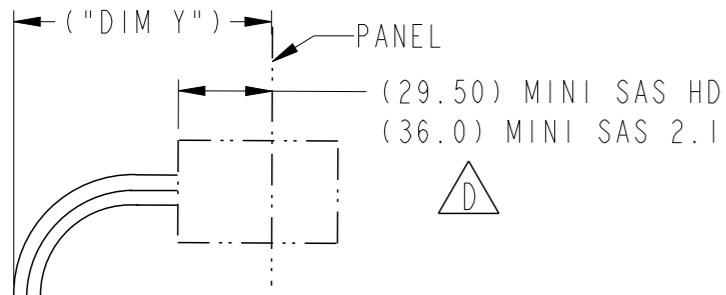
- THIS DIMENSION IS A FINISHED PRODUCT LENGTH.

- A "△" SYMBOL WILL BE NEXT TO ANY DIMENSION, VIEW, OR NOTE WHICH HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION. THE CURRENT REVISION WILL BE SHOWN IN THE SYMBOL.

- MEETS ELECTRICAL PERFORMANCE REQUIREMENTS OF SAS 2.1.

- MATES WITH SERIES: MINI SAS HS - 100112627 or 10112628  
MINI SAS 2.1 - BOARD CONNECTOR 100988870 AND CAGE 10098872

- PLACE A CABLE TIE EVERY 0.5 METERS ON ASSEMBLIES. IN THE CASE OF A 0.5 METER CABLE LENGTH, PLACE THE CABLE TIE MIDWAY BETWEEN CONNECTORS.



PEND RADIUS  
TOP VIEW OF CONNECTOR

MINI SAS HD P1  
MINIMUM CABLE BEND TABLE

| CABLE  | ("DIM Y")<br>HF | ("DIM Y")<br>NON-HF |
|--------|-----------------|---------------------|
| 24 AWG | 101.1           | 100.6               |
| 26 AWG | 100.0           | 99.7                |
| 28 AWG | 99.1            | 98.7                |
| 30 AWG | 98.5            | 97.9                |

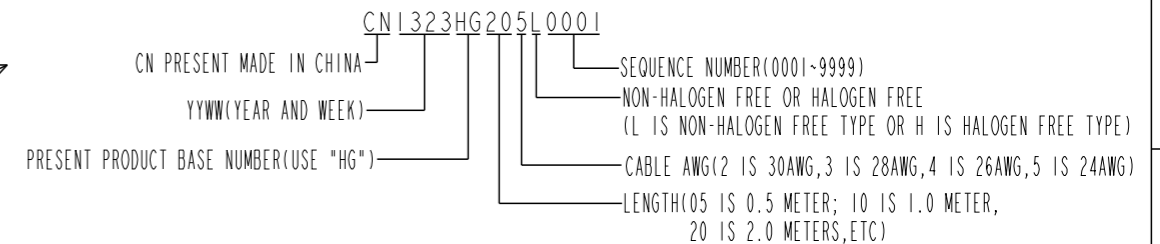
MINI SAS 2.1 P2 & P3  
MINIMUM CABLE BEND TABLE  
PER CONNECTOR

| CABLE  | ("DIM Y")<br>HF | ("DIM Y")<br>NON-HF |
|--------|-----------------|---------------------|
| 24 AWG | 90.6            | 88.3                |
| 26 AWG | 85.3            | 82.9                |
| 28 AWG | 79.3            | 76.9                |
| 30 AWG | 75.7            | 72.1                |

△ LABEL EXAMPLE

FCI CHINA  
10117947-5020LF  
REV.D  
CN1323HG205L0001

FCI SERIAL NUMBER IS ONLY FOR TRACKING PRODUCT, DEFINED AS BELOW:



|             |                |            |                |          |                        |               |       |     |
|-------------|----------------|------------|----------------|----------|------------------------|---------------|-------|-----|
| dr          | Deborah Ingram | 2011/05/23 | projection<br> | mm<br>←→ | size                   | A3            | scale | 1:1 |
| eng         | Tommy Lin      | 2014/01/06 |                |          | ecn no                 | ELX-N-16648-1 |       |     |
| chr         | -              | -          |                |          | rel level              | Released      |       |     |
| appr        | Roger Cheng    | 2014/01/07 |                |          | product family         | -             |       |     |
| www.fci.com |                |            | cat. no.       | -        | Product - Customer Drw | sheet 5 of 5  |       |     |



NOTES CONTINUED

15. EEPROM INFORMATION OF MSHD SIDE REFER TO FCI LATEST PRODUCT SPEC. GS-12-651

16. CABLE IS OPTIONAL, WHICH HAD BEEN QUALIFIED BY FCI AND MEET FCI PRODUCT SPEC. GS-12-651/548

|  |                                  |        |          |     |   |
|--|----------------------------------|--------|----------|-----|---|
|  | MINI SAS HD 8X TO 2 MINI SAS 2.1 | dwg no | 10117947 | rev | D |
|--|----------------------------------|--------|----------|-----|---|



Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкуренеспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)  
Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)