

DO NOT  
SCALE FROM  
THIS PRINT

TABLE 2		
END OPTION	"C"	"D"
XL,XR	0.650 [16.51]	0.218 [5.54]
XD	0.788 [20.02]	0.264 [6.71]
XH	0.788 [20.02]	0.264 [6.71]

TABLE 3			
No. OF POSITIONS	N	N-1	
-005	10	9	
-010	20	19	
-020	40	39	
-030	60	59	
-040	80	79	
-050	100	99	

TABLE 4	
END TO END	"A"
DV TO DV	0.860 [21.84]
DV TO DH	0.998 [25.35]
DV TO RH	0.998 [25.35]
DH TO DH	1.136 [28.85]
DH TO RH	1.136 [28.85]
RH TO RH	1.136 [28.85]

HLCD-XX-XX.XX-XXX-XXX-X

## No OF POSITIONS

-05, -10, -20, -30, -40, -50  
(PER ROW)

## LENGTH

-XX.XX (INCHES)  
(01.72 [43.7] MIN)

## FIRST END

-TR: DV CONN TOP RIGHT  
 -TL: DV CONN TOP LEFT  
 -BR: DV CONN BOTTOM RIGHT  
 -BL: DV CONN BOTTOM LEFT  
 -TD: DH CONN TOP  
 -TH: RH CONN TOP  
 -BD: DH CONN BOTTOM  
 -BH: RH CONN BOTTOM  
 (SEE SHEET 2)

## FIRST END OPTION

-S: SCREW DOWN OPTION IN PCB  
 (LEAVE BLANK FOR NON-SCREW  
 DOWN)(SCREW DOWN ONLY AVAILABLE  
 FOR -TR, -TL, -BR, -BL OPTIONS, SEE FIG. 2)

## WIRING OPTION

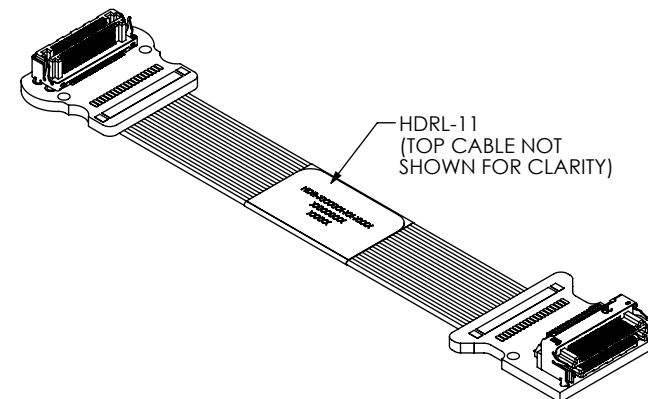
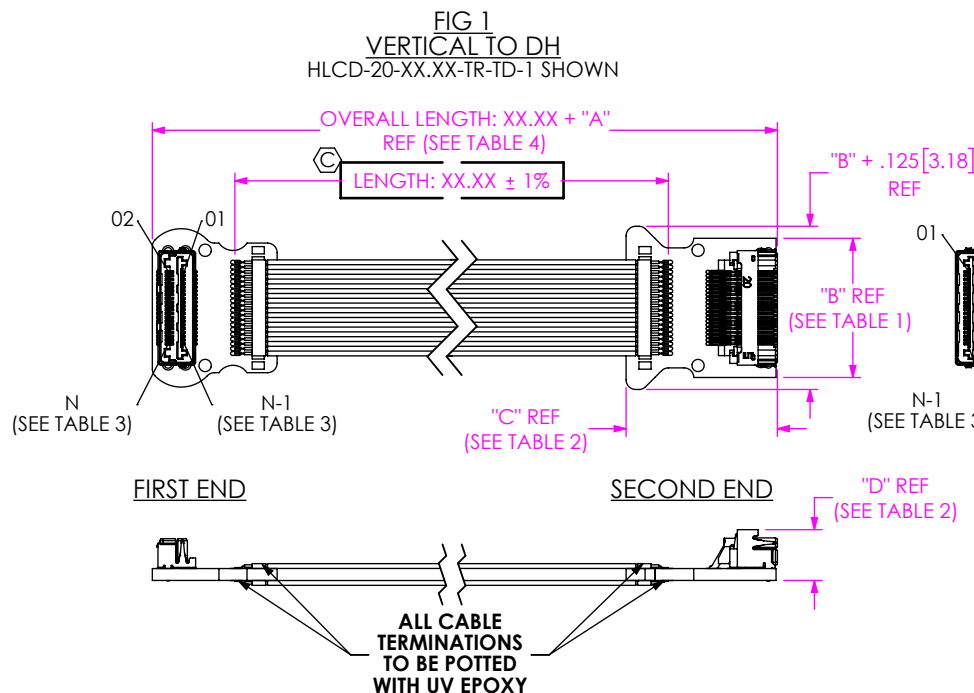
-1: 1-1  
 -2: 1-2  
 -3: 1-(N-1)  
 -4: 1-N

## SECOND END OPTION

-S: SCREW DOWN OPTION IN PCB  
 (LEAVE BLANK FOR NON-SCREW  
 DOWN)(SCREW DOWN ONLY AVAILABLE  
 FOR -TR, -TL, -BR, -BL OPTIONS, SEE FIG. 2)

## SECOND END

-TR: DV CONN TOP RIGHT  
 -TL: DV CONN TOP LEFT  
 -BR: DV CONN BOTTOM RIGHT  
 -BL: DV CONN BOTTOM LEFT  
 -TD: DH CONN TOP  
 -TH: RH CONN TOP  
 -BD: DH CONN BOTTOM  
 -BH: RH CONN BOTTOM  
 (SEE SHEET 3)



## NOTES:

1. Ⓢ REPRESENTS A CRITICAL DIMENSION.
2. PARTS TO BE PROCESSED PER SAMTEC BOUNDARY DOCUMENT GUIDELINES.
3. ALL ASSEMBLIES TO BE 100% ELECTRICALLY TESTED.
4. ALL ASSEMBLIES TO BE 100% HI-POT TESTED AT 300V.
5. HDRL-11 TO BE CENTERED ON CABLE AS SHOWN. LABEL TO CONTAIN:  
 LINE 1 - PART NUMBER "HLCD-XX-XX.XX-XXX-XXX-X"  
 LINE 2 - SHOP ORDER NUMBER "XXXXXX"  
 LINE 3 - DATE CODE "XXXXX".
6. FOR SUB-ASSEMBLY AND FINISHED GOOD PACKAGING REQUIREMENTS, REFERENCE PACKAGING STANDARD CO-HD-WI-3033-M.
7. SUB-TCF LENGTH IS EQUAL TO HLCD LENGTH.
8. CABLE LENGTHS GREATER THAN 40.00 INCHES ARE NOT SUPPORTED BY SI TEST DATA.
9. ALL PINS ROUTED AS SIGNALS. LSHM SHIELD TIED TO COAX SHIELD FOR GROUND RETURN.
10. **DO NOT PULL** ON COAX RIBBON TO UNMATE CABLE ASSEMBLY.
11. ON DV END OPTIONS PIN 01 LOCATION DENOTES LEFT OR RIGHT ORIENTATION.

CRITICAL DIMENSION INSPECTION  
INSTRUCTION TABLE

ASSEMBLY OPERATION	IN-PROCESS INSPECTION
PREP CABLE	C1
E-TEST	C2, C3

THIS PRODUCT MANUFACTURED  
WITH LEAD-FREE PROCESSINGUNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.

TOLERANCES ARE:

DECIMALS

.XX: ±.01 [0.3]

.XXX: ±.005 [0.13]

.XXXX: ±.0020 [0.051]

ANGLES

2°

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SHEET SCALE: 2:1

DESCRIPTION:

LSHM CABLE ASSEMBLY

DWG. NO.

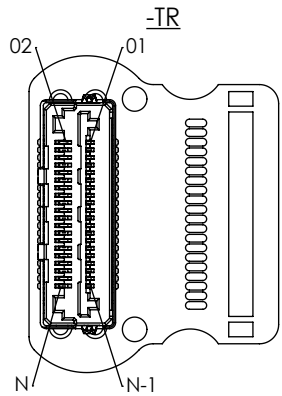
HLCD-XX-XX.XX-XXX-XXX-X

BY: ANDREW C 05/29/2013 SHEET 1 OF 4

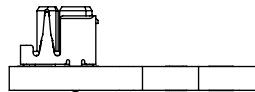
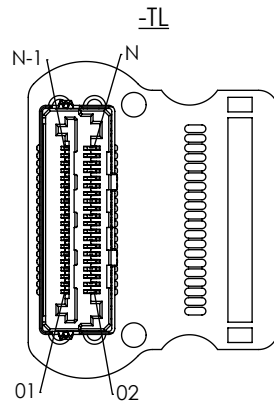
TABLE 1

No. OF POSITIONS	"B" (XR,XL)	"B" (*XH,XD)	SUB-TCF-3850-XX-01-XX-XX	QTY OF SUB-TCF	SUB-HLCD-XX-XX-XX-X-L2.5
-005	.380 [9.65]	.430 [10.92]	SUB-TCF-3850-05-01-XX-XX	2	SUB-HLCD-05-XX-XX-X-L2.5
-010	.478 [12.14]	.528 [13.41]	SUB-TCF-3850-10-01-XX-XX	2	SUB-HLCD-10-XX-XX-X-L2.5
-020	.875 [22.23]	.725 [18.42]	SUB-TCF-3850-20-01-XX-XX	2	SUB-HLCD-20-XX-XX-X-L2.5
-030	.975 [24.77]	1.025 [26.04]	SUB-TCF-3850-30-01-XX-XX	2	SUB-HLCD-30-XX-XX-X-L2.5
-040	1.275 [32.39]	1.325 [33.66]	SUB-TCF-3850-20-01-XX-XX	4	SUB-HLCD-40-XX-XX-X-L2.5
-050	1.575 [40.01]	1.625 [41.28]	SUB-TCF-3850-25-01-XX-XX	4	SUB-HLCD-50-XX-XX-X-L2.5

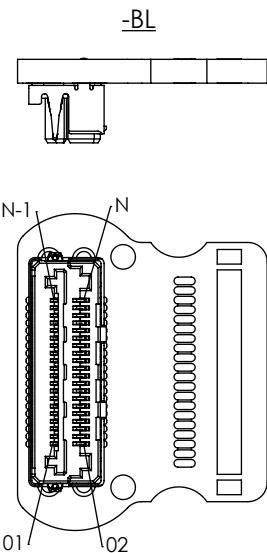
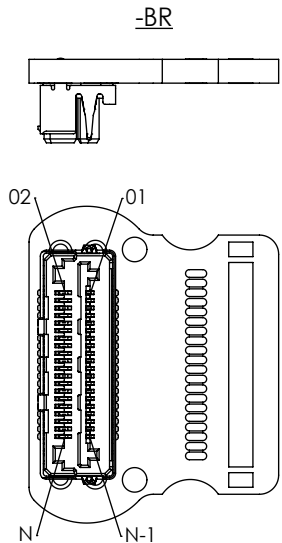
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WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N

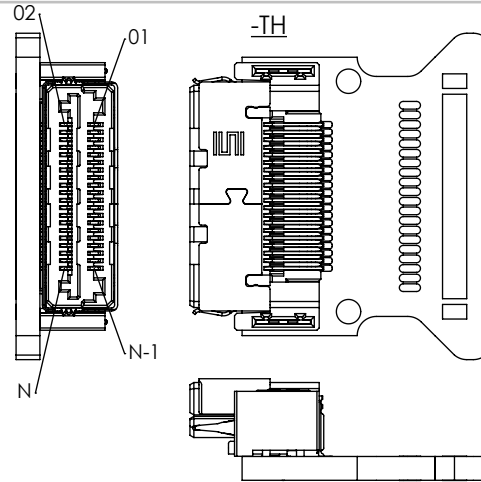


WIRING OPTION	FIRST END PIN #	SECOND END PIN #
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2	1	2
3	1	N-1
4	1	N

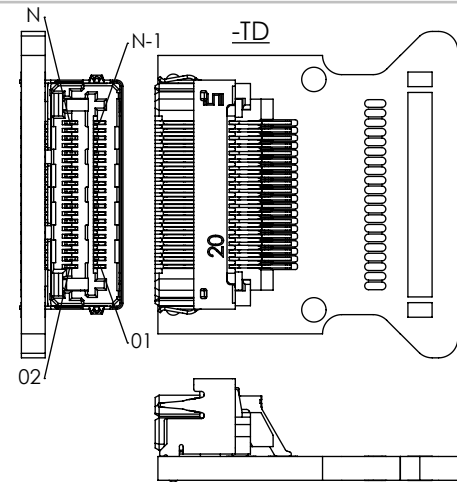


WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N

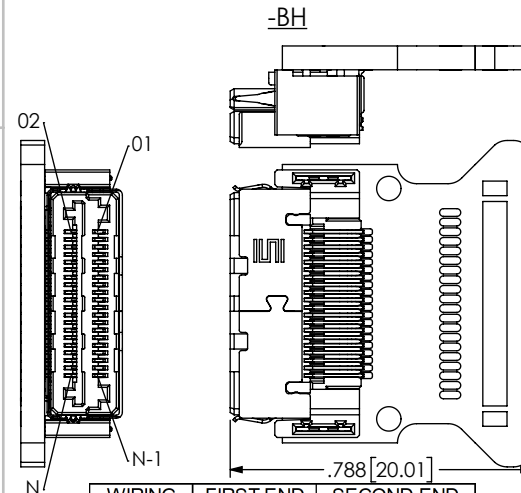
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



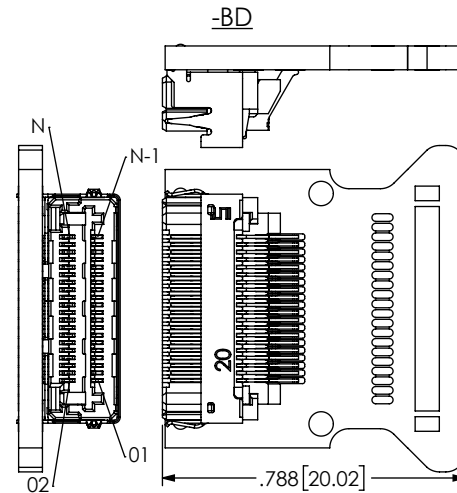
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N

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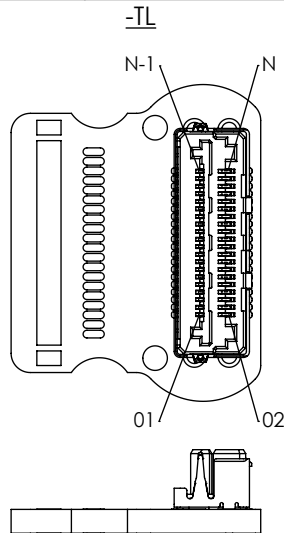
**samtec**

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

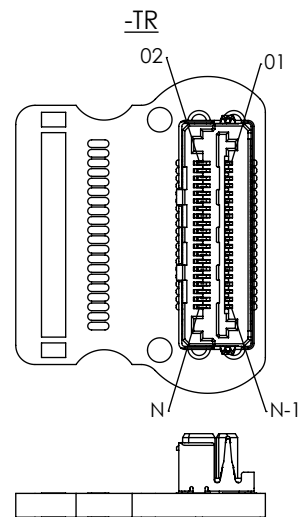
DESCRIPTION:  
LSHM CABLE ASSEMBLY

DWG. NO.  
**HLCD-XX-XX.XX-XXX-XXX-X**

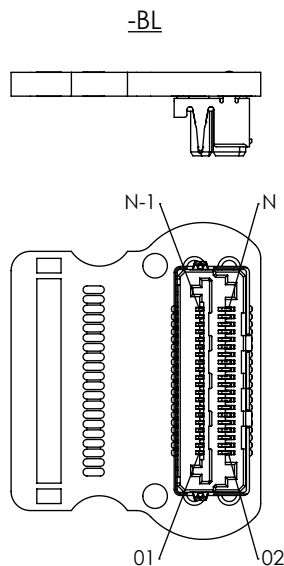
BY: ANDREW C 05/29/2013 SHEET 2 OF 4



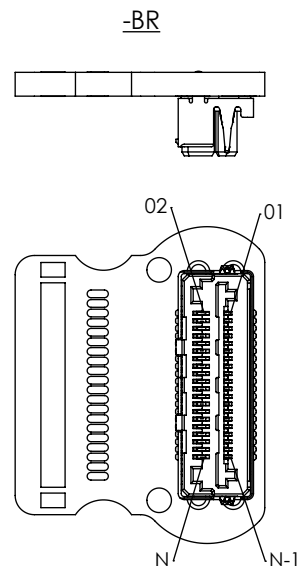
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N

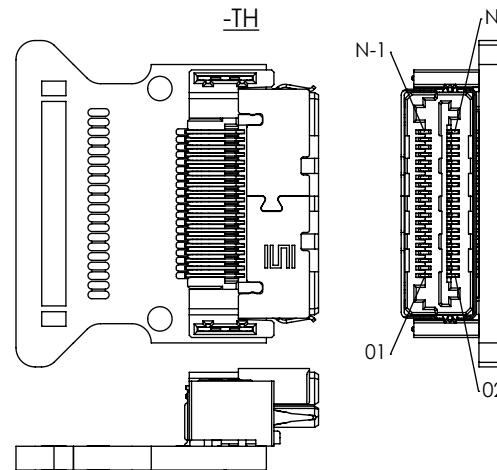


WIRING OPTION	FIRST END PIN #	SECOND END PIN #
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2	1	2
3	1	N-1
4	1	N

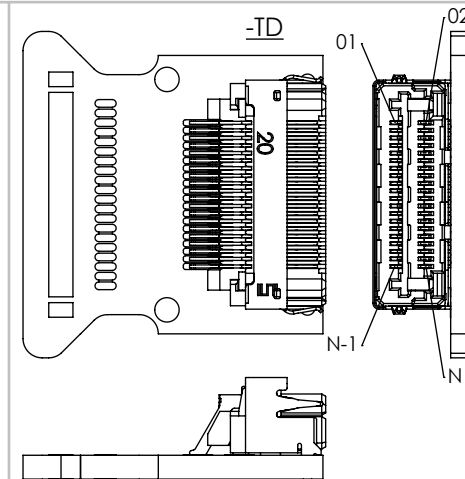


WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N

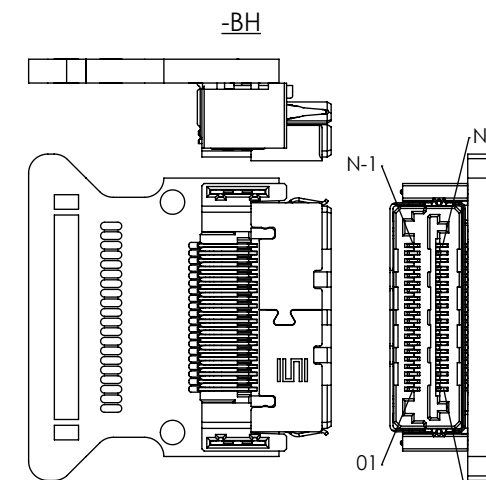
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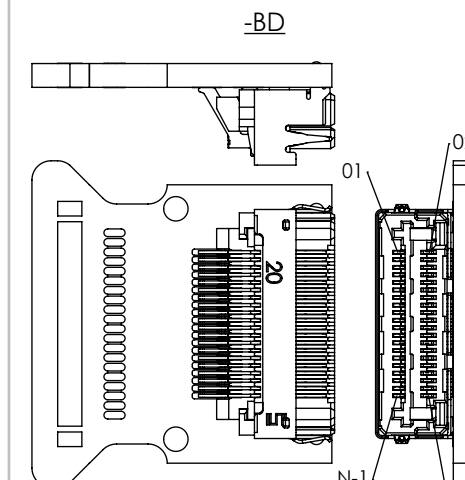
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N

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e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:  
LSHM CABLE ASSEMBLY  
DWG. NO.  
**HLCD-XX-XX.XX-XXX-XXX-X**  
BY: ANDREW C 05/29/2013 SHEET 3 OF 4

TABLE 6												
FIRST END OPTION	FIRST END SUB-HLCD-XX-XX-XX-X-XX.X	WRING OPTION	FIRST END PIN #	SECOND END PIN #	SECOND END OPTION (SUB-HLCD-XX-XX-XX-X-L.X.X)							
					-TRX	-TLX	-TD	-TH	-BRX	-BLX	-BD	-BH
-TRX	-XX-01-01-X-L2.5	1	1	1	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
		2	1	2	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
		3	1	N-1	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A
		4	1	N	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
-TLX	-XX-02-01-X-L2.5	1	1	1	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
		2	1	2	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A
		3	1	N-1	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
		4	1	N	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
-TH	-XX-04-01	1	1	1	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
		2	1	2	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
		3	1	N-1	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A
		4	1	N	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
-TD	-XX-03-01	1	1	1	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A
		2	1	2	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
		3	1	N-1	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
		4	1	N	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
-BRX	-XX-01-01-X-L2.5	1	1	1	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
		2	1	2	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A
		3	1	N-1	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
		4	1	N	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
-BLX	-XX-02-01-X-L2.5	1	1	1	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
		2	1	2	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
		3	1	N-1	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A
		4	1	N	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
-BH	-XX-04-01	1	1	1	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
		2	1	2	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A
		3	1	N-1	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
		4	1	N	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
-BD	-XX-03-01	1	1	1	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01
		2	1	2	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02
		3	1	N-1	N/A	-XX-01-02-X-L2.5	N/A	-XX-04-02	-XX-02-02-X-L2.5	N/A	-XX-03-01	N/A
		4	1	N	N/A	-XX-01-01-X-L2.5	N/A	-XX-04-01	-XX-02-01-X-L2.5	N/A	-XX-03-02	N/A

FOR -TRX, -TLX, -BRX, -BLX ADD "S" FOR SCREW DOWN OPTION (I.E. -TLS END OPTION = SUB-HLCD-XX-02-XX-S-L2.5)

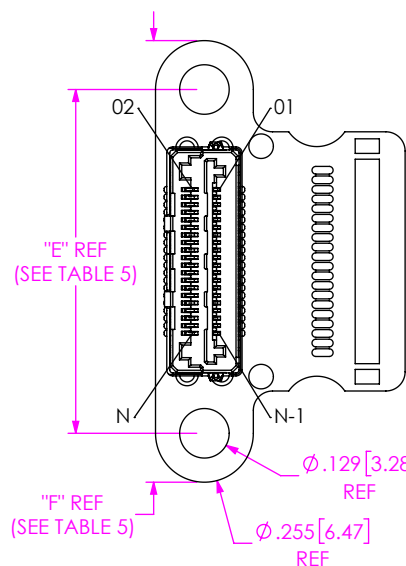
FIG. 2.  
VERTICAL  
SCREW DOWN OPTION  
(HLCD-20-XX.XX-TRS-XXX-X SHOWN)

TABLE 5		
No. OF POSITIONS	"E"	"F"
-005	0.600 [15.24]	0.855 [21.72]
-010	0.698 [17.73]	0.953 [24.21]
-020	0.895 [22.74]	1.150 [29.21]
-030	1.195 [30.36]	1.450 [36.83]
-040	1.495 [37.98]	1.750 [44.45]
-050	1.795 [45.60]	2.050 [52.07]

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TABLE 7							
EXAMPLE SIGNAL MAPPING - HLCD-20-XX.XX-XXX-XXX-1							
END 1	1	3	5	...	35	37	39
NAME	SIG	SIG	SIG	...	SIG	SIG	SIG
END 2	1	3	5	...	35	37	39
END 1	2	4	6	...	36	38	40
NAME	SIG	SIG	SIG	...	SIG	SIG	SIG
END 2	2	4	6	...	36	38	40
LSHM SHIELD TIED TO COAX SHIELD FOR GROUND RETURN							

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SHEET SCALE: 1:25:1

**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:

LSHM CABLE ASSEMBLY

DWG. NO.

HLCD-XX-XX.XX-XXX-XXX-X

BY: ANDREW C 05/29/2013 SHEET 4 OF 4