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◇ = ASO ONLY (APPLICATION SPECIFIC ORDER)

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]

\* = SEE NOTE 15

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

\* = SEE NOTE 15

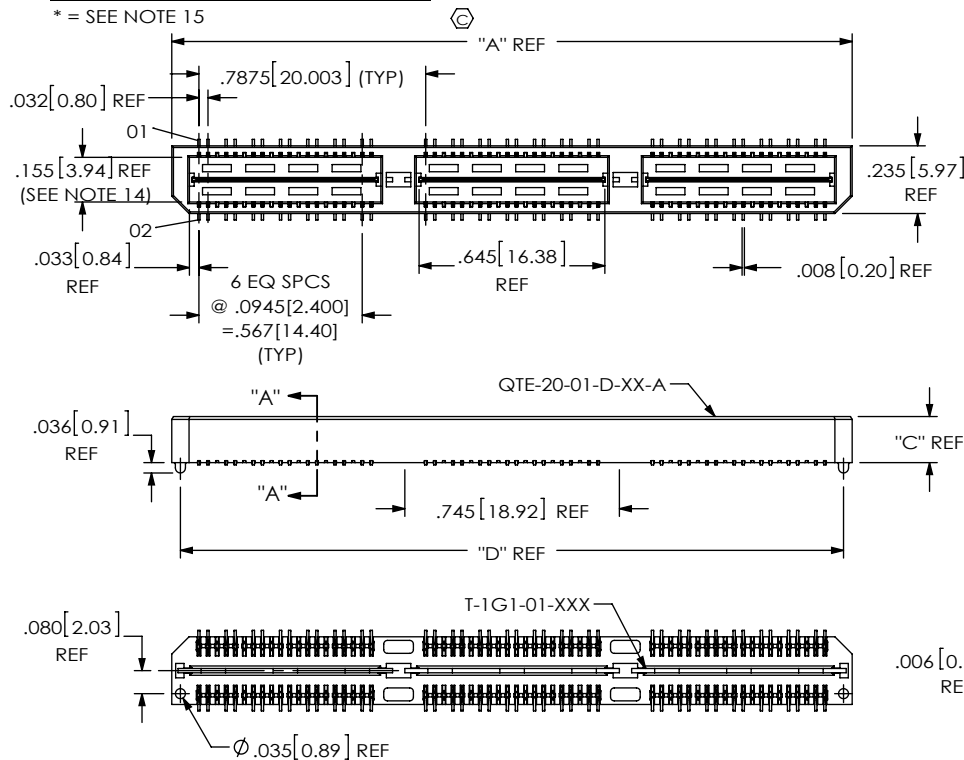


FIG 1

-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 [1.524] (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)  
(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)

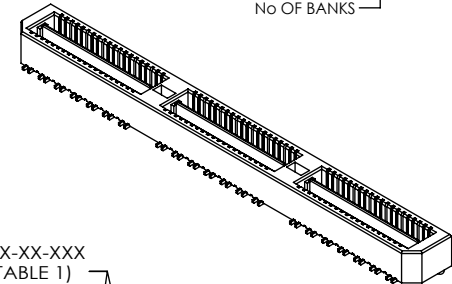
## BODY STYLE

-DP: DIFFERENTIAL PAIRS

## ROW SPECIFICATION

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

No OF BANKS

T-1SXX-XX-XXX  
(SEE TABLE 1).155±.005 [3.94±0.13]  
(SEE NOTE 14)SEE TABLE 2  
(SEE NOTE 10).035 [0.90] REF  
.015 [0.38] REF"B"±.003 [0.08]  
-.002 [0.05]  
(SEE NOTE 5, 6 & 10)

"B"

.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.

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.

TOLERANCES ARE:

DECIMALS ANGLES  
.XX: ±.01 [3]  
.XXX: ±.005 [13]  
.XXXX: ±.0020 [0.51]

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## MATERIAL:

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INSULATOR: LCP, UL94V-0; COLOR: BLACK

TERMINAL: PHOS BRONZE

GROUND PLANE: PHOS BRONZE

F:\DWG\MISC\Wkg\QTE-XXX-XX-XXX-D-DP-XXX-MKT.SLDRW

# 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:

.8mm DIFFERENTIAL PAIRS HS TERMINAL ASSEMBLY

## DWG. NO.

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

BY: DEAN P

4/28/2000

SHEET 1 OF 5

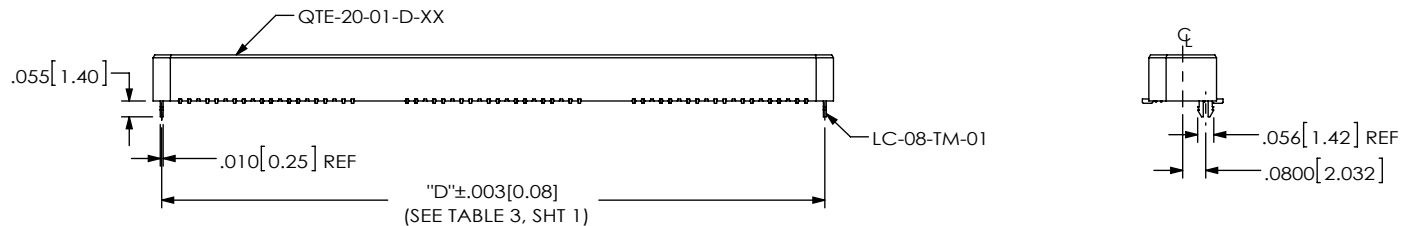


FIG 2  
-LC: LOCKING CLIP OPTION  
(QTS-042-01-XXX-D-DP-LC SHOWN)  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)

TABLE 4								
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

TABLE 5	
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]

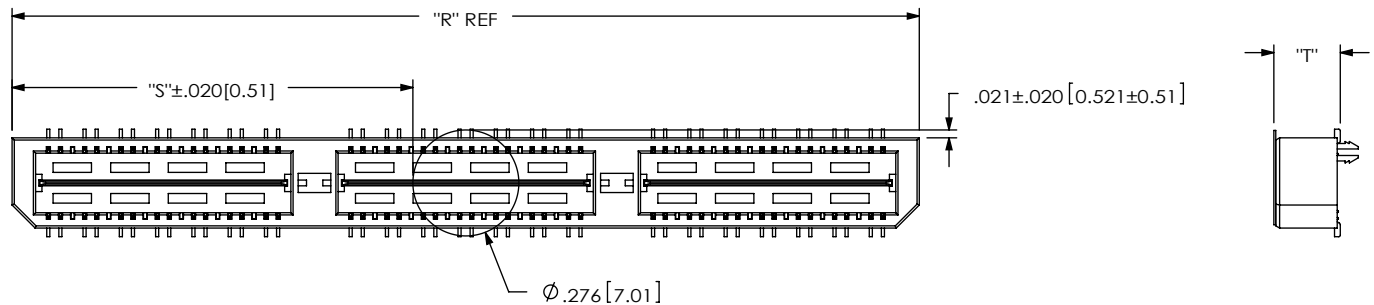



FIG 3  
-K: POLYIMIDE FILM PAD  
(USE K-DOT-.276-.375-.005)

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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

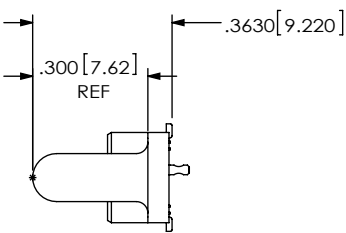
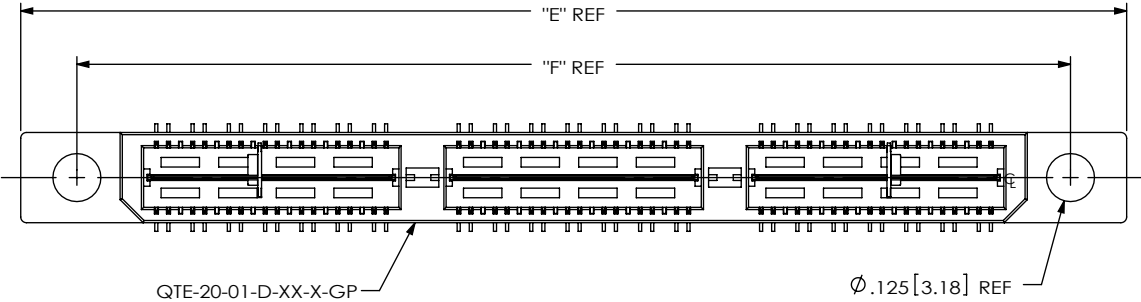


FIG 4  
-GP: GUIDE POST OPTION  
(QTE-042-01-XXX-D-DP-GP SHOWN)  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
(AVAILABLE ON STYLE -01 ONLY)

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

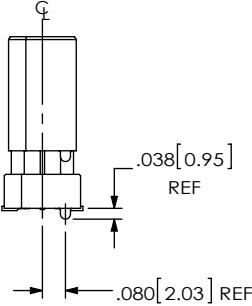
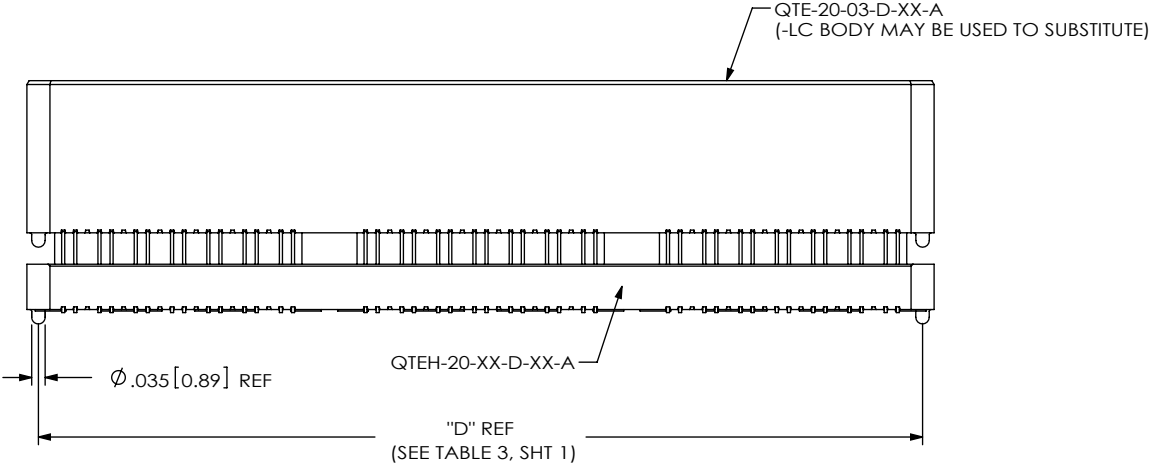


FIG 5  
(QTE-020-04-XXX-D-A SHOWN)  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
(STYLES -04, -05, -06, -07, -08, -09 & -10, SEE TABLE 7, SHT 4)

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

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

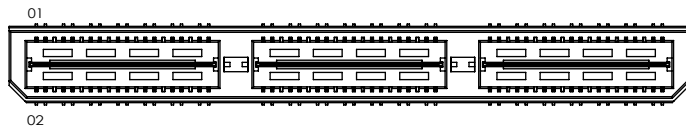


TABLE 7						MATED HEIGHT WITH QSE-DP-01
STYLE	"B"	GROUND PLANE	TERMINAL	FILLER BODY	SPACER BODY	
-04	.600[15.24]	T-1G1-04-XXX	T-1S41-04-XXX	QTE-20-03-D-XX	QTEH-20-01-D-XX-X	.630 [16.00] REF
-05	.718[18.237]	T-1G1-05-XXX	T-1S41-05-XXX	QTE-20-03-D-XX	QTEH-20-01-D-XX-X	.748 [19.00] REF
-06	.835[21.209]	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	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

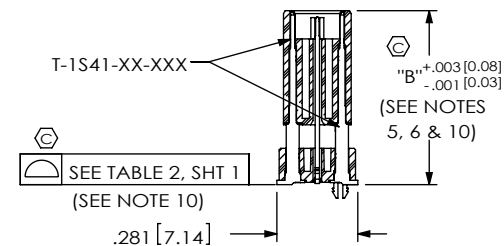
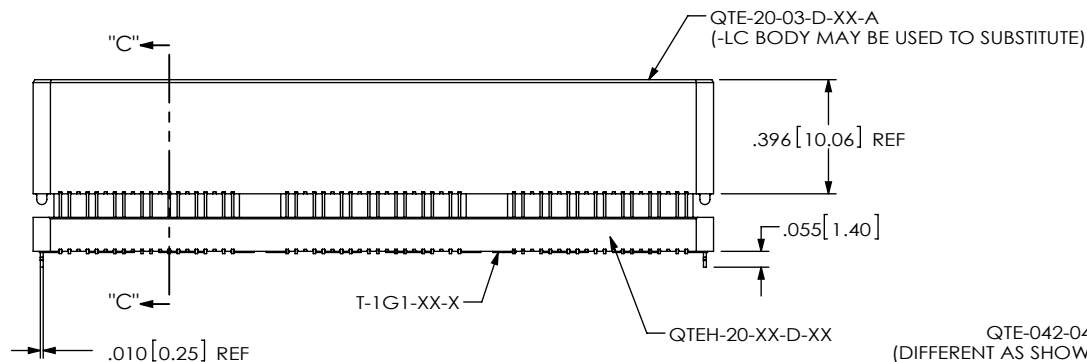
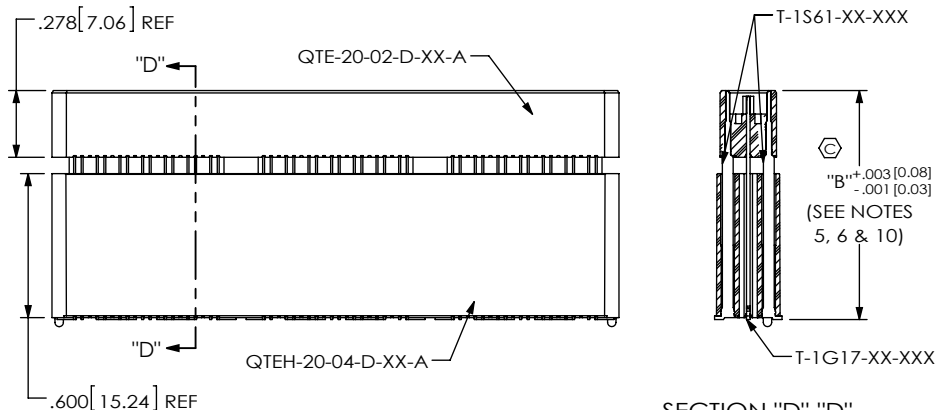
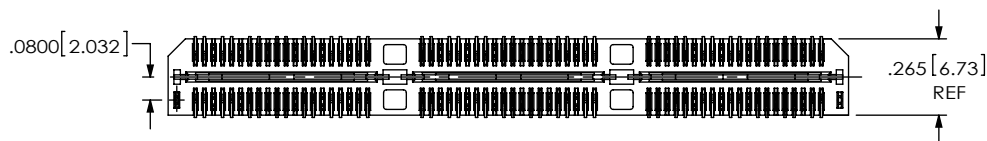


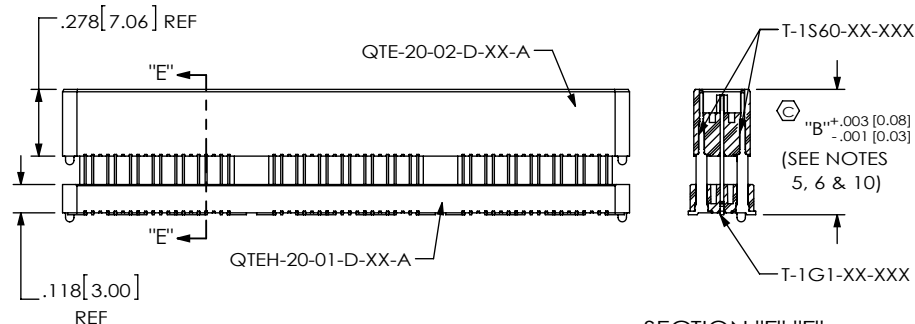
FIG 6  
QTE-042-04-X-D-DP-LC SHOWN  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
(STYLES -04, -05 & -06)

SECTION "C"-"C"



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)



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

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

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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

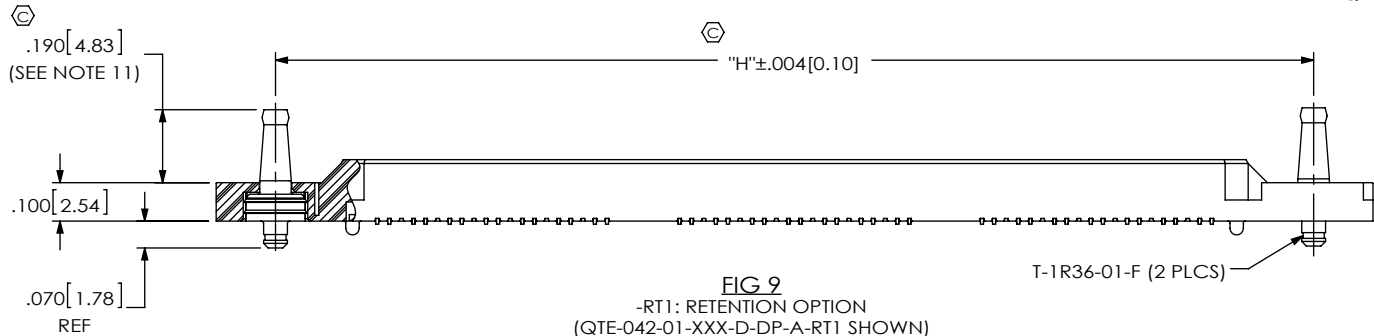
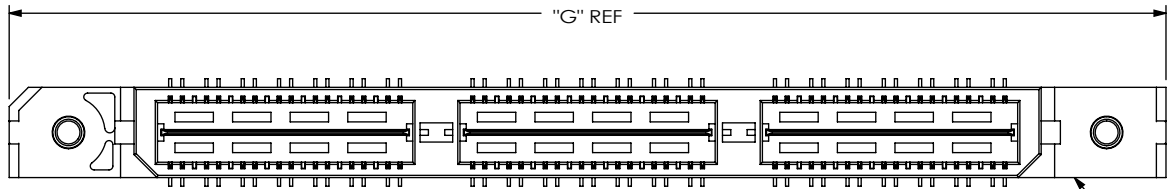


FIG 9  
-RT1: RETENTION OPTION  
(QTE-042-01-XXX-D-DP-A-RT1 SHOWN)  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
(ONLY AVAILABLE ON -01 LEAD STYLE) (MUST USE -A OPTION)  
(NOT AVAILABLE WITH -LC, -GP, OR -L OPTIONS)  
(NOT AVAILABLE ON \*-056 & \*-070 POSITIONS)  
\* = SEE NOTES 12 & 15

TABLE 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

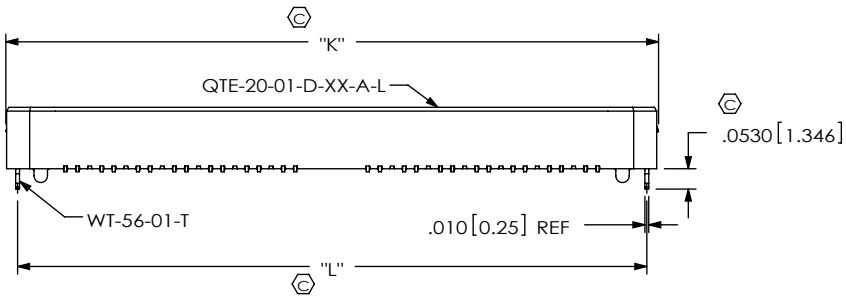
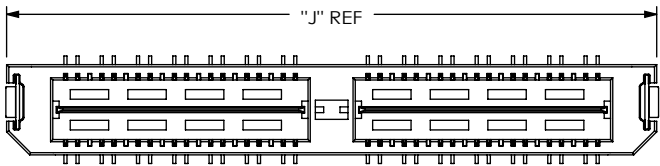
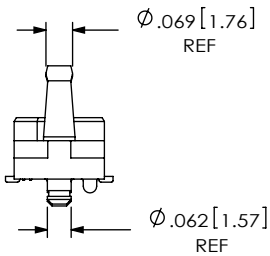
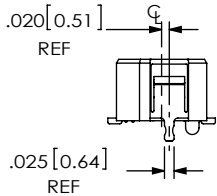


FIG 10  
-L: LATCHING OPTION  
(QTE-028-01-XXX-D-DP-A-L SHOWN)  
(DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1)  
(28 POS MAX) (MUST USE -A OPTION)  
(AVAILABLE ON -01 LEAD STYLE ONLY)  
(NOT AVAILABLE WITH -LC, -GP, OR -RT1)

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

\* = SEE NOTE 15



CRITICAL DIMENSION INSPECTION INSTRUCTION TABLE	
ASSEMBLY OPERATION	IN PROCESS INSPECTION
FILL T-1SXX	C1, C2, C3, C4, C5, C11, C12
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