

DO NOT  
SCALE FROM  
THIS PRINT

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.
4. AFTER FINAL ELECTRICAL TEST, LABEL EACH ASSEMBLY WITH 1 LABEL-ET.
5. NOTE DELETED.
6. HDRL-11 IS TO BE CENTERED ON CABLE AS SHOWN.
7. HDRL-11 IS TO CONTAIN: PART NUMBER, SHOP ORDER & DATE CODE.
8. 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).

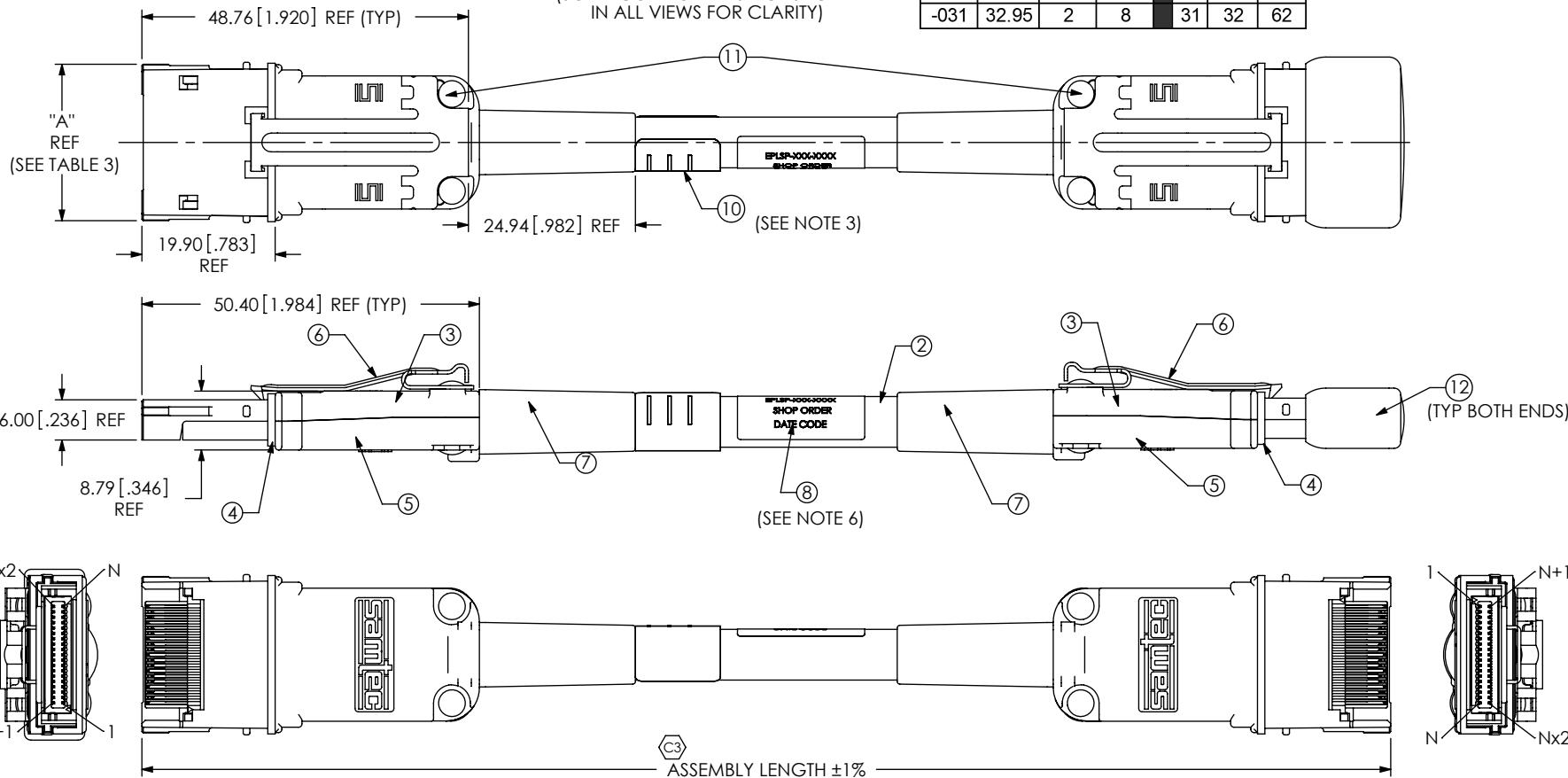
## DESIGNED &amp; DIMENSIONED IN MILLIMETERS

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)



## EPLSP-XXX-XXXX BOM

ITEM NO.	PART NUMBER	DESCRIPTION	QUANTITY		MATERIAL
			19 POS	31 POS	
1	SUB-EPHSI-XXX-D-EM	SUB ASSEMBLY	2	2	MULTI
2	SUB-HS10-32100-01-XXXX	BUNDLED 9 TWINAX AND 5 POWER	"B"	"B"	TINNED COPPER/THV
3	EPHSI-XXX-01	TOP COVER EPHSI CONNECTOR	2	2	ZAMA K 3
4	OR-100-XXX	O-RING, EMI SEALING, EPLSP CONN	2	2	SILVERA LUMINUM
5	EPHSI-XXX-02	BOTTOM COVER EPHSI CONNECTOR	2	2	ZAMA K 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

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

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

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MATERIAL: DO NOT SCALE DRAWING                    SHEET SCALE: 2:1  
INSULATOR: HIGH TEMP NYLON                    OVERMOLD: LDPE  
TERMINALS: CU ALLOY                            BRAID: TINNED COPPER  
CABLE MATERIAL: JACKET: PVC                    INSULATOR: DIELECTRIC  
CONDUCTORS: COPPER                            FOIL: ALUMINUM/POLYESTER  
COVERS: DIECAST ZINC ALLOY                    RIVETS: STEEL

THIS PRODUCT MANUFACTURED  
WITH LEAD-FREE PROCESSING

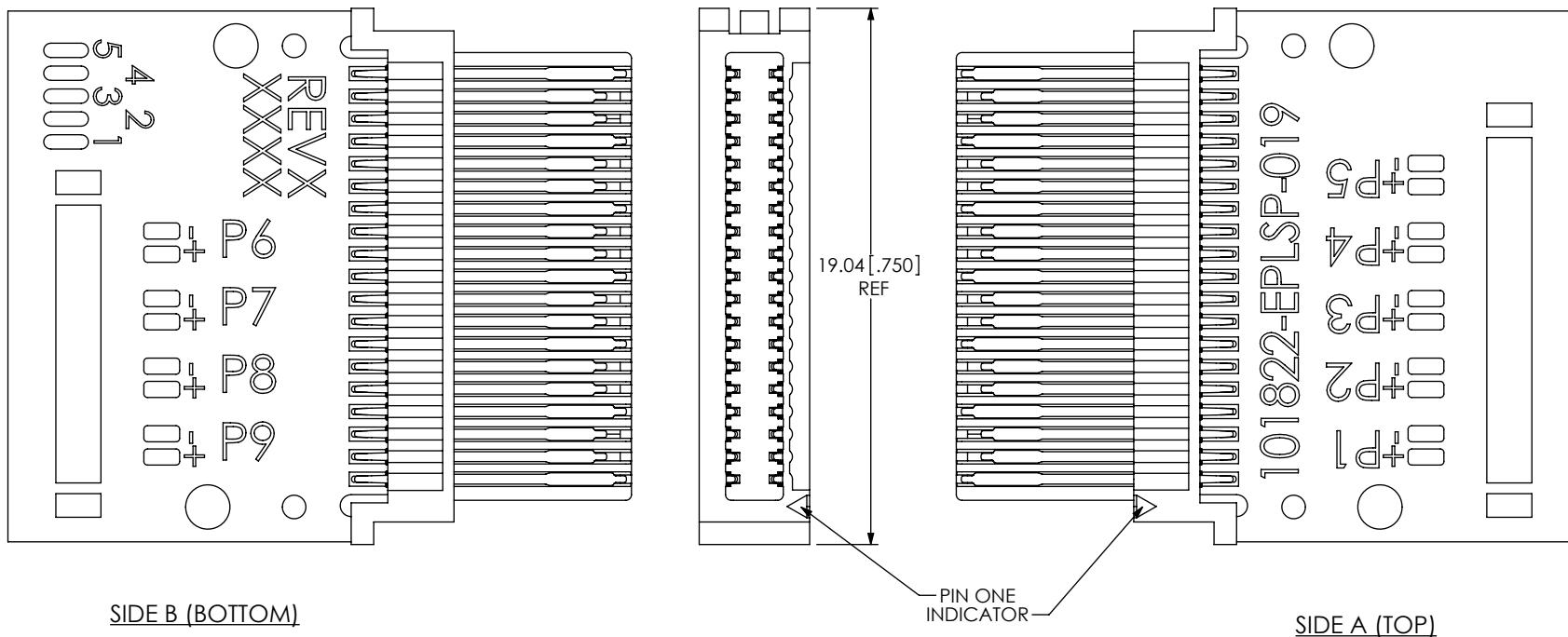

520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail: info@SAMTEC.com code: 55322

DESCRIPTION: CABLE ASSEMBLY, EPLSP CONNECTOR  
DWG. NO. EPLSP-XXX-XXXX  
BY: D. SCHMELZ 04/08/2009 SHEET 1 OF 8

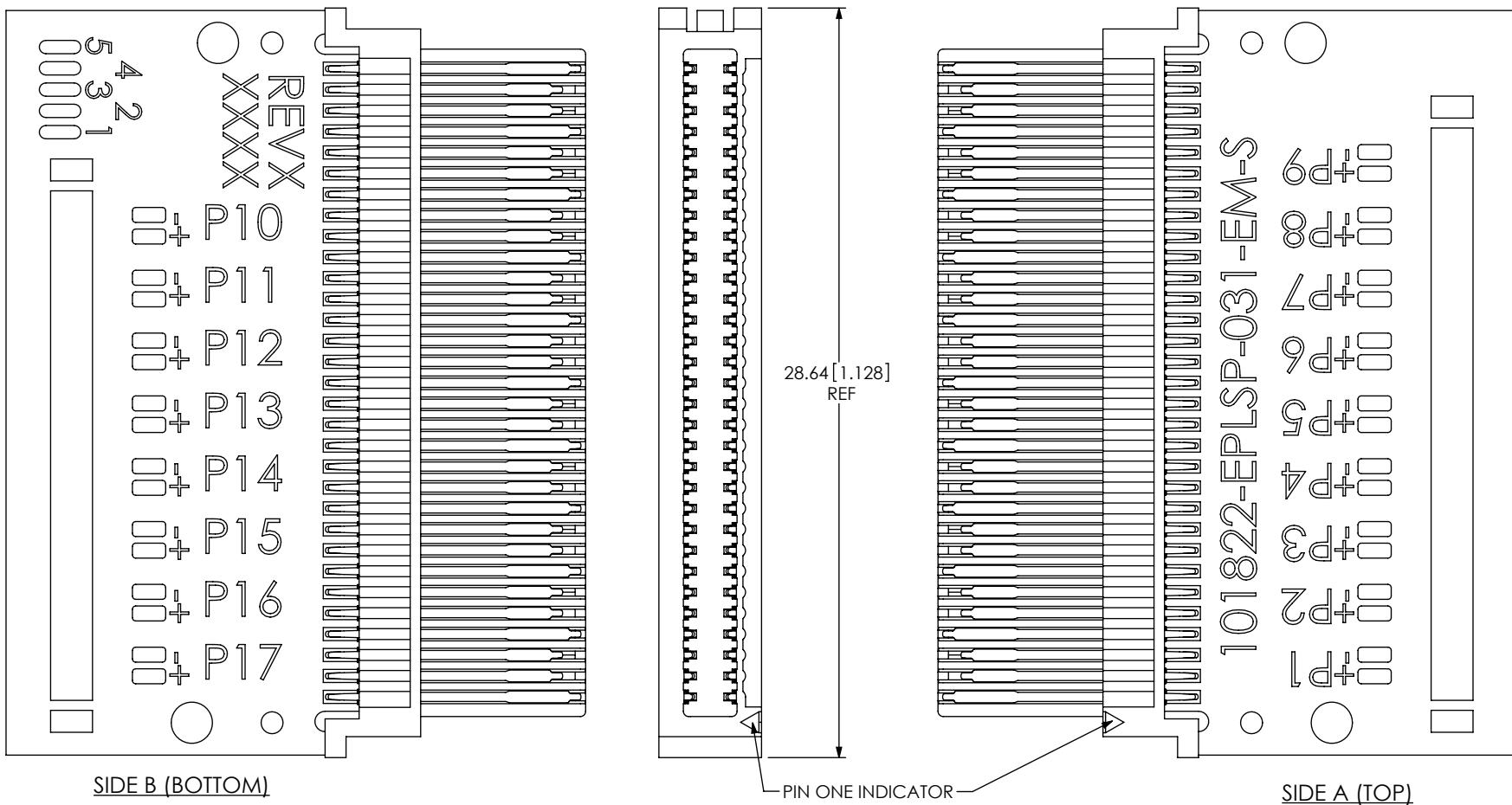
TABLE 1 -19 CABLE PAIR LOCATION

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			
(END 1 TWINAX PRINTING MUST FACE UP, END 2 TWINAX PRINTING MUST FACE DOWN)												
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



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<small>DO NOT SCALE DRAWING</small>		<small>DESCRIPTION: CABLE ASSEMBLY, EPLSP CONNECTOR</small>	
<small>SHEET SCALE: 2:1</small>		<small>DWG. NO.</small>	
<b>EPLSP-XXX-XXXX</b>		<small>BY: D. SCHMELZ 04/08/2009 SHEET 2 OF 8</small>	



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	(CABLE PAIR)															
POS	NEG	GREEN	BLUE	ORANGE	PURPLE														
P4+	P4-	P5+	P5-	P6+	P6-	P3+	P3-	P1+	P1-	P7+	P7-	P8+	P8-	P9+	P9-	1	2	3	4
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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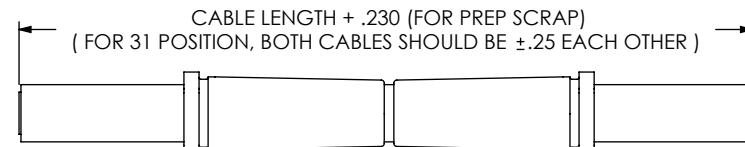
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DWG. NO.

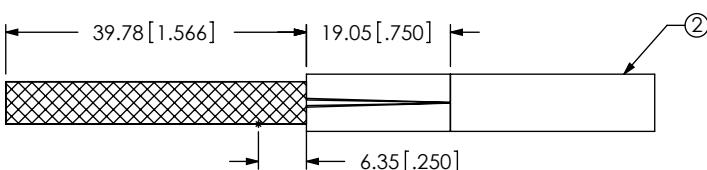
EPLSP-XXX-XXXX

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

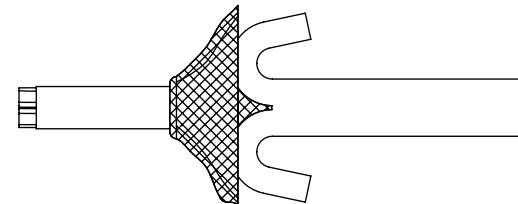
IN-PROCESS 1  
SLIDE EPHSI-SR-01 OVER CABLE  
BEFORE STRIPPING INSULATION



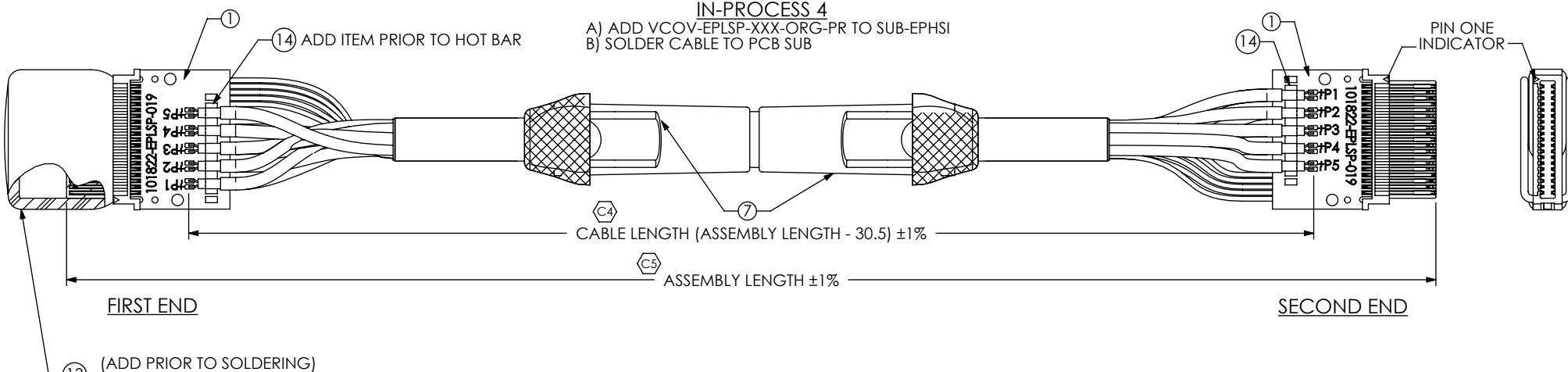
IN-PROCESS 2  
CUT CABLE JACKET  
(TYP BOTH ENDS)



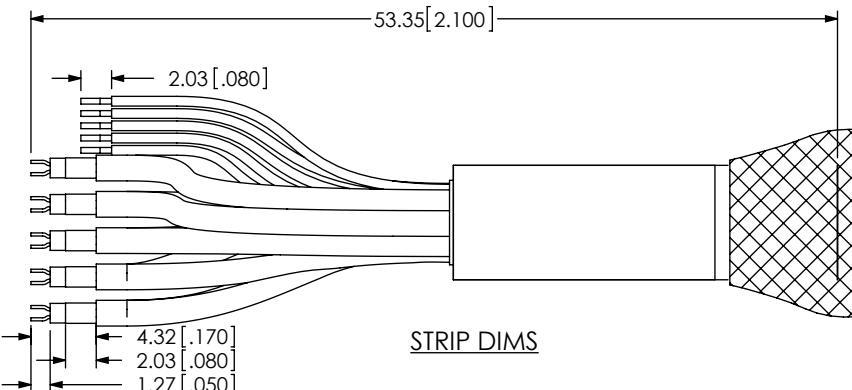
IN-PROCESS 3  
A) FOLD CABLE JACKET  
B) PULL BRAID BACK



IN-PROCESS 4  
A) ADD VCOV-EPLSP-XXX-ORG-PR TO SUB-EPHSI  
B) SOLDER CABLE TO PCB SUB



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



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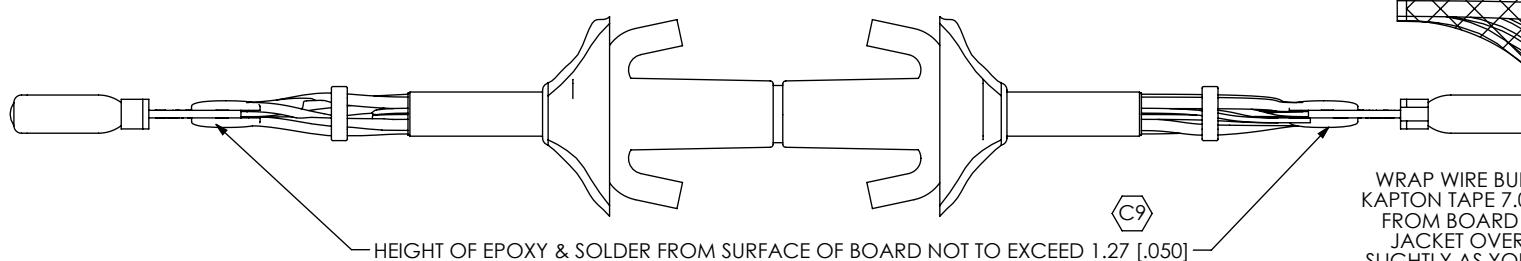
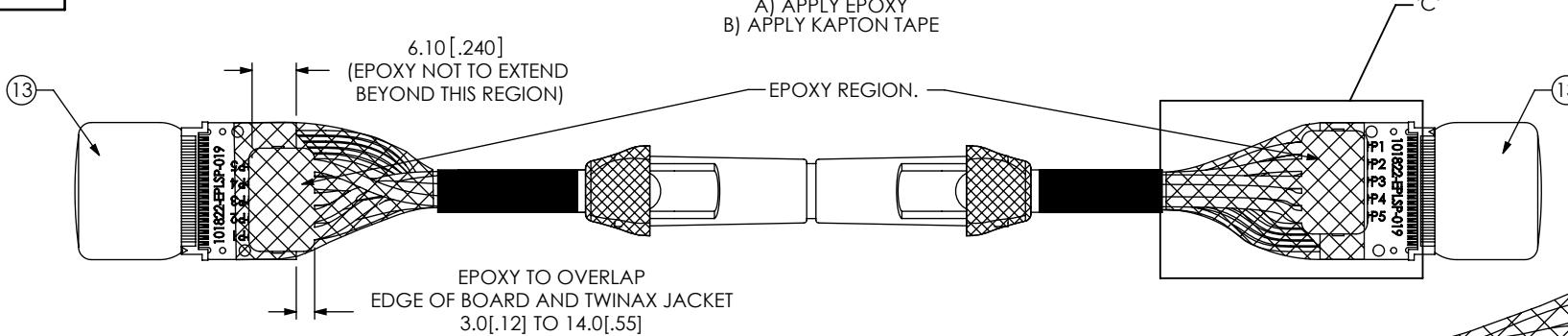
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DESCRIPTION: CABLE ASSEMBLY, EPLSP  
CONNECTOR

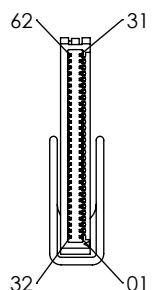
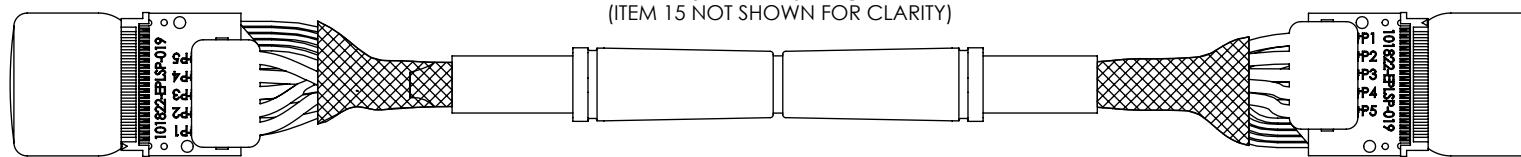
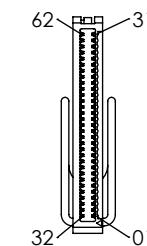
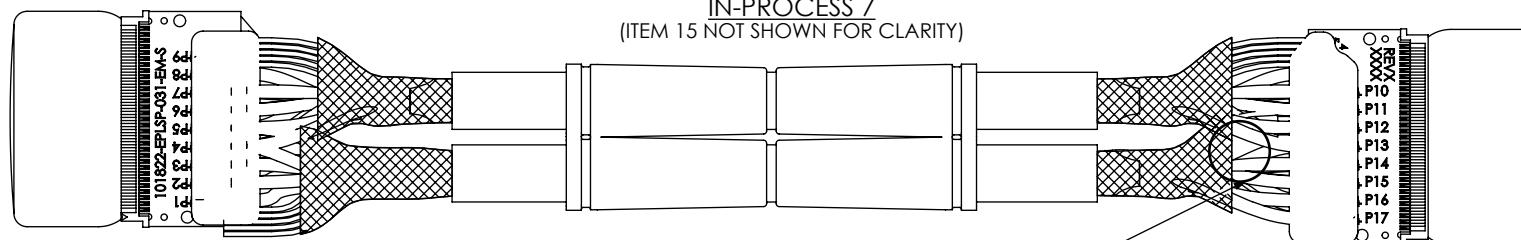
DWG. NO.

EPLSP-XXX-XXXX

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

IN-PROCESS 5  
A) APPLY EPOXY  
B) APPLY KAPTON TAPE

## 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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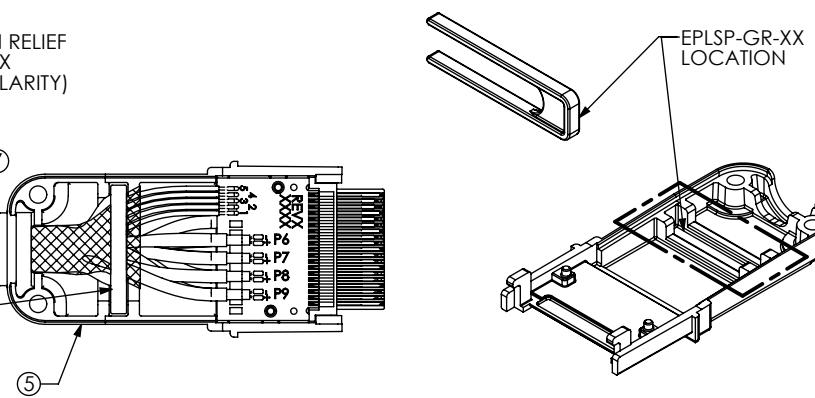
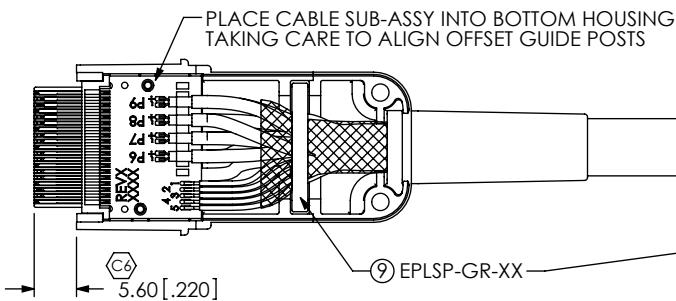
DWG. NO.

EPLSP-XXX-XXXX

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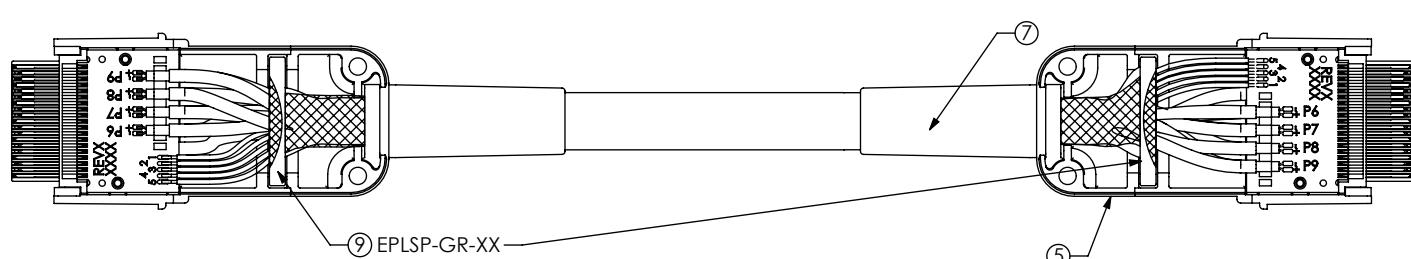
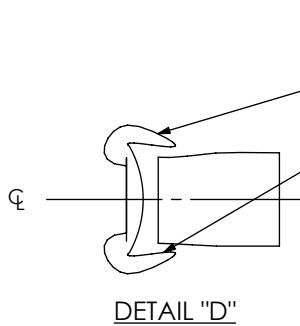
## IN-PROCESS 8

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



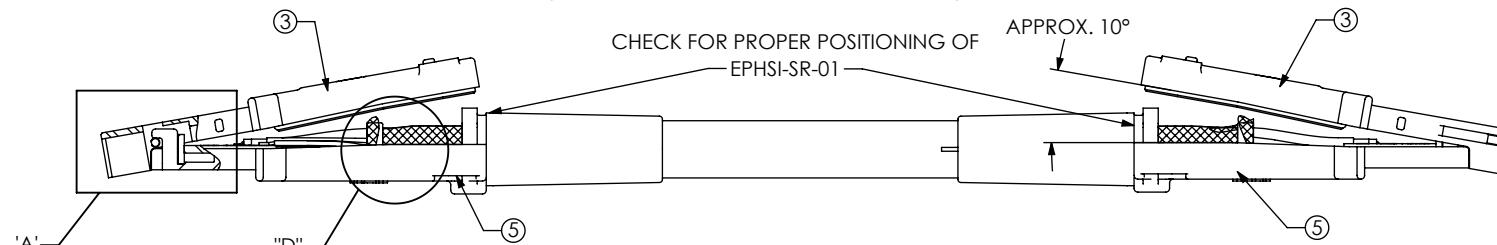
## IN-PROCESS 9

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

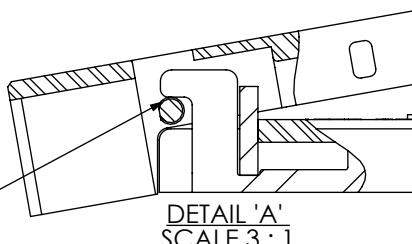


## IN-PROCESS 10

(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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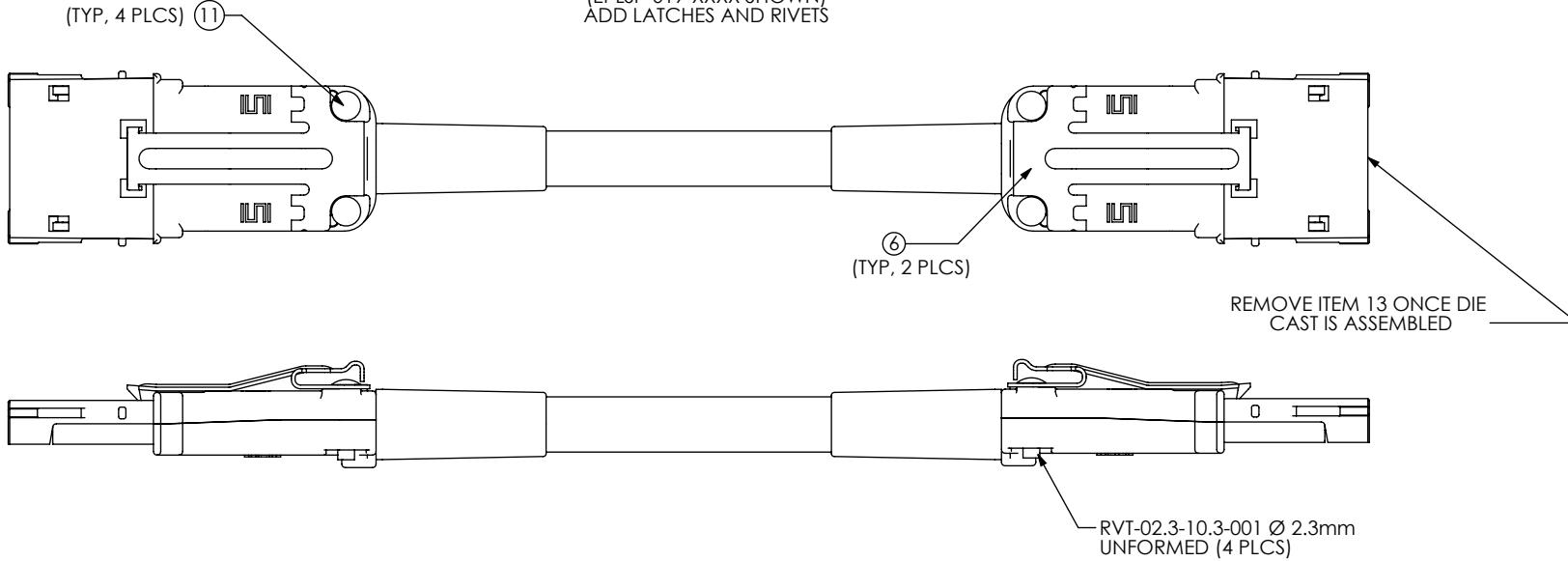
DESCRIPTION:  
CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO.

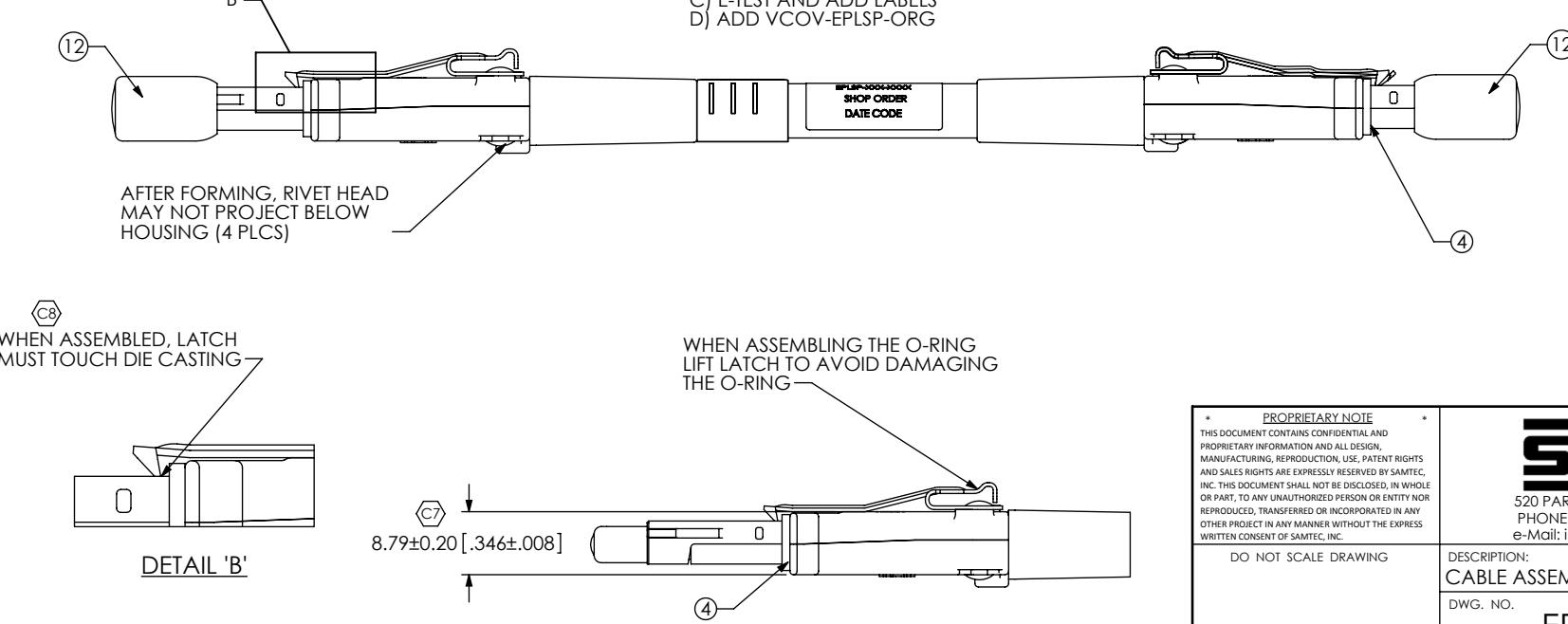
EPLSP-XXX-XXXX

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

**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



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DESCRIPTION:  
CABLE ASSEMBLY, EPLSP CONNECTOR

DWG. NO.

**EPLSP-XXX-XXXX**

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

TABLE 4 (019 PIN OUT)

END 1	SIGNAL	END 2	
1	GND	1	
2	SIGNAL	2	
3	SIGNAL	3	
4	GND	4	
5	SIGNAL	5	
6	SIGNAL	6	
7	GND	7	
8	SIGNAL	8	
9	SIGNAL	9	
10	GND	10	
11	SIGNAL	11	
12	SIGNAL	12	
13	GND	13	
14	SIGNAL	14	
15	SIGNAL	15	
16	GND	16	
17	SIGNAL	17	P
18	SIGNAL	18	P
19	GND	19	
20	GND	20	
21	SIGNAL	21	
22	SIGNAL	22	
23	GND	23	
24	SIGNAL	24	
25	SIGNAL	25	
26	GND	26	
27	SIGNAL	27	
28	SIGNAL	28	
29	GND	29	
30	SIGNAL	30	
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	
3	SIGNAL	3	PAIR
4	GND	4	
5	SIGNAL	5	
6	SIGNAL	6	
7	GND	7	
8	SIGNAL	8	
9	SIGNAL	9	
10	GND	10	
11	SIGNAL	11	
12	SIGNAL	12	
13	GND	13	
14	SIGNAL	14	
15	SIGNAL	15	
16	GND	16	
17	SIGNAL	17	
18	SIGNAL	18	
19	GND	19	
20	SIGNAL	20	
21	SIGNAL	21	
22	GND	22	
23	SIGNAL	23	
24	SIGNAL	24	
25	GND	25	
26	SIGNAL	26	
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	
34	SIGNAL	34	
35	GND	35	
36	SIGNAL	36	
37	SIGNAL	37	
38	GND	38	
39	SIGNAL	39	
40	SIGNAL	40	
41	GND	41	
42	SIGNAL	42	
43	SIGNAL	43	
44	GND	44	
45	SIGNAL	45	
46	SIGNAL	46	
47	GND	47	
48	SIGNAL	48	
49	SIGNAL	49	
50	GND	50	
51	SIGNAL	51	
52	SIGNAL	52	
53	GND	53	
54	SIGNAL	54	
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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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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