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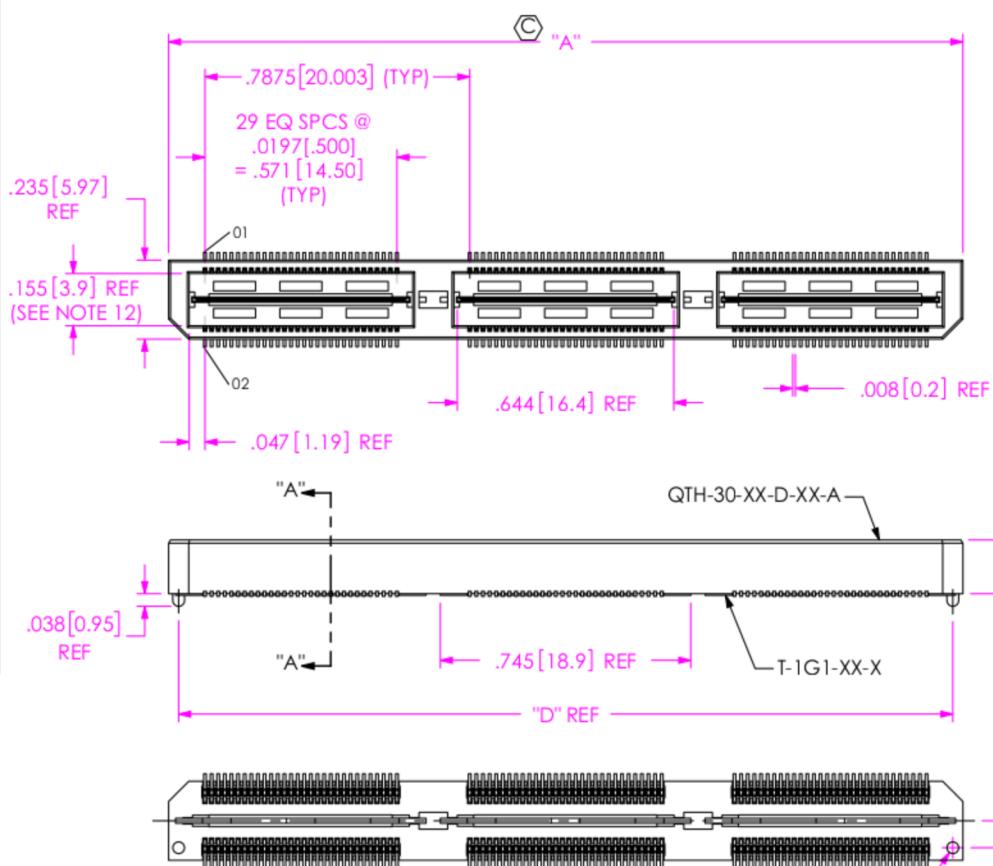
STYLE	"B"	"C"	BODY (-LC)	BODY (-A)	GROUND PLANE	TERMINAL	MATED HEIGHT WITH QSH-01
-01	.1680 [4.267]	.1600 [4.064]	QTH-30-01-D-XX	QTH-30-01-D-XX-A	T-1G1-01-X	T-1S39-01-X	.197 [5.00] REF
-02	.2861 [7.267]	.2781 [7.064]	QTH-30-02-D-XX	QTH-30-02-D-XX-A	T-1G1-02-X	T-1S59-02-X	.3150 [8.00] REF

POS	"A"	"D"
-030	.788 [20.00]	.728 [18.48]
-060	1.575 [40.01]	1.515 [38.48]
-090	2.363 [60.01]	2.303 [58.48]
-120	3.150 [80.01]	3.090 [78.49]
-150	3.938 [100.01]	3.878 [98.49]

NO OF POSITIONS	COPLANARITY INCLUDING GROUND PLANE
-030 THRU -060	.004 [0.10]
-090 THRU -150	.006 [0.15]



## QTH-XXX-XX-X-D-XXX

No. OF POSITIONS  
-030, -060, -090,  
-120, \*-150 (PER ROW)  
\* (SEE NOTE 11)

LEAD STYLE  
-01: .1680[4.267]  
-02: .2861[7.264]  
□ -03: 4043[10.269]  
□ -04: .6001[15.246]  
□ -05: .7181[18.240]  
□ -06: .8361[21.237]  
□ -07: .9542[24.237]  
□ -08: 1.1511[29.238]  
□ -09: .5224[13.269]  
□ -10: .5618[14.269]  
□ = SEE TABLE 6, SHT 3

## PLATING SPECIFICATION

-F: 3  $\mu$ " SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL (USE T-1SXX-XX-F & T-1GXX-XX-F) (SEE NOTE 7)  
-L: 10  $\mu$ " SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL (USE T-1SXX-XX-L & T-1GXX-XX-L)  
-H: 30  $\mu$ " GOLD IN CONTACT AREA, 3  $\mu$ " GOLD ON TAIL (USE T-1SXX-XX-H & T-1GXX-XX-G)  
-C: 50  $\mu$ " SELECTIVE GOLD IN CONTACT AREA, MATTE TIN ON TAIL (USE T-1SXX-XX-C, T-1GXX-XX-L)

OPTION  
-LC: LOCKING CLIPS (USE LC-08-TM-01, SEE FIG 2, SHT 2)  
-A: ALIGNMENT PINS (USE QTH-30-XX-D-XX-A FOR -01 & -02)  
(FOR -03 THRU -10 SEE TABLE 6, SHT 3)  
-K: POLYIMIDE FILM (USE K-DOT-276-.375-.005)  
(AVAILABLE ON -01 THRU -04, -09 & -10 ONLY)  
(SEE FIG 4, SHT 2)  
-TR: TAPE & REEL (-090 POS MAX)  
(-060 POS MAX W/ -GP OPTION)  
(N/A ON -05 THRU -08)  
(SEE FIG 12, SHT 6)  
(SEE NOTE 15)  
-GP: GUIDE POSTS (AVAILABLE ON -01 & -02 ONLY)  
(USE QTH-30-XX-D-XX-X-GP)  
(SEE FIG 8, SHT 4)  
-FL: FRICTION LOCKS (SEE FIG 9, SHT 4)  
(NOT AVAILABLE WITH -GP)  
-RT1: RETENTION OPTION (SEE FIG 10, SHT 5)  
(ONLY AVAILABLE ON -01 LEAD STYLE)  
(MUST USE -A OPTION)  
(USE QTH-30-01-D-XX-A-RT1 & T-1R36-01-F)  
(NOT AVAILABLE WITH -LC, -GP, OR -FL)  
-L: LATCHING OPTION (SEE FIG 11, SHT 5)  
(ONLY AVAILABLE ON -01 LEAD STYLE)  
(USE QTH-30-01-D-XX-L)  
(NOT AVAILABLE WITH -LC, -GP, -FL OR -RT1)  
(-060 POS MAX)  
-FR: FULL REEL QTY, TAPE & REEL (-090 POS MAX)  
(-060 POS MAX W/ -GP OPTION)  
(N/A ON -05 THRU -08)  
(SEE NOTE 16)

## ROW SPECIFICATION

-D: DOUBLE (USE QTH-30-XX-D-XX & QTTH-30-XX-D-XX)

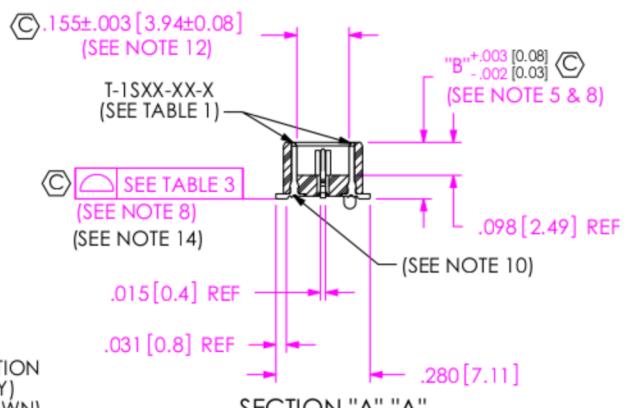
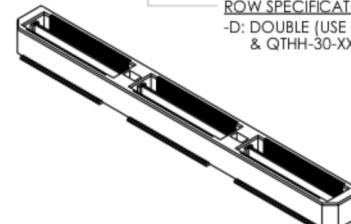


FIG 1  
-A: ALIGNMENT PIN OPTION  
(STYLE -01 & -02 ONLY)  
(QTH-090-01-X-D-A SHOWN)

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.

TOLERANCES ARE:

DECIMALS ANGLES  
.XX: ±.01 [0.3] 2°  
.XX: ±.005 [0.13]  
.XXX: ±.0020 [0.051]

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MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 1:7.51  
INSULATOR: LCP UL94V-0, COLOR: BLACK  
TERMINAL & GROUND PLANE: PHOS BRONZE

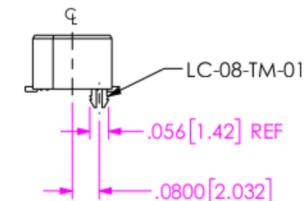
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520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail: info@SAMTEC.com code 55322

DESCRIPTION:  
.5mm DOUBLE ROW HS TERMINAL ASSEMBLY  
DWG. NO.  
QTH-XXX-XX-X-D-XXX

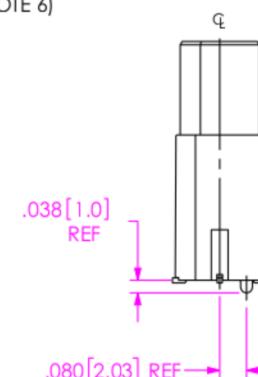
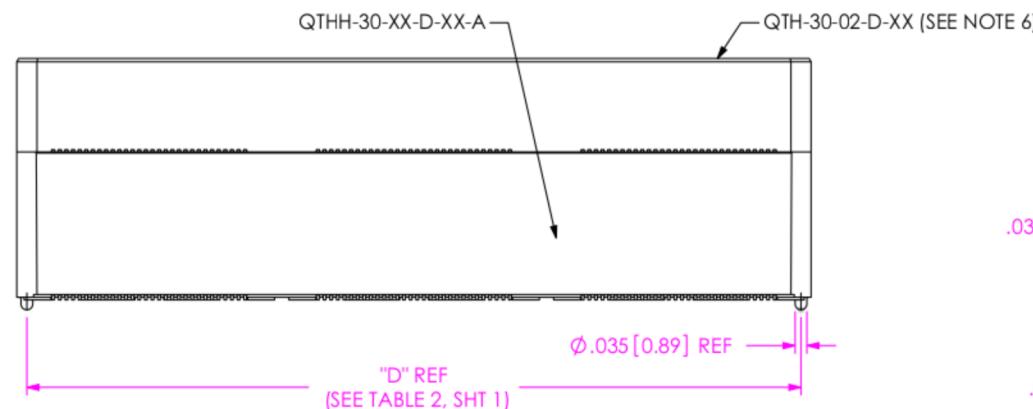
BY: DEAN B. 09-14-2010 SHEET 1 OF 4

1. (C) REPRESENTS A CRITICAL DIMENSION.
2. MINIMUM PUSHOUT FORCE: 6 OZ FOR -01 & -02, 8 OZ FOR -03 THRU -10.
3. MINIMUM GROUND PLANE RETENTION: 1 LB.
4. PARTS TO BE MOLDED TO POSITION.
5. MAXIMUM VARIANCE OF .002 [.005], APPLIES TO SIGNAL OR GROUNDS INDEPENDENT OF THE GROUND OR SIGNAL PINS RESPECTIVELY.
6. LEAD STYLES -03 THRU -10: TOP BODY (QTH) CANNOT HAVE -A OPTION.
7. -L PLATING CAN BE SUBSTITUTED FOR -F PLATING.
8. GROUND PLANE NOT TO BE INCLUDED IN COPLANARITY.
9. T-1R36 RETENTION TO BODY TO BE 1.0 LBF.
10. CUT OFF BURR NOT TO EXCEED .003 [.008] IN ANY DIRECTION, BURR PLUS TAB HEIGHT NOT TO EXCEED .006 [.015].
11. FOR NEW APPLICATIONS REQUIRING THESE POSITIONS, PLEASE CONTACT SAMTEC INTERCONNECT PROCESSING GROUP.
12. MAXIMUM PIN CAN EXTEND PAST WALL .003 [.008].
13. AVAILABLE MATING WITH QSH-D-GP BUT NOT AVAILABLE MATING WITH QSH-D-RA-GP OPTION.
14. GROUND PLANE TO BE .001±.001 ABOVE SEATING PLANE (MAX CONTACT COPLANARITY).
15. -TR OPTION ORDERS INVOLVING PARTIAL REEL QUANTITIES MAY BE PACKAGED ACCORDING TO THE SAMTEC PACKAGING EFFICIENCY STANDARDS (SPES) FOUND ON WWW.SAMTEC.COM.
16. FR OPTIONS WILL BE SHIPPED AS THE MAX QUANTITY PER REEL BASED ON OPTIONS SELECTED.

**FIG 2**  
-LC LOCKING CLIP OPTION  
(QTH-090-01-X-D-LC SHOWN)  
(SAME AS FIG 1, EXCEPT AS SHOWN)

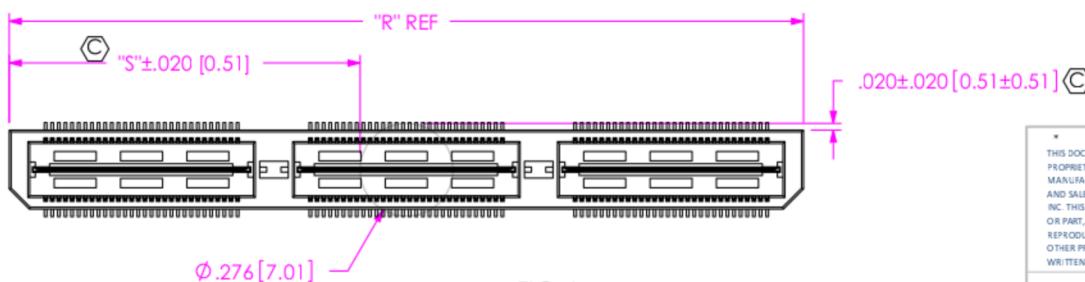


**FIG 3**  
-A: ALIGNMENT PIN OPTION  
(QTH-090-05-X-D-A SHOWN)  
(SAME AS FIG 1, EXCEPT AS SHOWN)  
(STYLES -03 THRU -09, SEE TABLE 6, SHT 3)



No OF POS	"R"				"S"			
	-LC, A, -FL	-GP	-RT1	-L	-LC, A, -FL	-GP	-RT1	-L
	.788 [20.00]	1.305 [33.15]	1.438 [36.53]	.906 [23.00]	.256 [6.50]	.515 [13.07]	.581 [14.76]	.315 [7.99]
-030	.788 [20.00]	1.305 [33.15]	1.438 [36.53]	.906 [23.00]	.256 [6.50]	.515 [13.07]	.581 [14.76]	.315 [7.99]
-060	1.575 [40.01]	2.093 [53.15]	2.226 [56.53]	1.693 [43.00]	.650 [16.50]	.908 [23.07]	.975 [24.76]	.709 [18.00]
-090	2.363 [60.01]	2.880 [73.15]	3.013 [76.53]	2.481 [63.00]	1.043 [26.50]	1.302 [33.07]	1.369 [34.76]	1.102 [28.00]
-120	3.150 [80.01]	3.668 [93.15]	3.801 [96.53]	3.268 [83.01]	1.437 [36.50]	1.696 [43.07]	1.762 [44.76]	1.496 [38.00]
-150	3.938 [100.01]	4.455 [113.16]	4.588 [116.54]	4.056 [103.01]	1.831 [46.50]	2.090 [53.07]	2.156 [54.76]	1.890 [48.00]

STYLE	"T"
-01	.173 [4.39]
-02	.290 [7.37]
-03	.409 [10.39]
-04	.605 [15.37]
-09	.527 [13.39]
-10	.566 [14.38]



**FIG 4**  
-K: POLYIMIDE FILM PAD OPTION  
(USE K-DOT-276-375-005)

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520 PARK EAST BLVD, NEW ALBANY, IN 47150  
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e-Mail: info@SAMTEC.com code 55322

DESCRIPTION: .5mm DOUBLE ROW HS TERMINAL ASSEMBLY  
DWG. NO.  
**QTH-XXX-XX-X-D-XXX**  
BY: DEAN B. 09-14-2010 SHEET 2 OF 6

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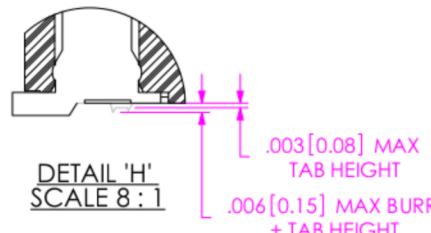
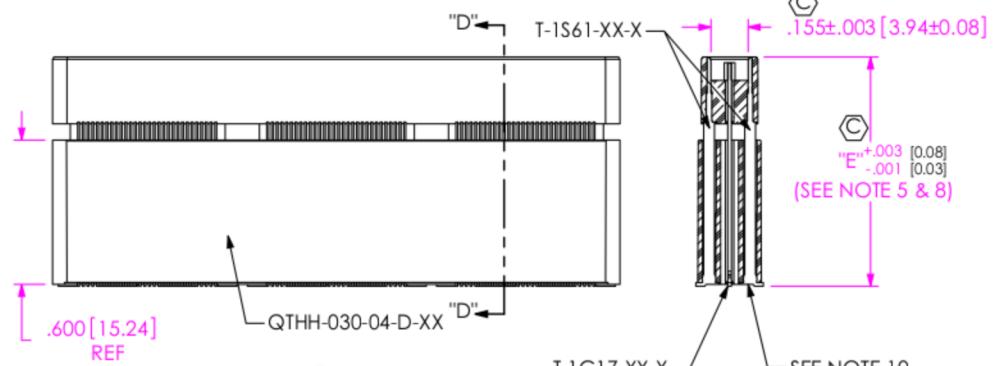
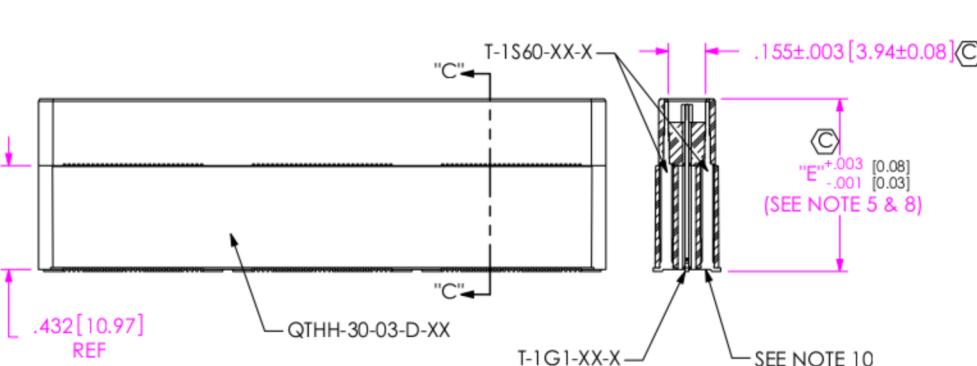
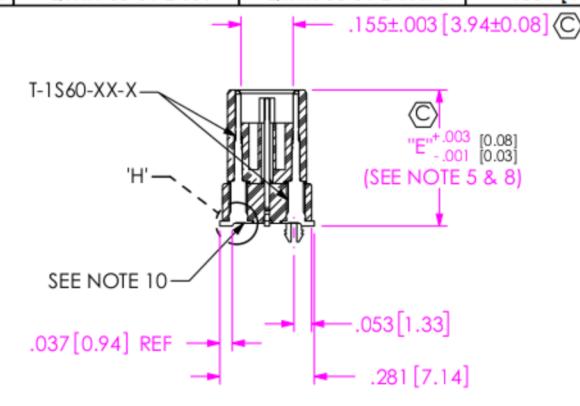
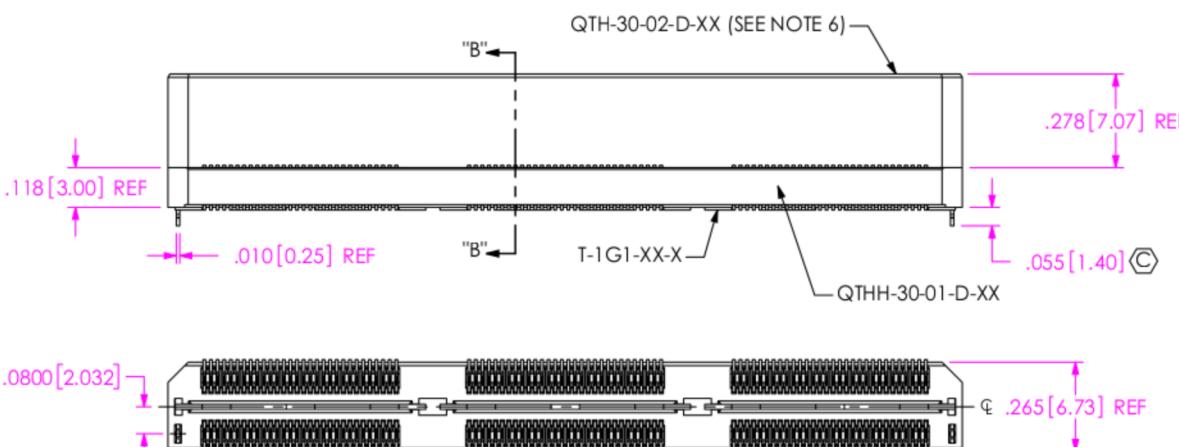


TABLE 6

STYLE	SEE FIGURE	"E"	OVERALL HEIGHT	GROUND PLANE	TERMINAL	TOP BODY (SEE NOTE 6)	BOTTOM SPACER BODY (-LC OR NONE)	BOTTOM SPACER BODY (-A)	MATED HEIGHT WITH QSH-01
-03	5	.4043	[10.269]	T-1G1-03-X	T-1S60-03-X	QTH-30-02-D-XX	QTHH-30-01-D-XX	QTHH-30-01-D-XX-A	.433 [11.00] REF
-04	5	.6001	[15.243]	T-1G1-04-X	T-1S60-04-X	QTH-30-02-D-XX	QTHH-30-01-D-XX	QTHH-30-01-D-XX-A	.630 [16.00] REF
-05	6	.7181	[18.240]	T-1G1-05-X	T-1S60-05-X	QTH-30-02-D-XX	QTHH-30-03-D-XX	QTHH-30-03-D-XX-A	.748 [19.00] REF
-06	6	.8361	[21.237]	T-1G1-06-X	T-1S60-06-X	QTH-30-02-D-XX	QTHH-30-03-D-XX	QTHH-30-03-D-XX-A	.866 [22.00] REF
-07	7	.9542	[24.237]	T-1G17-01-X	T-1S61-21-X	QTH-30-02-D-XX	QTHH-30-04-D-XX	QTHH-30-04-D-XX-A	.984 [24.99] REF
-08	7	1.1511	[29.238]	T-1G17-02-X	T-1S61-22-X	QTH-30-02-D-XX	QTHH-30-04-D-XX	QTHH-30-04-D-XX-A	1.181 [30.00] REF
-09	5	.5224	[13.269]	T-1G1-09-X	T-1S60-09-X	QTH-30-02-D-XX	QTHH-30-01-D-XX	QTHH-30-01-D-XX-A	.551 [14.00] REF
-10	5	.5618	[14.270]	T-1G1-10-X	T-1S60-10-X	QTH-30-02-D-XX	QTHH-30-01-D-XX	QTHH-30-01-D-XX-A	.591 [15.01] REF



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

DESCRIPTION: .5mm DOUBLE ROW HS TERMINAL ASSEMBLY

DWG. NO.

QTH XXX XX X D XXX

POS	"F"	"G"
-030	1.305 [33.15]	1.013 [25.72]
-060	2.093 [53.15]	1.800 [45.72]
-090	2.880 [73.15]	2.588 [65.72]
-120	3.668 [93.15]	3.375 [85.73]
-150	4.455 [113.16]	4.163 [105.73]

STYLE	"H"	BODY
-01	.3630 [9.220]	QTH-30-01-D-XX-X-GP
-02	.4810 [12.217]	QTH-30-02-D-XX-X-GP

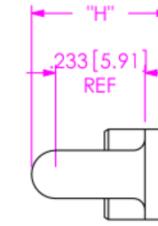
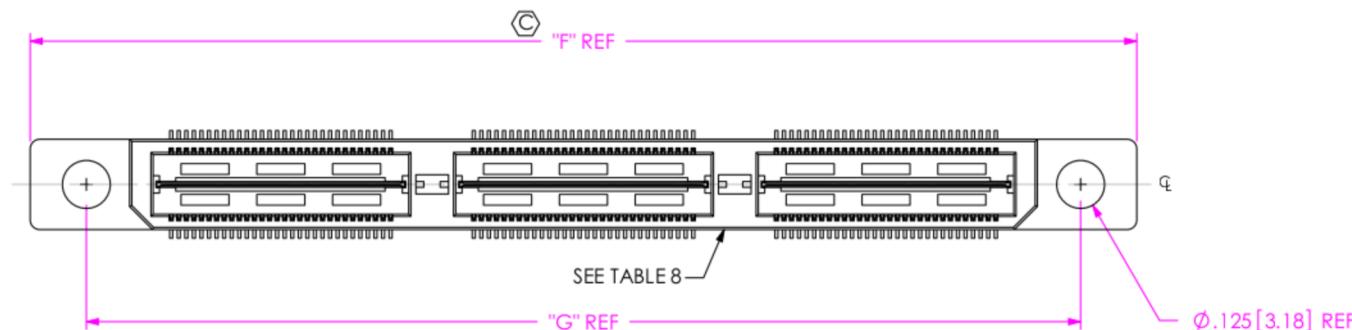


FIG 8  
(QTH-090-01-X-D-GP SHOWN)  
(SAME AS FIG 1, EXCEPT AS SHOWN)  
(AVAILABLE ON -01 & -02 ONLY)

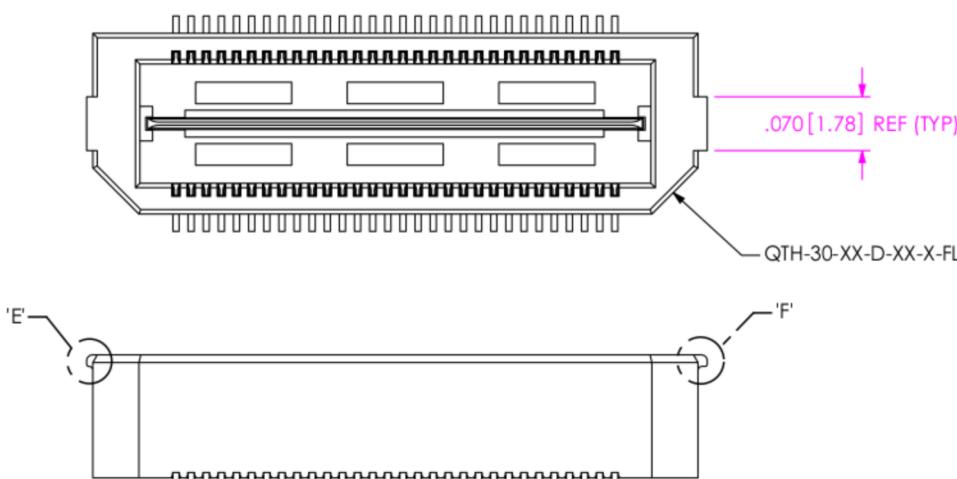
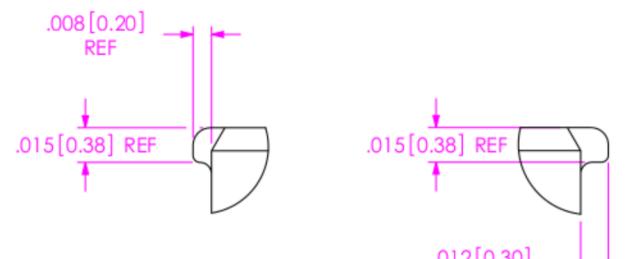


FIG 9  
-FL: FRICTION LOCKS  
(NOT AVAILABLE WITH -GP OPTION)  
(SAME AS FIG 1, EXCEPT AS SHOWN)



DETAIL 'E'  
SCALE 12:1

DETAIL 'F'  
SCALE 12:1

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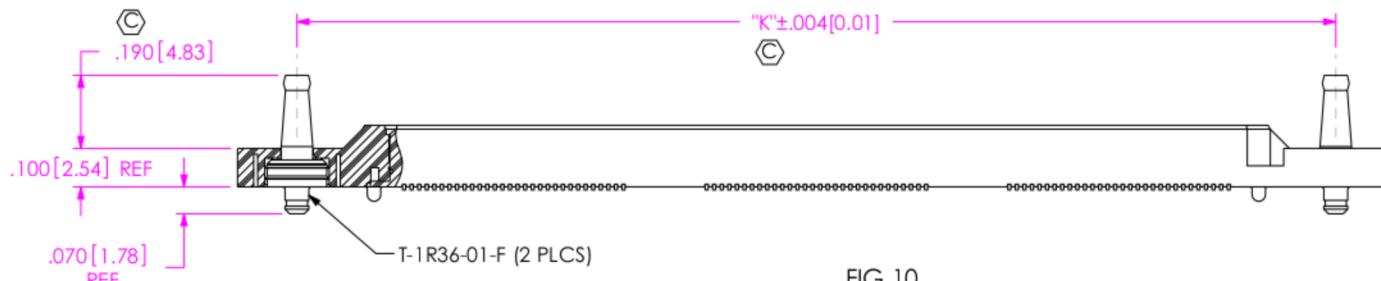
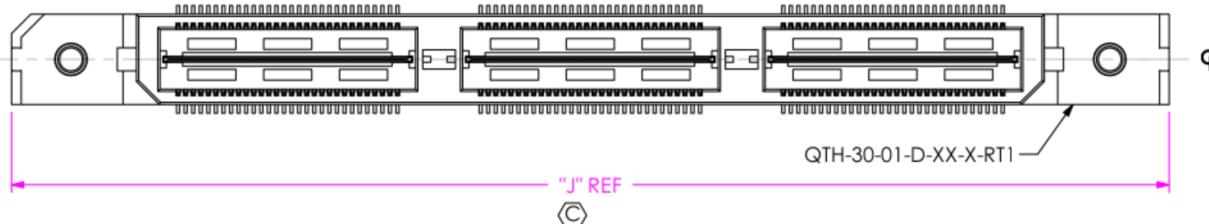
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PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail: info@SAMTEC.com code 55322

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DWG. NO.

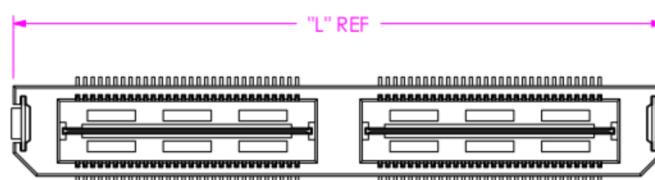
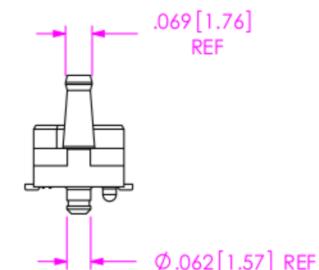
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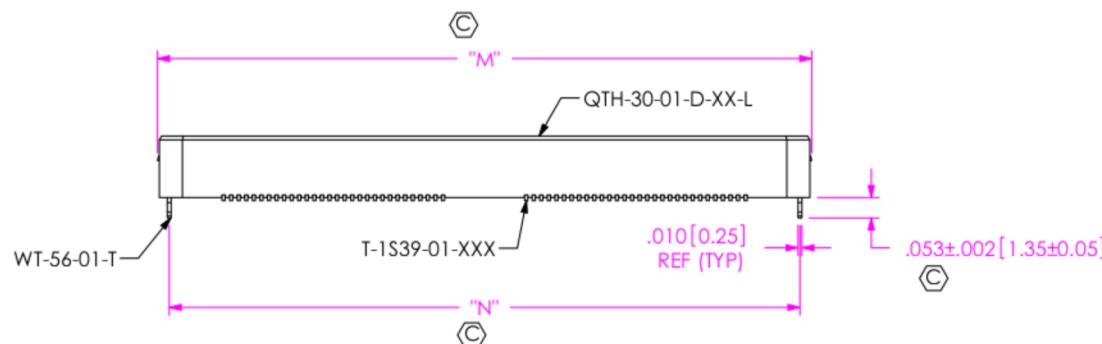
**FIG 10**  
(QTH-090-01-X-D-A-RT1 SHOWN)  
(NOT AVAILABLE WITH -LC, -GP, OR -FL OPTIONS)  
(AVAILABLE ON -01 ONLY)  
(SAME AS FIG 1, EXCEPT AS SHOWN)

POS	"J"	"K"
-030	1.438 [36.53]	1.129 [28.68]
-060	2.226 [56.53]	1.917 [48.68]
-090	3.013 [76.53]	2.704 [68.68]
-120	3.801 [96.53]	3.492 [88.68]
-150	4.588 [116.54]	4.279 [108.69]

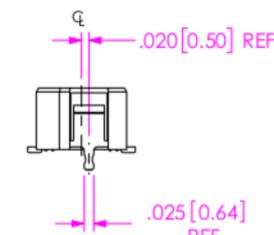


POS	"L"	"M"	"N"
-030	.906 [23.00]	.915 [23.24]	.854 [21.69]
-060	1.693 [43.00]	1.703 [43.24]	1.642 [41.69]
*-090	2.481 [63.00]	2.490 [63.25]	2.429 [61.70]

(\* = NOT RELEASED)



**FIG 11**  
L: LATCHING OPTION  
(QTH-060-01-X-D-L SHOWN)  
(AVAILABLE ON -01 LEAD STYLE ONLY)  
(NOT AVAILABLE WITH -LC, -GP, -FL, OR -RT1 OPTIONS)  
(SAME AS FIG 1, EXCEPT AS SHOWN)



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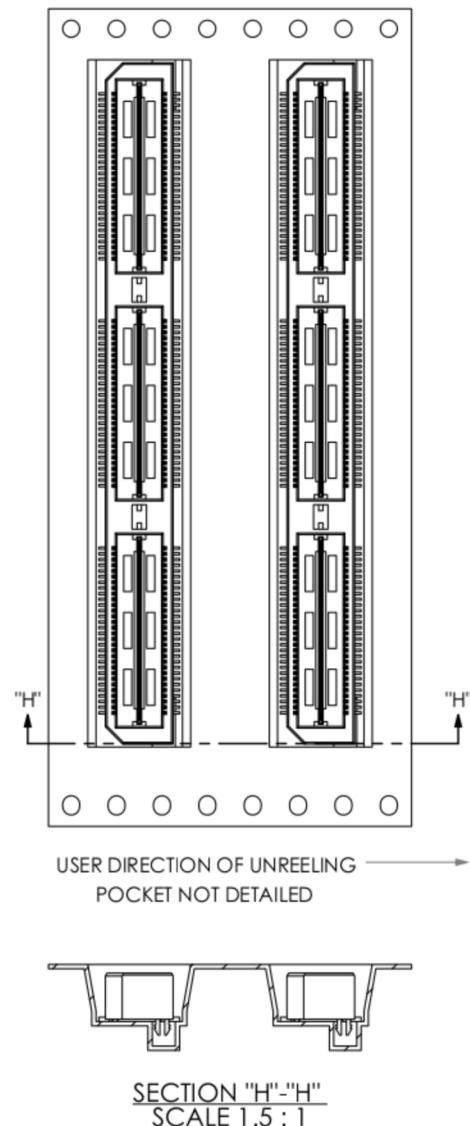
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DESCRIPTION: .5mm DOUBLE ROW HS TERMINAL ASSEMBLY

DWG. NO.

QTH-XXX-XX-X-D-XXX



**FIG 12**  
 -TR: TAPE & REEL  
 (QTH-090-01-X-D-LC-TR SHOWN)  
 (-090 POS MAX)  
 (-060 POS MAX W/-GP OPTION)  
 (N/A ON -05 THRU -08)  
 (SAME AS FIG 1, EXCEPT AS SHOWN)

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DESCRIPTION:  
 .5mm DOUBLE ROW HS TERMINAL ASSEMBLY  
 DWG. NO.  
 QTH XXX XX X D XXX