

NOTES:

- 1) MATERIALS:
HOUSING - LIQUID CRYSTAL POLYMER, UL94 V-0
WAFER DIELECTRIC - LIQUID CRYSTAL POLYMER, UL94 V-0
CONTACT - COPPER ALLOY
CLIPS - STAINLESS STEEL
- 2) FINISHES: SEE SHEET 2
- 3) PRODUCT SPECIFICATION: THIS PART CONFORMS TO MOLEX SPECIFICATION PS-74148-0000.
- 4) PACKAGING SPECIFICATION: THIS PART TO BE PACKAGED PER SPECIFICATION PK-75020-030.
- 5) APPLICATION SPECIFICATION: THIS PART TO BE APPLIED PER SPECIFICATION AS-74148-0000. APPLICATION TOOL AND INSTRUCTIONS PER AS-74148-0000.
- 6) MATING INFORMATION
THIS PART MATES WITH 74149-XXXX.
WILL MATE WITH MAXIMUM 1.27mm MIS-ALIGNMENT.
WILL MATE WITH MAXIMUM 0.75° MIS-ALIGNMENT.
- 7) FOR CIRCUIT DESIGNATION SEE SHEET 3
- 8) FOR PCB INFORMATION SEE SHEET 3
- 9) APPLICATION TOOLING KEEP OUT AREA. NO COMPONENTS ALLOWED IN THIS AREA.
- 10) CONFORMS TO MOLEX COSMETIC SPECIFICATION PS-45499-002 AND PS-45499-003.
- 11) MARKING: PART NUMBER, MX, DDDY
- 12) RECOMMENDED DRILL SIZE 0.48±0.03 TO YIELD FINISHED PLATED THROUGH HOLE OF 0.39±0.05
- 13) HOLD DOWN SCREWS ARE RECOMMENDED FOR THIS CONNECTOR. REFERENCE MOLEX DOCUMENT AS-74148-0000 SECTION 4.5.
- 14) GENERAL TOLERANCES DO NOT APPLY TO REFERENCE DIMENSIONS.

SEE NOTE 14 REGARDING REFERENCE DIMENSIONS

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES ±	---	---
3 PLACES ±	---	±.005
2 PLACES ±	0.13	±.01
1 PLACE ±	0.25	---
0 PLACE ±	±	±

ANGULAR ±1/2°
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE		SCALE	DESIGN UNITS
MM/IN		2:1	METRIC
DRAWN BY	DATE	TITLE	
MPOFF	2012/09/17	HS DOCK+ FIXED CONNECTOR	
CHECKED BY	DATE	molex	
TIBARRA	2012/09/17	SD-74148-0001	
APPROVED BY	DATE	SHEET NO.	
SMILLER	2012/10/01	1 OF 5	

MATERIAL NO. SEE TABLE
DOCUMENT NO. SD-74148-0001
SIZE C THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

REV	DESCRIPTION	QUALITY SYMBOLS
G2	APP:DMCGOWAN 2017/01/09	▽=0
	CHKD: 2016/11/17	▽=0
	DRWNGES 2017/01/09	▽=0
	EC NO: UCP2017-1140	
	DM. UPDATE	

ITEM NUMBER	CIRCUT SIZE	NO. OF COLUMNS 'N'	CENTERLINE DIMENSION 'A' mm(in)	O/A HEIGHT DIMENSION 'B' mm(in)	O/A LENGTH DIMENSION 'C' mm(in)	PEG TO PEG DIMENSION 'D' mm(in)	FIRST-LAST SIGNAL DIMENSION 'E' mm(in)	FIRST-LAST GROUND DIMENSION 'F' mm(in)	O/A LENGTH DIMENSION 'G' mm(in)	PLATING FINISH	HOUSING FINISH	GROUND OPTION
74148-1001	144	24	4.74 (.187)	9.78 (.385)	96.50 (3.799)	86.51 (3.406)	82.00 (3.228)	77.00 (3.031)	86.10 (3.389)	OPTION 1	NICKEL	2 TAIL
74148-1101	144	24	4.74 (.187)	9.78 (.385)	96.50 (3.799)	86.51 (3.406)	82.00 (3.228)	77.00 (3.031)	86.10 (3.389)	OPTION 1	NICKEL	3 TAIL
74148-3001	144	24	4.74 (.187)	9.78 (.385)	96.50 (3.799)	86.51 (3.406)	82.00 (3.228)	77.00 (3.031)	86.10 (3.389)	OPTION 2	GOLD	2 TAIL
74148-3101	144	24	4.74 (.187)	9.78 (.385)	96.50 (3.799)	86.51 (3.406)	82.00 (3.228)	77.00 (3.031)	86.10 (3.389)	OPTION 2	GOLD	3 TAIL
74148-4202	108	18	4.74 (.187)	9.78 (.385)	75.50 (2.972)	65.51 (2.579)	61.00 (2.402)	56.00 (2.205)	65.10 (2.562)	OPTION 1	NICKEL	2 TAIL
74148-4102	108	18	4.74 (.187)	9.78 (.385)	75.50 (2.972)	65.51 (2.579)	61.00 (2.402)	56.00 (2.205)	65.10 (2.562)	OPTION 1	NICKEL	3 TAIL
74148-5202	108	18	4.74 (.187)	9.78 (.385)	75.50 (2.972)	65.51 (2.579)	61.00 (2.402)	56.00 (2.205)	65.10 (2.562)	OPTION 2	GOLD	2 TAIL
74148-5102	108	18	4.74 (.187)	9.78 (.385)	75.50 (2.972)	65.51 (2.579)	61.00 (2.402)	56.00 (2.205)	65.10 (2.562)	OPTION 2	GOLD	3 TAIL

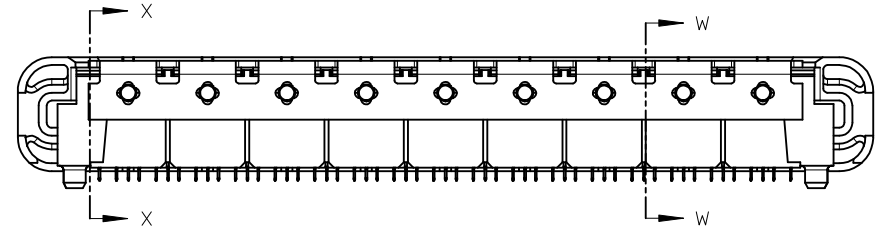
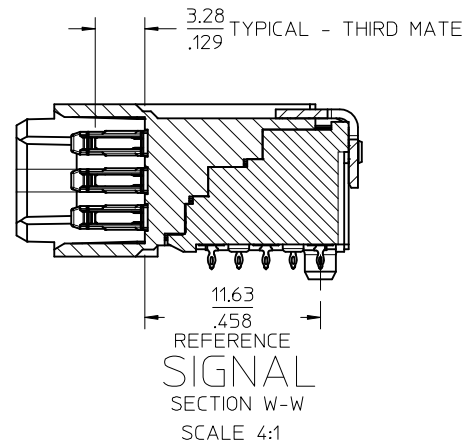
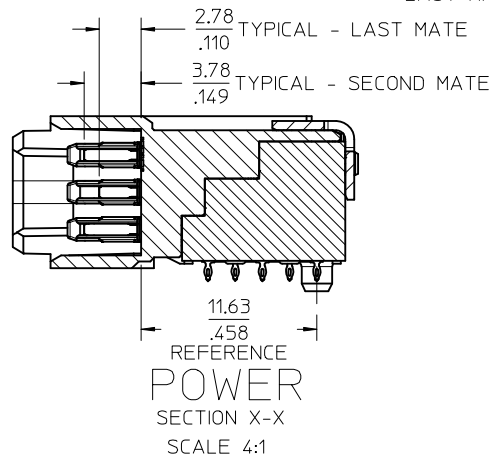
NOMINAL WIPE - FULL SEATED

FIRST MATE: 7.2mm

SECOND MATE: 2.4mm

THIRD MATE: 1.9mm

LAST MATE: 1.4mm



FINISHES:
OPTION 1

CONTACT INTERFACE
0.76 MICROMETER MINIMUM SELECT GOLD
1.27 MICROMETER MINIMUM NICKEL OVERALL

COMPLIANT INTERFACE
0.76 MICROMETER MINIMUM SELECT TIN OVER
1.27 MICROMETER MINIMUM NICKEL OVERALL

HOUSING
3.81 MICROMETER MINIMUM HIGH PHOS NICKEL OVER
3.81 MICROMETER MINIMUM COPPER OVERALL

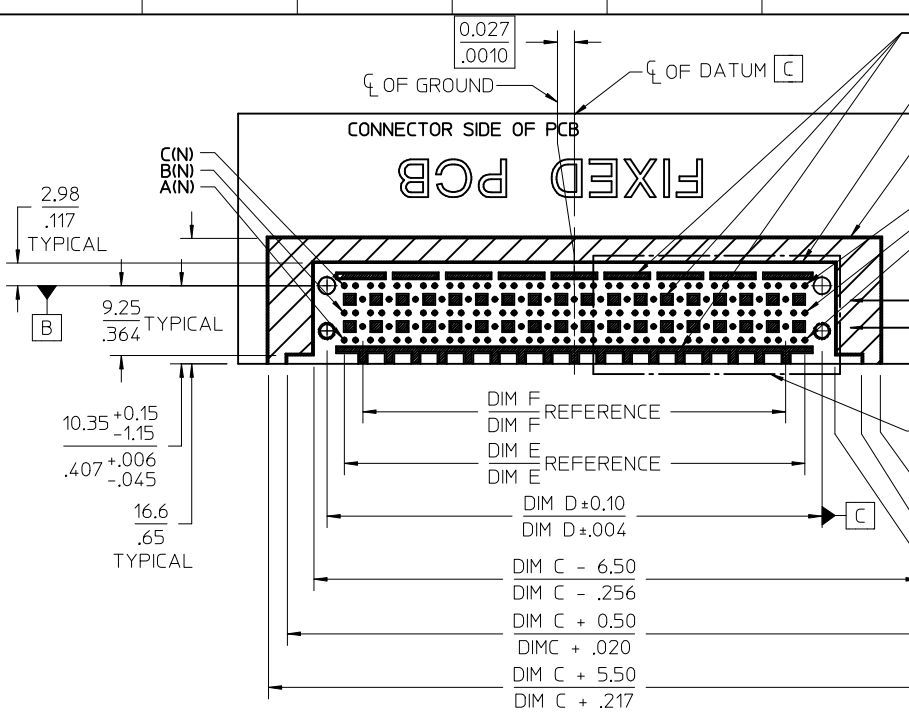
OPTION 2

CONTACT INTERFACE
0.76 MICROMETER MINIMUM SELECT GOLD
1.27 MICROMETER MINIMUM NICKEL OVERALL

COMPLIANT INTERFACE
0.76 MICROMETER MINIMUM SELECT TIN OVER
1.27 MICROMETER MINIMUM NICKEL OVERALL

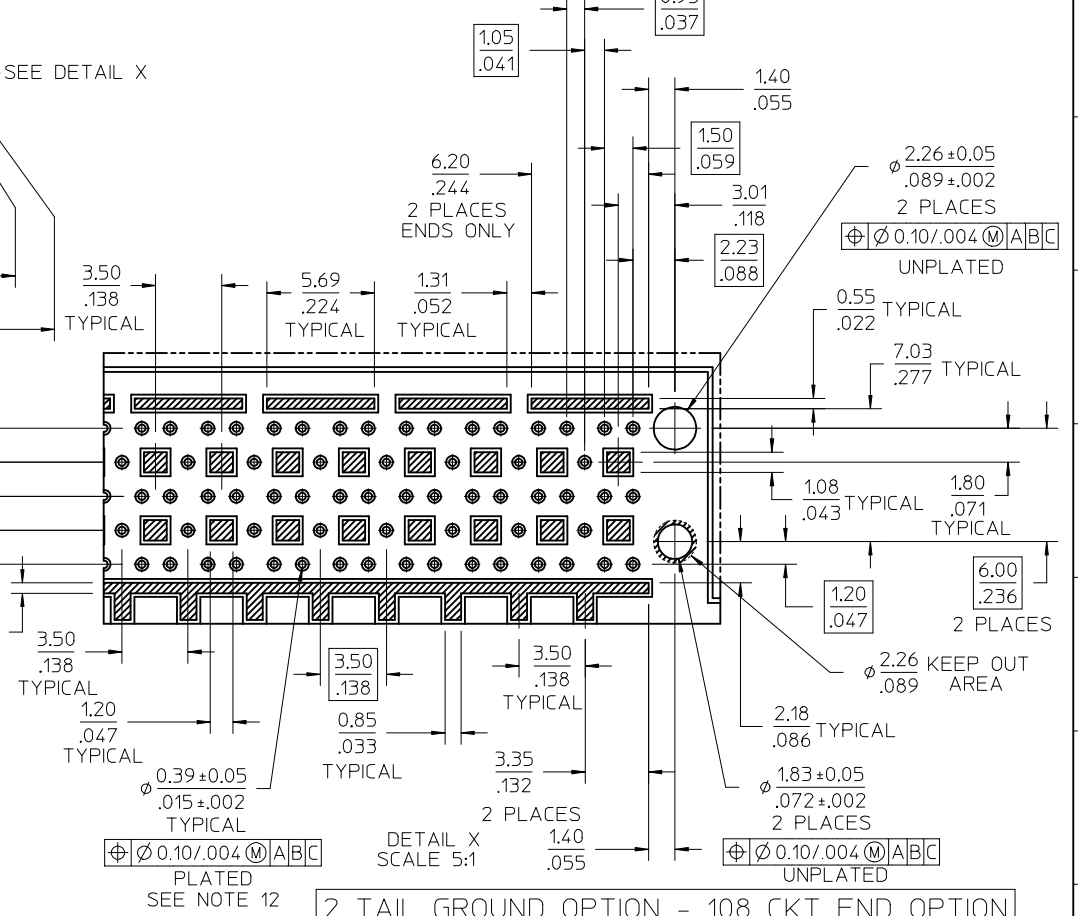
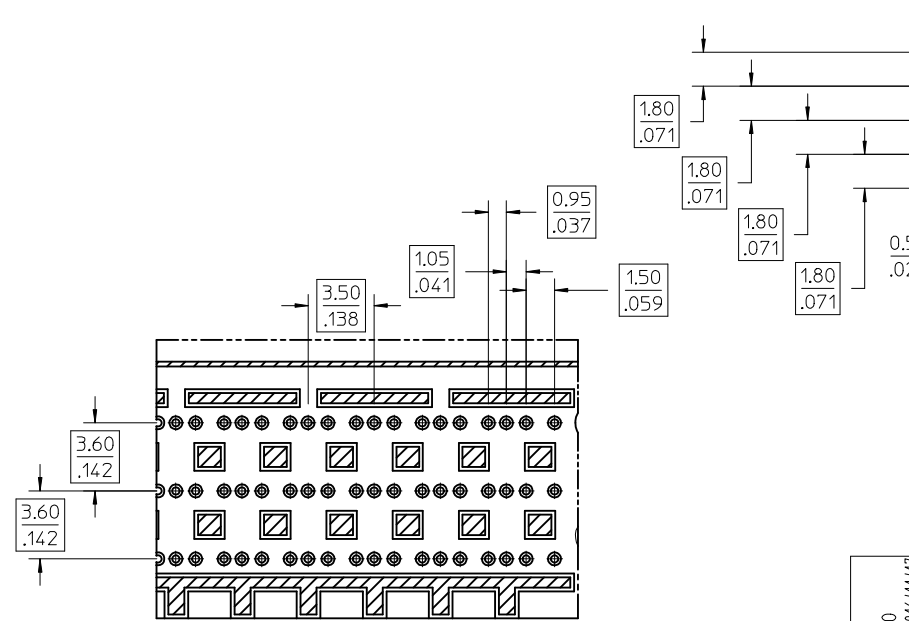
HOUSING
0.10 MICROMETER MAXIMUM IMMERSION GOLD
3.81 MICROMETER MINIMUM HIGH PHOS NICKEL OVER
3.81 MICROMETER MINIMUM COPPER OVERALL

SEE SHEET 1 EC NO: UCP2017-1140 DRAWINGS 2016/11/17 CHKD: CHKD: APPR:DMCGOWAN 2017/01/09	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 3:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± ---	3 PLACES ± --- ± .005	2 PLACES ± 0.13 ± .01	1 PLACE ± 0.25 ± ---	0 PLACE ± ±	DRAWN BY DATE MPOFF 2012/09/17		CHECKED BY DATE TIBARRA 2012/09/17
G2		ANGULAR ±1/2°		MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-74148-0001		2 OF 5	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									



NO EXPOSED TRACES ON SURFACE OF PCB IN CONNECTOR STAND OFF LOCATIONS
 CONNECTOR KEEP OUT AREA
 APPLICATION TOOLING KEEP OUT AREA (NOTES 5 & 9)
 C1
 B1
 A1
 ROW E
 ROW D

CIRCUIT DESIGNATION
 FIRST MATE: HOUSING - SIGNAL GROUND
 SECOND MATE: A1, C1, A(N), C(N) (FOR POWER RETURN)
 THIRD MATE: A2, B2, C2, A(N-1), B(N-1), C(N-1) & ALL OTHERS (A2, C2, A(N-1) & C(N-1) FOR POWER) (ALL OTHERS SIGNAL)
 LAST MATE: B1, B(N) (FOR CARD DETECT)
 ALL COLUMNS FROM 3 THROUGH (N-2) ARE SUITABLE FOR DIFFERENTIAL PAIRS
 EG: A3-A4, B3-B4, C3-C4, A(N-2)-A(N-3), B(N-2)-B(N-3)
 SIGNAL GROUND: ROWS D & E



Partial2
 SCALE 5:1
 3 TAIL GROUND OPTION

SEE SHEET 1 EC NO: UCP2017-1140 DRAWINGS 2016/11/17 CHKD: APPR:DMCGOMAN 2017/01/09 G2	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± .005</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.13</td> <td>± .01</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.25</td> <td>± ---</td> </tr> <tr> <td>0 PLACE</td> <td>±</td> <td>±</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± .005	2 PLACES	± 0.13	± .01	1 PLACE	± 0.25	± ---	0 PLACE	±	±	DIMENSION STYLE MM/IN	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH																					
	4 PLACES	± ---	± ---																					
3 PLACES	± ---	± .005																						
2 PLACES	± 0.13	± .01																						
1 PLACE	± 0.25	± ---																						
0 PLACE	±	±																						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE TABLE	DRAWN BY MPOFF 2012/09/17	DATE 2012/09/17	HS DOCK+ FIXED CONNECTOR																				
ANGULAR ±1/2°	DOCUMENT NO. SD-74148-0001	CHECKED BY TIBARRA 2012/09/17	DATE 2012/09/17	molex																				

0.020
.0008
CL OF GROUND
CL OF DATUM [C]

NO EXPOSED TRACES ON SURFACE OF PCB IN CONNECTOR STAND OFF LOCATIONS

CONNECTOR KEEP OUT AREA

APPLICATION TOOLING KEEP OUT AREA (NOTES 5 & 9 ON PAGE 1)

FIXED PCB

2.98
.117
TYPICAL

9.25
.364
TYPICAL

10.35 +0.15
-1.15
.407 +.006
-.045

16.62
.654
TYPICAL

DIM F REFERENCE

DIM E REFERENCE

DIM D ±0.10
DIM D ±.004

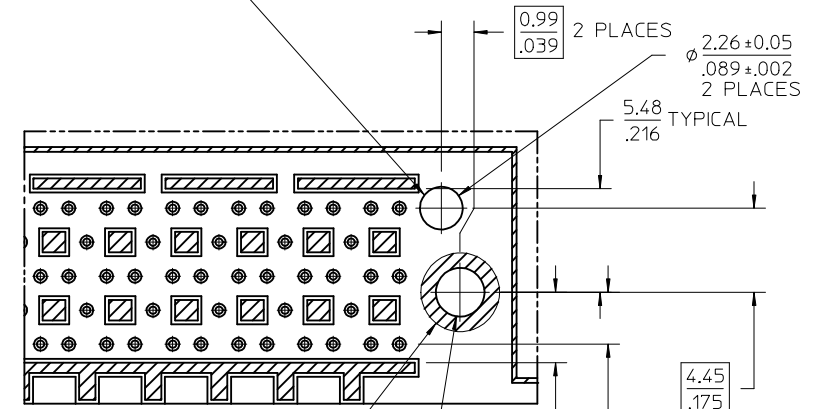
DIM C -2.50
DIM C -.098

DIM C +0.50
DIM C +.020

DIM C +5.50
DIM C +.217

SEE DETAIL Z

SIGNAL TAIL AND GROUND TAIL DIMENSIONS ARE BASED OFF OF THE HOLE THAT IS FOR THE ASSEMBLY PEG - SEE NOTE 1



DETAIL Z
SCALE 5:1

Ø 0.10/.004 [ABC]
UNPLATED

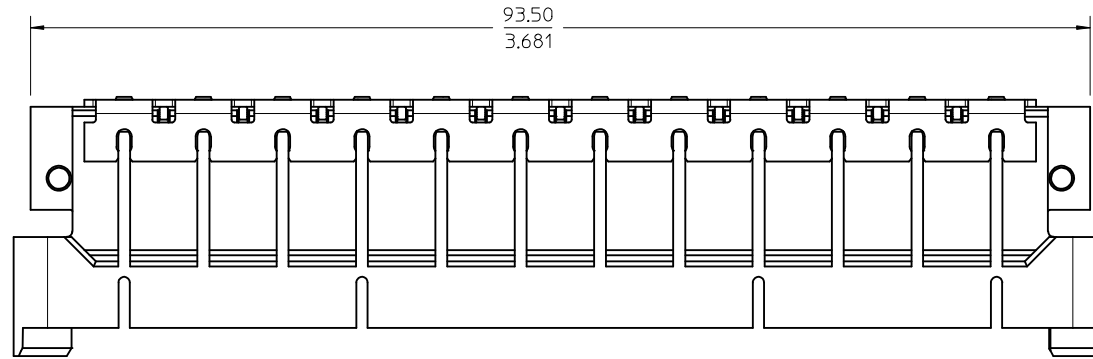
144 CKT END OPTION
HOLD DOWN

- NOTES
- SEE SHEET 3 FOR CIRCUIT DESIGNATION
 - ALL SIGNAL TAIL AND 2 TAIL / 3 TAIL GROUND DIMENSIONS ARE COMMUNICATED ON PAGE 3

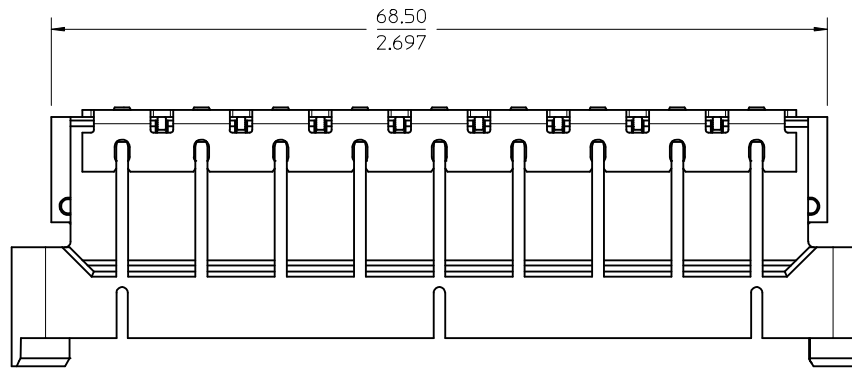
SEE SHEET 1 EC NO: UCP2017-1140 DRAWINGS 2016/11/17 CHKD: APPR:DMCGOWAN 2017/01/09 G2	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM/IN	2:1	METRIC	THIRD ANGLE PROJECTION
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE		
	▽=0	3 PLACES ± --- ±.005	MPOFF 2012/09/17	HS DOCK+ FIXED CONNECTOR		
		2 PLACES ±0.13 ±.01	CHECKED BY DATE	molex		
		1 PLACE ±0.25 ± ---	TIBARRA 2012/09/17	DOCUMENT NO. SD-74148-0001		
		0 PLACE ± ±	APPROVED BY DATE	SHEET NO. 4 OF 5		
			SMILLER 2012/10/01	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
		ANGULAR ±1/2°	MATERIAL NO.			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE [C]			

HOUSING SHROUD SLOT CONFIGURATION

144 CIRCUIT



108 CIRCUIT



SEE SHEET 1 EC NO: UCP2017-1140 2016/11/17 DRWNGES CHKD: APPR:DMCGOWAN 2017/01/09 REV: G2	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM/IN	3:1	METRIC	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	HS DOCK+ FIXED CONNECTOR molex		
	▽=0	3 PLACES ± --- ± .005	MPOFF 2012/09/17			
	2 PLACES ± 0.13 ± .01	CHECKED BY DATE	DOCUMENT NO. SD-74148-0001 SHEET NO. 5 OF 5			
	1 PLACE ± 0.25 ± ---	TIBARRA 2012/09/17				
	0 PLACE ± ±	APPROVED BY DATE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
	ANGULAR ±1/2°	SMILLER 2012/10/01				
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	SEE TABLE			