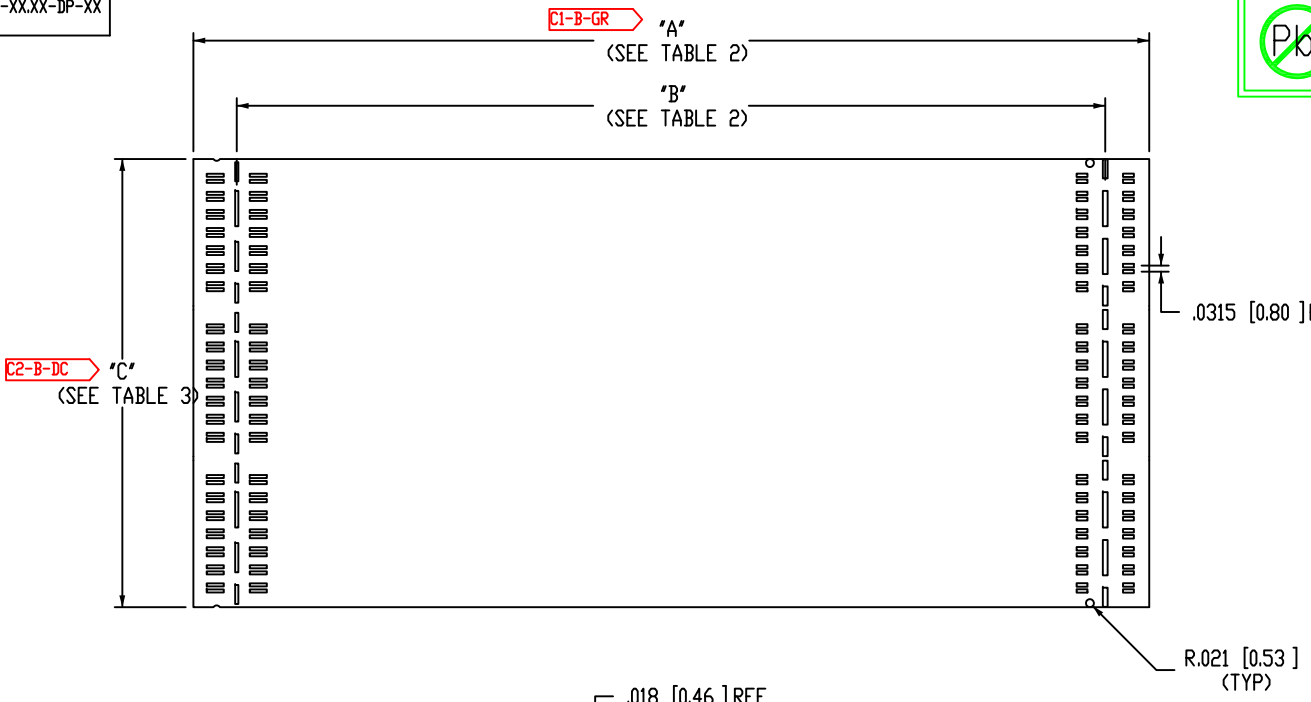


**PK** THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING



PFC-HFEM-XXX-T-XX.XX-DP-XX

No OF POSITIONS  
-014, -028, -042 (PER ROW)

LENGTH  
-03.00: 3.00[76.2] INCHES  
-05.00: 5.00[127.0] INCHES  
-10.00: 10.00[254.0] INCHES

SIGNAL  
-DP: DIFFERENTIAL PAIR

OPTION  
-MH: MOUNTING HOLES  
(SEE FIG.2, SHEET 2)

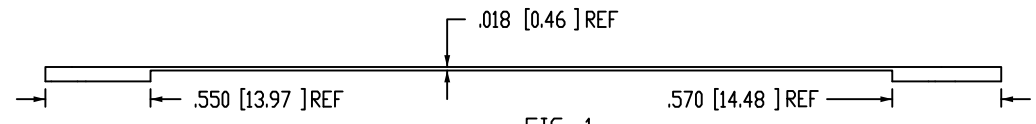
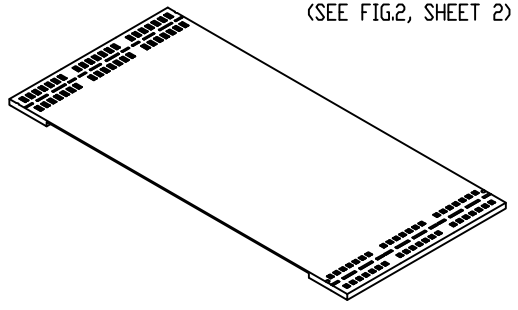


FIG. 1  
PFC-HFEM-042-T-05.00-DP SHOWN

TABLE 2		
LENGTH	"A"	"B"
-03.00	3.00[76.2]	2.54[64.5]
-05.00	5.00[127.0]	4.54[115.3]
-10.00	10.00[254.0]	9.54[242.3]

TABLE 1 ASSEMBLY PART #
PFC-HFEM-014-T-03.00-DP
PFC-HFEM-028-T-03.00-DP
PFC-HFEM-042-T-03.00-DP
PFC-HFEM-014-T-03.00-DP-MH
PFC-HFEM-028-T-03.00-DP-MH
PFC-HFEM-042-T-03.00-DP-MH
PFC-HFEM-014-T-05.00-DP
PFC-HFEM-028-T-05.00-DP
PFC-HFEM-042-T-05.00-DP
PFC-HFEM-014-T-05.00-DP-MH
PFC-HFEM-028-T-05.00-DP-MH
PFC-HFEM-042-T-05.00-DP-MH
PFC-HFEM-014-T-10.00-DP
PFC-HFEM-028-T-10.00-DP
PFC-HFEM-042-T-10.00-DP
PFC-HFEM-014-T-10.00-DP-MH
PFC-HFEM-028-T-10.00-DP-MH
PFC-HFEM-042-T-10.00-DP-MH

- NOTES:
- C1-B-GR** REPRESENTS A CRITICAL DIMENSION.
  - FABRICATION OF THIS FLEX SHALL BE IN CONFORMANCE WITH IPC-6013 CLASS 2.
  - DIMENSIONS ARE IN INCHES.
  - FLAME CLASS TO BE UL 94V-0 AND MUST MEET REQUIREMENTS OF UL796.
  - SEE GERBER PACKAGE FOR HOLE CHART AND PLATING SPECS.
  - SEE GERBER PACKAGE FOR CONDUCTOR GEOMETRY.
  - SEE GERBER PACKAGE FOR STIFFENER TOOL-CHART GEOMETRY.
  - COVERFILM/SOLDERMASK: MUST BE IN ACCORDANCE WITH IPC-6013 CLASS 2.
  - FINISH: IMMERSION GOLD (ENIG) PER IPC-4552
  - FR4 T<sub>g</sub>: MINIMUM GLASS TRANSITION TEMPERATURE (T<sub>g</sub>) OF 170 C.
  - BOW AND TWIST: MAXIMUM ALLOWABLE BOW AND TWIST TO BE IN ACCORDANCE WITH IPC 6013 CLASS 2.
  - ROHS: ALL MATERIALS MUST BE COMPLIANT WITH THE EUROPEAN UNION ROHS DIRECTIVE, 2002/95/EC.
  - LAYER STACK-UP FOR IMPEDANCE:  
LAYER 1-GROUND PLANE  
LAYER 2-100 OHMS SIGNAL (DP) TRACE WIDTH= 0.0056" SPACE= 0.0067"  
LAYER 3 GROUND PLANE  
CONTROLLED IMPEDANCE REQUIREMENT OF ±10%
  - MIN TRACE= 0.0040"; MIN SPACE .0045"

TOLERANCES DO NOT APPLY TO REFERENCE DIMENSIONS, UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	<b>PROPRIETARY NOTE</b> THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO PFC FLEXIBLE CIRCUITS AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF PFC FLEXIBLE CIRCUITS	<b>PFC FLEXIBLE CIRCUITS</b> 11 CANADIAN ROAD UNIT 7 SCARBOROUGH, ONTARIO PHONE: 416-750-8433 FAX: 416-750-0016 e-Mail sales@pfcflex.com	
		DESCRIPTION: PFC-HFEM FLEX CIRCUIT	
		DWG. NO. PFC-HFEM-XXX-T-XX.XX-DP-XX	
DO NOT SCALE DRAWING SHEET SCALE: 1:1		BY: PFC 07/11/12	SHEET 1 OF 4

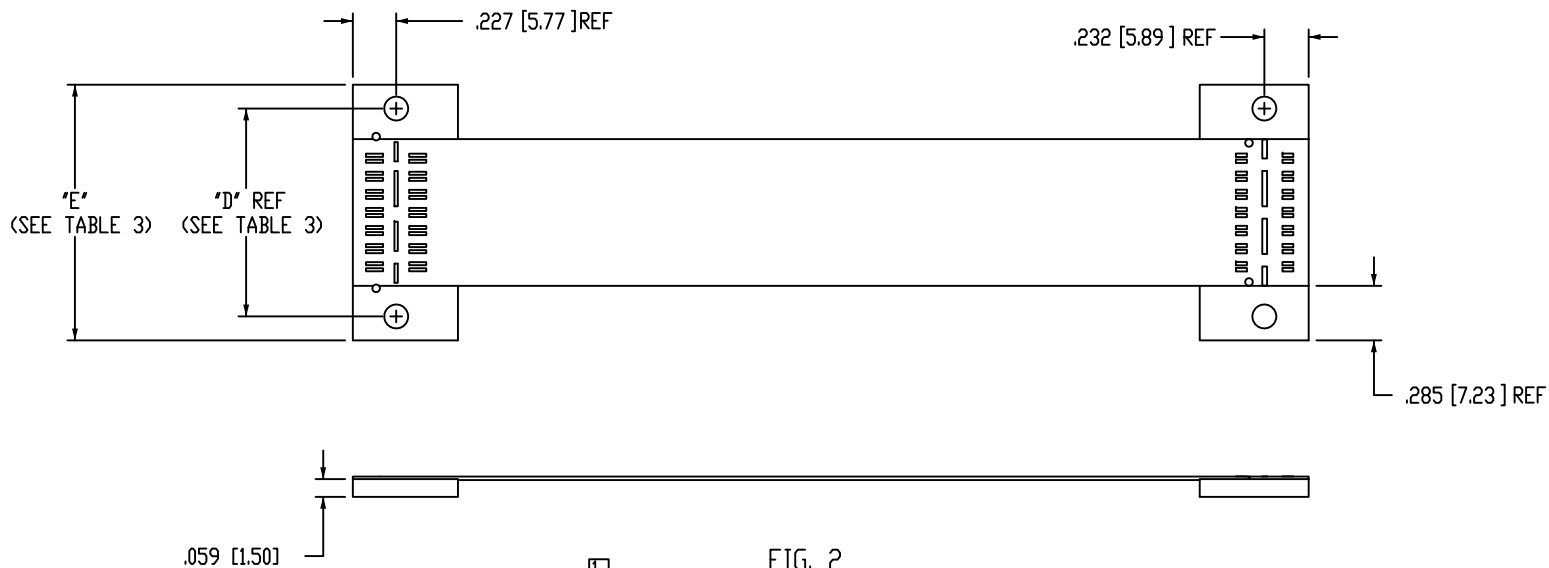


FIG. 2  
-MH OPTION  
(SAME AS FIG. 1, UNLESS OTHERWISE STATED)  
PFC-HFEM-014-T-05.00-DP-MH SHOWN

LAYER STACKUP

FR0110	TOP COVERFILM: 1 MIL KAPTON
	1 MIL ADHESIVE
AC352500	SIGNAL LAYER 1: 1 OZ COPPER
	1 MIL KAPTON
FR0120	3 MIL COVERFILM
FR0200	2 MIL ADHESIVE
	SIGNAL LAYER 2: 1 OZ COPPER
	1 MIL ADHESIVE
FR9131	3 MIL KAPTON
	1 MIL ADHESIVE
	SIGNAL LAYER 3: 1 OZ COPPER
	1 MIL ADHESIVE
FR0110	BOTTOM COVERFILM: 1 MIL KAPTON
LF0200	2 MIL ADHESIVE
FR4	STIFFENERS: 59 MIL
	(93 MIL FOR -MH OPTION)

No. OF POS	"C"	"D"	"E"
-014	.768 +/- .010 [19.50 +/- 0.25]	1.088[27.62]	1.338[33.97]
-028	1.556 +/- .010 [39.52 +/- 0.25]	1.876[47.64]	2.126[53.99]
-042	2.344 +/- .010 [59.54 +/- 0.25]	2.664[67.65]	2.914[74.00]

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	<p>DO NOT SCALE DRAWING</p>	<p>DESCRIPTION: PFC-HFEM FLEX CIRCUIT</p>
<p>SHEET SCALE: 1:1</p>	<p>DWG. NO. PFC-HFEM-XXX-T-XX.XX-DP-XX</p>	
	<p>BY: PFC 07/11/12</p>	<p>SHEET 2 OF 4</p>

TABLE 2						
No. OF POS	"C"	"D"	"E"	QSE-XXX-01-H-D-DP-A	QTE-XXX-01-H-D-DP-A	FLEX
-014	.768 +/- .010 [19.50 +/- 0.25]	1.0875[27.623]	1.3375[33.973]	QSE-014-01-H-D-DP-A	QTE-014-01-H-D-DP-A	3", FE-10100 (QTY:1) 5", FE-10047 (QTY:1) 10", FE-10091 (QTY:1)
-028	1.556 +/- .010 [39.52 +/- 0.25]	1.8755[47.638]	2.1255[53.988]	QSE-028-01-H-D-DP-A	QTE-028-01-H-D-DP-A	3", FE-10100 (QTY:2) 5", FE-10047 (QTY:2) 10", FE-10091 (QTY:2)
-042	2.344 +/- .010 [59.54 +/- 0.25]	2.6635[67.653]	2.9135[74.003]	QSE-042-01-H-D-DP-A	QTE-042-01-H-D-DP-A	3", FE-10100 (QTY:3) 5", FE-10047 (QTY:3) 10", FE-10091 (QTY:3)

PFC-HFEM-XXX-T-XX.XX-DP-XX

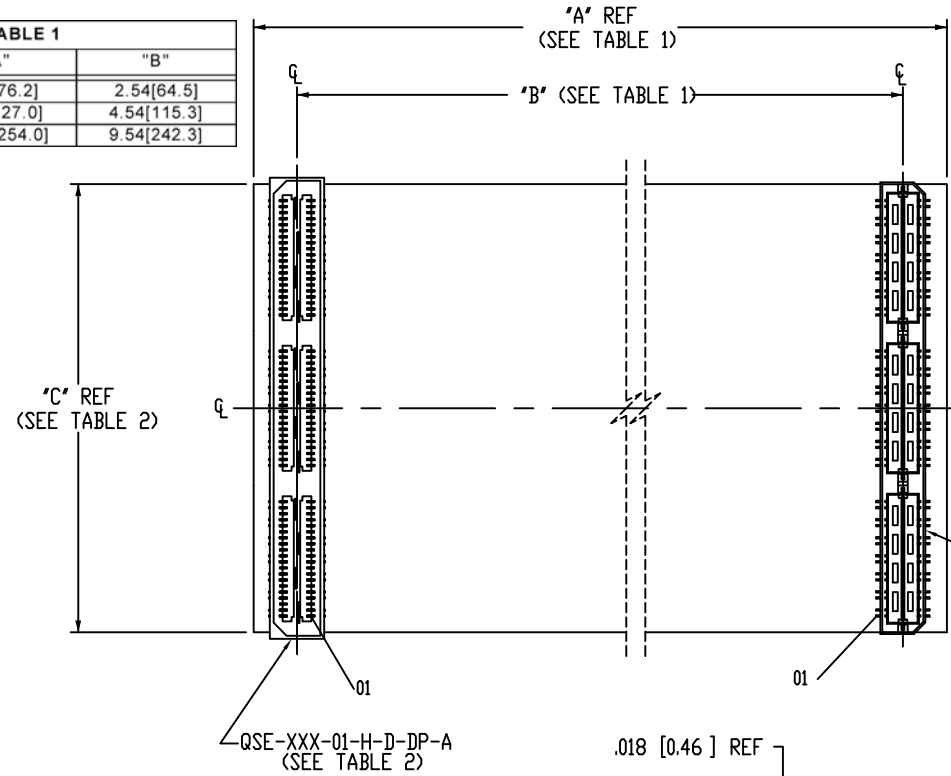
No OF POSITIONS  
-014, -028, -042 (PER ROW)

TRANSFER END  
(MALE-FEMALE)

OPTION  
-MH: MOUNTING HOLES  
(SEE FIG. 2, SHEET 2  
AND  
FIG. 3, SHEET 3)  
(LEAVE BLANK FOR  
STANDARD)

LENGTH  
-03.00: 3.00[76.2] INCHES  
-05.00: 5.00[127.0] INCHES  
-10.00: 10.00[254.0] INCHES

TABLE 1		
LENGTH	"A"	"B"
-3.00	3.00[76.2]	2.54[64.5]
-5.00	5.00[127.0]	4.54[115.3]
-10.00	10.00[254.0]	9.54[242.3]

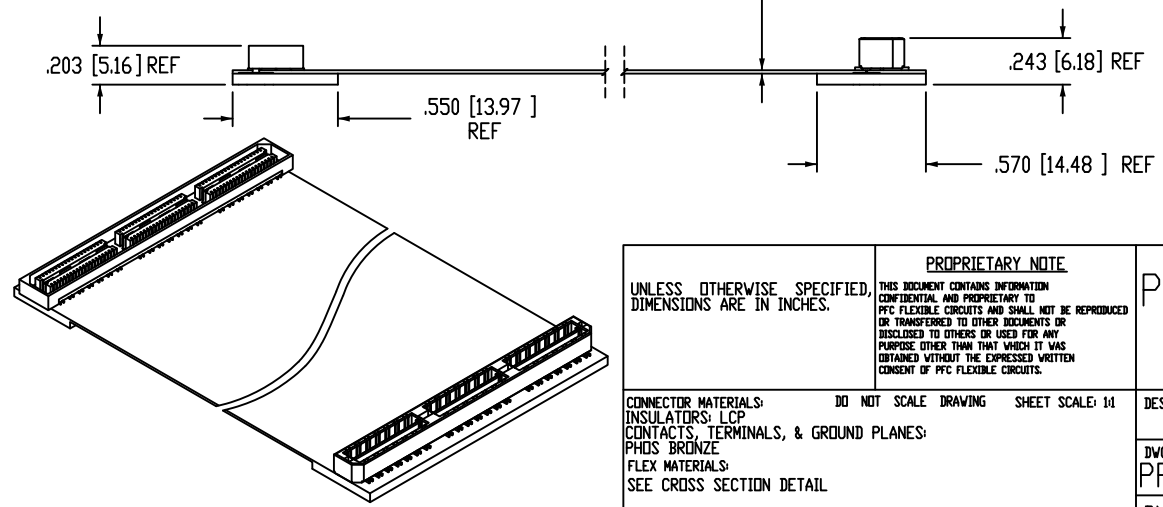


- NOTE:
- Ⓢ REPRESENTS A CRITICAL DIMENSION.
  - ALL DIMENSIONS TO BE SYMMETRICAL ABOUT CENTERLINE WITHIN ±0.02[0.5] UNLESS OTHERWISE STATED.
  - SE OPTION DELETED. ORDER HFEM-060-T-10.00-SE UNDER NEW PART NUMBER: SCF-109260-01-DL.
  - PARTS TO BE IN LATER FOAM PACKAGE
  - ALL SIGNALS ROUTED PIN TO PIN, (E.G. 1 TO 1, 2 TO 2, ETC.)
  - PARTS TO BE ROHS COMPLIANT
  - SOLDER TYPE: NO CLEAN LEAD-FREE

**PK** THIS PRODUCT MANUFACTURED WITH LEAD-FREE PROCESSING

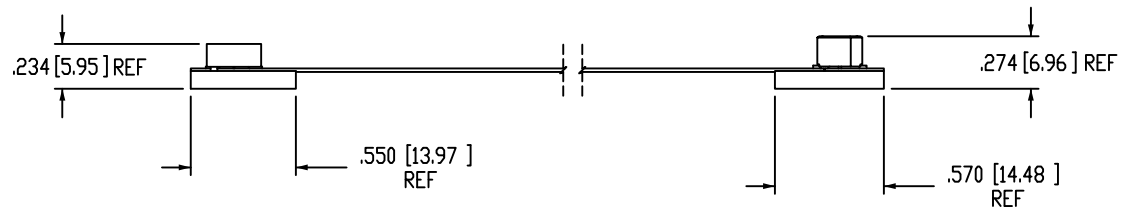
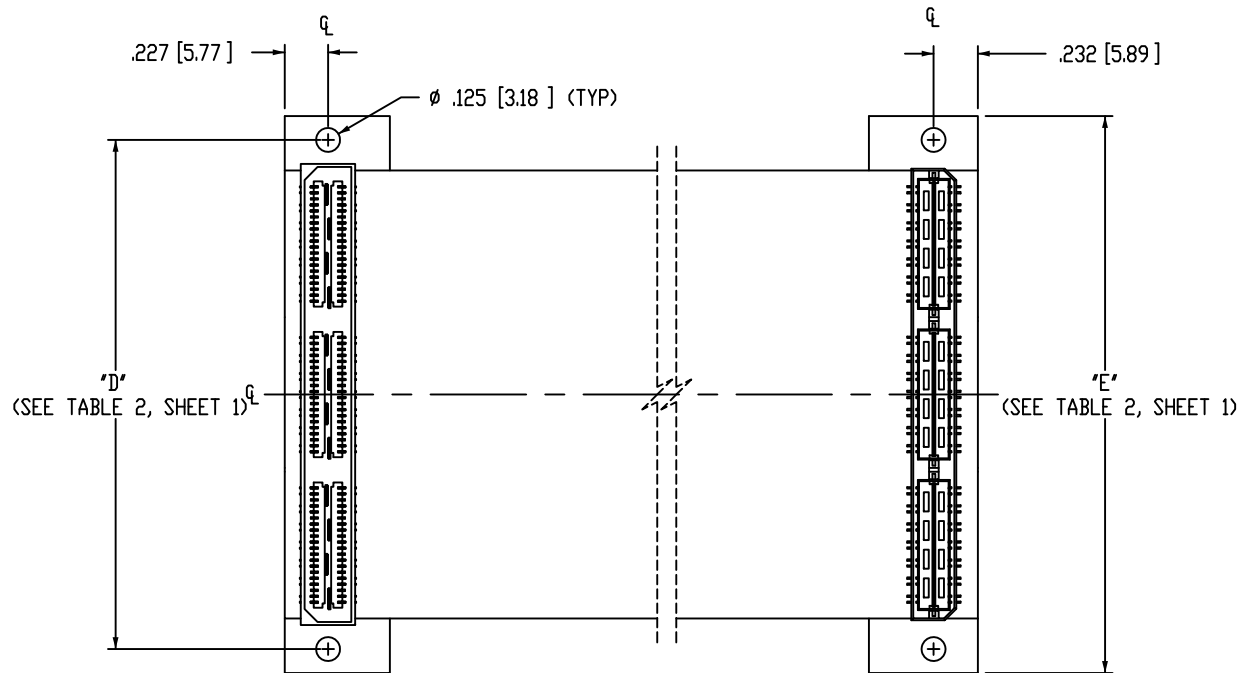
FIG. 1  
PFC-HFEM-042-T-10.00-DP SHOWN

TABLE 3 (FOR FLEX MANUFACTURING REFERENCE)	
PART NUMBER	
PFC-HFEM-014-T-03.00-DP	
PFC-HFEM-014-T-03.00-DP-MH	
PFC-HFEM-028-T-03.00-DP	
PFC-HFEM-028-T-03.00-DP-MH	
PFC-HFEM-042-T-03.00-DP	
PFC-HFEM-042-T-03.00-DP-MH	
PFC-HFEM-014-T-05.00-DP	
PFC-HFEM-014-T-05.00-DP-MH	
PFC-HFEM-028-T-05.00-DP	
PFC-HFEM-028-T-05.00-DP-MH	
PFC-HFEM-042-T-05.00-DP	
PFC-HFEM-042-T-05.00-DP-MH	
PFC-HFEM-014-T-10.00-DP	
PFC-HFEM-014-T-10.00-DP-MH	
PFC-HFEM-028-T-10.00-DP	
PFC-HFEM-028-T-10.00-DP-MH	
PFC-HFEM-042-T-10.00-DP	
PFC-HFEM-042-T-10.00-DP-MH	



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	PROPRIETARY NOTE THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO PFC FLEXIBLE CIRCUITS AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF PFC FLEXIBLE CIRCUITS.	PFC FLEXIBLE CIRCUITS 11 CANADIAN ROAD UNIT 7 SCARBOROUGH, ONTARIO PHONE: 416-750-8433 FAX: 416-750-0016 e-Mail sales@pfcflex.com
	DO NOT SCALE DRAWING SHEET SCALE: 1:1	
CONNECTOR MATERIALS: INSULATORS: LCP CONTACTS, TERMINALS, & GROUND PLANES: PHOS BRONZE FLEX MATERIALS: SEE CROSS SECTION DETAIL		JWG, ND PFC-HFEM-XXX-T-XX.XX-DP-XXX
		BY: PFC 07/11/2012 SHEET 3 OF 4

FIG. 2  
 -MH OPTION  
 (SAME AS FIG. 1, UNLESS OTHERWISE STATED)  
 PFC-HFEM-042-T-10.00-DP-MH SHOWN



COVERFILM	[REPRESENTATION]	.001[0.03] POLYIMIDE .001[0.03] ADHESIVE
COPPER CLAD	[REPRESENTATION]	1 oz COPPER .001[0.03] POLYIMIDE
COVERFILM	[REPRESENTATION]	.001[0.03] ADHESIVE .002[0.05] POLYIMIDE
ADHESIVE	[REPRESENTATION]	.002[0.05] ADHESIVE
COPPER CLAD	[REPRESENTATION]	1 oz COPPER .001[0.03] ADHESIVE .003[0.08] POLYIMIDE .001[0.03] ADHESIVE 1 oz COPPER
COVERFILM	[REPRESENTATION]	.001[0.03] POLYIMIDE .001[0.03] ADHESIVE
ADHESIVE	[REPRESENTATION]	.002[0.05] ADHESIVE
STIFFENER	[REPRESENTATION]	STANDARD: .059[1.50] FR4 -MH OPTION: .093[2.36] FR4

CROSS SECTION OF FLEX & STIFFENER  
NOT TO SCALE

<p><b>PROPRIETARY NOTE</b>                  THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO PFC FLEXIBLE CIRCUITS AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF PFC FLEXIBLE CIRCUITS</p> <p>DO NOT SCALE DRAWING</p> <p>SHEET SCALE: 1:1</p>	<p><b>PFC FLEXIBLE CIRCUITS</b></p> <p>11 CANADIAN ROAD UNIT 7 SCARBOROUGH, ONTARIO                  PHONE: 416-750-8433 FAX: 416-750-0016                  e-Mail sales@pfcflex.com</p>	
	<p>DESCRIPTION: HIGH SPEED FLEX 0.8mm ASSEMBLY</p>	
	<p>DWG. NO. PFC-HFEM-XXX-T-XX.XX-DP-XXX</p>	
	<p>BY: PFC</p>	<p>07/11/2012</p>