

DO NOT SCALE FROM THIS PRINT

◇ = ASO ONLY (APPLICATION SPECIFIC ORDER)

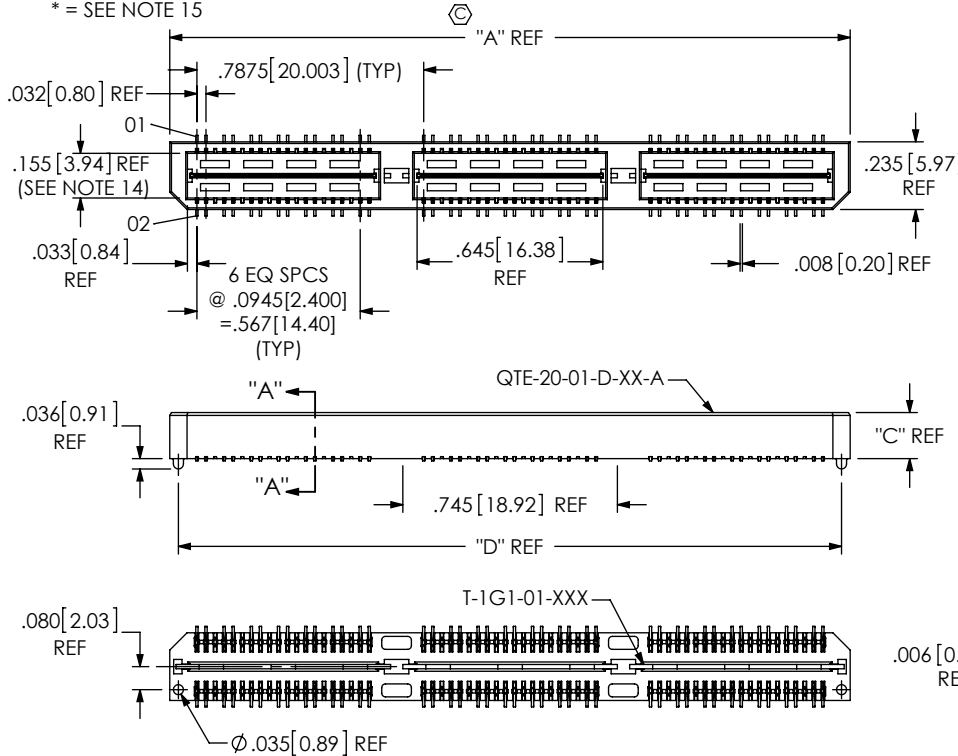
| STYLE | "B" | "C" | BODY | GROUND PLANE | TERMINAL | MATED HEIGHT WITH QSE-DP-01 |
|-------|----------------|----------------|----------------|--------------|---------------|-----------------------------|
| -01 | .1680 [4.267] | .1600 [4.064] | QTE-20-01-D-XX | T-1G1-01-XXX | T-1S39-01-XXX | .197 [5.00] REF |
| -02 | .2861 [7.267] | .2781 [7.064] | QTE-20-02-D-XX | T-1G1-02-XXX | T-1S59-02-XXX | .315 [8.00] REF |
| -03 | .4042 [10.267] | .3962 [10.063] | QTE-20-03-D-XX | T-1G1-03-XXX | T-1S39-03-XXX | .433 [11.00] REF |

| No OF POS | "A" | "D" |
|-----------|----------------|---------------|
| -014 | .788 [20.00] | .728 [18.48] |
| -028 | 1.575 [40.01] | 1.515 [38.48] |
| -042 | 2.363 [60.01] | 2.303 [58.48] |
| *-056 | 3.150 [80.01] | 3.090 [78.49] |
| *-070 | 3.938 [100.01] | 3.878 [98.49] |

* = SEE NOTE 15

| No OF POSITIONS | COPLANARITY (INCLUDES GROUND PLANE) |
|------------------|-------------------------------------|
| -014 THRU -042 | .004 [0.10] |
| *-056 THRU *-070 | .006 [0.15] |

* = SEE NOTE 15

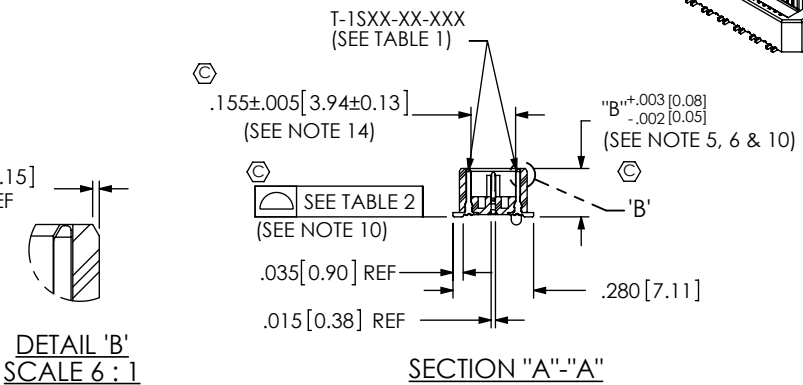
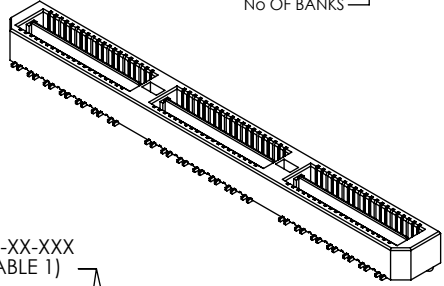


- NOTES:
1. Ⓢ REPRESENTS A CRITICAL DIMENSION.
 2. MINIMUM TERMINAL RETENTION: 5 OZ.
 3. MINIMUM GROUND PLANE RETENTION: 1 LB
 4. PARTS TO BE MOLDED TO POSITION.
 5. MAXIMUM VARIANCE OF .002 [0.05]
 6. DIMENSION APPLIES TO TERMINALS AND GROUND PLANE.
 7. DELETED.
 8. DELETED.
 9. -L PLATING CAN BE SUBSTITUTED FOR -F PLATING.
 10. GROUND PLANE PRESS HEIGHT MUST BE .003 [0.08] LESS THAN THE MAX HEIGHT OR .001 [0.03] GREATER THAN THE MINIMUM HEIGHT OF THE TERMINALS.
 11. T-1R36 RETENTION TO BODY TO BE 1.0 LBF.
 12. NOTE DELETED.
 13. DUE TO THE HIGH AMOUNT OF INSERTION FORCE NEEDED, THE -LC OPTION IS NOT COMPATIBLE WITH AUTO PLACEMENT. SAMTEC RECOMMENDS MANUAL PLACEMENT FOR ALL ASSEMBLIES WITH THE -LC OPTION.
 14. MAXIMUM PIN CAN EXTEND PAST WALL: .003 [0.08]
 15. AVAILABLE FOR EXISTING CUSTOMERS ONLY.

FIG 1
-A: ALIGNMENT PIN OPTION (QTE-042-01-XXX-D-DP-A SHOWN) (STYLE -01, -02 & -03 ONLY)

QTE-XXX-XX-XXX-D-DP-XXX

- No OF POSITIONS**
-014, -028, -042, *-056, *-070 (PER ROW) (*SEE NOTE 15)
- LEAD STYLE**
-01: .1680 [4.267] (SEE FIG 1)
-02: .2861 [7.264] (SEE FIG 1)
-03: .4042 [1.123] (SEE FIG 1)
◇ -04: .600 [15.24] (SEE FIG 4, SHT 3)
◇ -05: .718 [18.237] (SEE FIG 4, SHT 3)
◇ -06: .835 [21.209] (SEE FIG 4, SHT 3)
◇ -07: .954 [24.232] (SEE FIG 4, SHT 3)
◇ -08: 1.151 [29.24] (SEE FIG 4, SHT 3)
◇ -09: .522 [13.258] (SEE FIG 4, SHT 3)
◇ -10: .5606 [14.239] (SEE FIG 4, SHT 3)
- PLATING SPECIFICATION**
-F: 3μ" FLASH GOLD IN CONTACT AREA, MATTE TIN ON TAIL (USE T-1SXX-XX-F, T-1G1-XX-F) (SEE NOTE 9)
-L: 10μ" LIGHT GOLD IN CONTACT AREA, MATTE TIN ON TAIL (USE T-1SXX-XX-L, T-1G1-XX-L)
-H: 30μ" HEAVY GOLD IN CONTACT AREA, 3μ" GOLD ON TAIL (USE T-1SXX-XX-H, T-1G1-XX-G)
-C: 50μ" ELECTRO-POLISHED SELECTIVE IN CONTACT AREA, MATTE TIN ON TAIL (USE T-1SXX-XX-C, T-1G1-XX-L)
-STL: 30μ" HEAVY SELECTIVE GOLD IN CONTACT AREA, TIN LEAD ON TAIL (USE T-1SXX-XX-STL, T-1G1-XX-STL)
-FTL: 3μ" FLASH SELECTIVE GOLD IN CONTACT AREA, TIN LEAD ON TAIL (USE T-1SXX-XX-FTL, T-1G1-XX-FTL)
- OPTION**
-A: ALIGNMENT PINS
-LC: LOCKING CLIPS (SEE NOTE 13) (USE LC-08-TM-01) (SEE FIG 2, SHT 2)
-K: POLYIMIDE FILM (USE K-DOT-276-.375-.005) (SEE FIG 3, SHT 2) (N/A ON STYLES -07 & -08)
-GP: GUIDE POSTS (AVAILABLE ON -01 ONLY) (USE QTE-20-01-D-XX-X-GP) (SEE FIG 4, SHT 3)
-TR: TAPE & REEL (42 POS. MAX) (NOT AVAILABLE ON -05, -06, -07, -08 LEAD STYLES) (028 POS MAX FOR -GP OPTION)
-RT1: RETENTION OPTION (SEE FIG 9, SHT 5) (ONLY AVAILABLE ON -01 LEAD STYLE) (MUST USE -A OPTION) (NOT AVAILABLE WITH -LC, -GP, OR -L) (NOT AVAILABLE ON -056 & -070 POS)
-L: LATCHING OPTION (28 POS. MAX.) (SEE FIG 10, SHT 5) (MUST USE -A OPTION) (AVAILABLE ON -01 ONLY) (NOT AVAILABLE WITH -LC, -GP, OR -RT1)
- BODY STYLE**
-DP: DIFFERENTIAL PAIRS
- ROW SPECIFICATION**
-D: DOUBLE (USE QTE-20-XX-D-XX & QTEH-20-XX-D-XX)
- No OF BANKS



| | | |
|--|---|--|
| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS ANGLES .XX: ±.01 [3] .XXX: ±.005 [13] .XXXX: ±.0020 [051] | PROPRIETARY NOTE THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION AND ALL DESIGN, MANUFACTURING, REPRODUCTION, USE, PATENT RIGHTS AND SALES RIGHTS ARE EXPRESSLY RESERVED BY SAMTEC, INC. THIS DOCUMENT SHALL NOT BE DISCLOSED, IN WHOLE OR PART, TO ANY UNAUTHORIZED PERSON OR ENTITY NOR REPRODUCED, TRANSFERRED OR INCORPORATED IN ANY OTHER PROJECT IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF SAMTEC, INC. | samtec 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: 1.5:1 | DESCRIPTION: .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY | |
| INSULATOR: LCP, UL94V-0; COLOR: BLACK TERMINAL: PHOS BRONZE GROUND PLANE: PHOS BRONZE | DWG. NO. QTE-XXX-XX-XXX-D-DP-XXX | |
| F:\DWG\MISC\MKTG\QTE-XXX-XX-XXX-D-DP-XXX-MKT.SLDDRW | BY: DEAN P 4/28/2000 | SHEET 1 OF 5 |

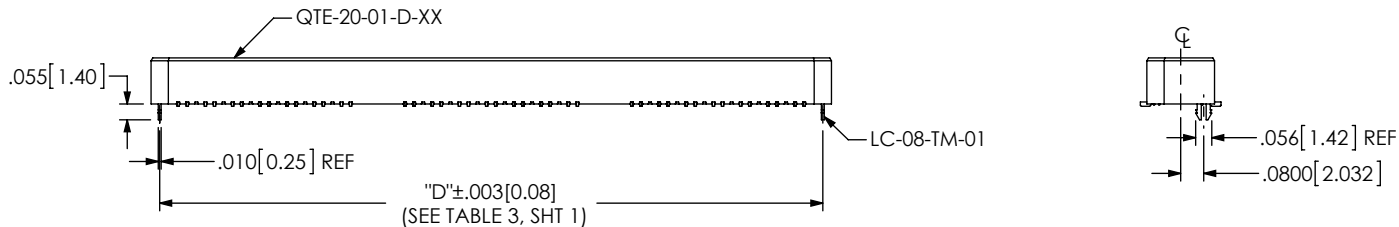


FIG 2
 -LC: LOCKING CLIP OPTION
 (QTS-042-01-XXX-D-DP-LC SHOWN)
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

| No OF POS | "R" | | | | "S" | | | |
|-----------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------|
| | -LC, -A, -FL | -GP, -SD | -RT1 | -L | -LC, -A, -FL | -GP, -SD | -RT1 | -L |
| -014 | .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] |
| -028 | 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] |
| -042 | 2.363 [60.01] | 2.880 [73.15] | 3.013 [76.53] | N/A | 1.043 [26.50] | 1.302 [33.07] | 1.369 [34.76] | N/A |
| *-056 | 3.150 [80.01] | 3.668 [93.15] | N/A | N/A | 1.437 [36.50] | 1.696 [43.07] | N/A | N/A |
| *-070 | 3.938 [100.01] | 4.455 [113.16] | N/A | N/A | 1.831 [46.50] | 2.090 [53.07] | N/A | N/A |

* = SEE NOTE 15

| STYLE | "T" |
|-------|-------------|
| -01 | .173[4.39] |
| -02 | .291[7.39] |
| -03 | .409[10.39] |
| -04 | .605[15.37] |
| -05 | .723[18.36] |
| -06 | .841[21.36] |
| -09 | .527[13.39] |
| -10 | .567[14.37] |

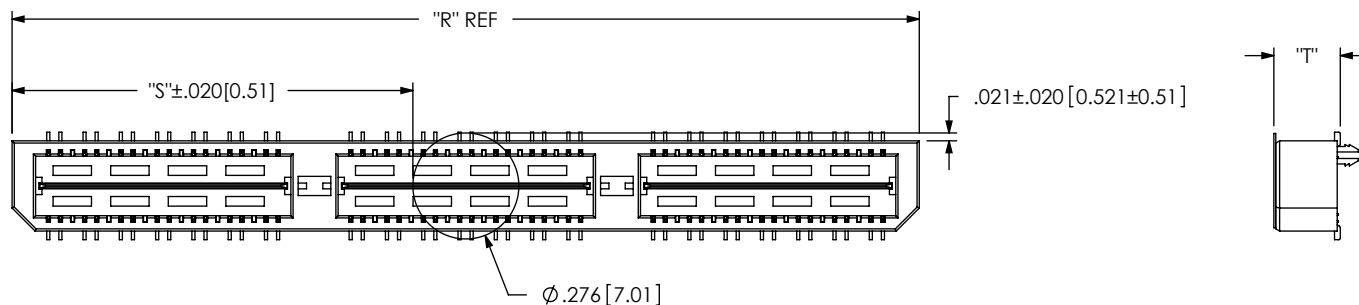



FIG 3
 -K: POLYIMIDE FILM PAD
 (USE K-DOT-.276-.375-.005)

| | | |
|--|---|---|
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| | DESCRIPTION: .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY | |
| | DWG. NO. QTE-XXX-XX-XXX-D-DP-XXX | |
| BY: DEAN P 4/28/2000 | SHEET 2 OF 5 | |

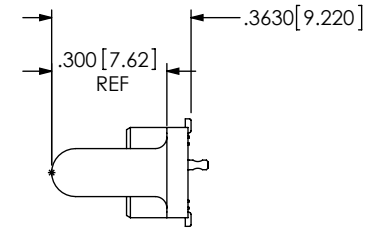
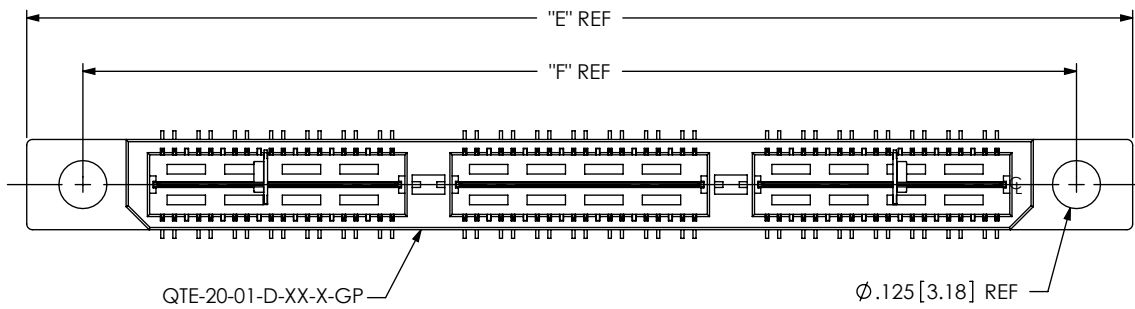


FIG 4
 -GP: GUIDE POST OPTION
 (QTE-042-01-XXX-D-DP-GP SHOWN)
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)
 (AVAILABLE ON STYLE -01 ONLY)

TABLE 6

| POS | "E" | "F" |
|-------|----------------|----------------|
| -014 | 1.305 [33.15] | 1.013 [25.72] |
| -028 | 2.093 [53.15] | 1.800 [45.72] |
| -042 | 2.880 [73.15] | 2.588 [65.72] |
| *-056 | 3.668 [93.15] | 3.375 [85.73] |
| *-070 | 4.455 [113.16] | 4.163 [105.73] |

* = SEE NOTE 15

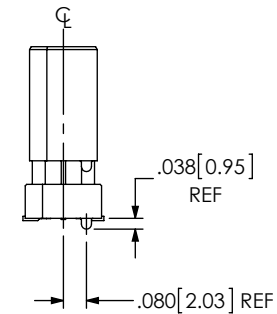
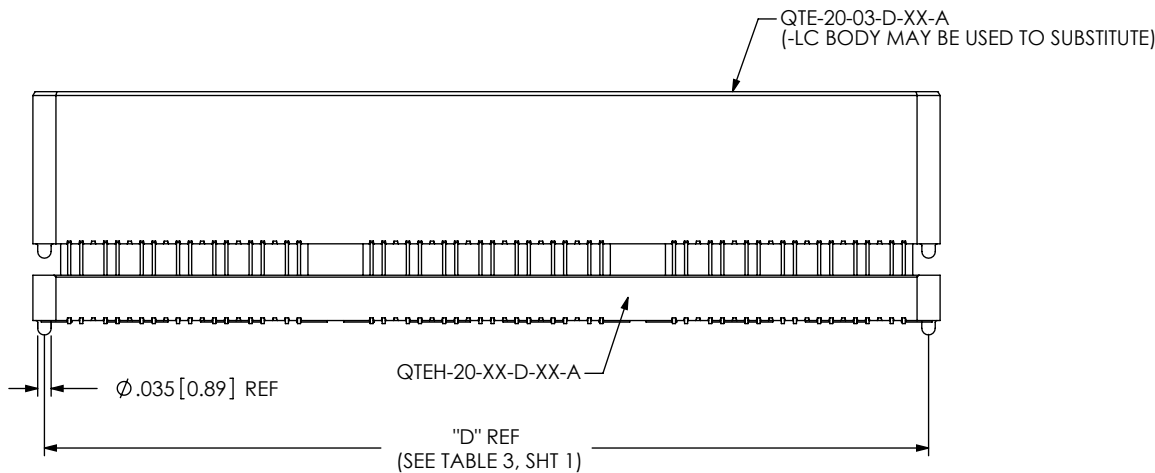



FIG 5
 (QTE-020-04-XXX-D-A SHOWN)
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)
 (STYLES -04, -05, -06, -07, -08, -09 & -10, SEE TABLE 7, SHT 4)

| | | |
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| | DESCRIPTION: .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY DWG. NO. QTE-XXX-XX-XXX-D-DP-XXX | BY: DEAN P 4/28/2000 |

| TABLE 7 | | | | | | MATED HEIGHT WITH QSE-DP-01 |
|---------|---------------|---------------|---------------|-------------------|-------------------|-----------------------------|
| STYLE | "B" | GROUND PLANE | TERMINAL | FILLER BODY | SPACER BODY | |
| -04 | .600[15.24] | T-1G1-04-XXX | T-1S41-04-XXX | QTE-20-03-D-XX | QTEH-20-01-D-XX-X | .630 [16.00] REF |
| -05 | .718[18.237] | T-1G1-05-XXX | T-1S41-05-XXX | QTE-20-03-D-XX | QTEH-20-01-D-XX-X | .748 [19.00] REF |
| -06 | .835[21.209] | T-1G1-06-XXX | T-1S41-06-XXX | QTE-20-03-D-XX | QTEH-20-02-D-XX-X | .866 [22.00] REF |
| -07 | .954[24.232] | T-1G17-01-XXX | T-1S61-21-XXX | QTEH-20-04-D-XX-X | QTE-20-02-D-XX-X | .984 [25.00] REF |
| -08 | 1.151[29.24] | T-1G17-02-XXX | T-1S61-22-XXX | QTEH-20-04-D-XX-X | QTE-20-02-D-XX-X | 1.181 [30.00] REF |
| -09 | .522[13.259] | T-1G1-09-XXX | T-1S60-09-XXX | QTEH-20-01-D-XX-X | QTE-20-02-D-XX-X | .551[14.00] REF |
| -10 | .5606[14.239] | T-1G1-10-XXX | T-1S60-10-XXX | QTEH-20-01-D-XX-X | QTE-20-02-D-XX-X | .591[15.00] REF |

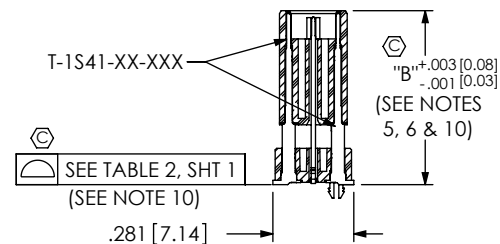
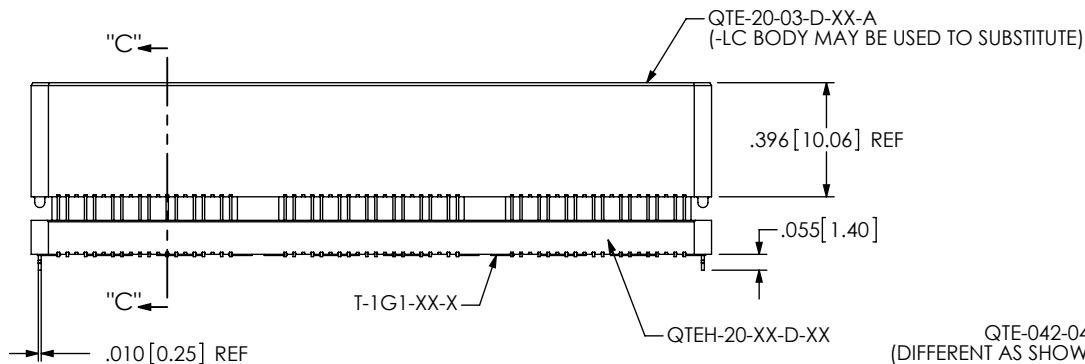
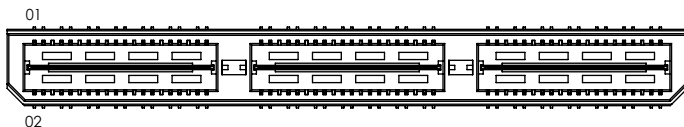


FIG 6
QTE-042-04-X-D-DP-LC SHOWN
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)
(STYLES -04, -05 & -06)

SECTION "C"-"C"

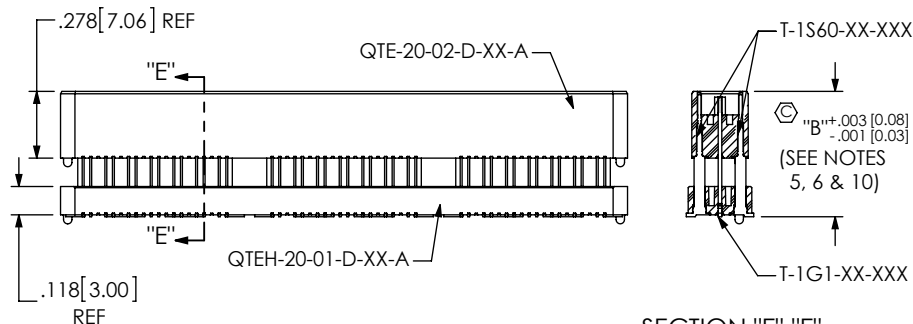
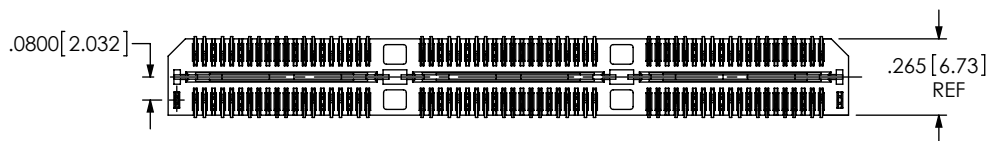
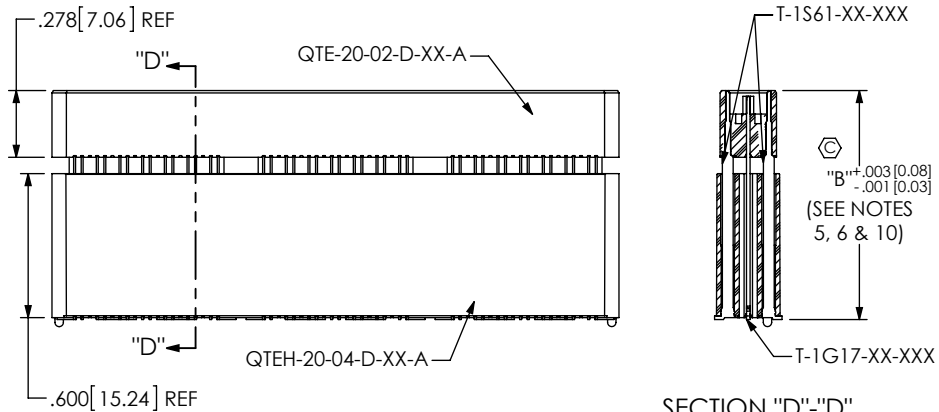


FIG 8
QTE-042-09-X-D-DP-A SHOWN
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 6)
(STYLES -09 & -10)

SECTION "E"-"E"
SCALE 1.25 : 1



SECTION "D"-"D"
SCALE 1.25 : 1

FIG 7
QTE-042-07-X-D-DP-A SHOWN
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 6)
(STYLES -07 & -08)

F:\DWG\MISC\MKTG\QTE-XXX-XX-XXX-D-DP-XXX-MKT.SLDDRW

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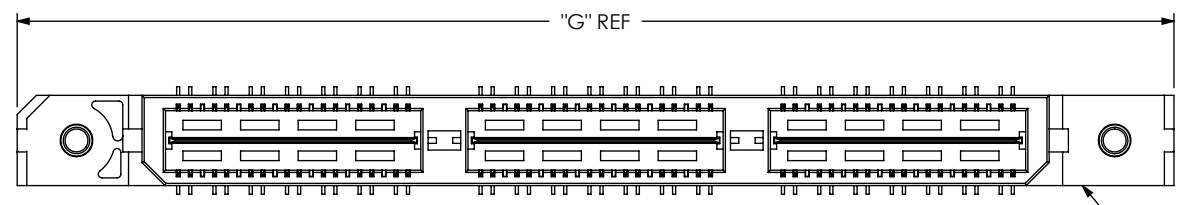
DESCRIPTION:
.8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY

DWG. NO.
QTE-XXX-XX-XXX-D-DP-XXX

BY: DEAN P 4/28/2000 SHEET 4 OF 5

| TABLE 8 | | |
|---------|---------------|---------------|
| POS | "G" | "H" |
| -014 | 1.438 [36.53] | 1.129 [28.68] |
| -028 | 2.226 [56.53] | 1.917 [48.68] |
| -042 | 3.013 [76.53] | 2.704 [68.68] |
| *-056 | N/A | N/A |
| *-070 | N/A | N/A |

* = SEE NOTE 15



QTE-20-01-D-XX-A-RT1

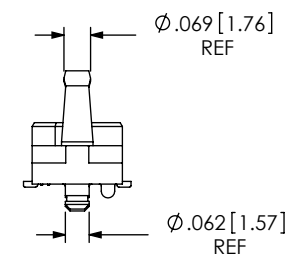
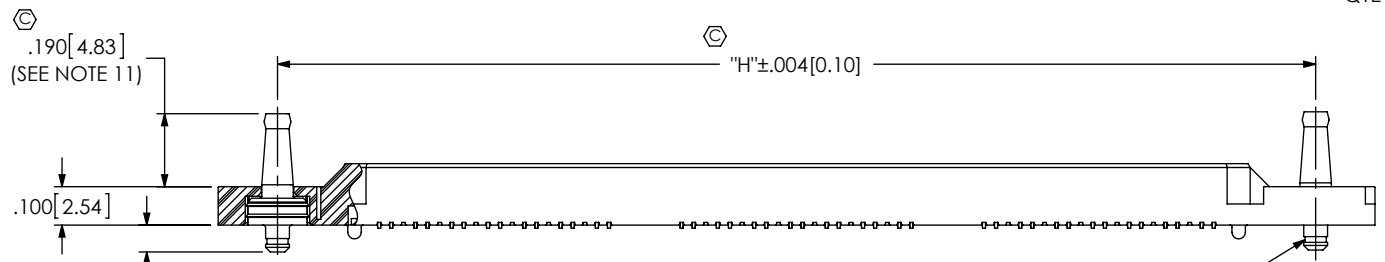
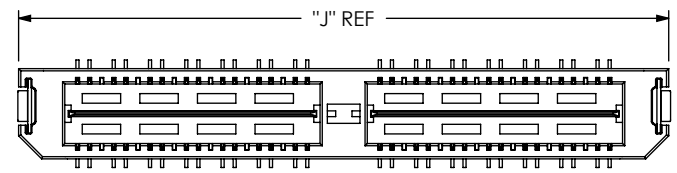


FIG 9
 -RT1: RETENTION OPTION
 (QTE-042-01-XXX-D-DP-A-RT1 SHOWN)
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)
 (ONLY AVAILABLE ON -01 LEAD STYLE) (MUST USE -A OPTION)
 (NOT AVAILABLE WITH -LC, -GP, OR -L OPTIONS)
 (NOT AVAILABLE ON *-056 & *-070 POSITIONS)
 * = SEE NOTES 12 & 15



| TABLE 9 | | | |
|---------|---------------|---------------|---------------|
| POS | "J" | "K" | "L" |
| -014 | .906 [23.00] | .915 [23.24] | .854 [21.69] |
| -028 | 1.693 [43.00] | 1.703 [43.24] | 1.642 [41.69] |
| -042 | N/A | N/A | N/A |
| *-056 | N/A | N/A | N/A |
| *-070 | N/A | N/A | N/A |

* = SEE NOTE 15

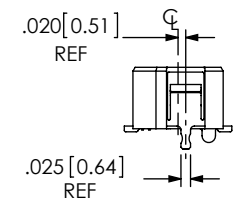
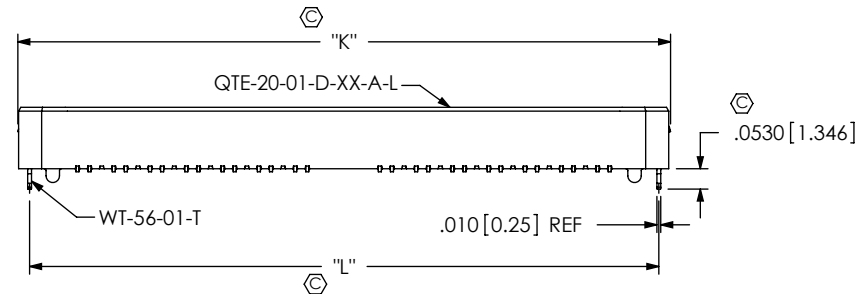


FIG 10
 -L: LATCHING OPTION
 (QTE-028-01-XXX-D-DP-A-L SHOWN)
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)
 (28 POS MAX) (MUST USE -A OPTION)
 (AVAILABLE ON -01 LEAD STYLE ONLY)
 (NOT AVAILABLE WITH -LC, -GP, OR -RT1)

| CRITICAL DIMENSION INSPECTION INSTRUCTION TABLE | |
|---|------------------------------|
| ASSEMBLY OPERATION | IN PROCESS INSPECTION |
| FILL T-1SXX | C1, C2, C3, C4, C5, C11, C12 |
| FILL GROUND PLANE T-1G1 | C4 |
| ADD -LC OPTION | C13 |
| ADD -RT1 OPTION | C6, C7 |
| ADD -L OPTION | C8, C9, C10 |
| ADD -K OPTION | C14, C15 |

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DESCRIPTION:
 .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY
 DWG. NO.
QTE-XXX-XX-XXX-D-DP-XXX
 BY: DEAN P 4/28/2000 SHEET 5 OF 5