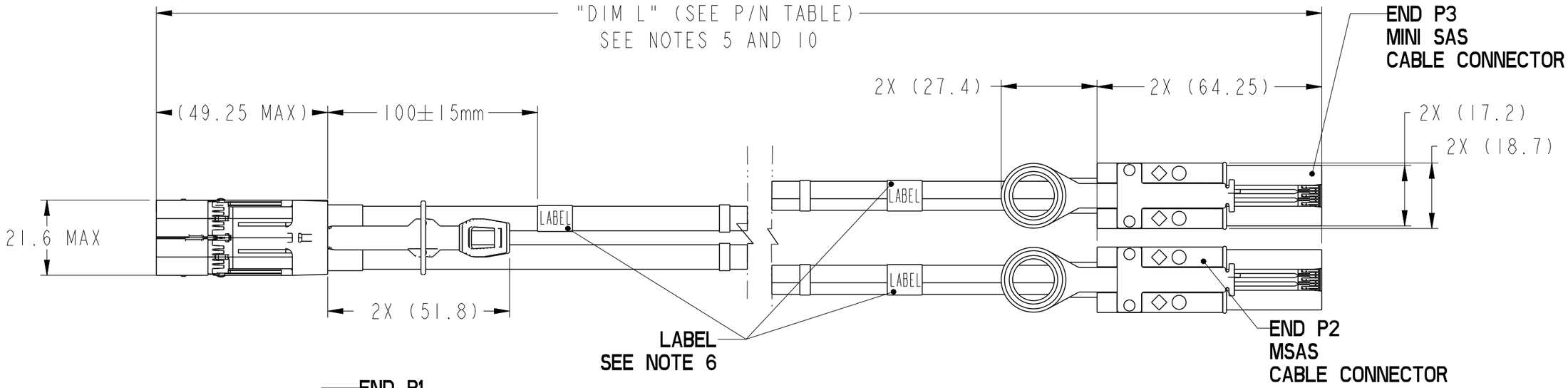
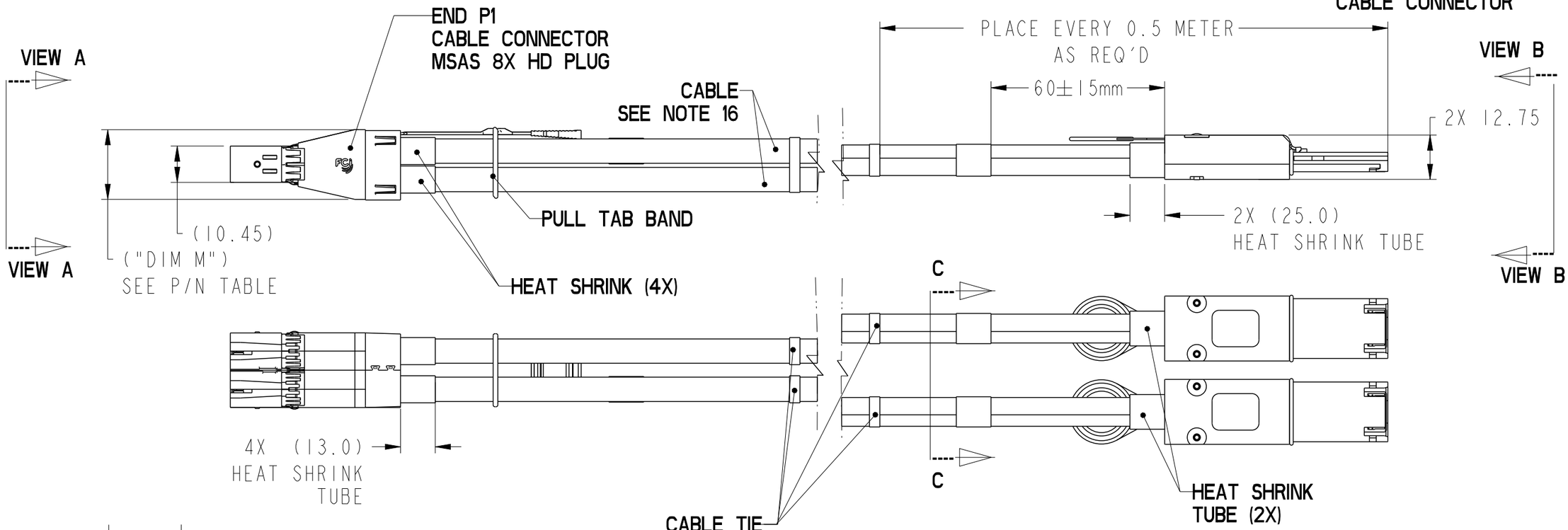
PRODUCT NUMBER	DESCRIPTION	NOTES
10117947-XXXXLF	NON-HF	SEE SHT. 3
10117947-XXXXHLF	HALOGEN FREE (H)	SEE SHT. 3





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	-	-			
appr	Roger Cheng	2014/01/07	product family	MiniSAS/SATA	rel level Released

FCI www.fci.com

title: MINI SAS HD 8X TO 2 MINI SAS 2.1
TRAINED UNIVERSAL FINAL ASSEMBLY (6Gb/s)

dwg no 10117947 rev D

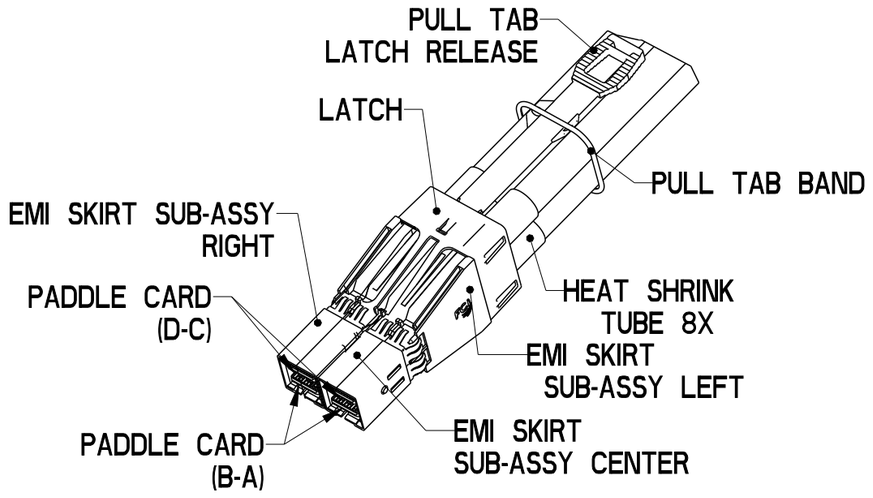
cat. no. - Product - Customer Drw sheet 1 of 5

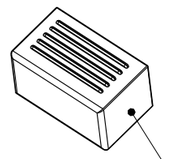
Copyright FCI.

Pro/E File - REV C - 2009-06-09

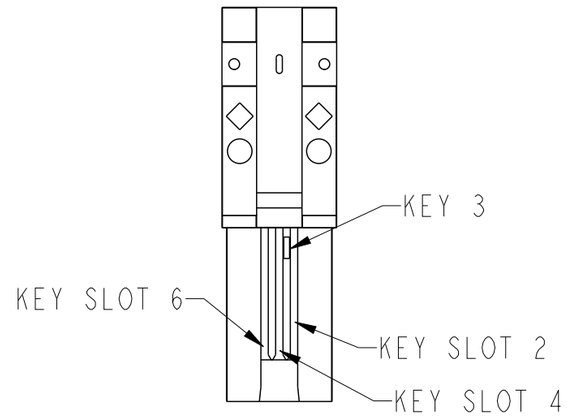
PDS: Rev :D STATUS:Released Printed: Jan 07, 2014

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



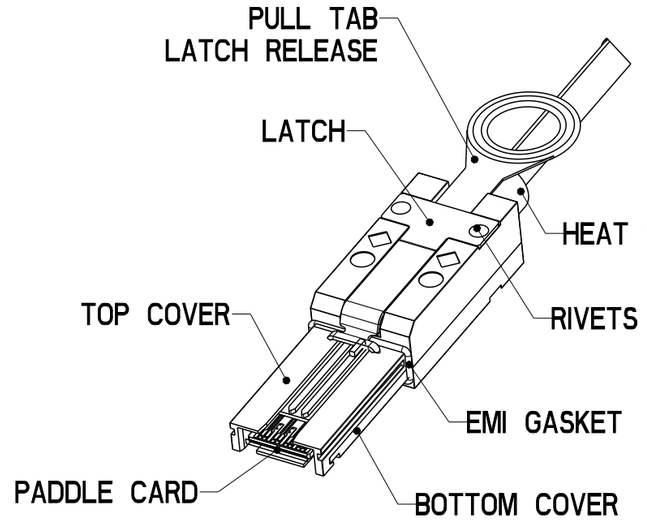


END P1
MINI SAS HD 8X
ISOMETRIC VIEW



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

END P2 & END P3
MINI SAS



END P2 & END P3
MINI SAS
ISOMETRIC VIEW

Copyright FCI.

dr	Deborah Ingram	2011/05/23	projection	mm	size A3 / scale 4:5
eng	Tommy Lin	2014/01/06			
chr	-	-			ecn no ELX-N-16648-1
appr	Roger Cheng	2014/01/07	product family C&A		rel level Released

FCI www.fci.com	title: MINI SAS HD 8X TO 2 MINI SAS 2.1 TRAINED UNIVERSAL FINAL ASSEMBLY (6Gb/s)	dwg no 10117947	rev D
	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 (NON-HALOGEN FREE) SEE NOTE 16	AWG	"DIM L" LENGTH (Meters)	"DIM M" HEIGHT (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 (HALOGEN FREE) SEE NOTE 9 AND 16	AWG	"DIM L" LENGTH (Meters)	"DIM M" HEIGHT (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)

Copyright FCI.

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	-	-			
appr	Roger Cheng	2014/01/07	product family: C&A		rel level: Released

www.fci.com

title: MINI SAS HD 8X TO 2 MINI SAS 2.1 TRAINED UNIVERSAL FINAL ASSEMBLY (6Gb/s)

dwg no: 10117947

rev: D

cat. no. - | Product - Customer Drw | sheet 3 of 5

Pro/E File - REV C - 2009-06-09

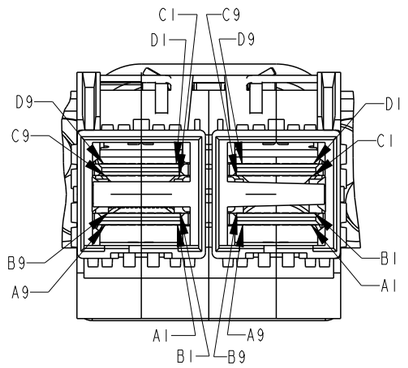
PDS: Rev :D

STATUS:Released

Printed: Jan 07, 2014

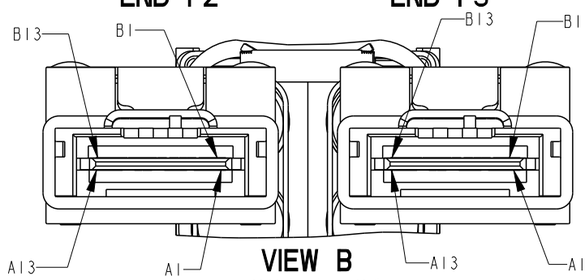
PRODUCT NUMBER	DESCRIPTION	NOTES
10117947-XXXXLF	NON-HF	SEE SHT. 3
10117947-XXXXHLF	HALOGEN FREE (H)	SEE SHT. 3

END P1
(A) (B)



VIEW A
SCALE 2:1

END P2 **END P3**



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

SHIELD ---------- SHIELD

WIRING LIST (SEE NOTE 7)

END P1 (A) MINI SAS HD			END P3 (MINI SAS	
SIGNAL	PIN#	CONDUCTOR #	PIN#	SIGNAL
GND	A9		B7	GND
Rx 1-	A5	PAIR 2	B6	Tx 1-
Rx 1+	A4		B5	Tx 1+
GND	A3		B4	GND
Rx 3-	A8	PAIR 4	B12	Tx 3-
Rx 3+	A7		B11	Tx 3+
GND	A6		B13	GND
N/C	A1	NO THRU CONNECTION		
Interrupt	A2			
GND	B9			GND
RX 0-	B5	PAIR 1	B3	TX 0-
RX 0+	B4		B2	TX 0+
GND	B3		B1	GND
RX 2-	B8	PAIR 3	B9	TX 2-
RX 2+	B7		B8	TX 2+
GND	B6		B10	GND
N/C	B1	NO THRU CONNECTION		
Mod_PRS_L (GND)	B2			
GND	C9		A7	GND
TX 1-	C5	PAIR 2	A6	RX 1-
TX 1+	C4		A5	RX 1+
GND	C3		A4	GND
TX 3-	C8	PAIR 4	A12	RX 3-
TX 3+	C7		A11	RX 3+
GND	C6		A13	GND
SCL	C1	NO THRU CONNECTION		
SDA	C2			
GND	D9			GND
TX 0-	D5	PAIR 1	A3	RX 0-
TX 0+	D4		A2	RX 0+
GND	D3		A1	GND
TX 2-	D8	PAIR 3	A9	RX 2-
TX 2+	D7		A8	RX 2+
GND	D6		A10	GND
N/C	D1	NO THRU CONNECTION		
V+3.3 for 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			
chr	-	-			ecn no ELX-N-16648-1
appr	Roger Cheng	2014/01/07	product family C&A		rel level Released

FCI www.fci.com

title: MINI SAS HD 8X TO 2 MINI SAS 2.1 TRAINED UNIVERSAL FINAL ASSEMBLY (6Gb/s)

dwg no 10117947 rev D

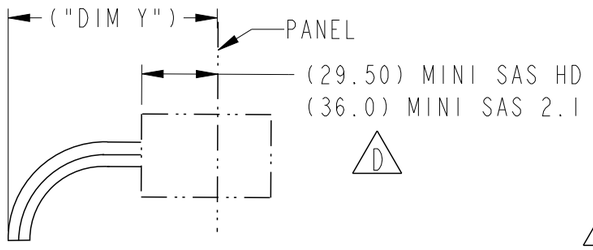
cat. no. - Product - Customer Drw sheet 4 of 5

Copyright FCI.

Pro/E File - REV C - 2009-06-09

PDS: Rev :D STATUS:Released Printed: Jan 07, 2014

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



PEND RADIUS
TOP VIEW OF CONNECTOR

MINI SAS HD P1 MINIMUM CABLE BEND TABLE		
CABLE	("DIM Y") HF	("DIM Y") 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 MINMUM CABLE BEND TABLE PER CONNECTOR		
CABLE	("DIM Y") HF	("DIM Y") 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

NOTES:
1. 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

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

D 3. THIS PRODUCT MEETS THE RESTRICTION OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (RoHS) DIRECTIVE (2011/65/EU)

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

5. 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"

6. LABEL DETAILS:

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

FONT SHALL BE CLEARLY VISIBLE AND BLACK IN COLOR

D LABEL EXAMPLE

FCI CHINA
10117947-5020LF
REV.D
CN1323HG205L0001

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

CN1323HG205L0001
- CN PRESENT MADE IN CHINA
- YYWW(YEAR AND WEEK)
- PRESENT PRODUCT BASE NUMBER(USE "HG")
- SEQUENCE NUMBER(0001~9999)
- NON-HALOGEN FREE OR HALOGEN FREE (L IS NON-HALOGEN FREE TYPE OR H IS HALOGEN FREE TYPE)
- CABLE AWG(2 IS 30AWG,3 IS 28AWG,4 IS 26AWG,5 IS 24AWG)
- LENGTH(05 IS 0.5 METER; 10 IS 1.0 METER, 20 IS 2.0 METERS,ETC)

7. ALL CABLE ASSEMBLIES SHALL BE 100% TESTED FOR CONTINUITY AS DEFINED IN WIRING LIST.

8. 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.

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

10. THIS DIMENSION IS A FINISHED PRODUCT LENGTH.

11. 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.

12. MEETS ELECTRICAL PERFORMANCE REQUIREMENTS OF SAS 2.1.

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

14. 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.

D 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

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	-	-				
appr	Roger Cheng	2014/01/07	product family -		rel level	Released

www.fci.com	title: MINI SAS HD 8X TO 2 MINI SAS 2.1 TRAINED UNIVERSAL FINAL ASSEMBLY (6Gb/s)	dwg no 10117947	rev D
	cat. no. -	Product - Customer Drw	sheet 5 of 5

Copyright FCI.