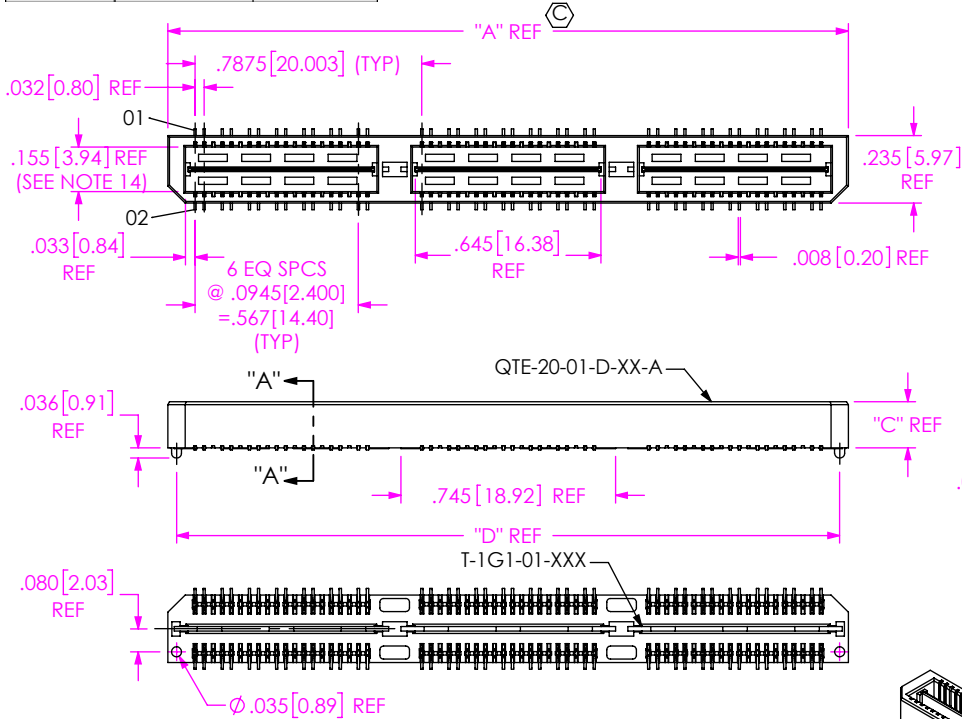


DO NOT SCALE FROM THIS PRINT

| TABLE 1 |                |                |                |              |               | MATED HEIGHT WITH QSE-DP-01 |
|---------|----------------|----------------|----------------|--------------|---------------|-----------------------------|
| STYLE   | "B"            | "C"            | BODY           | GROUND PLANE | TERMINAL      |                             |
| -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            |

| TABLE 3   |                |               |
|-----------|----------------|---------------|
| 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] |

| TABLE 2         |                                     |
|-----------------|-------------------------------------|
| No OF POSITIONS | COPLANARITY (INCLUDES GROUND PLANE) |
| -014 THRU -042  | .004 [0.10]                         |
| -056 THRU -070  | .006 [0.15]                         |



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

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 [10.233] (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]
- 08: 1.151 [29.24]
- 09: .522 [13.258]
- 10: .5606 [14.239]

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)

PACKAGING  
 BLANK: TRAY (SEE NOTES 16 & 17)  
 -TR: TAPE & REEL (SEE NOTES 17 & 18)  
 -FR: FULL REEL QTY TAPE & REEL (SEE NOTES 17 & 18)

PICK & PLACE OPTION

- K: POLYIMIDE FILM (USE K-DOT-.276-.375-.005) (SEE FIG 3, SHT 2) (N/A ON STYLES -07 & -08)

OPTION

- A: ALIGNMENT PINS
- LC: LOCKING CLIPS (SEE NOTE 13) (USE LC-08-TM-01) (SEE FIG 2, SHT 2)
- GP: GUIDE POSTS (AVAILABLE ON -01 ONLY) (USE QTE-20-01-D-XX-X-GP) (SEE FIG 4, SHT 3)
- RT1: RETENTION OPTION (SEE FIG 9, SHT 5) (ONLY AVAILABLE ON -01 LEAD STYLE) (MUST USE -A OPTION) (USE QTE-20-01-D-XX-A-RT1 & T-1R36-01-F) (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

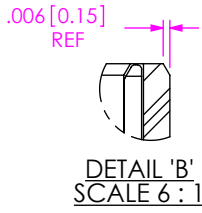
- DP: DIFFERENTIAL PAIRS

ROW SPECIFICATION

- D: DOUBLE (USE QTE-20-XX-D:XX & QTEH-20-XX-D-XX)

No OF BANKS

◇ = ASO ONLY (APPLICATION SPECIFIC ORDER)



T-1SXX-XX-XXX (SEE TABLE 1)

⊕ .155<sup>+0.03</sup><sub>-.005</sub> [3.94<sup>+0.08</sup><sub>-0.11</sub>] (SEE NOTE 14)

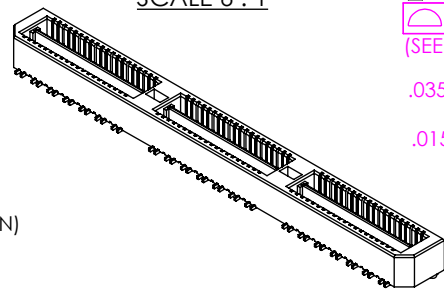
⊕ "B"<sup>+0.03</sup><sub>-.002</sub> [0.05] (SEE NOTE 5, 6 & 10)

⊕ SEE TABLE 2 (SEE NOTE 10)

.035 [0.90] REF  
.015 [0.38] REF

.280 [7.11]

SECTION "A"- "A"



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.
16. TRAYS ARE STANDARD PACKAGING.
17. ORDERS WILL BE PACKAGED ACCORDING TO THE SAMTEC PACKAGING EFFICIENCY STANDARDS (SPES) FOUND ON WWW.SAMTEC.COM.
18. ATTACH LABEL -4X2 TO EACH REEL.

FIG 1

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

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.  
 TOLERANCES ARE:  
 DECIMALS ANGLES  
 .XX: ±.01 [3]  
 .XXX: ±.005 [13]  
 .XXXX: ±.0020 [051]

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 e-Mail: info@SAMTEC.com code 55322

MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 1.5:1

INSULATOR: LCP, UL94V-0; COLOR: BLACK  
 TERMINAL: PHOS BRONZE  
 GROUND PLANE: PHOS BRONZE

DESCRIPTION: .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY

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

BY: DEAN P 4/28/2000 SHEET 1 OF 5

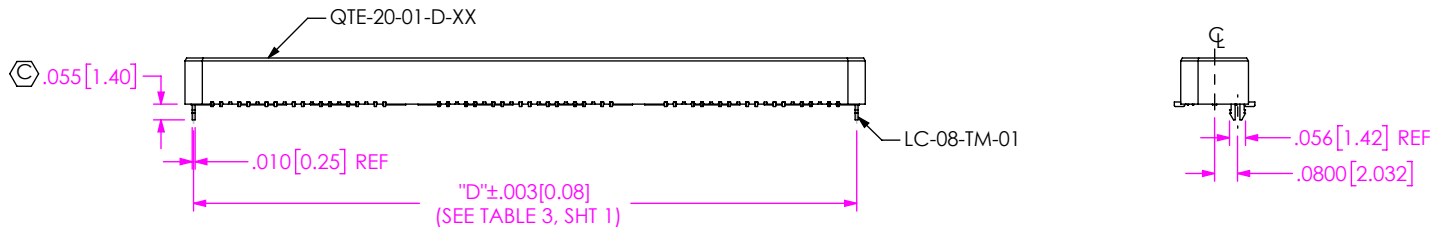


FIG 2  
 -LC: LOCKING CLIP OPTION  
 (QTS-042-01-XXX-D-DP-LC SHOWN)  
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

| 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          |

| 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] |

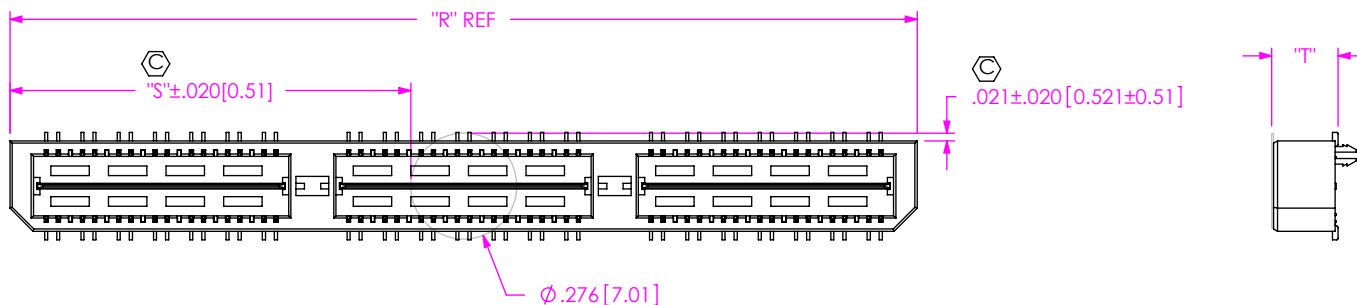



FIG 3  
 -K: POLYIMIDE FILM PAD  
 (USE K-DOT-.276-.375-.005)

|  |   |   |
|--|---|---|
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|  | <p>DESCRIPTION:<br/>                 .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY</p>   |   |
|  | <p>DO NOT SCALE DRAWING</p> <p>SHEET SCALE: 2:1</p>   | <p>DWG. NO.<br/>                 QTE-XXX-XX-XXX-D-DP-XXX-X-XX</p> |
| <p>BY: DEAN P 4/28/2000 SHEET 2 OF 5</p>   |   |   |

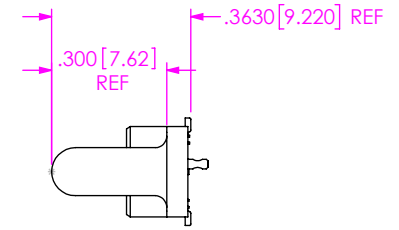
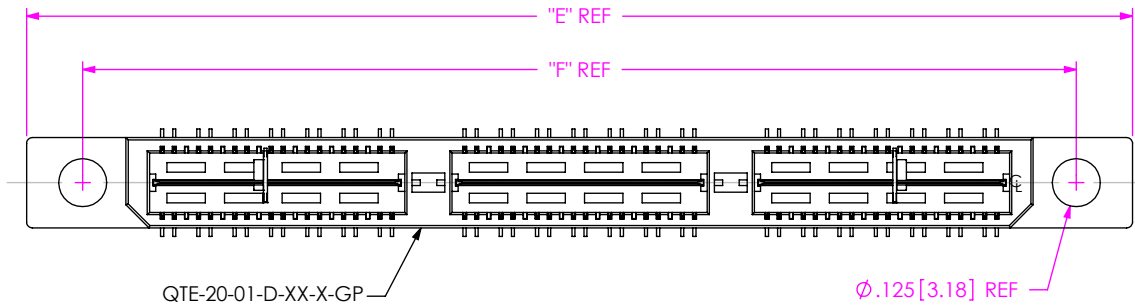


FIG 4  
 -GP: GUIDE POST OPTION  
 (QTE-042-01-XXX-D-DP-GP SHOWN)  
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
 (AVAILABLE ON STYLE -01 ONLY)

| 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]  |
| -56  | 3.668 [93.15]  | 3.375 [85.73]  |
| -070 | 4.455 [113.16] | 4.163 [105.73] |

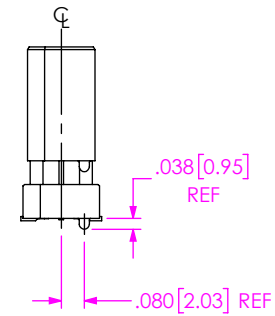
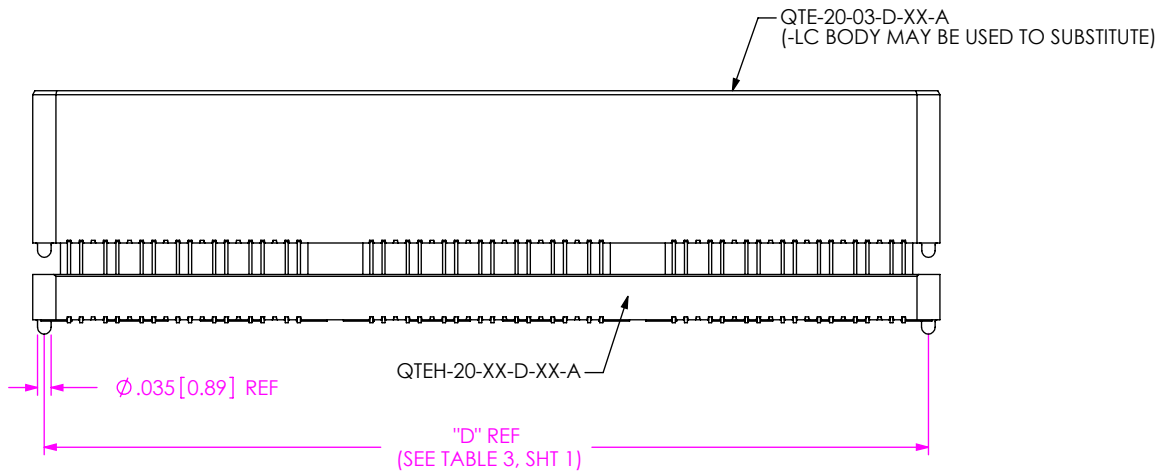


FIG 5  
 (QTE-020-04-XXX-D-A SHOWN)  
 (DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
 (STYLES -04, -05, -06, -07, -08, -09 & -10, SEE TABLE 7, SHT 4)

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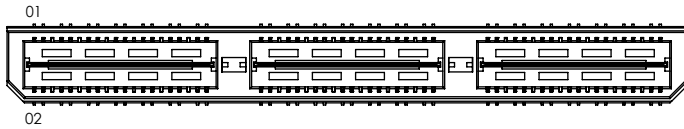
DO NOT SCALE DRAWING

SHEET SCALE: 2:1

DESCRIPTION:  
 .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY

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

BY: DEAN P 4/28/2000 SHEET 3 OF 5



| 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 | QTE-20-02-D-XX-X | QTEH-20-04-D-XX-X | .984 [25.00] REF            |
| -08     | 1.151[29.24]  | T-1G17-02-XXX | T-1S61-22-XXX | QTE-20-02-D-XX-X | QTEH-20-04-D-XX-X | 1.181 [30.00] REF           |
| -09     | .522[13.259]  | T-1G1-09-XXX  | T-1S60-09-XXX | QTE-20-02-D-XX-X | QTEH-20-01-D-XX-X | .551[14.00] REF             |
| -10     | .5606[14.239] | T-1G1-10-XXX  | T-1S60-10-XXX | QTE-20-02-D-XX-X | QTEH-20-01-D-XX-X | .591[15.00] REF             |

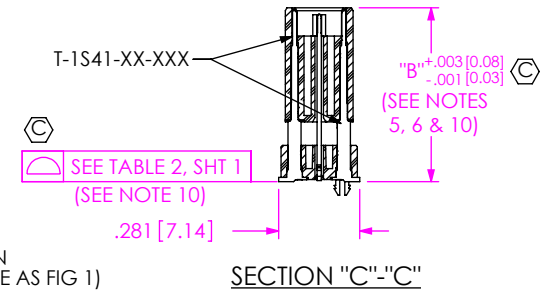
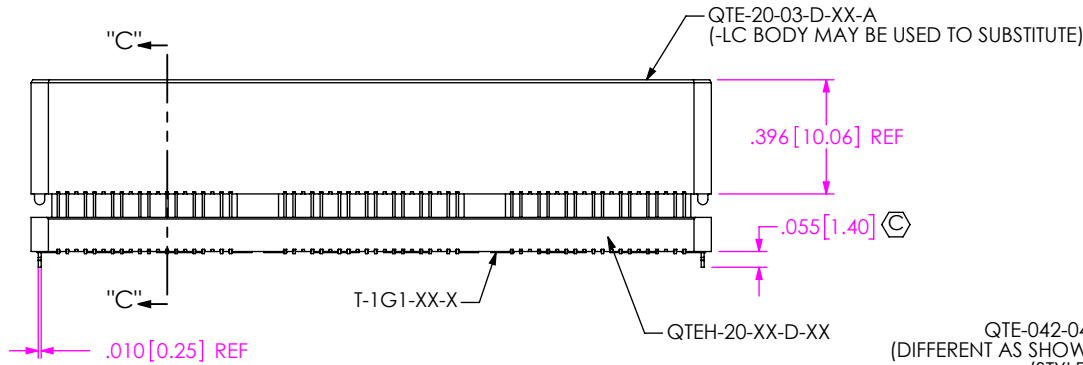


FIG 6  
QTE-042-04-X-D-DP-LC SHOWN  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
(STYLES -04, -05 & -06)

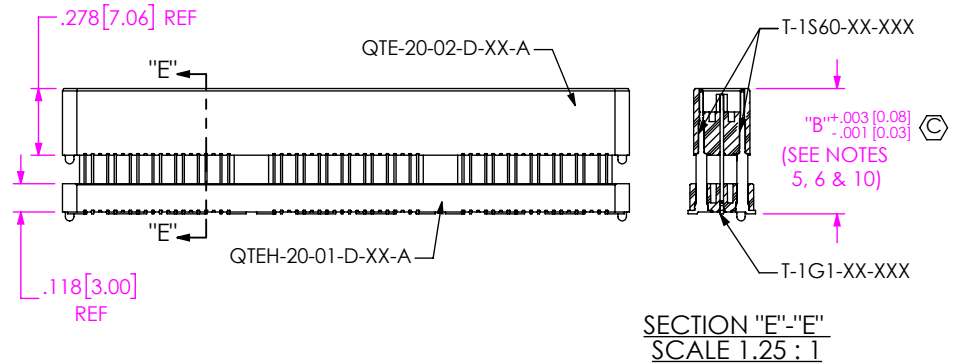
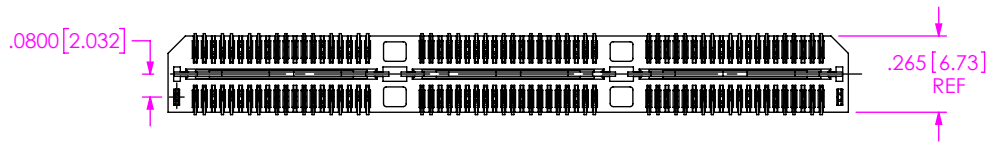


FIG 8  
QTE-042-09-X-D-DP-A SHOWN  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 6)  
(STYLES -09 & -10)

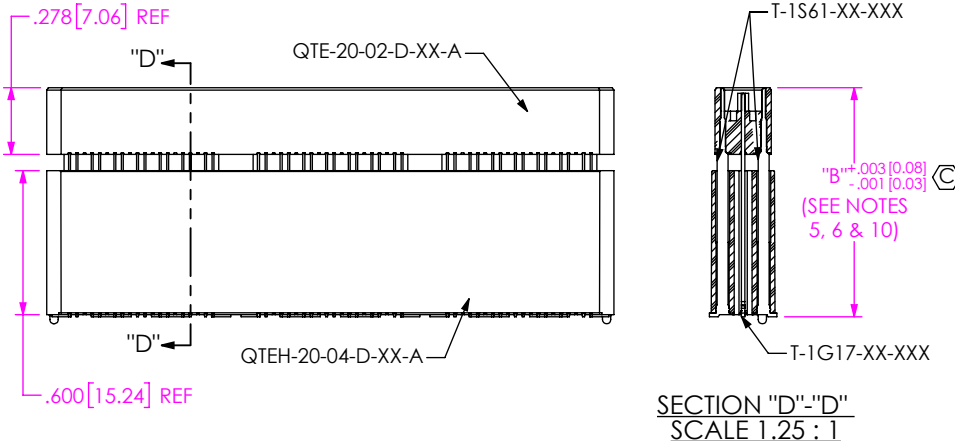
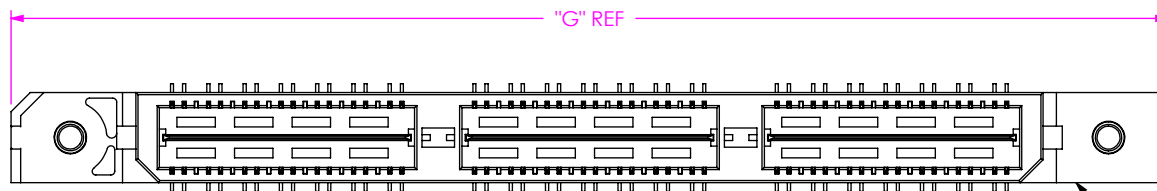


FIG 7  
QTE-042-07-X-D-DP-A SHOWN  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 6)  
(STYLES -07 & -08)

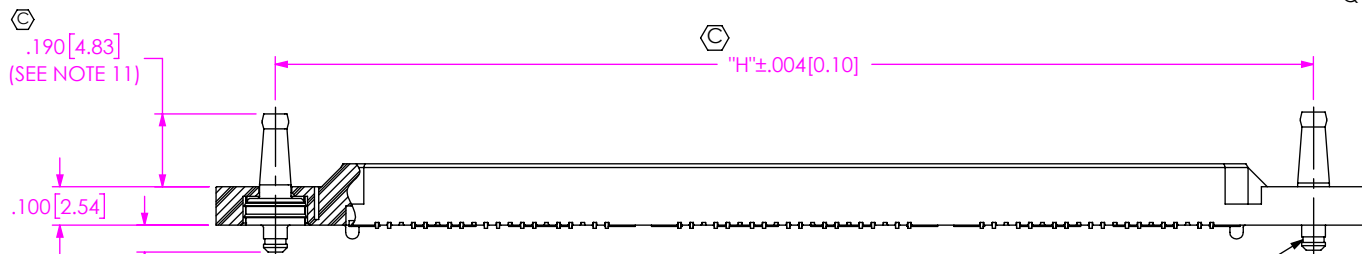
c:\enterprisevault\DWG\MISC\MKTG\QTE-XXX-XX-XXX-D-DP-XXX-X-XX-MKT.SLDDRW

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

| 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           |

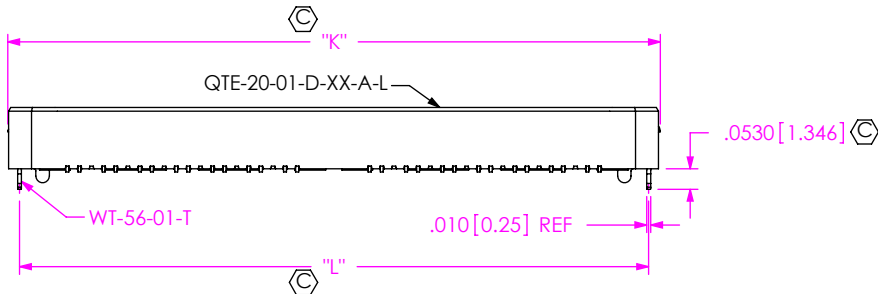
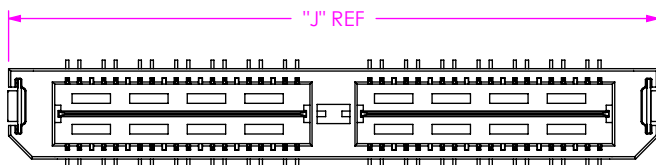


QTE-20-01-D-XX-A-RT1



**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)

T-1R36-01-F (2 PLCS)



**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)

| 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           |

| 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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DO NOT SCALE DRAWING

SHEET SCALE: 2:1

DESCRIPTION:  
 .8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY

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

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