

DO NOT SCALE FROM THIS PRINT

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]

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

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-X

No. OF POSITIONS
-05, -10, -20, -30, -40, -50
(PER ROW)

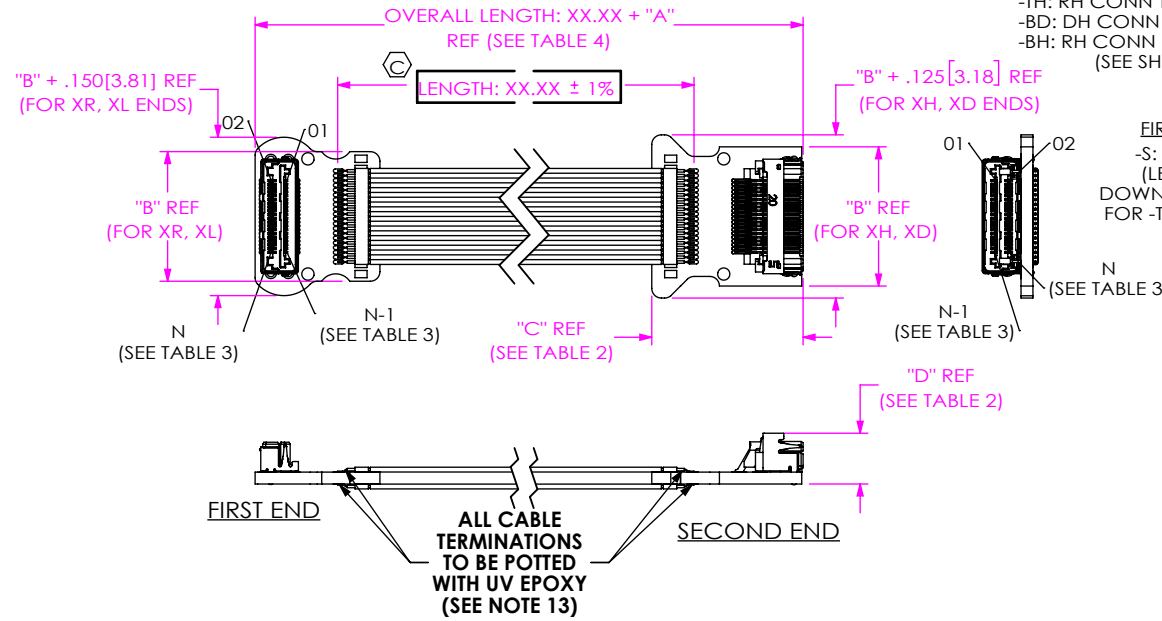
LENGTH
-XX.XX (INCHES)
(01.72 [43.7] MIN)

CABLE OPTION
(BLANK): TCF-3850-XX-01
-T:(SEE NOTE 12)

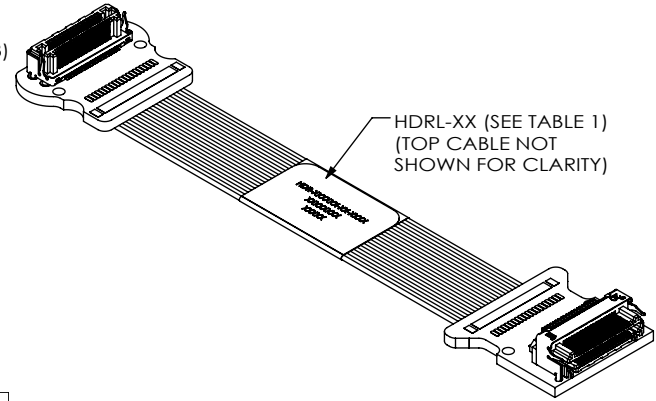
WIRING OPTION
-1: 1-1
-2: 1-2
-3: 1-(N-1)
-4: 1-N

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)

FIG 1
VERTICAL TO DH
HLCD-20-XX.XX-TR-TD-1 SHOWN



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)



No. OF POSITIONS	"B" (XR, XL)	"B" (XH, XD)	BLANK OPTION (CABLE)	-T OPTION (CABLE)	QTY OF SUB-TCF	SUB-HLCD-XX-XX-XX-X-L2.5	BLANK OPTION (LABEL)	-T OPTION (LABEL)
-005	380 [9.65]	430 [10.92]	SUB-TCF-3850-05-01-XX-XX	SUB-TCF-3850F-05-T01-XX-XX	2	SUB-HLCD-05-XX-XX-X-L2.5	HDRL-11	HDRL-47
-010	478 [12.14]	528 [13.41]	SUB-TCF-3850-10-01-XX-XX	SUB-TCF-3850F-10-T01-XX-XX	2	SUB-HLCD-10-XX-XX-X-L2.5	HDRL-11	HDRL-47
-020	675 [17.15]	725 [18.42]	SUB-TCF-3850-20-01-XX-XX	SUB-TCF-3850F-20-T01-XX-XX	2	SUB-HLCD-20-XX-XX-X-L2.5	HDRL-11	HDRL-47
-030	975 [24.77]	1,025 [26.04]	SUB-TCF-3850-30-01-XX-XX	SUB-TCF-3850F-30-T01-XX-XX	2	SUB-HLCD-30-XX-XX-X-L2.5	HDRL-11	HDRL-47
-040	1,275 [32.39]	1,325 [33.66]	SUB-TCF-3850-40-01-XX-XX	SUB-TCF-3850F-40-T01-XX-XX	4	SUB-HLCD-40-XX-XX-X-L2.5	HDRL-11	HDRL-47
-050	1,575 [40.01]	1,625 [41.28]	SUB-TCF-3850-50-01-XX-XX	SUB-TCF-3850F-50-T01-XX-XX	4	SUB-HLCD-50-XX-XX-X-L2.5	HDRL-11	HDRL-47

CRITICAL DIMENSION INSPECTION INSTRUCTION TABLE	
ASSEMBLY OPERATION	IN-PROCESS INSPECTION
PREP CABLE	C1
E-TEST	C2, C3

- NOTES:
- ⊙ REPRESENTS A CRITICAL DIMENSION.
 - PARTS TO BE PROCESSED PER SAMTEC BOUNDARY DOCUMENT GUIDELINES.
 - ALL ASSEMBLIES TO BE 100% ELECTRICALLY TESTED.
 - ALL ASSEMBLIES TO BE 100% HI-POT TESTED AT 300V.
 - 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".
 - FOR SUB-ASSEMBLY AND FINISHED GOOD PACKAGING REQUIREMENTS, REFERENCE PACKAGING STANDARD CO-HD-WI-3033-M.
 - SUB-TCF LENGTH IS EQUAL TO HLCD LENGTH.
 - CABLE LENGTHS GREATER THAN 40.00 INCHES ARE NOT SUPPORTED BY SI TEST DATA.
 - ALL PINS ROUTED AS SIGNALS. LSHM SHIELD TIED TO COAX SHIELD FOR GROUND RETURN.
 - DO NOT PULL** ON COAX RIBBON TO UNMATE CABLE ASSEMBLY.
 - ON DV END OPTIONS PIN 01 LOCATION DENOTES LEFT OR RIGHT ORIENTATION.
 - T OPTION: HIGH TEMP THV JACKET & WHITE PVF LABEL
 - EPOXY: IF CABLE OPTION IS -T, USE EPOXY-06 ONLY ON ALL CABLE TERMINATIONS. IF BLANK, USE EPOXY-42 ON ALL CABLE TERMINATIONS.

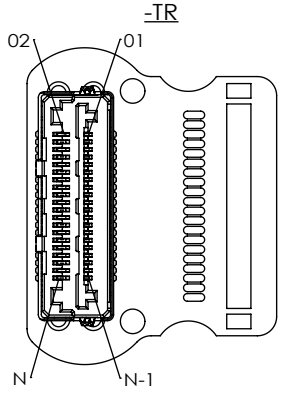
Pb THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
DECIMALS ANGLES
.XX: ±.01 [0.3]
.XXX: ±.005 [0.13]
.XXXX: ±.0020 [0.051]

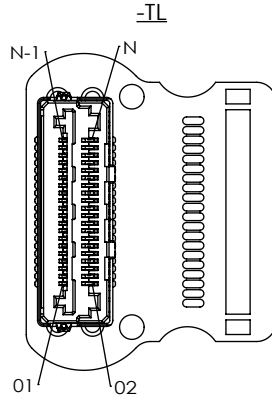
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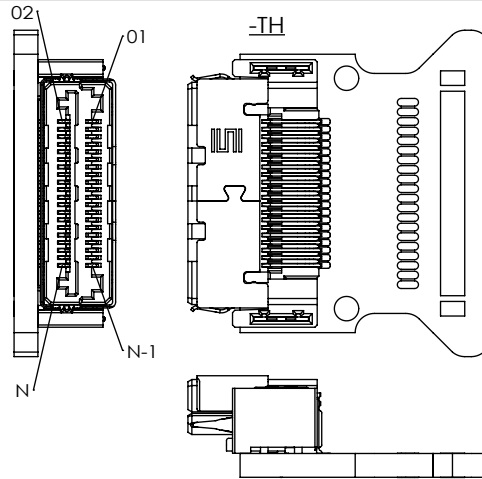
FIRST END (SEE TABLE 6, SHEET 4)
(FIRST END BOARDS WILL HAVE BLACK SOLDER MASK)



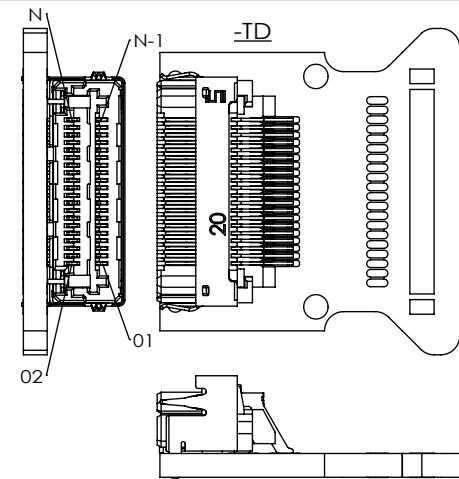
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2	1	2
3	1	N-1
4	1	N



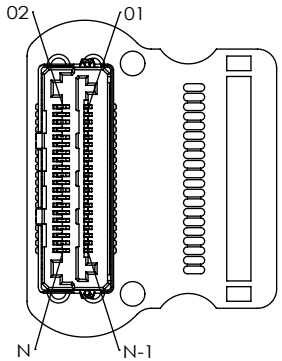
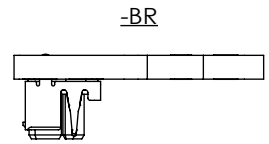
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
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2	1	2
3	1	N-1
4	1	N



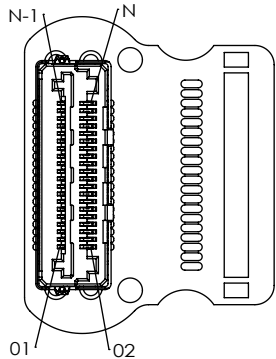
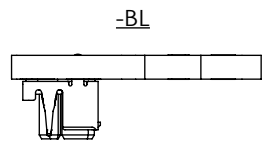
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
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2	1	2
3	1	N-1
4	1	N



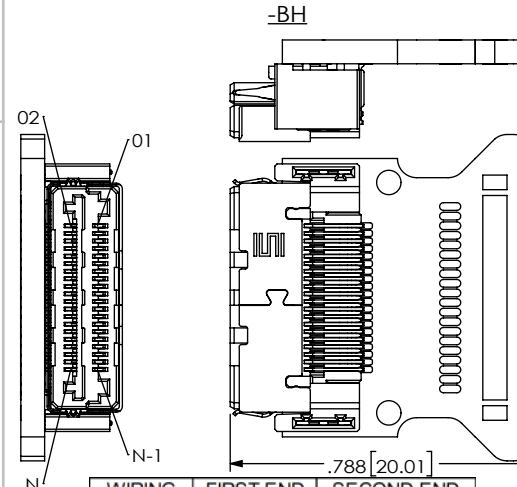
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
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2	1	2
3	1	N-1
4	1	N



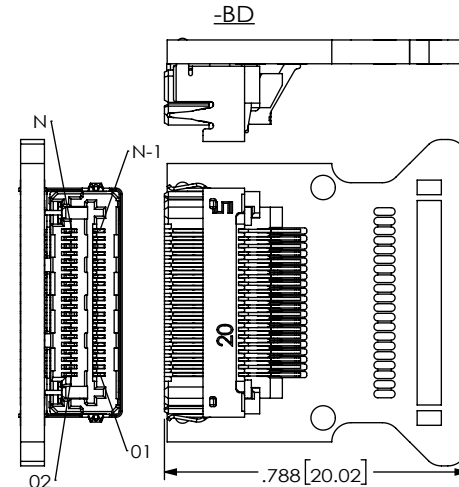
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2	1	2
3	1	N-1
4	1	N



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

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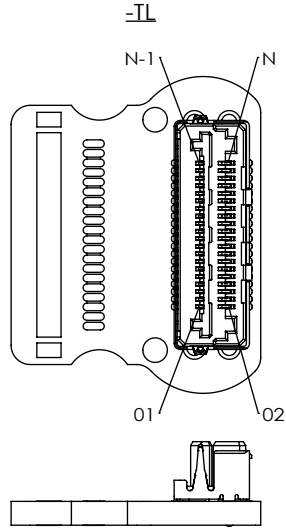
SHEET SCALE: 1:25:1



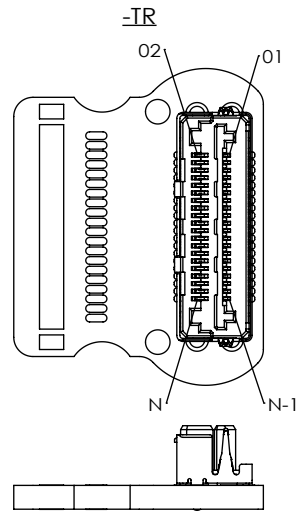
520 PARK EAST BLVD, NEW ALBANY, IN 47150
PHONE: 812-944-6733 FAX: 812-948-5047
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:
LSHM CABLE ASSEMBLY

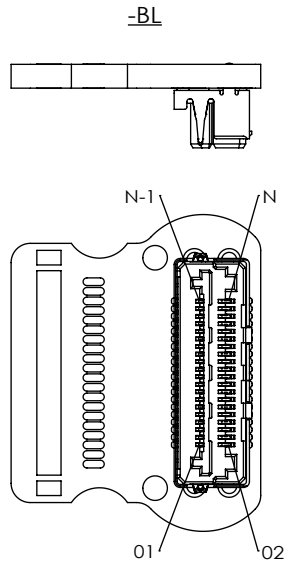
DWG. NO.
HLCD-XX-XX.XX-XXX-XXX-X-X
BY: ANDREW C 05/29/2013 SHEET 2 OF 4



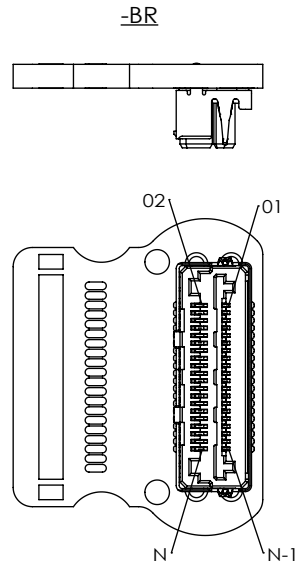
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
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2	1	2
3	1	N-1
4	1	N



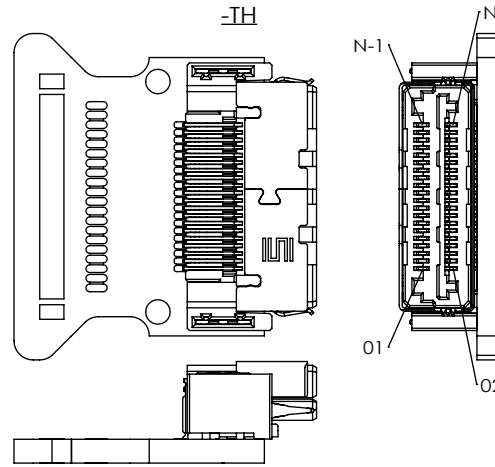
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
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2	1	2
3	1	N-1
4	1	N



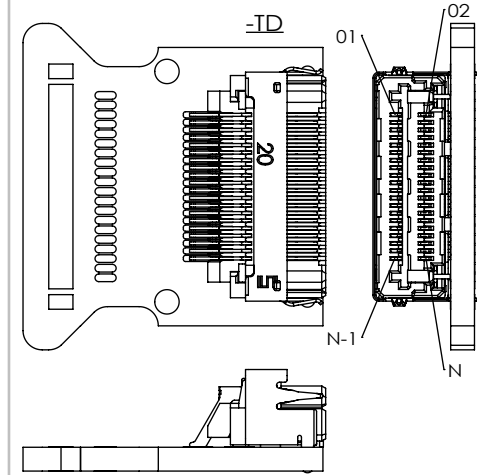
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



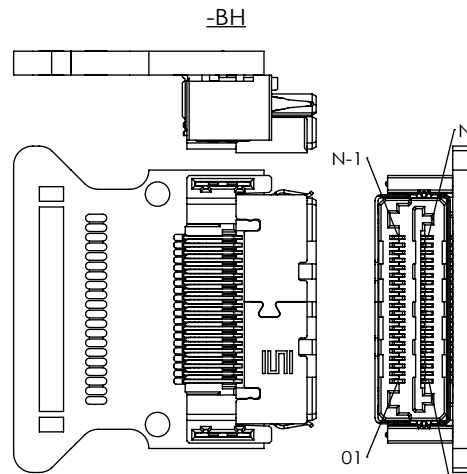
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



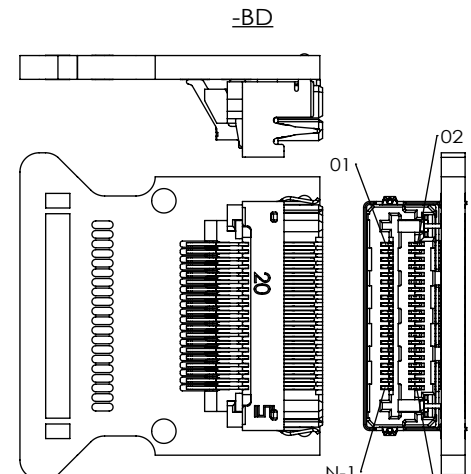
WIRING OPTION	FIRST END PIN #	SECOND END PIN #
1	1	1
2	1	2
3	1	N-1
4	1	N



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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SHEET SCALE: 1:25:1



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 e-Mail info@SAMTEC.com code 55322

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

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-LX.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)

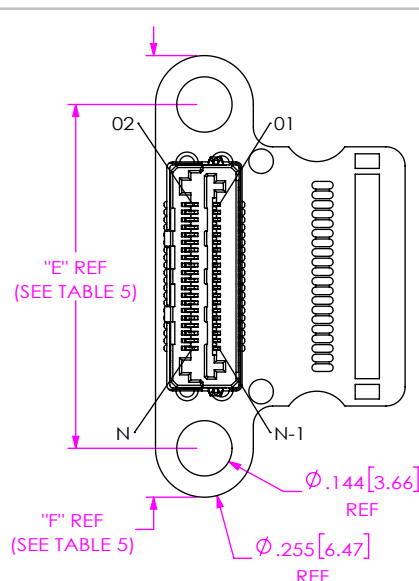


FIG. 2. VERTICAL SCREW DOWN OPTION (HLCD-20-XX.XX-TRS-XXX-X SHOWN)

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]

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

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 e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:
 LSHM CABLE ASSEMBLY

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

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