REVISION Y

DO NOT SCALE FROM THIS PRINT

DESIGNED & DIMENSIONED IN MILLIMETERS

NOTES:

1. ⌬ REPRESENTS A CRITICAL DIMENSION.
2. ALL ASSEMBLIES TO BE 100% ELECTRICALLY TESTED FOR SHORTS AND OPENS.
3. ALL ASSEMBLIES TO BE HI-POT TESTED AT 300V. AFTER FINAL ELECTRICAL TEST, LABEL EACH ASSEMBLY WITH 1 LABEL-ET.
4. ENSURE VCOV-EPLSP-XXX-ORG IS APPLIED AND PACKAGE IN CLEAR POLY-BAGS.
5. NOTE DELETED.
6. HDRL-11 IS TO BE CENTERED ON CABLE AS SHOWN. HDRL-11 IS TO CONTAIN: PART NUMBER, SHOP ORDER & DATE CODE.
7. THIS ASSEMBLY USES 32 AWG 100 OHM TWINAX. FOR 26 AWG 100 OHM LOW SKEW PAIR CABLE CONTACT HDR@SAMTEC.COM TO REQUEST HDR-151767-XX (19 POSITION) OR HDR-151768-XX (31 POSITION).

EPLSP-XXX-XXXX * (SEE NOTE 7)

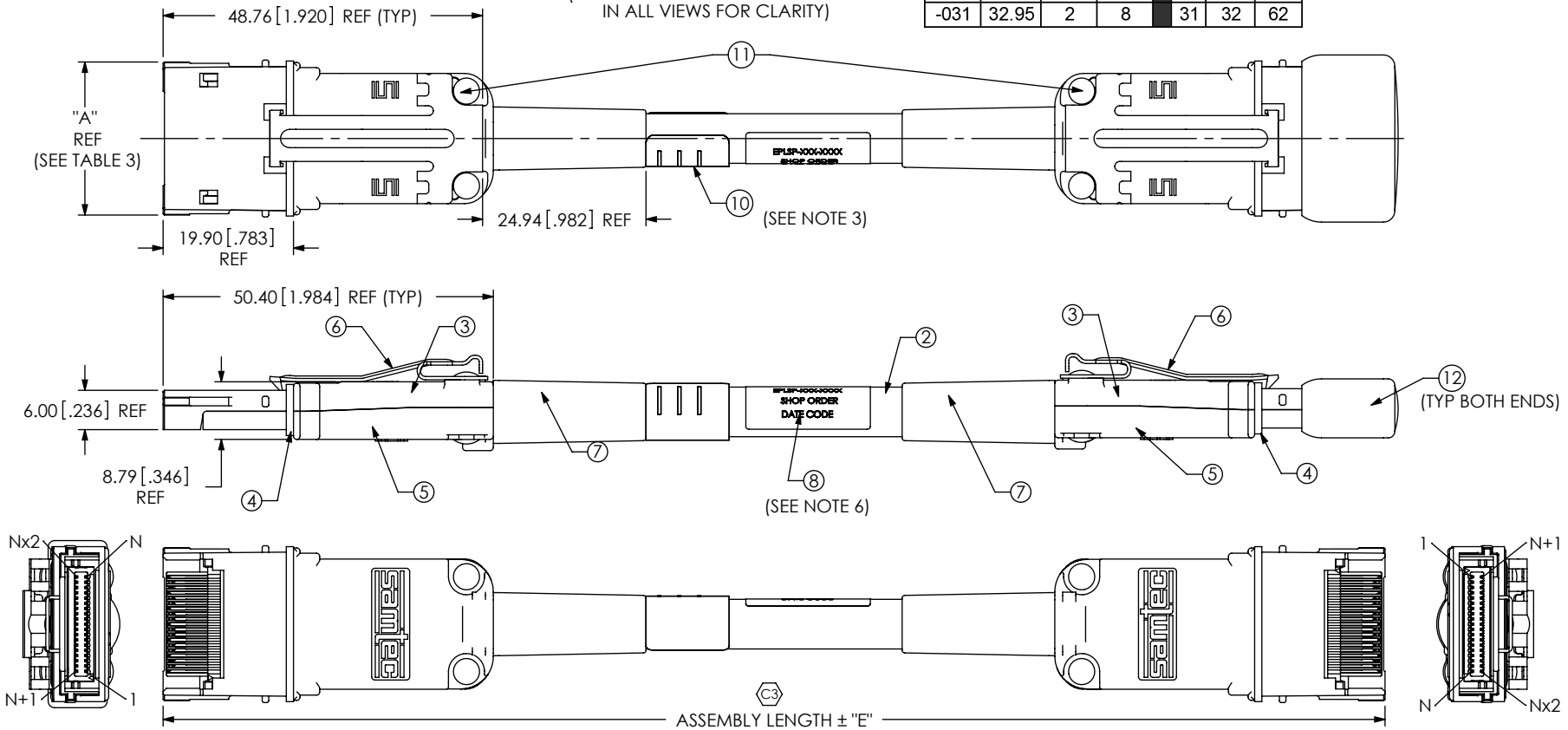
No OF POSITIONS
-019 = 19 POSITION (SEE TABLE 4) PIN 1 TO 1
-031 = 31 POSITION (SEE TABLE 5) PIN 1 TO 1

ASSEMBLY LENGTH
(IN MILLIMETERS)
-0200 TO -9999
(-1000, -2000, AND -3000, ARE STOCKED LENGTHS)

TABLE 3

POS.	"A"	" B "	" D "	N	N+1	Nx2
-019	23.35	1	4	19	20	38
-031	32.95	2	8	31	32	62

FIGURE 1
(EPLSP-019-XXXX SHOWN)
(SOME COMPONENTS NOT SHOWN IN ALL VIEWS FOR CLARITY)



EPLSP-XXX-XXXX BOM

ITEM NO.	PART NUMBER	DESCRIPTION	QUANTITY 19 POS	QUANTITY 31 POS	MATERIAL
1	SUB-EPHSI-XXX-D-EM	SUB ASSEMBLY	2	2	MULTI
2	SUB-HSIO-32100-01-XXXX	BUNDLED 9 TWIN AX AND 5 POWER	" B "	" B "	TINNED COPPER/THV
3	EPHSI-XXX-01	TOP COVER EPHSI CONNECTOR	2	2	ZAMAK 3
4	OR-100-XXX	O-RING, EMI SEALING, EPLSP CONN	2	2	SILVER/ALUMINUM
5	EPHSI-XXX-02	BOTTOM COVER EPHSI CONNECTOR	2	2	ZAMAK 3
6	LTC-36-XX	LATCH, EPHSI CONNECTOR	2	2	STAINLESS, 301 TEMPER: 1/2 HARD
7	EPHSI-SR-01	EPHSI STRAIN RELIEF	2	4	NR+BR9000
8	HDRL-11	LABEL	1	1	SELF LAMINATING VINYL
9	EPLSP-GR-XX	GROUNDING RING	2	2	316L STAINLESS STEEL
10	LABEL-ET	PRINTED LABEL	1	1	VINYL
11	RVT-02.3-10.3-001	EPLSP RIVET	4	4	ALUM. SEMI-TUBULAR PLAIN FINISH
12	VCOV-EPLSP-XXX-ORG	PROTECTIVE COVER	2	2	VINYL
13	VCOV-EPLSP-XXX-ORG-PR	PROTECTIVE COVER	2	2	VINYL
14	SUB-SRP-065-015-01-00.48	SOLDER PREFORM	"D"	"D"	SAC 305
15	CCS-137285-01-PP	KAPTON TAPE	2X4"	2X8"	KAPTON

TABLE 6

	ASSEMBLY LENGTH	
	SHORTER THAN 500 MM	OTHER LENGTH
"E"	+5%/-1%	+/-1%

THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS.
TOLERANCES ARE:
DECIMALS: X.X: ±0.3, X.XX: ±0.13, X.XXX: ±0.051
ANGLES: 2°

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520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code: 55322

MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 2:1

INSULATOR: HIGH TEMP NYLON
TERMINALS: Cu ALLOY
CABLE MATERIAL: JACKET: PVC, INSULATOR: DIELECTRIC, CONDUCTORS: COPPER
OVERMOLD: LDPE, BRAID: TINNED COPPER, FOIL: ALUMINUM/POLYESTER
COVERS: DIECAST ZINC ALLOY
RIVETS: STEEL

DESCRIPTION: CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO. EPLSP-XXX-XXXX

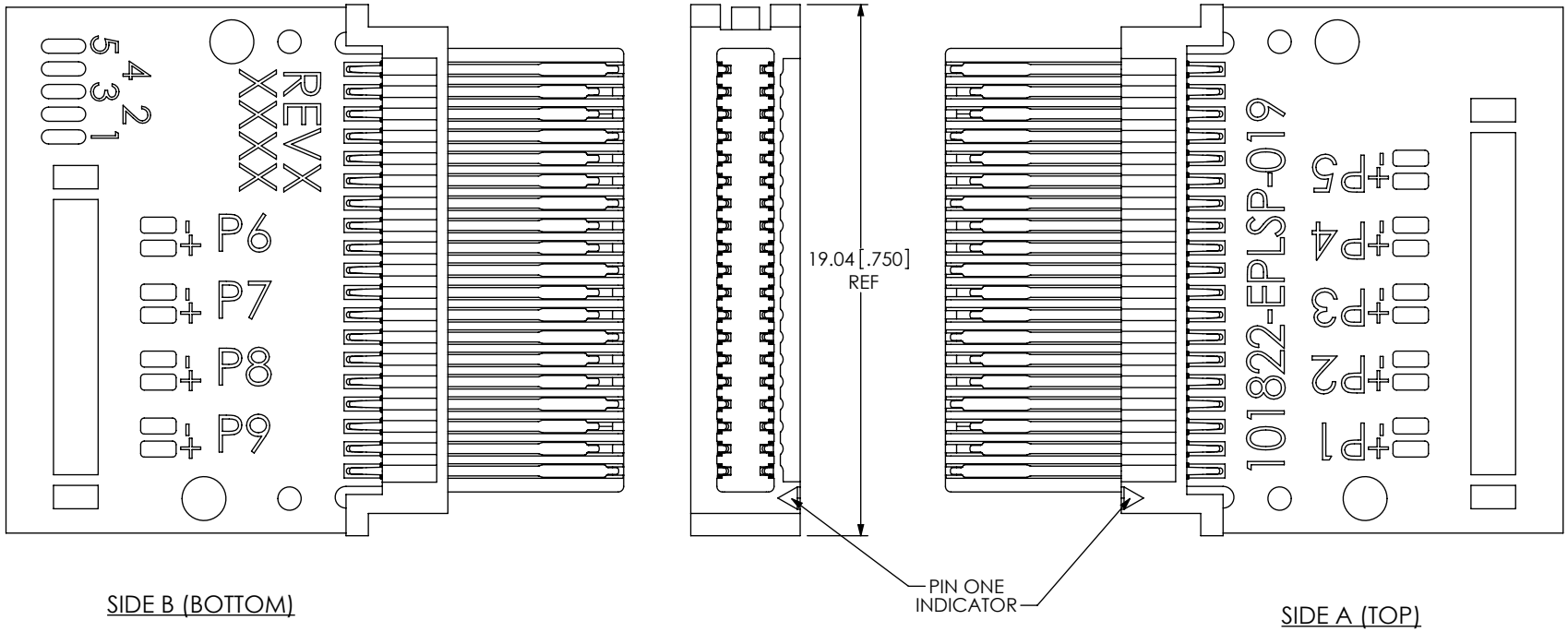
BY: D. SCHMELZ 04/08/2009 | SHEET 1 OF 8

F:\DWG\MISC\MKTG\EPLSP-XXX-XXXX-MKT.SLDDRW

REVISION Y

TABLE 1 -19 CABLE PAIR LOCATION													
PAIR 1		**PAIR 2**		**PAIR 3**		**PAIR 4**		**PAIR 5**		(PCB PAIR)			
P4+	P4-	P5+	P5-	P6+	P6-	P7+	P7-	P8+	P8-	(CABLE PAIR)			
POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG				
POS	NEG	POS	NEG	POS	NEG	POS	NEG	GREEN	BLUE	ORANGE	PURPLE	WHITE	
P2+	P2-	P3+	P3-	P1+	P1-	P9+	P9-	1	2	3	4	5	
PAIR 6		**PAIR 7**		**PAIR 8**		**PAIR 9**		**DISCRETES**					

(END 1 TWINAX PRINTING MUST FACE UP, END 2 TWINAX PRINTING MUST FACE DOWN)
SEE SHEET 8, TABLE 4 FOR PIN-OUT



SIDE B (BOTTOM)

SIDE A (TOP)

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520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code: 55322

DO NOT SCALE DRAWING

SHEET SCALE: 2:1

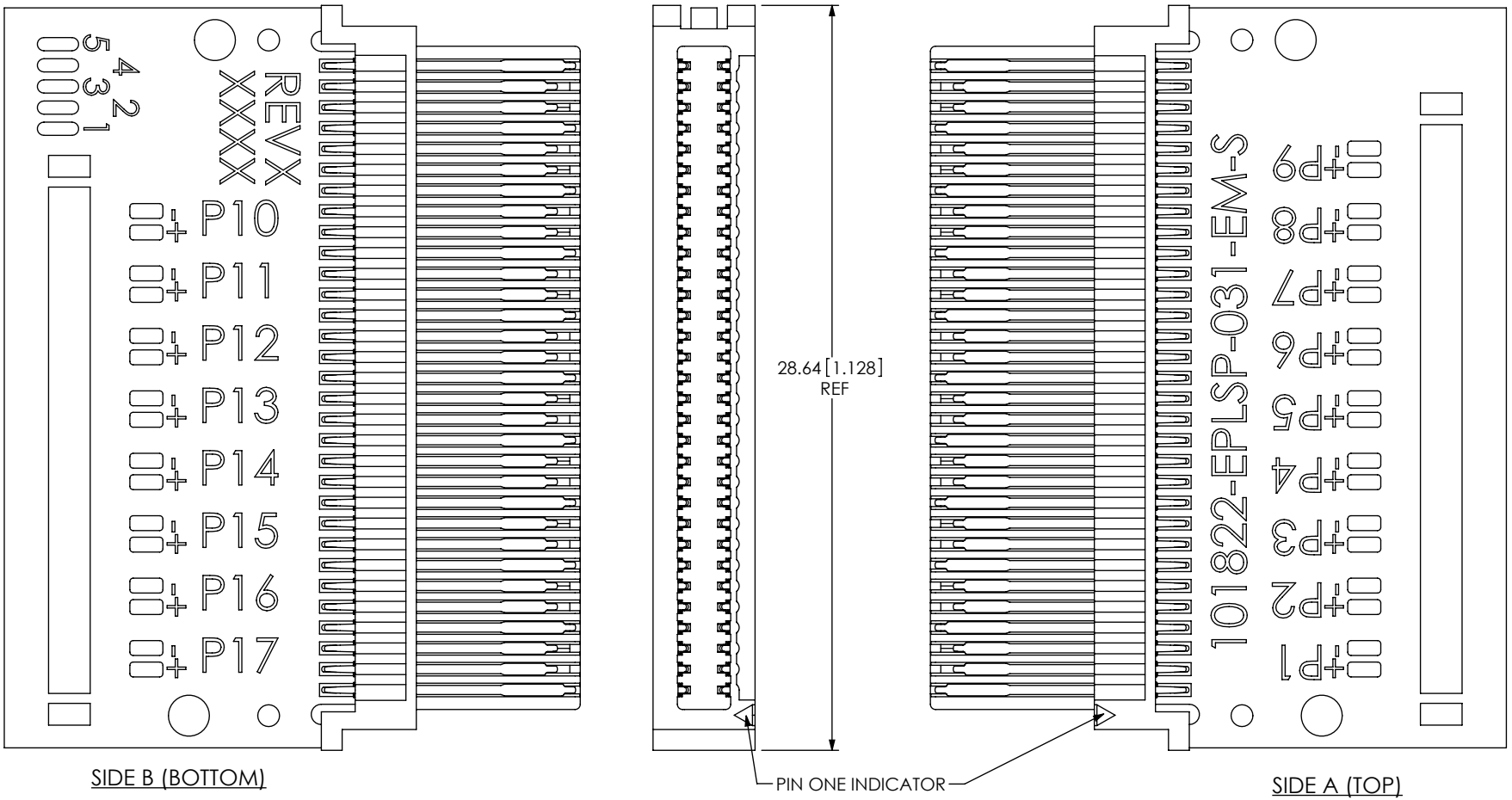
DESCRIPTION:
CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO.
EPLSP-XXX-XXXX

BY: D. SCHMELZ 04/08/2009 SHEET 2 OF 8

F:\DWG\MISC\MKTG\EPLSP-XXX-XXXX-MKT.SLDDRW

REVISION Y



SIDE B (BOTTOM)

SIDE A (TOP)

TABLE 2 -31 POSITION

PAIR 1		PAIR 2		PAIR 3		PAIR 4		PAIR 5		PAIR 6		PAIR 7		PAIR 8		PAIR 9		(PCB PAIR)			
P4+	P4-	P5+	P5-	P6+	P6-	P2+	P2-	P7+	P7-	P3+	P3-	P8+	P8-	P9+	P9-	P1+	P1-	(CABLE PAIR)			
POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG				
POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	GREEN	BLUE	ORANGE	PURPLE	WHITE	
P4+	P4-	P5+	P5-	P6+	P6-	P3+	P3-	P1+	P1-	P7+	P7-	P8+	P8-	P9+	P9-	1	2	3	4	5	
PAIR 10		**PAIR 11**		**PAIR 12**		**PAIR 13**		**PAIR 14**		**PAIR 15**		**PAIR 16**		**PAIR 17**		**DISCRETES**					

(END 1 TWINAX PRINTING MUST FACE UP, END 2 TWINAX PRINTING MUST FACE DOWN)
SEE SHEET 8, TABLE 5 FOR PIN-OUT

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DO NOT SCALE DRAWING

SHEET SCALE: 2:1

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520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code: 55322

DESCRIPTION:
CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO.
EPLSP-XXX-XXXX

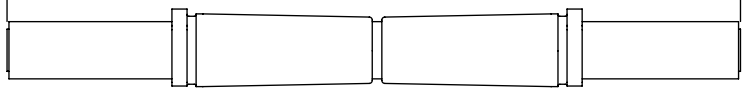
BY: D. SCHMELZ 04/08/2009 SHEET 3 OF 8

REVISION Y

IN-PROCESS 1

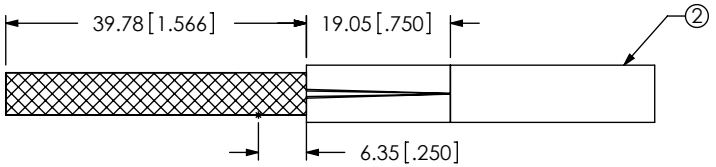
SLIDE EPHSI-SR-01 OVER CABLE
BEFORE STRIPPING INSULATION

CABLE LENGTH + .230 (FOR PREP SCRAP)
(FOR 31 POSITION, BOTH CABLES SHOULD BE ±.25 EACH OTHER)



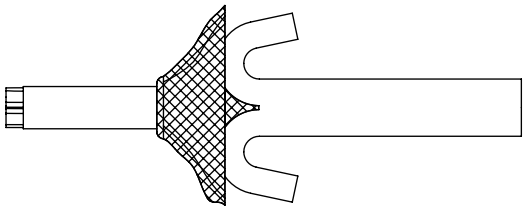
IN-PROCESS 2

CUT CABLE JACKET
(TYP BOTH ENDS)



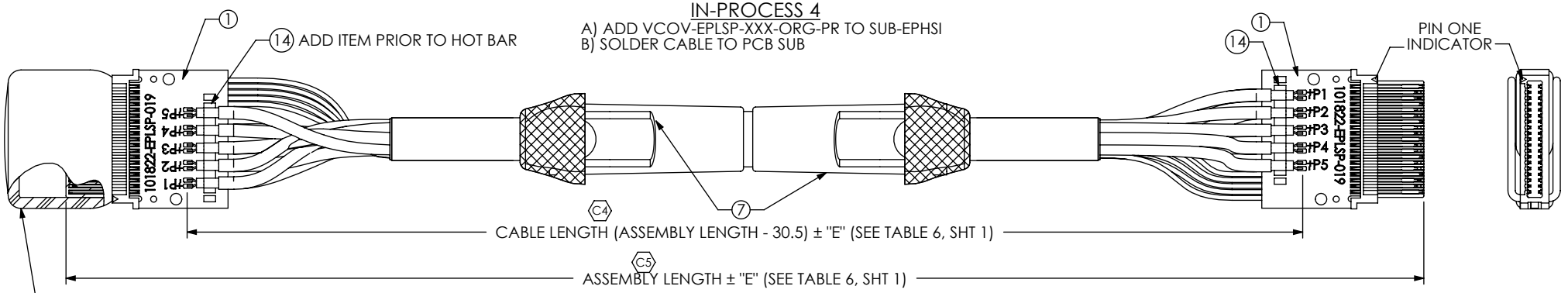
IN-PROCESS 3

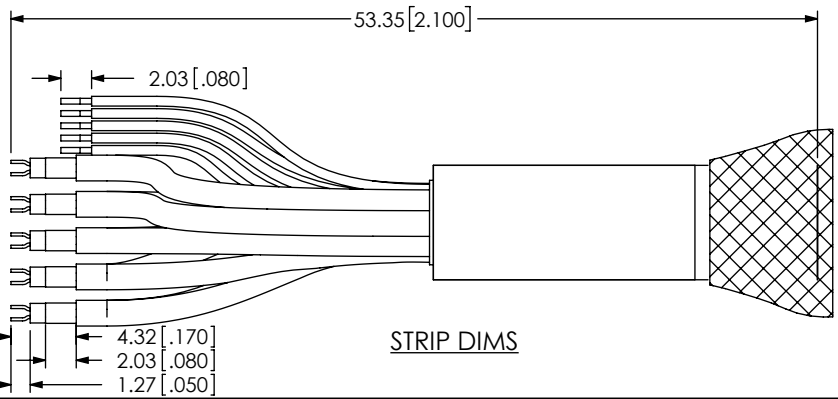
A) FOLD CABLE JACKET
B) PULL BRAID BACK



IN-PROCESS 4

A) ADD VCOV-EPLSP-XXX-ORG-PR TO SUB-EPHSI
B) SOLDER CABLE TO PCB SUB





STRIP DIMS

NOTE: CABLE 2 FOR -031 POSITION WILL NEED PAIR 2 & 5 DISCRETE WIRES CUT BACK TO SHIELD.

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DO NOT SCALE DRAWING

SHEET SCALE: 2:1

samtec
520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code: 55322

DESCRIPTION:
CABLE ASSEMBLY, EPLSP CONNECTOR

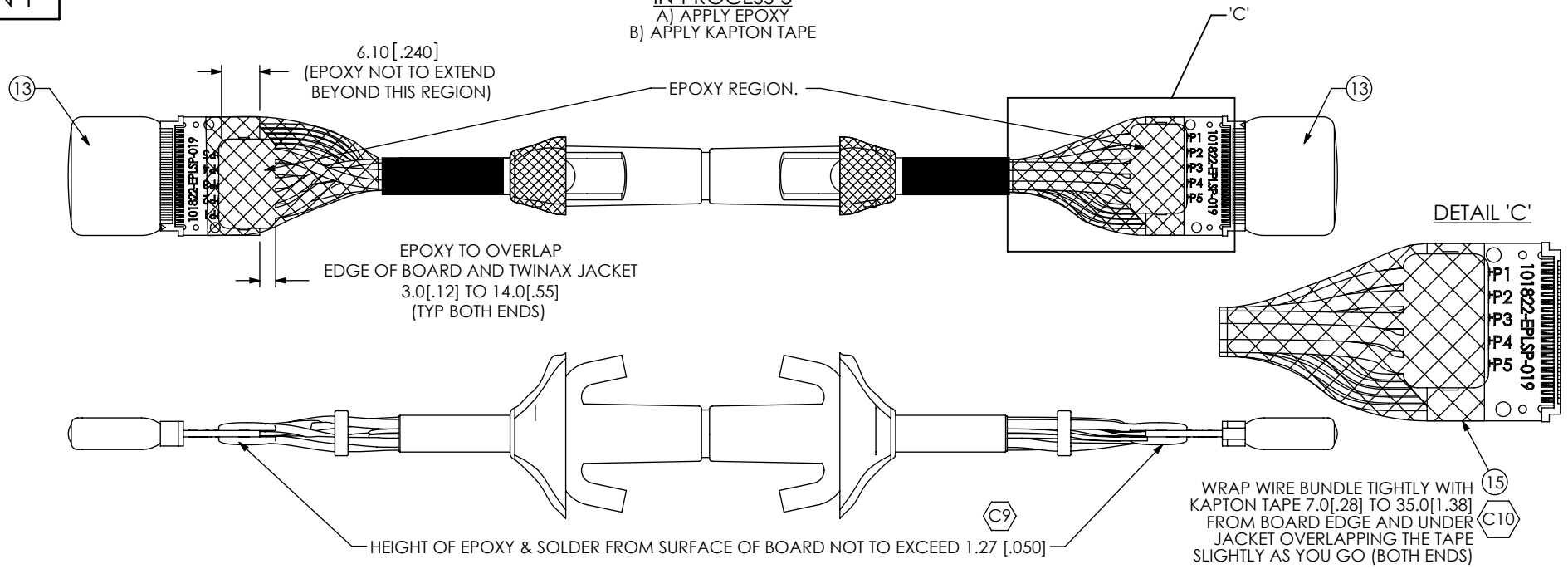
DWG. NO.
EPLSP-XXX-XXXX

BY: D. SCHMELZ 04/08/2009 | SHEET 4 OF 8

REVISION Y

IN-PROCESS 5

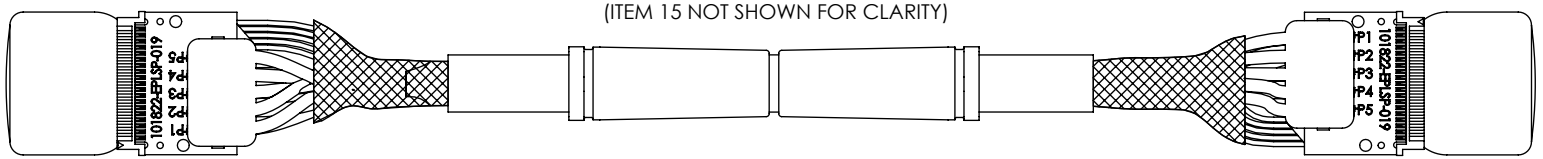
A) APPLY EPOXY
B) APPLY KAPTON TAPE



DETAIL 'C'

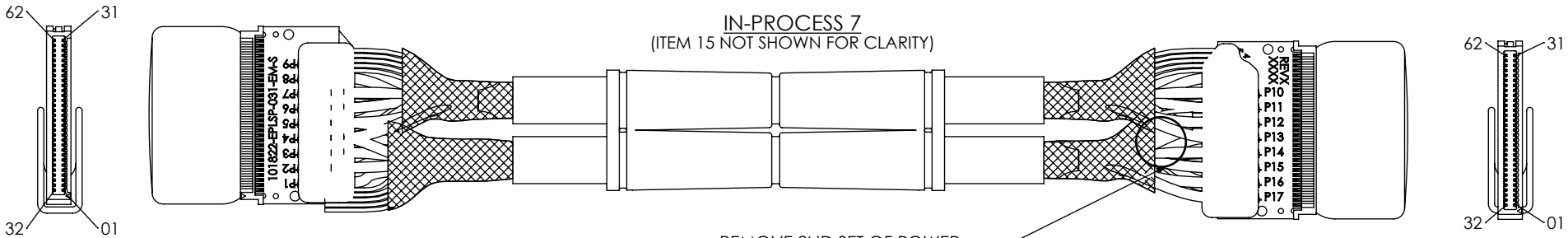
IN-PROCESS 6

PULL BRAID STRAIGHT
(ITEM 15 NOT SHOWN FOR CLARITY)



IN-PROCESS 7

(ITEM 15 NOT SHOWN FOR CLARITY)



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PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code: 55322

DO NOT SCALE DRAWING

SHEET SCALE: 2:1

DESCRIPTION:
CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO.
EPLSP-XXX-XXXX

BY: D. SCHMELZ 04/08/2009

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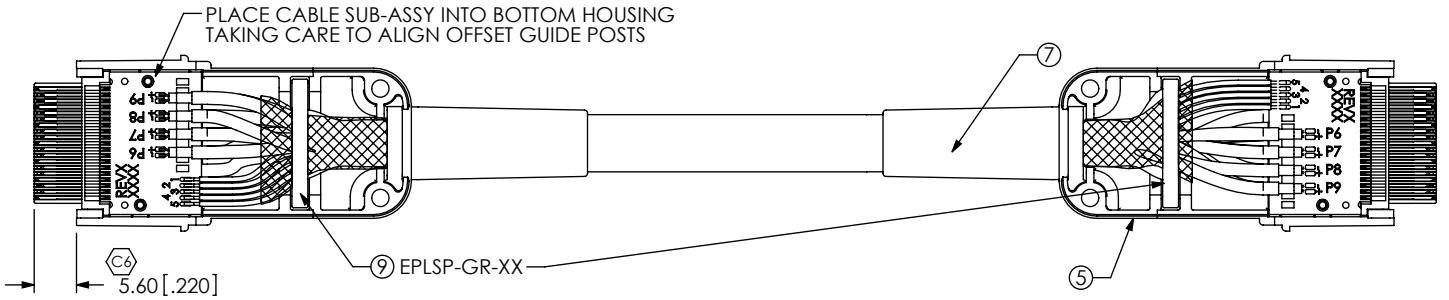
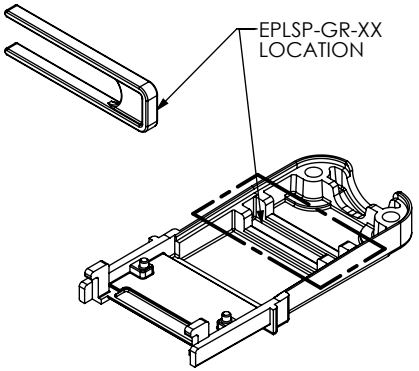
REVISION Y

IN-PROCESS 8

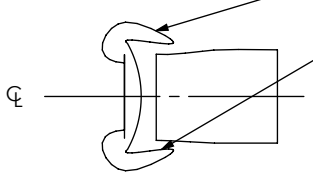
(EPLSP-019-XXXX SHOWN)
ADD BOTTOM HOUSINGS WITH STRAIN RELIEF
IN PLACE AND ADD EPLSP-GR-XX
(VCOV & ITEM 15 NOT SHOWN FOR CLARITY)



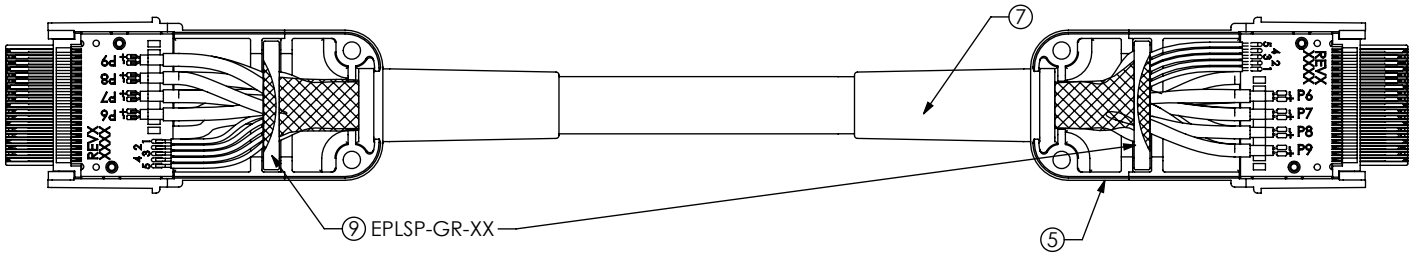


IN-PROCESS 9

(EPLSP-019-XXXX SHOWN)
PULL BRAID BACK OVER THE TOP AND
BOTTOM OF EPLSP-GR-XX
(VCOV & ITEM 15 NOT SHOWN FOR CLARITY)

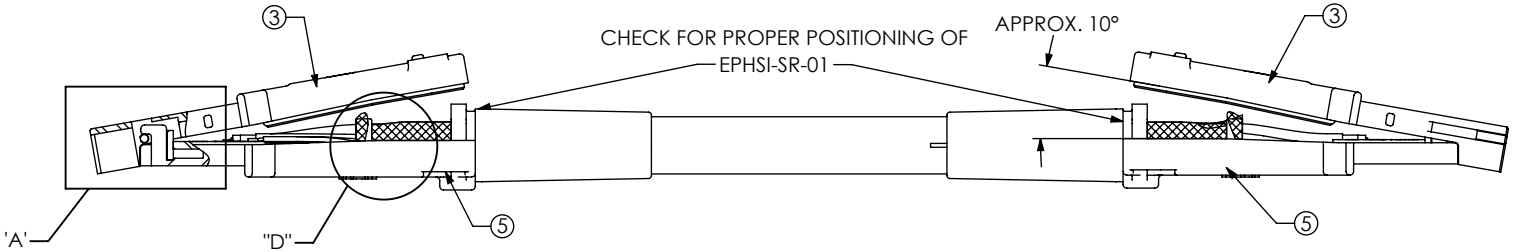


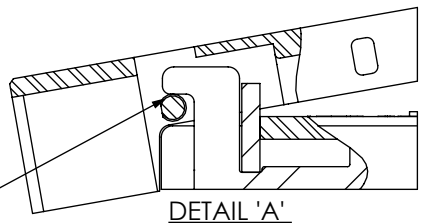
DETAIL "D"



IN-PROCESS 10

(EPLSP-019-XXXX SHOWN)
ADD TOP HOUSING
(VCOV ITEM 15 NOT SHOWN FOR CLARITY)





WHILE POSITIONING THE TOP COVER (EPHSI-XXX-01)
INSURE THAT LATCH AND PIN
ARE ENGAGED

DETAIL 'A'
SCALE 3 : 1

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DO NOT SCALE DRAWING

SHEET SCALE: 2:1

F:\DWG\MISC\MKTG\EPLSP-XXX-XXXX-MKT.SLDDRW

520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code: 55322

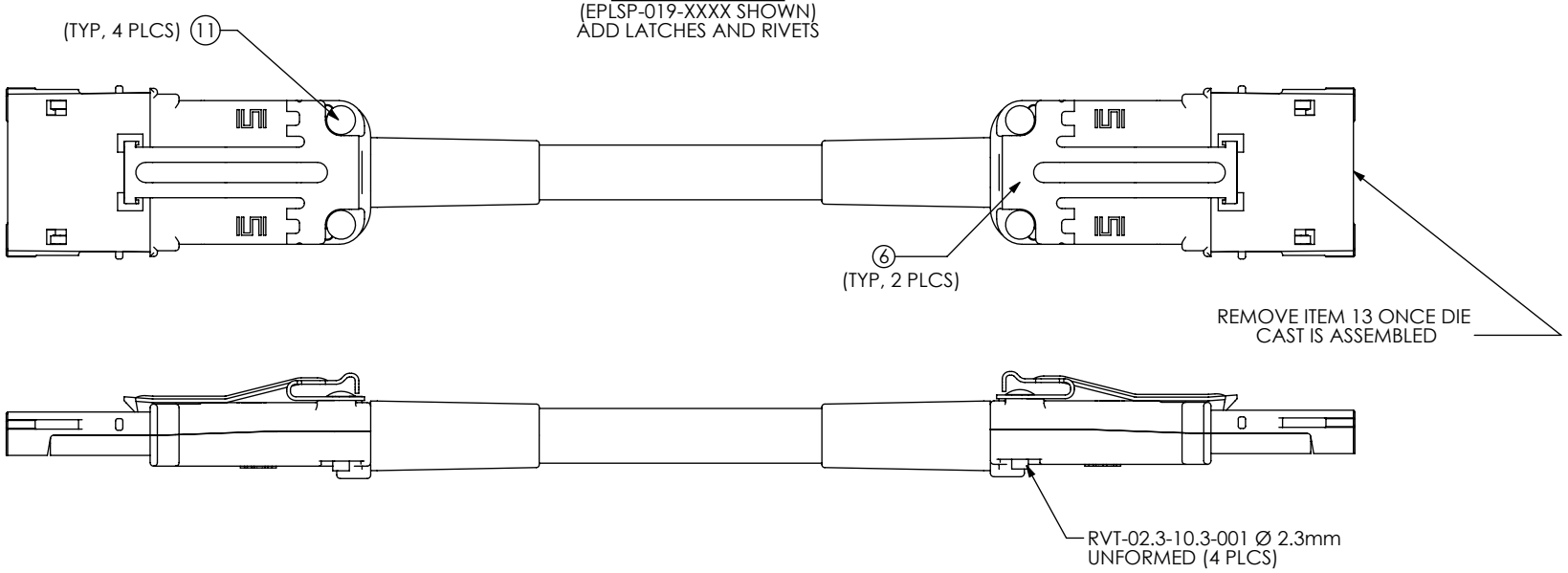
DESCRIPTION:
CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO.
EPLSP-XXX-XXXX

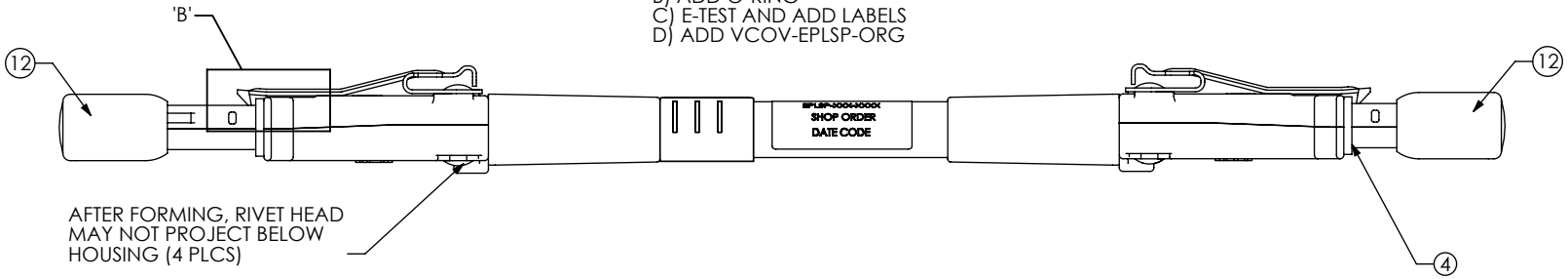
BY: D. SCHMELZ 04/08/2009 SHEET 6 OF 8

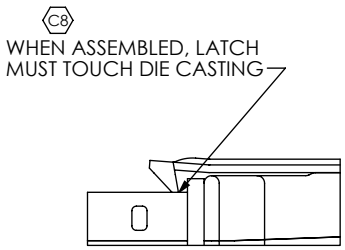
REVISION Y

IN-PROCESS 11
(EPLSP-019-XXXX SHOWN)
ADD LATCHES AND RIVETS

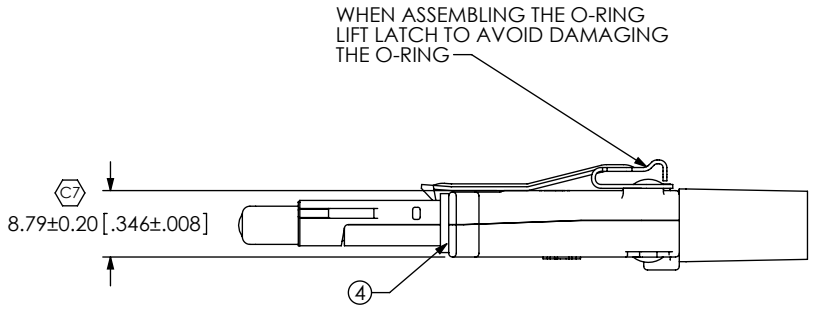


IN-PROCESS 12
(EPLSP-019-XXXX SHOWN)
A) FORM RIVET HEAD AND CHECK FUNCTION OF LATCH
B) ADD O-RING
C) E-TEST AND ADD LABELS
D) ADD VCOV-EPLSP-ORG





DETAIL 'B'



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DO NOT SCALE DRAWING

SHEET SCALE: 2:1

520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code: 55322

DESCRIPTION:
CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO.
EPLSP-XXX-XXXX

BY: D. SCHMELZ 04/08/2009 SHEET 7 OF 8

REVISION Y

TABLE 4 (019 PIN OUT)			
END 1	SIGNAL	END 2	
1	GND	1	
2	SIGNAL	2	PAIR
3	SIGNAL	3	
4	GND	4	
5	SIGNAL	5	PAIR
6	SIGNAL	6	
7	GND	7	
8	SIGNAL	8	PAIR
9	SIGNAL	9	
10	GND	10	
11	SIGNAL	11	PAIR
12	SIGNAL	12	
13	GND	13	
14	SIGNAL	14	PAIR
15	SIGNAL	15	
16	GND	16	
17	SIGNAL	17	P
18	SIGNAL	18	P
19	GND	19	
20	GND	20	
21	SIGNAL	21	PAIR
22	SIGNAL	22	
23	GND	23	
24	SIGNAL	24	PAIR
25	SIGNAL	25	
26	GND	26	
27	SIGNAL	27	PAIR
28	SIGNAL	28	
29	GND	29	
30	SIGNAL	30	PAIR
31	SIGNAL	31	
32	GND	32	
33	SIGNAL	33	P
34	SIGNAL	34	P
35	GND	35	
36	SIGNAL	36	P
37	NC	37	
38	GND	38	

TABLE 5 (031 PIN OUT)			
END 1	SIGNAL	END 2	
1	GND	1	
2	SIGNAL	2	PAIR
3	SIGNAL	3	
4	GND	4	
5	SIGNAL	5	PAIR
6	SIGNAL	6	
7	GND	7	
8	SIGNAL	8	PAIR
9	SIGNAL	9	
10	GND	10	
11	SIGNAL	11	PAIR
12	SIGNAL	12	
13	GND	13	
14	SIGNAL	14	PAIR
15	SIGNAL	15	
16	GND	16	
17	SIGNAL	17	PAIR
18	SIGNAL	18	
19	GND	19	
20	SIGNAL	20	PAIR
21	SIGNAL	21	
22	GND	22	
23	SIGNAL	23	PAIR
24	SIGNAL	24	
25	GND	25	
26	SIGNAL	26	PAIR
27	SIGNAL	27	
28	GND	28	
29	SIGNAL	29	P
30	SIGNAL	30	P
31	GND	31	

TABLE 5 (031 PIN OUT) (cont)			
END 1	SIGNAL	END 2	
32	GND	32	
33	SIGNAL	33	PAIR
34	SIGNAL	34	
35	GND	35	
36	SIGNAL	36	PAIR
37	SIGNAL	37	
38	GND	38	
39	SIGNAL	39	PAIR
40	SIGNAL	40	
41	GND	41	
42	SIGNAL	42	PAIR
43	SIGNAL	43	
44	GND	44	
45	SIGNAL	45	PAIR
46	SIGNAL	46	
47	GND	47	
48	SIGNAL	48	PAIR
49	SIGNAL	49	
50	GND	50	
51	SIGNAL	51	PAIR
52	SIGNAL	52	
53	GND	53	
54	SIGNAL	54	PAIR
55	SIGNAL	55	
56	GND	56	
57	SIGNAL	57	P
58	SIGNAL	58	P
59	GND	59	
60	SIGNAL	60	P
61	NC	61	
62	GND	62	

OVERALL SHIELD TO BE TESTED SEPARATE FROM THE INTERNAL GROUND

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DO NOT SCALE DRAWING

SHEET SCALE: 2:1

DESCRIPTION: CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO. EPLSP-XXX-XXXX

BY: D. SCHMELZ 04/08/2009 SHEET 8 OF 8

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