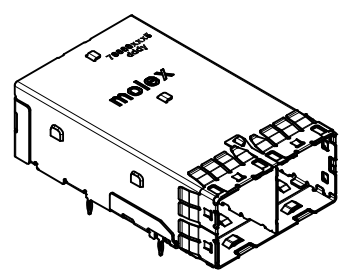
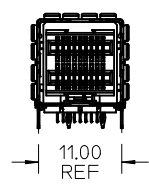
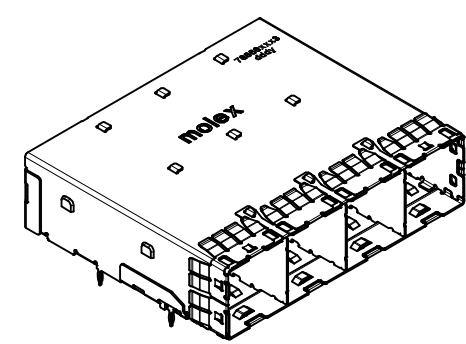
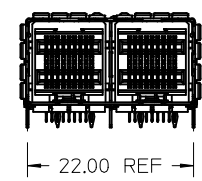


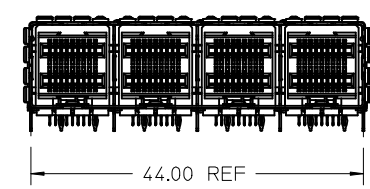
1x1



1x2



1x4

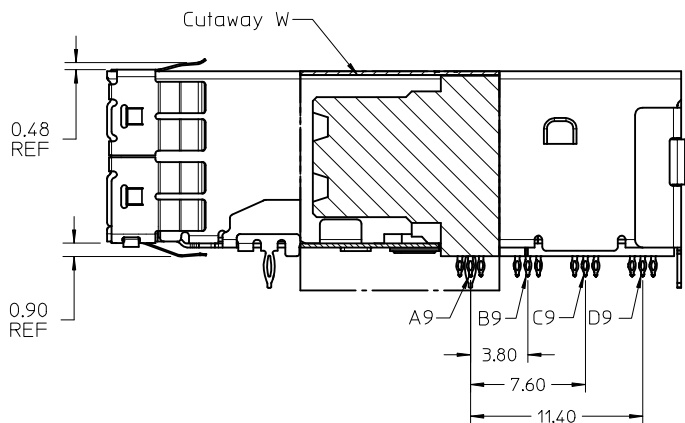
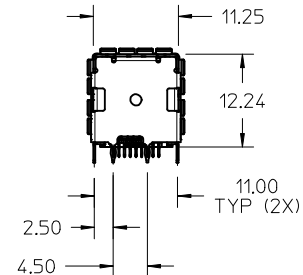
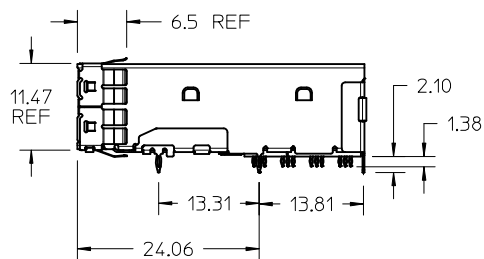
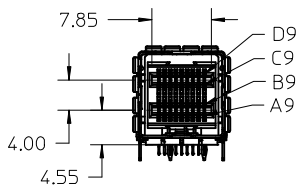
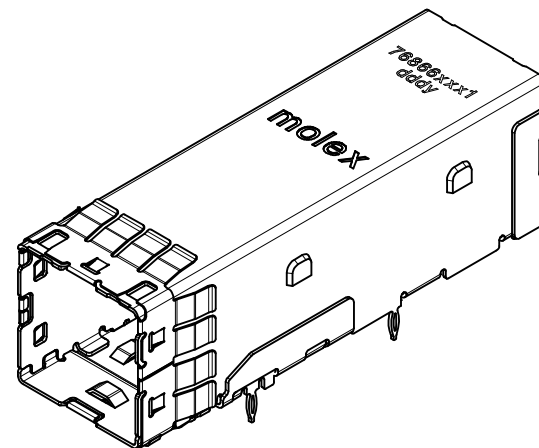
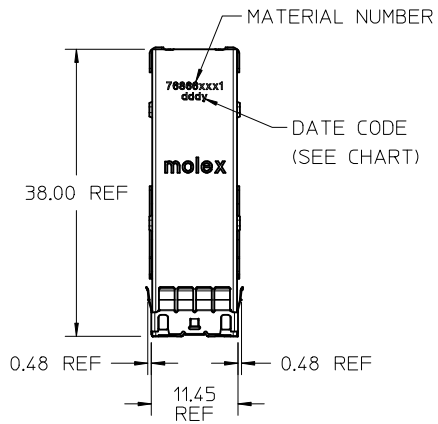


NOTES:

1. MATERIALS:
 CONNECTOR HOUSING: HIGH TEMPERATURE THERMOPLASTIC
 GLASS FILLED, UL 94V-0
 EMI CAGE: NICKEL SILVER ALLOY
 EMI CAGE BASE: STAINLESS STEEL
 EMI FINGERS: COPPER ALLOY
 TERMINALS: COPPER ALLOY
2. FINISHES:
 EMI FINGERS: 0.50µM MIN NICKEL
 CONTACT AREA: 0.76µM MIN GOLD OVER 3.81µM MIN NICKEL
 TAIL AREA: 0.76µM-1.52µM TIN OVER 1.27µM MIN NICKEL
3. PRODUCT SPECIFICATION: PS-76866-001
4. PACKAGING SPECIFICATION: PK-76866-001
5. MATES WITH: MOLEX CABLE SERIES 111068, 111073, 111074, & 111075
6. RECOMMENDED MOUNTING HARDWARE: REFER TO APPLICATION SPECIFICATION AS-76866-001
7. THIS PART CONFORMS TO CLASS C REQUIREMENTS OF MOLEX COSMETIC SPECIFICATION PS-45499-002
8. PLUG MODULE PCB LAYOUT REFER TO SD-76866-9900

CONFIGURATION	MATERIAL NO.
1 x 1	76866-1011
1 x 2	76866-1015
1 x 4	76866-1013

REVD ASSY DIMS IEC NO: UCP2017-1144 DRW: TMCCLELL 2016/11/17 CHKD: TMCCLELLAND 2016/11/17 APPR: TMCCLELL 2016/11/17	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION																				
		<table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± .005</td> <td>± .0004</td> </tr> <tr> <td>3 PLACES</td> <td>± .005</td> <td>± .0004</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.13</td> <td>± .005</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.25</td> <td>± .010</td> </tr> <tr> <td>0 PLACE</td> <td>±</td> <td>±</td> </tr> </tbody> </table>			mm	INCH	4 PLACES		± .005	± .0004	3 PLACES	± .005	± .0004	2 PLACES	± 0.13	± .005	1 PLACE	± 0.25	± .010	0 PLACE	±	±	DRAWN BY DATE KLANG 2011/09/29		CHECKED BY DATE TMCCLELLAND 2013/07/31		IPASS PLUS HD - 12G EXTERNAL 	
			mm	INCH																								
		4 PLACES	± .005	± .0004																								
3 PLACES	± .005	± .0004																										
2 PLACES	± 0.13	± .005																										
1 PLACE	± 0.25	± .010																										
0 PLACE	±	±																										
ANGULAR ±1/2° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY DATE MBANAKIS 2013/08/01		MATERIAL NO. SEE CHART		DOCUMENT NO. SD-76866-1000																						
REV: B1		SIZE C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SHEET NO. 1 OF 12																						

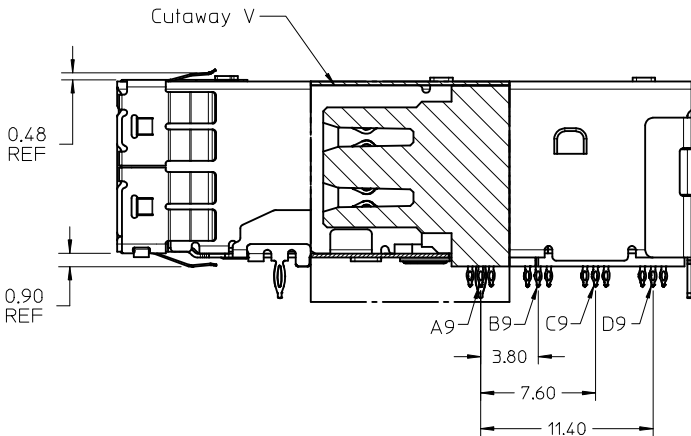
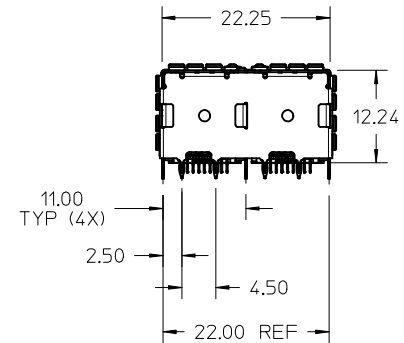
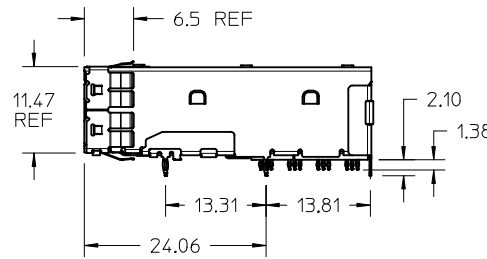
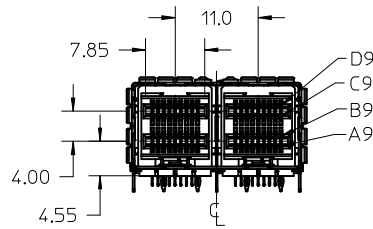
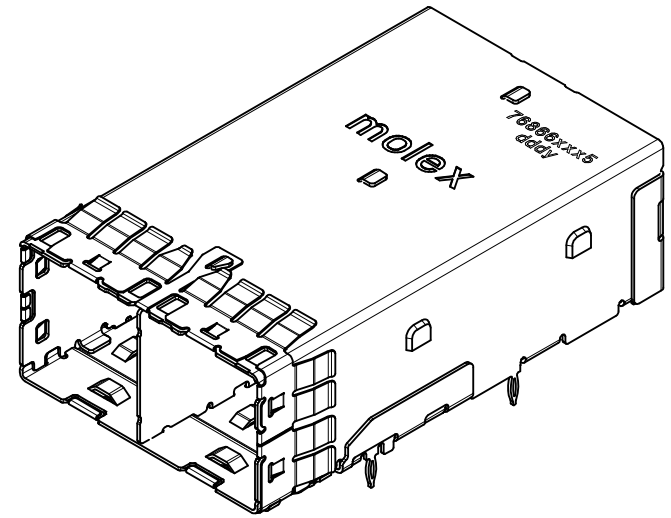
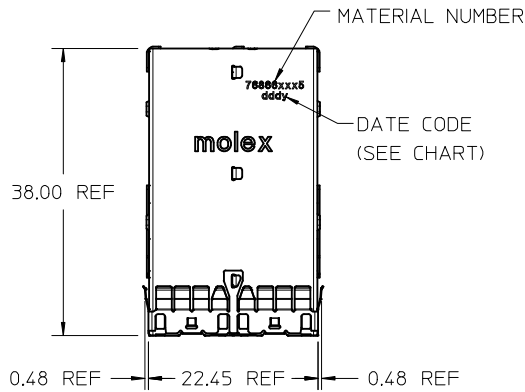


1X1 ASSEMBLY

MEXICO	DDDYY
CHINA	MSHDDYY
MANUFACTURING LOCATION	DATE CODE
DESIGN UNITS METRIC	THIRD ANGLE PROJECTION

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±	mm INCH DRAWN BY DATE KLANG 2011/09/29 CHECKED BY DATE TMCCLELLAND 2013/07/31 APPROVED BY DATE MBANAKIS 2013/08/01	TITLE IPASS PLUS HD - 12G EXTERNAL		DOCUMENT NO. SD-76866-1000
B1	DESCRIPTION REV	ANGULAR ±1/2° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SHEET NO. 2 OF 12

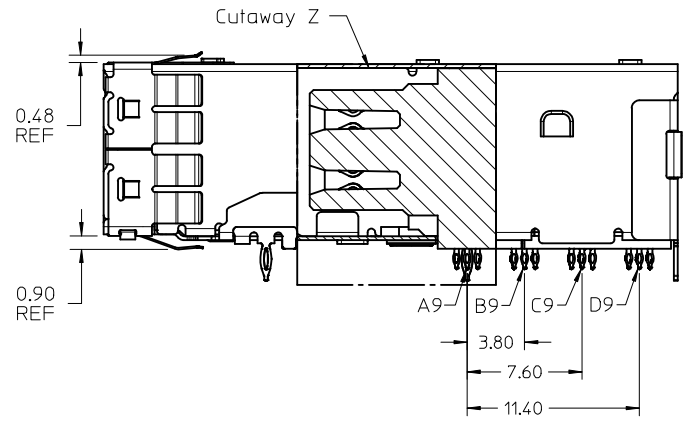
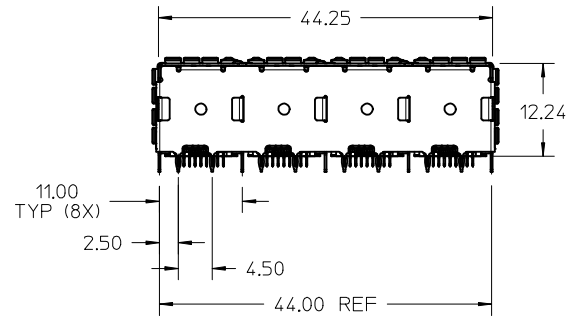
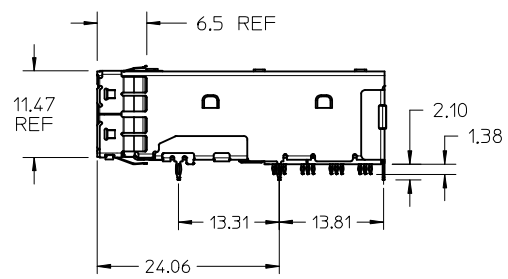
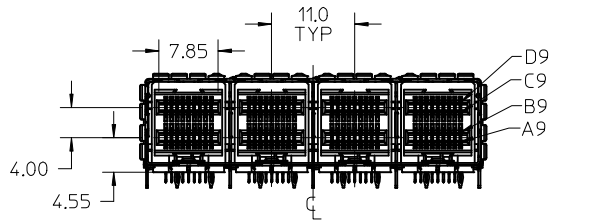
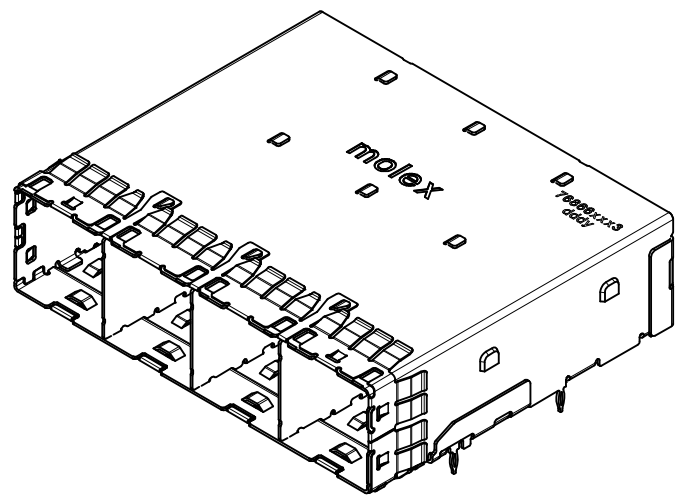
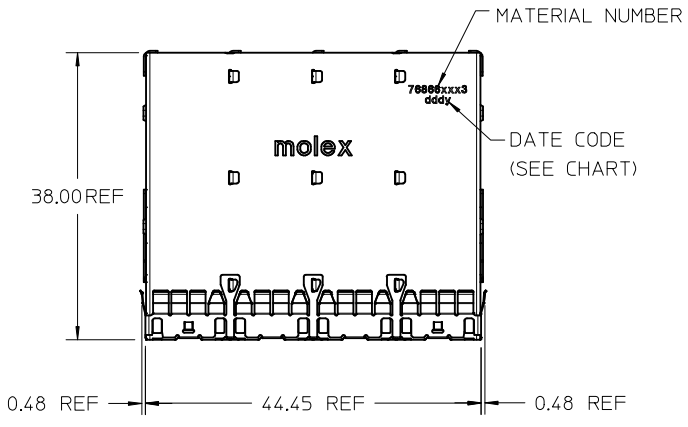
molex	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	



1X2 ASSEMBLY

MEXICO	DDDY
CHINA	MSHDDDY
MANUFACTURING LOCATION	DATE CODE
DESIGN UNITS	THIRD ANGLE PROJECTION
METRIC	

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	TITLE IPASS PLUS HD - 12G EXTERNAL	
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±	mm INCH ± --- ± --- ± 0.13 ± --- ± 0.25 ± --- ± ±	DRAWN BY KLANG	DATE 2011/09/29	CHECKED BY TMCCLELLAND		DATE 2013/07/31
B1	DESCRIPTION IPASS PLUS HD - 12G EXTERNAL	ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART	DOCUMENT NO. SD-76866-1000	SHEET NO. 3 OF 12

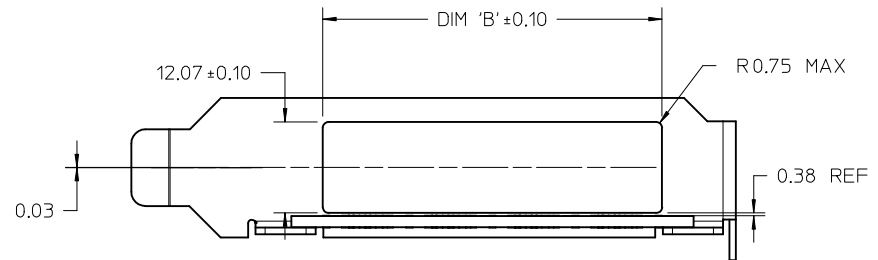
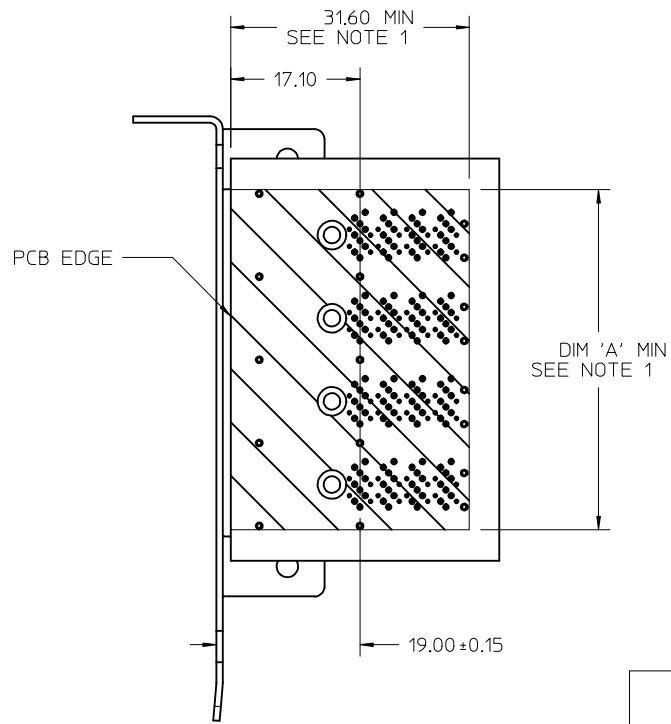
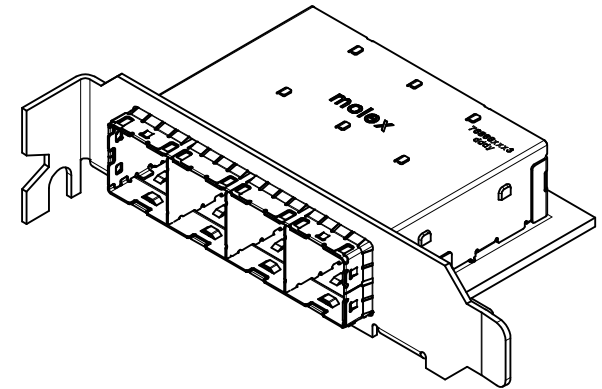
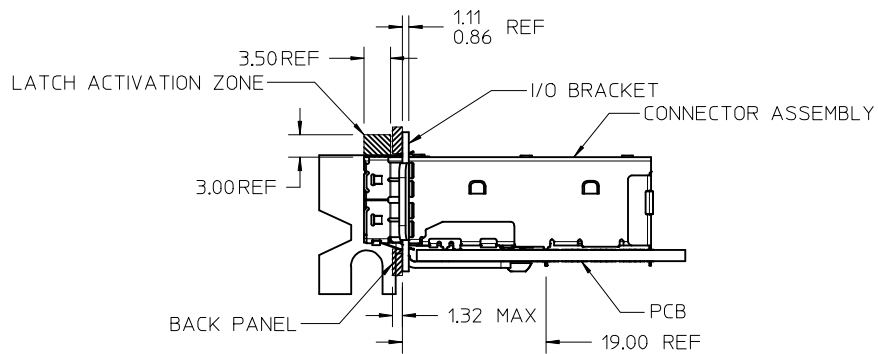


1X4 ASSEMBLY

MEXICO	DDDY
CHINA	MSHDDDY
MANUFACTURING LOCATION	DATE CODE

SEE SHEET 1 IEC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±	mm INCH DRAWN BY DATE KLANG 2011/09/29 CHECKED BY DATE TMCCLELLAND 2013/07/31 APPROVED BY DATE MBANAKIS 2013/08/01	TITLE IPASS PLUS HD - 12G EXTERNAL		molex		DOCUMENT NO. SD-76866-1000
B1	DESCRIPTION DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	ANGULAR ±1/2°		SEE CHART		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

PCI ADD-IN CARD APPLICATION

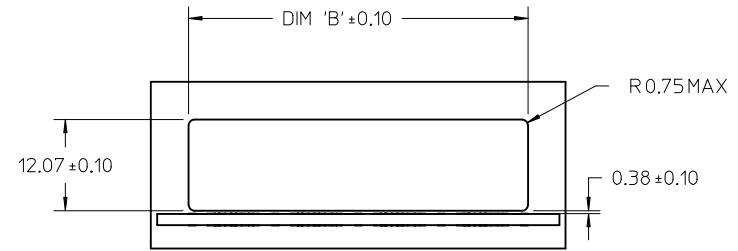
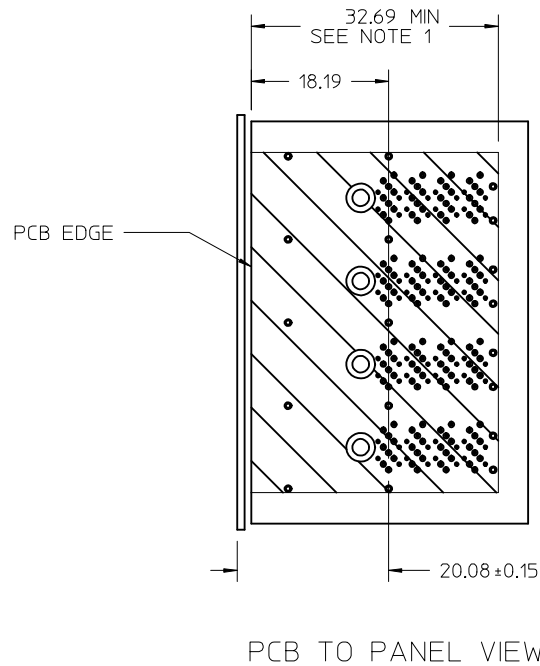
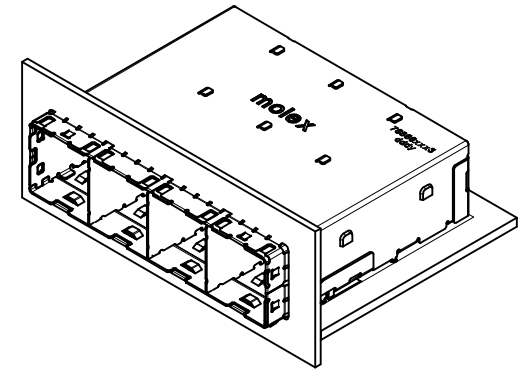
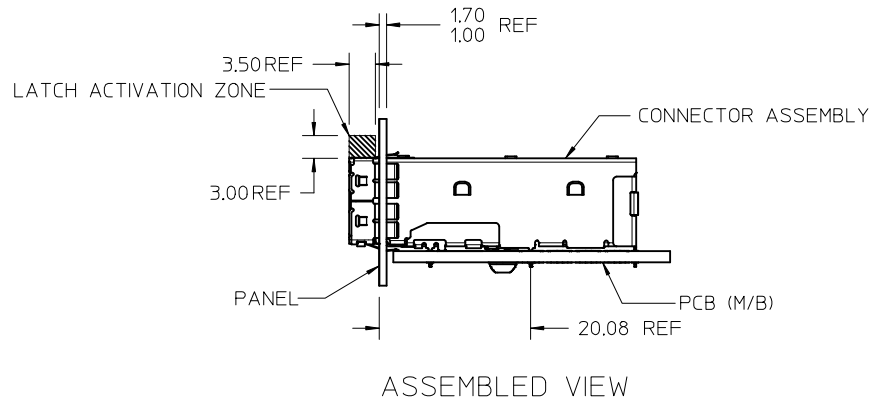


CONFIGURATION	DIM 'A' (MIN)	DIM 'B' (±0.10)
1 X 1	12.00	11.90
1 X 2	23.00	22.90
1 X 4	45.00	44.90

SEE SHEET 1 IEC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION IPASS PLUS HD - 12G EXTERNAL molex DOCUMENT NO. SD-76866-1000 SHEET NO. 5 OF 12
	▽=0	mm INCH	MM ONLY	2:1	METRIC	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE			
	▽=0	3 PLACES ± --- ± ---	CHECKED BY DATE			
REV		2 PLACES ± 0.13 ± ---	MBANAK IS 2013/08/01			
		1 PLACE ± 0.25 ± ---				
		0 PLACE ± ±				
		ANGULAR ±1/2°	SEE CHART			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				

NOTES:
1. CONNECTOR KEEP OUT ZONE: PCB COMPONENTS ARE NOT ALLOWED IN THIS AREA.

MOTHERBOARD APPLICATION

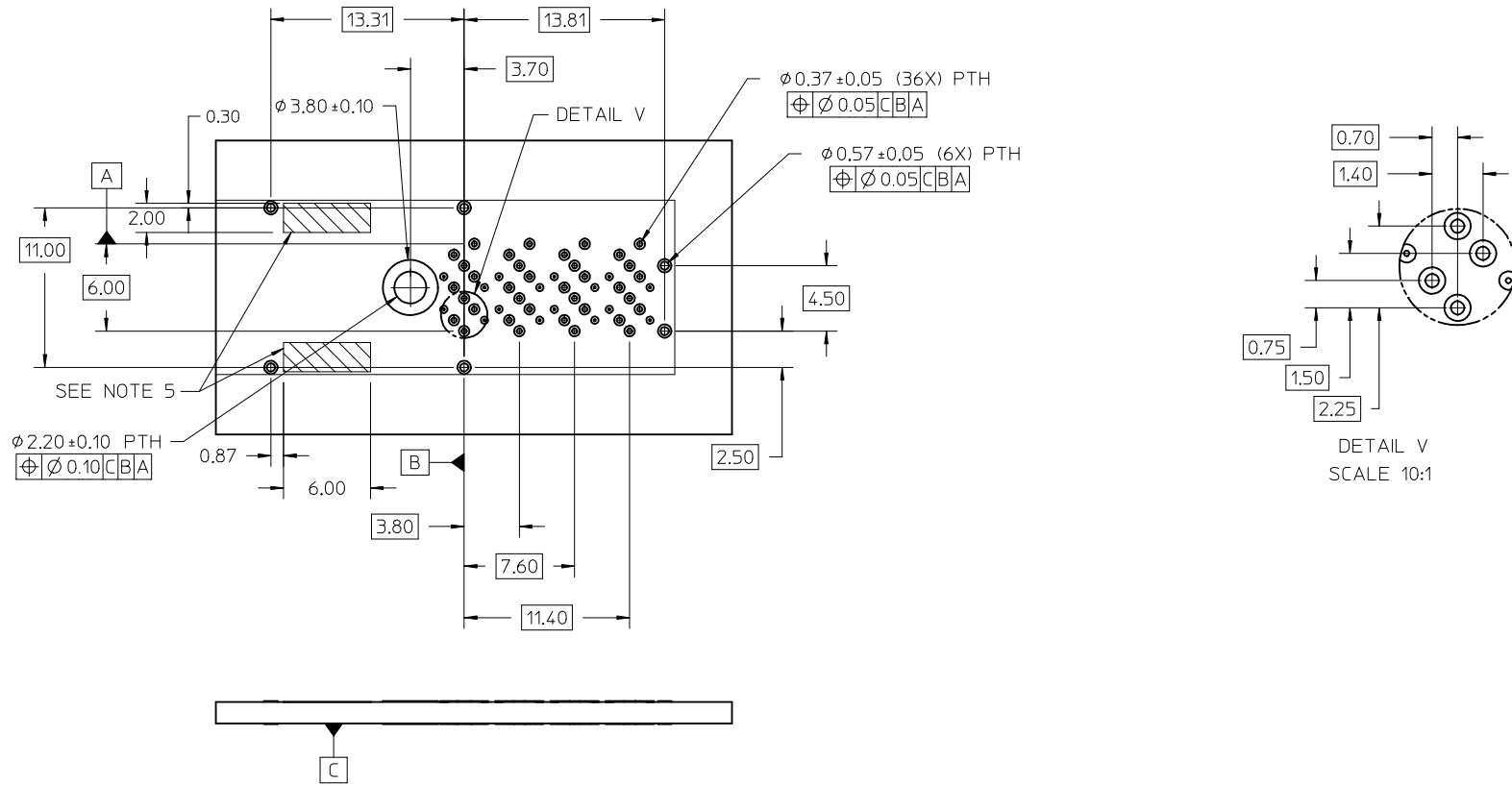


CONFIGURATION	DIM 'A' (MIN)	DIM 'B' (±0.10)
1 X 1	12.00	11.90
1 X 2	23.00	22.90
1 X 4	45.00	44.90

NOTES:
 1. CONNECTOR KEEP OUT ZONE: PCB COMPONENTS ARE NOT ALLOWED IN THIS AREA.

SEE SHEET 1 EC NO: UCP2017-1144 DRWN: TMCCLELL 2016/11/17 CHKD: TMCCLELLAND 2016/11/17 APPR: TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	▽=0	mm INCH	DRAWN BY DATE KLANG 2011/09/29	TITLE IPASS PLUS HD - 12G EXTERNAL		
	▽=0	4 PLACES ± --- ± ---	CHECKED BY DATE TMCCLELLAND 2013/07/31	DOCUMENT NO. SD-76866-1000		
	▽=0	3 PLACES ± --- ± ---	APPROVED BY DATE MBANAKIS 2013/08/01	SIZE C	SHEET NO. 6 OF 12	
	▽=0	2 PLACES ± 0.13 ± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
REV	0 PLACE ± ±	ANGULAR ±1/2°				

1X1 RECOMMENDED FOOTPRINT

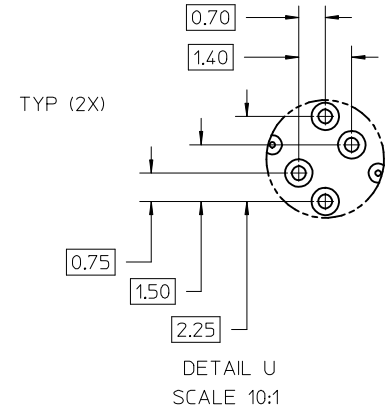
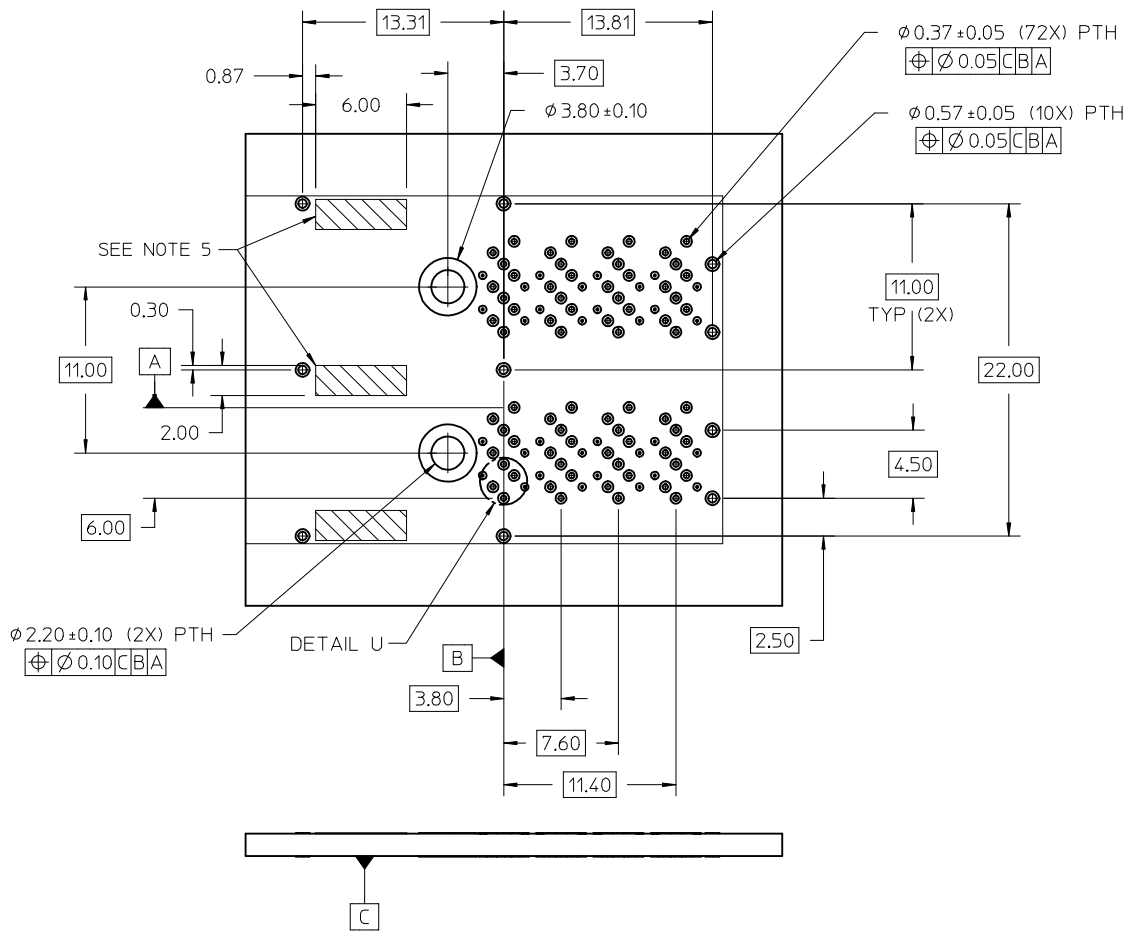


NOTES:

1. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.37 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
2. MINIMUM RECOMMENDED SPACING: 14.00MM
3. MINIMUM PCB THICKNESS: 1.57MM
4. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.57 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
5. CAGE KEEP OUT ZONE: TRACES AND VIAS ARE NOT ALLOWED ON SURFACE OF PCB IN THESE AREAS.

REV	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
			mm	INCH				
B1	SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	▽=0 ▽=0 ▽=0	4 PLACES ± ---	± ---	DRAWN BY KLANG	DATE 2011/09/29	TITLE IPASS PLUS HD - 12G EXTERNAL	SHEET NO. 7 OF 12
			3 PLACES ± ---	± ---	CHECKED BY TMCCLELLAND	DATE 2013/07/31	DOCUMENT NO. SD-76866-1000	
			2 PLACES ± 0.13	± ---	APPROVED BY MBANAKIS	DATE 2013/08/01		MATERIAL NO. SEE CHART
			1 PLACE ± 0.25	± ---	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
			0 PLACE ±	±	ANGULAR ±1/2°			
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					

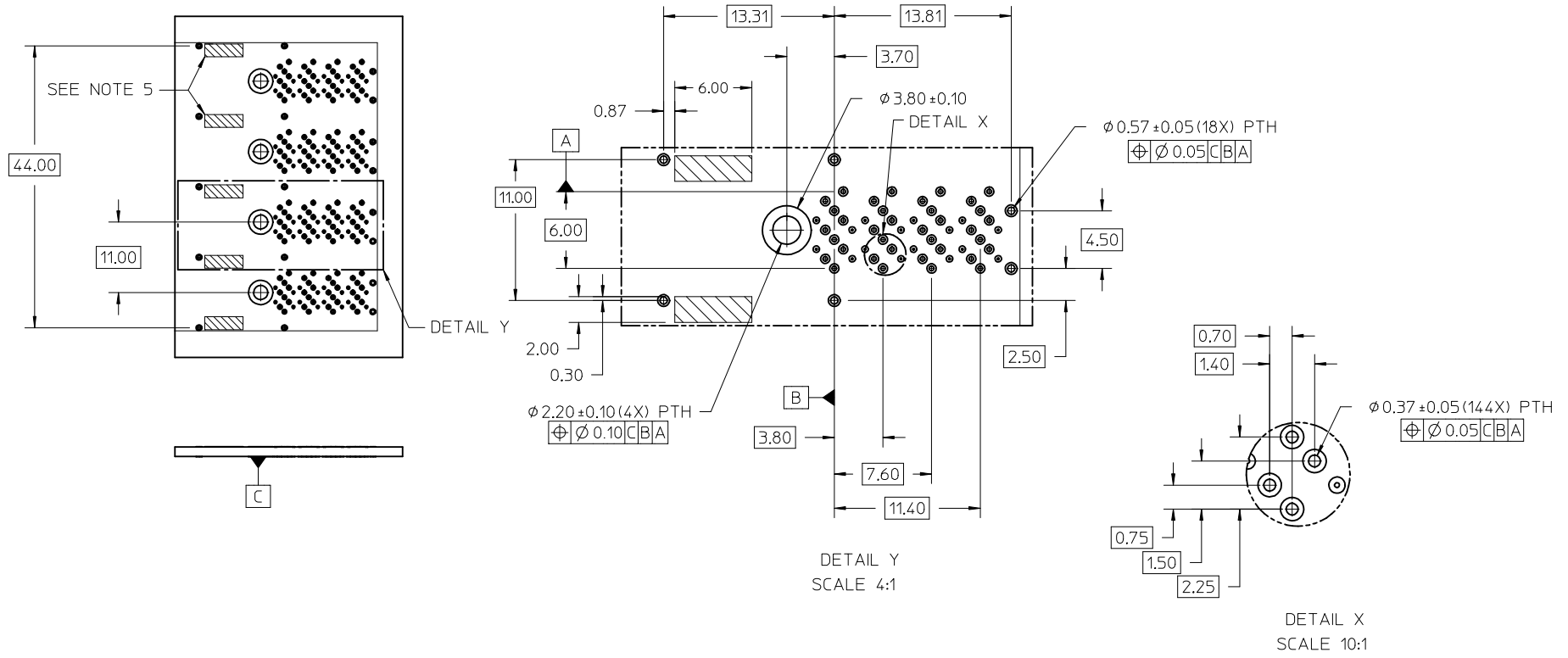
1X2 RECOMMENDED FOOTPRINT



- NOTES:
1. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.37 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
 2. MINIMUM RECOMMENDED SPACING: 25.00MM
 4. MINIMUM PCB THICKNESS: 1.57MM
 4. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.57 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
 5. CAGE KEEP OUT ZONE: TRACES AND VIAS ARE NOT ALLOWED ON SURFACE OF PCB IN THESE AREAS.

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± 0.13</td> <td>± 0.005</td> </tr> <tr> <td>3 PLACES</td> <td>± 0.25</td> <td>± 0.010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.38</td> <td>± 0.015</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.51</td> <td>± 0.020</td> </tr> <tr> <td>0 PLACE</td> <td>± 0.64</td> <td>± 0.025</td> </tr> </table>		mm	INCH	4 PLACES	± 0.13	± 0.005	3 PLACES	± 0.25	± 0.010	2 PLACES	± 0.38	± 0.015	1 PLACE	± 0.51	± 0.020	0 PLACE	± 0.64	± 0.025	DIMENSION STYLE MM ONLY DRAWN BY DATE KLANG 2011/09/29 CHECKED BY DATE TMCCLELLAND 2013/07/31 APPROVED BY DATE MBANAKIS 2013/08/01	SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE IPASS PLUS HD - 12G EXTERNAL molex DOCUMENT NO. SD-76866-1000 SHEET NO. 8 OF 12
		mm	INCH																				
	4 PLACES	± 0.13	± 0.005																				
	3 PLACES	± 0.25	± 0.010																				
2 PLACES	± 0.38	± 0.015																					
1 PLACE	± 0.51	± 0.020																					
0 PLACE	± 0.64	± 0.025																					
DESCRIPTION SEE CHART	MATERIAL NO.	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																				
REV B1																							

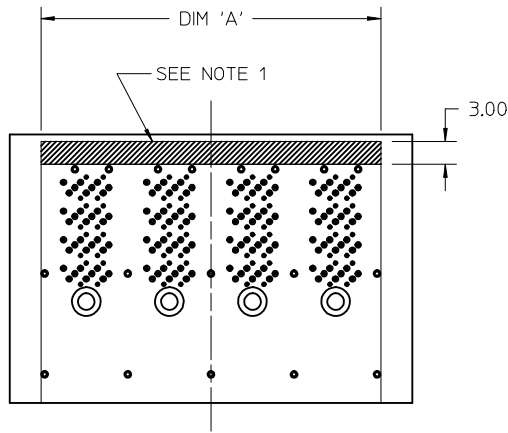
1X4 RECOMMENDED FOOTPRINT



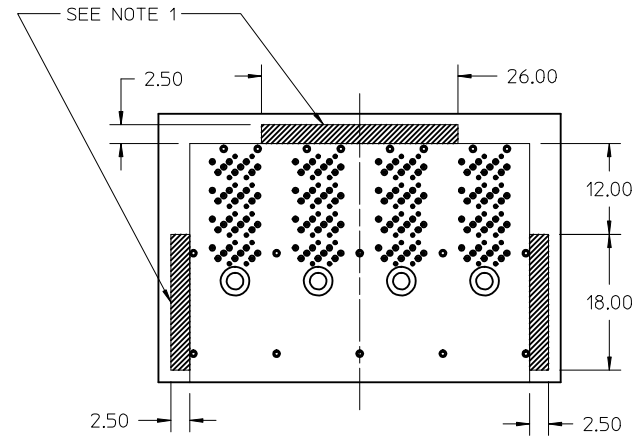
- NOTES:
1. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.37ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
 2. MINIMUM RECOMMENDED SPACING: 47.00MM
 4. MINIMUM PCB THICKNESS: 1.57MM
 4. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.57ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
 5. CAGE KEEP OUT ZONE: TRACES AND VIAS ARE NOT ALLOWED ON SURFACE OF PCB IN THESE AREAS.

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		▽=0 ▽=0 ▽=0	mm	INCH	MM ONLY	2:1	METRIC	IPASS PLUS HD - 12G EXTERNAL	
REV B1	DESCRIPTION	4 PLACES	±	---	DRAWN BY	DATE	TITLE		
		3 PLACES	±	---	KLANG	2011/09/29			
REV	DESCRIPTION	2 PLACES	±	0.13	CHECKED BY	DATE	DOCUMENT NO.		
		1 PLACE	±	0.25	TMCCLELLAND	2013/07/31			
REV	DESCRIPTION	0 PLACE	±	---	APPROVED BY	DATE	SHEET NO.		
			±	---	MBANAKIS	2013/08/01			
		ANGULAR ±1/2°		MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SD-76866-1000		9 OF 12	
				SIZE C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

RECOMMENDED TOOLING KEEP OUT AREAS



INSERTION TOOL KEEP OUT AREA



EXTRACTION TOOL KEEP OUT AREA

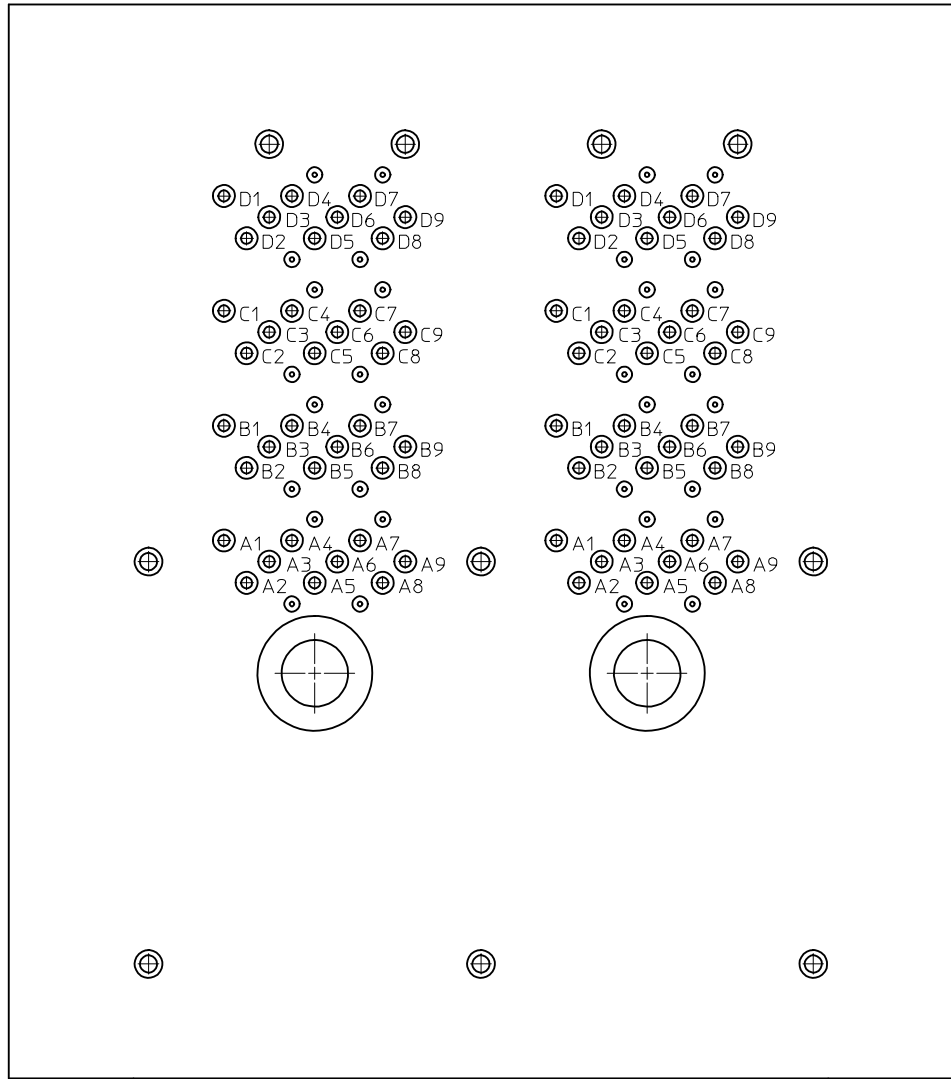
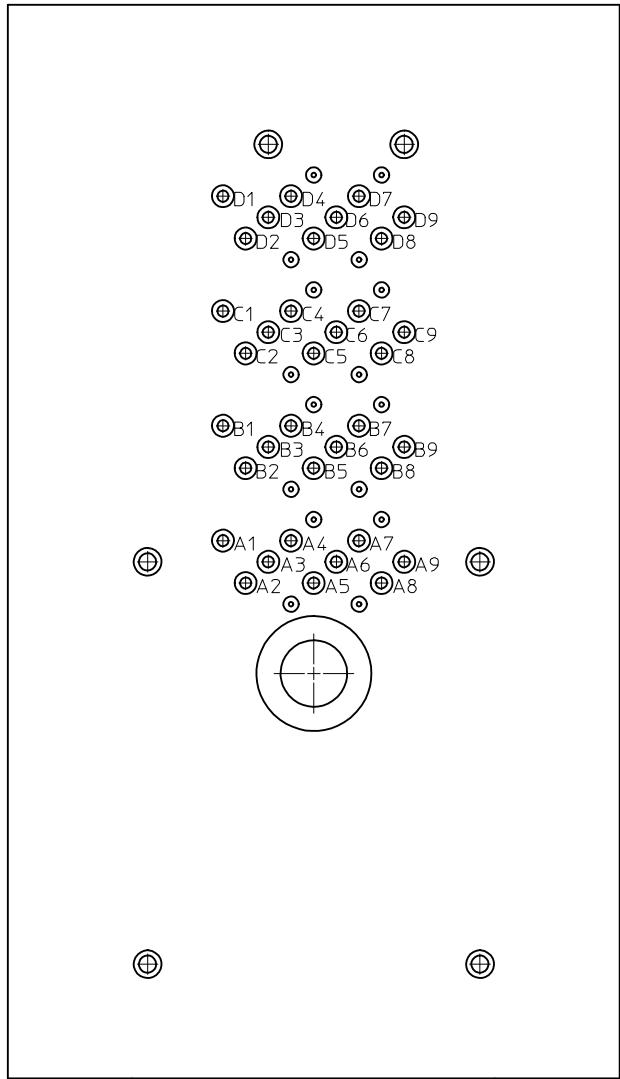
CONFIGURATION	DIM 'A' (MIN)
1 X 1	12.00
1 X 2	23.00
1 X 4	45.00

NOTES:
1. NO COMPONENTS ALLOWED IN THESE AREAS

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0 ▽=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±	MM ONLY	2:1	METRIC	
	DESCRIPTION	ANGULAR ±1/2° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY DATE KLANG 2011/09/29 CHECKED BY DATE TMCCLELLAND 2013/07/31 APPROVED BY DATE MBANAKIS 2013/08/01	TITLE	IPASS PLUS HD - 12G EXTERNAL	
	REV		MATERIAL NO.	SIZE	DOCUMENT NO.	
B1			C	SEE CHART	SD-76866-1000	10 OF 12

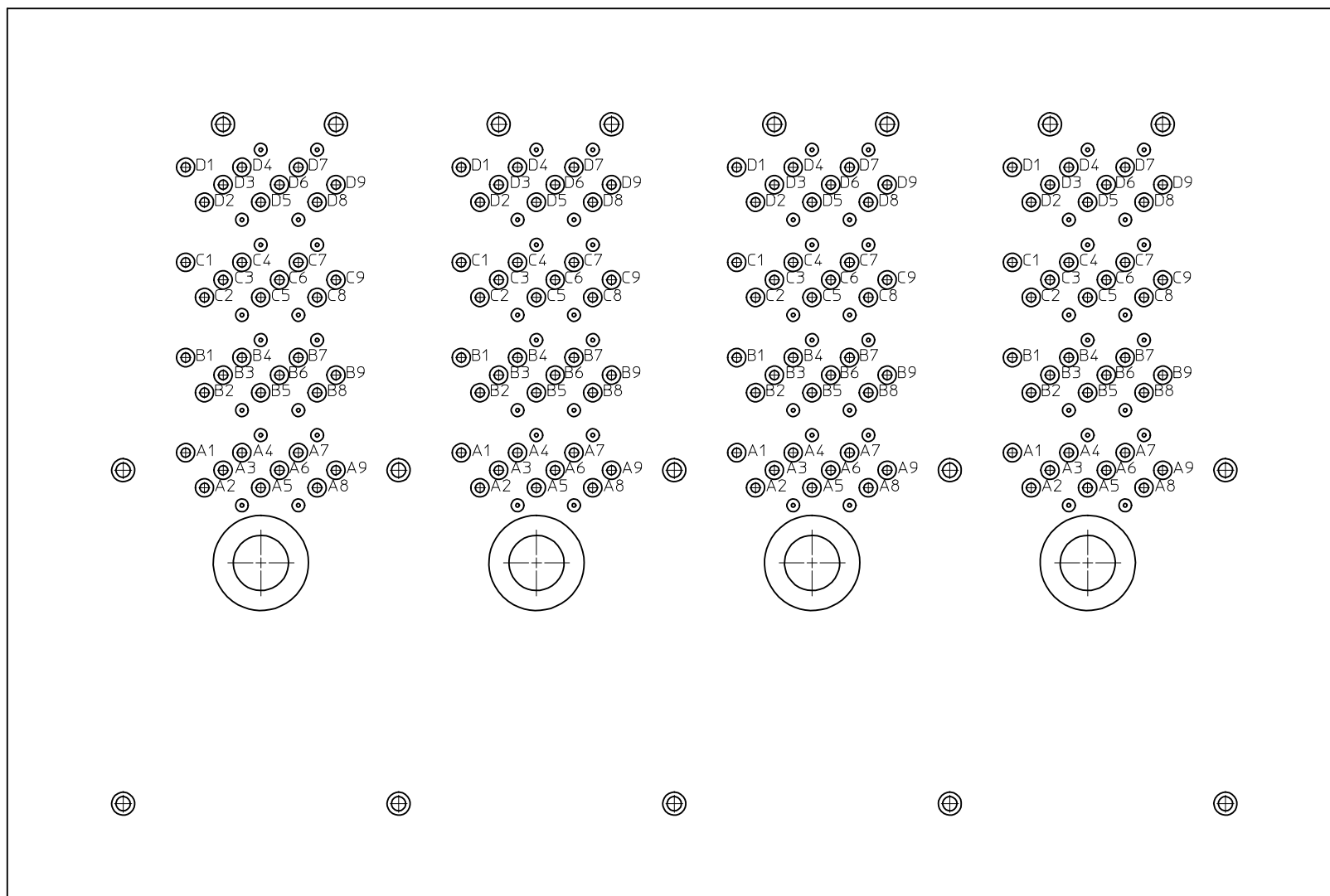
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

1X1 & 1X2 FOOTPRINT CIRCUIT IDENTIFICATION

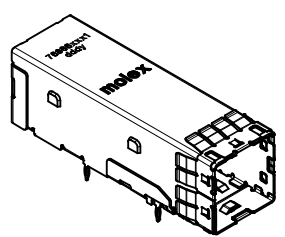


SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM ONLY	8:1	METRIC	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE		
	▽=0	3 PLACES ± --- ± ---	KLANG 2011/09/29	IPASS PLUS HD - 12G EXTERNAL		
	2 PLACES ± 0.13 ± ---	CHECKED BY DATE				
	1 PLACE ± 0.25 ± ---	TMCCLELLAND 2013/07/31				
	0 PLACE ± ±	APPROVED BY DATE	DOCUMENT NO.			
		MBANAKIS 2013/08/01	SD-76866-1000			
		MATERIAL NO.	SHEET NO.			
		SEE CHART	11 OF 12			
		ANGULAR ±1/2°	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				

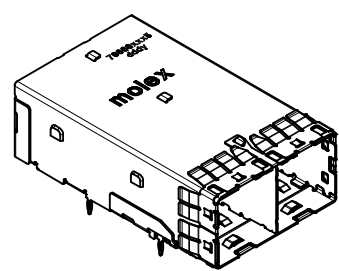
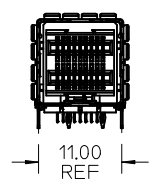
1X4 FOOTPRINT CIRCUIT IDENTIFICATION



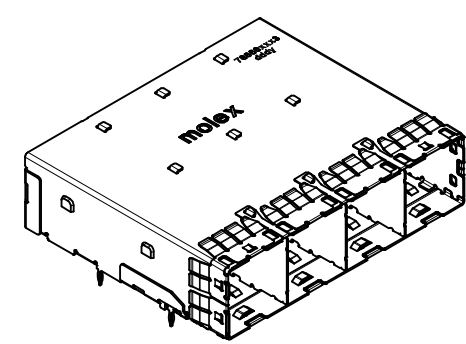
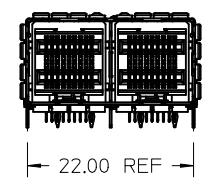
SEE SHEET 1 EC NO: UCP2017-1144 DRWN: TMCCLELL 2016/11/17 CHKD: TMCCLELLAND 2016/11/17 APPR: TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	▽=0	mm	INCH	MM ONLY	8:1	METRIC	☉	
	▽=0	4 PLACES ± ---	± ---	DRAWN BY DATE	TITLE			
	▽=0	3 PLACES ± ---	± ---	KLANG 2011/09/29	IPASS PLUS HD - 12G EXTERNAL			
		2 PLACES ± 0.13	± ---	CHECKED BY DATE				
		1 PLACE ± 0.25	± ---	TMCCLELLAND 2013/07/31				
		0 PLACE ±	±	APPROVED BY DATE				
				MBANAKIS 2013/08/01				
		ANGULAR ±1/2°		MATERIAL NO.	DOCUMENT NO.			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART	SD-76866-1000	SHEET NO. 12 OF 12		
		SIZE C	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					



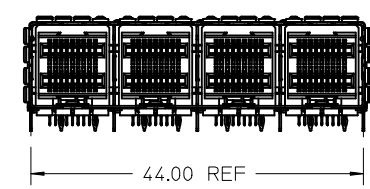
1x1



1x2



1x4

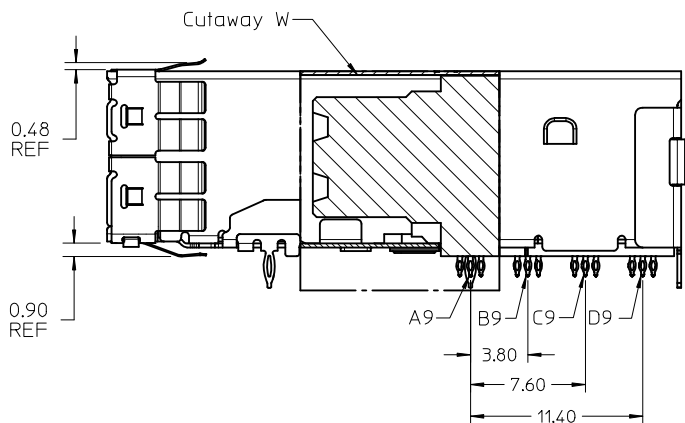
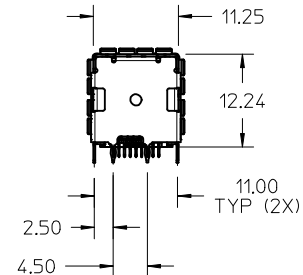
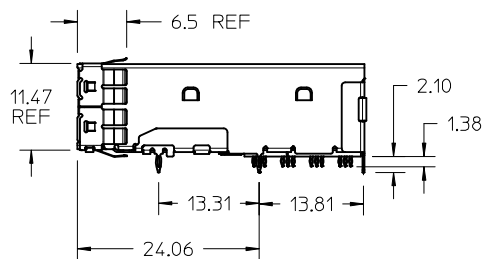
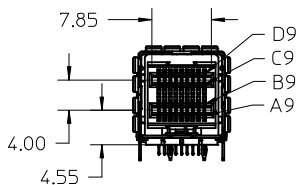
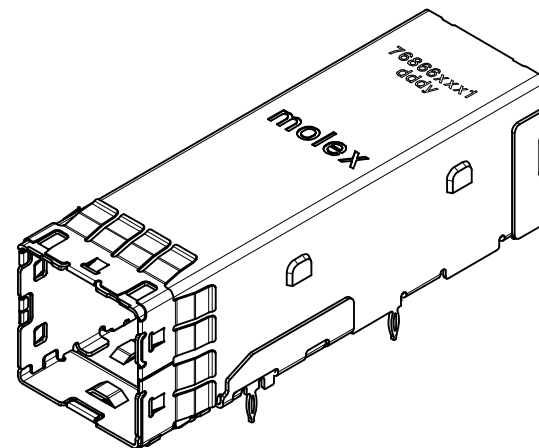
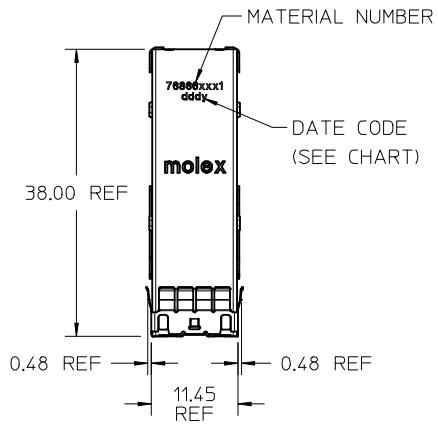


NOTES:

- MATERIALS:
 - CONNECTOR HOUSING: HIGH TEMPERATURE THERMOPLASTIC GLASS FILLED, UL 94V-0
 - EMI CAGE: NICKEL SILVER ALLOY
 - EMI CAGE BASE: STAINLESS STEEL
 - EMI FINGERS: COPPER ALLOY
 - TERMINALS: COPPER ALLOY
- FINISHES:
 - EMI FINGERS: 0.50µM MIN NICKEL
 - CONTACT AREA: 0.76µM MIN GOLD OVER 3.81µM MIN NICKEL
 - TAIL AREA: 0.76µM-1.52µM TIN OVER 1.27µM MIN NICKEL
- PRODUCT SPECIFICATION: PS-76866-001
- PACKAGING SPECIFICATION: PK-76866-001
- MATES WITH: MOLEX CABLE SERIES 111068, 111073, 111074, & 111075
- RECOMMENDED MOUNTING HARDWARE: REFER TO APPLICATION SPECIFICATION AS-76866-001
- THIS PART CONFORMS TO CLASS C REQUIREMENTS OF MOLEX COSMETIC SPECIFICATION PS-45499-002
- PLUG MODULE PCB LAYOUT REFER TO SD-76866-9900

CONFIGURATION	MATERIAL NO.
1 x 1	76866-1011
1 x 2	76866-1015
1 x 4	76866-1013

REVD ASSY DIMS EEC NO: UCP2017-1144 DRWING: MCLELL 2016/11/17 CHKD: MCLELLAND 2016/11/17 APPR: MCLELL 2016/11/17	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± ---	DRAWN BY KLANG	DATE 2011/09/29	TITLE IPASS PLUS HD - 12G EXTERNAL			
		3 PLACES ± --- ± ---	CHECKED BY TMCCLELLAND	DATE 2013/07/31				
		2 PLACES ± 0.13 ± ---	APPROVED BY MBANAKIS	DATE 2013/08/01	DOCUMENT NO. SD-76866-1000	SHEET NO. 1 OF 12		
1 PLACE ± 0.25 ± ---	ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
0 PLACE ± ±	SEE CHART							

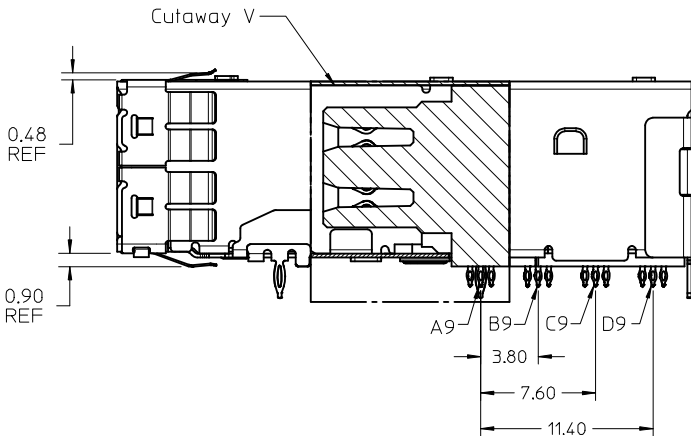
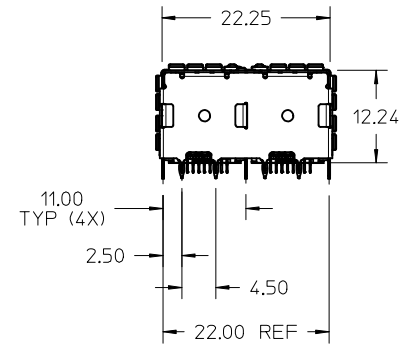
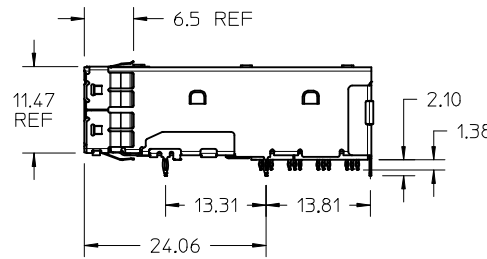
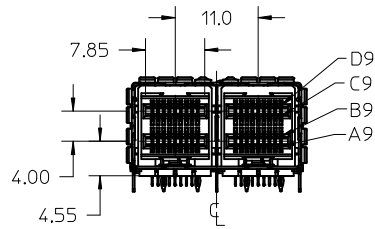
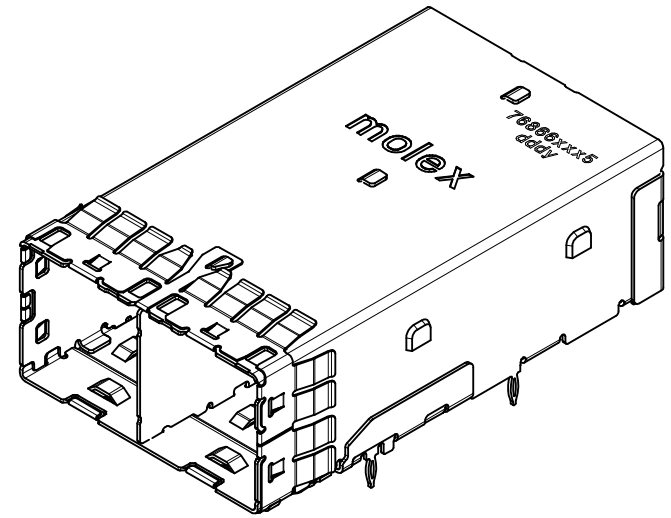
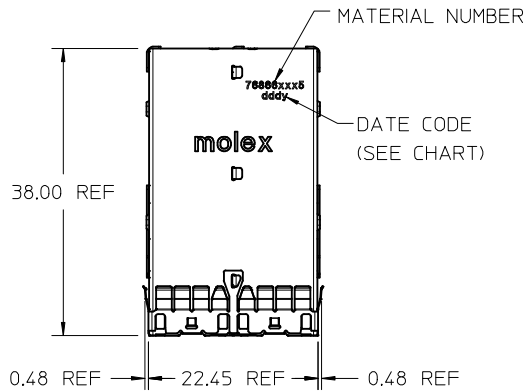


1X1 ASSEMBLY

MEXICO	DDDYY
CHINA	MSHDDYY
MANUFACTURING LOCATION	DATE CODE
DESIGN UNITS METRIC	THIRD ANGLE PROJECTION

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±	mm INCH DRAWN BY DATE KLANG 2011/09/29 CHECKED BY DATE TMCCLELLAND 2013/07/31 APPROVED BY DATE MBANAKIS 2013/08/01	TITLE IPASS PLUS HD - 12G EXTERNAL		DOCUMENT NO. SD-76866-1000
B1	DESCRIPTION	ANGULAR ±1/2° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SHEET NO. 2 OF 12

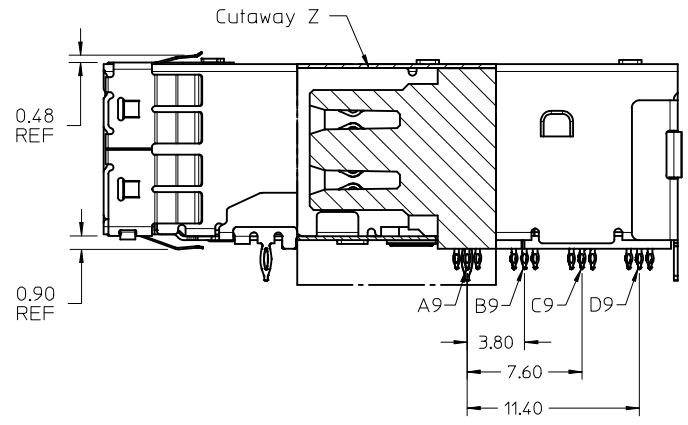
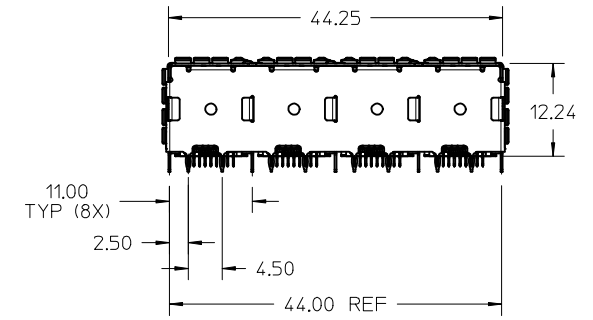
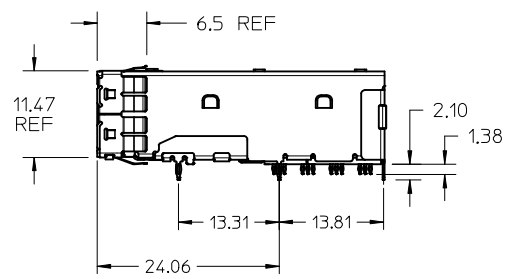
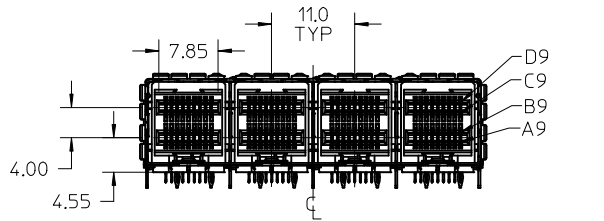
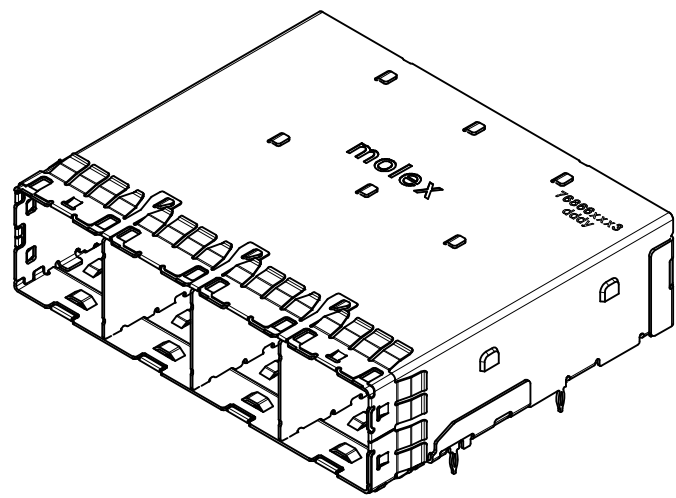
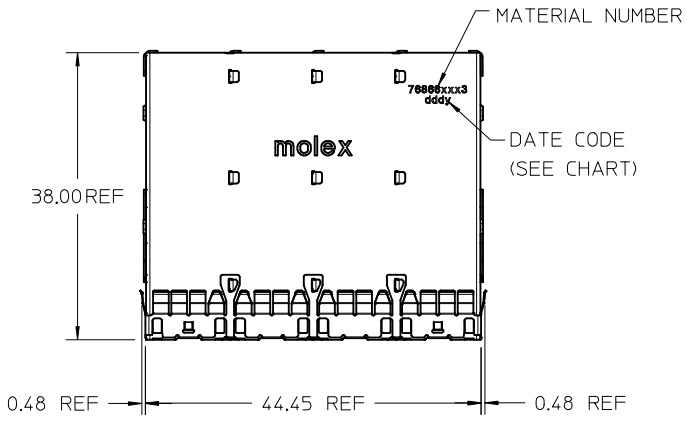
molex	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	



1X2 ASSEMBLY

MEXICO	DDDY
CHINA	MSHDDDY
MANUFACTURING LOCATION	DATE CODE
DESIGN UNITS METRIC	THIRD ANGLE PROJECTION

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±	mm INCH DRAWN BY DATE KLANG 2011/09/29 CHECKED BY DATE TMCCLELLAND 2013/07/31 APPROVED BY DATE MBANAKIS 2013/08/01	TITLE IPASS PLUS HD - 12G EXTERNAL		DOCUMENT NO. SD-76866-1000		
B1	DESCRIPTION IPASS PLUS HD - 12G EXTERNAL	ANGULAR ±1/2° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		



1X4 ASSEMBLY

MEXICO	DDDY
CHINA	MSHDDY
MANUFACTURING LOCATION	DATE CODE
DESIGN UNITS METRIC	THIRD ANGLE PROJECTION

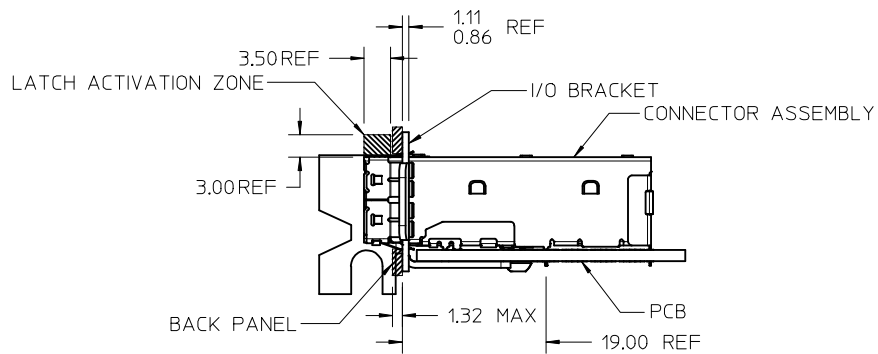
SEE SHEET 1 IEC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC		THIRD ANGLE PROJECTION	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRAWN BY DATE KLANG 2011/09/29		CHECKED BY DATE TMCCLELLAND 2013/07/31		APPROVED BY DATE MBANAKIS 2013/08/01		
REV B1	DESCRIPTION	mm INCH		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±		MATERIAL NO. SEE CHART		DOCUMENT NO. SD-76866-1000		SHEET NO. 4 OF 12

IPASS PLUS HD - 12G EXTERNAL

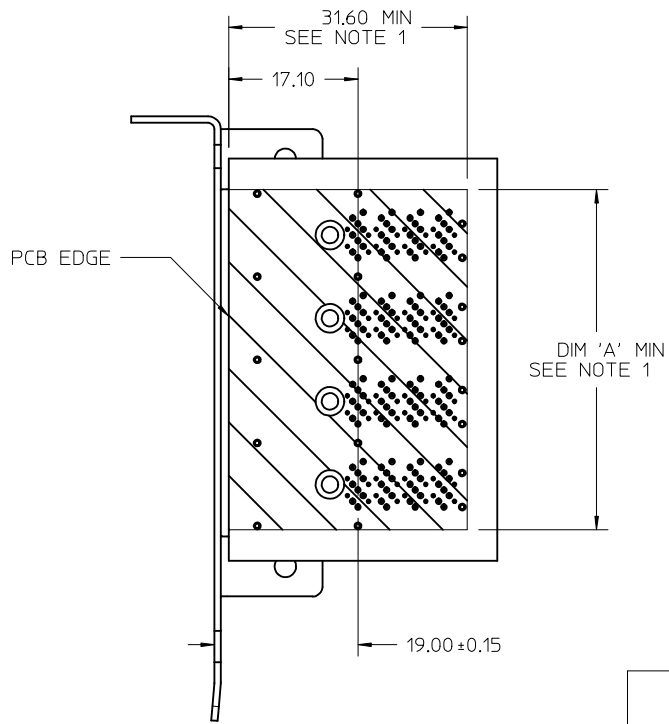
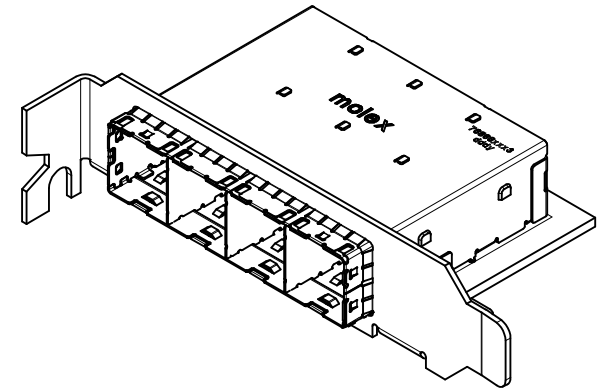
molex

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

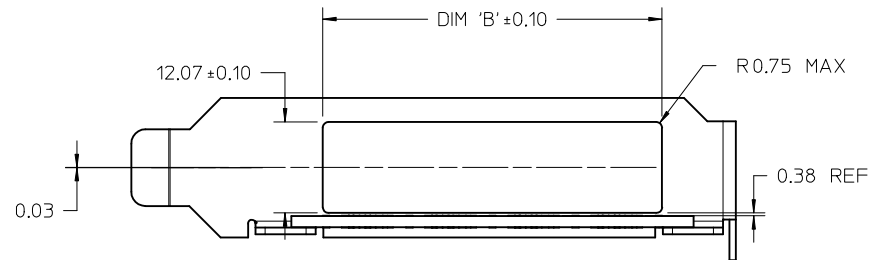
PCI ADD-IN CARD APPLICATION



ASSEMBLED VIEW



PCB TO BRACKET VIEW



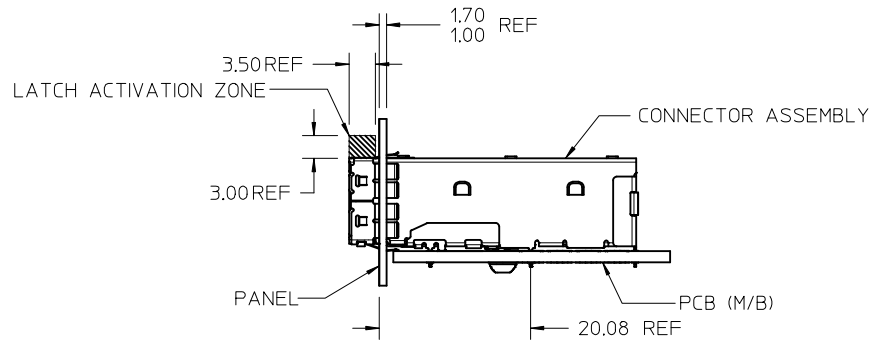
I/O BRACKET CUT OUT
(BRACKET NOT SUPPLIED)

CONFIGURATION	DIM 'A' (MIN)	DIM 'B' (±0.10)
1 X 1	12.00	11.90
1 X 2	23.00	22.90
1 X 4	45.00	44.90

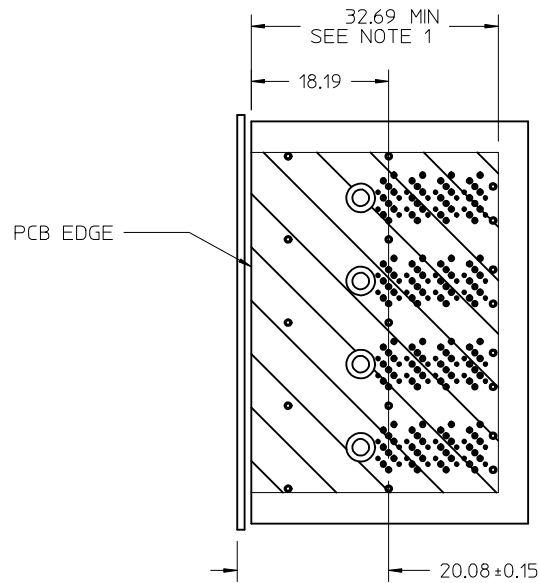
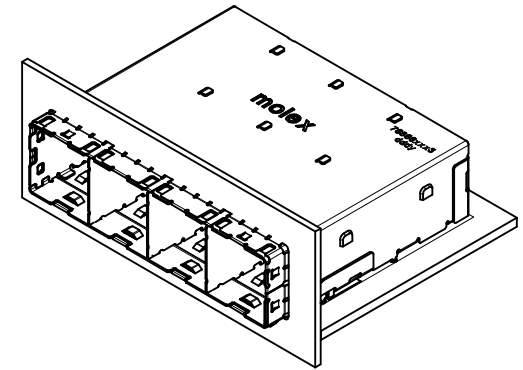
SEE SHEET 1 IEC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE KLANG 2011/09/29	TITLE IPASS PLUS HD - 12G EXTERNAL	molex DOCUMENT NO. SD-76866-1000 SHEET NO. 5 OF 12	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION
	▽=0	3 PLACES ± --- ± ---	CHECKED BY DATE TMCCLELLAND 2013/07/31	SEE CHART		
	▽=0	2 PLACES ±0.13 ± ---	APPROVED BY DATE MBANAKIS 2013/08/01			
	1 PLACE ±0.25 ± ---					
	0 PLACE ± ±					
		ANGULAR ±1/2°				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				

NOTES:
1. CONNECTOR KEEP OUT ZONE: PCB COMPONENTS ARE NOT ALLOWED IN THIS AREA.

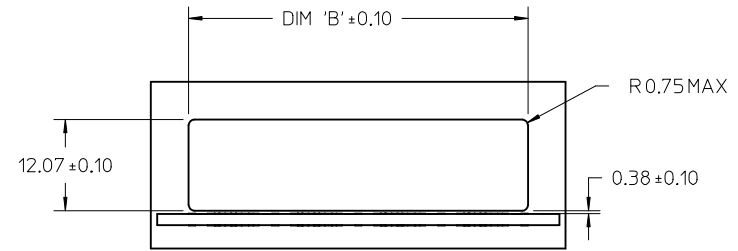
MOTHERBOARD APPLICATION



ASSEMBLED VIEW



PCB TO PANEL VIEW



PANEL CUT OUT

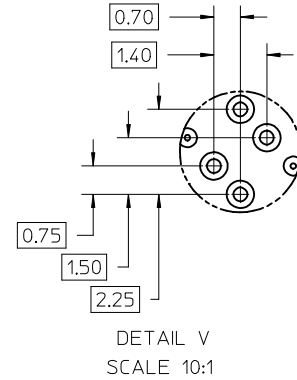
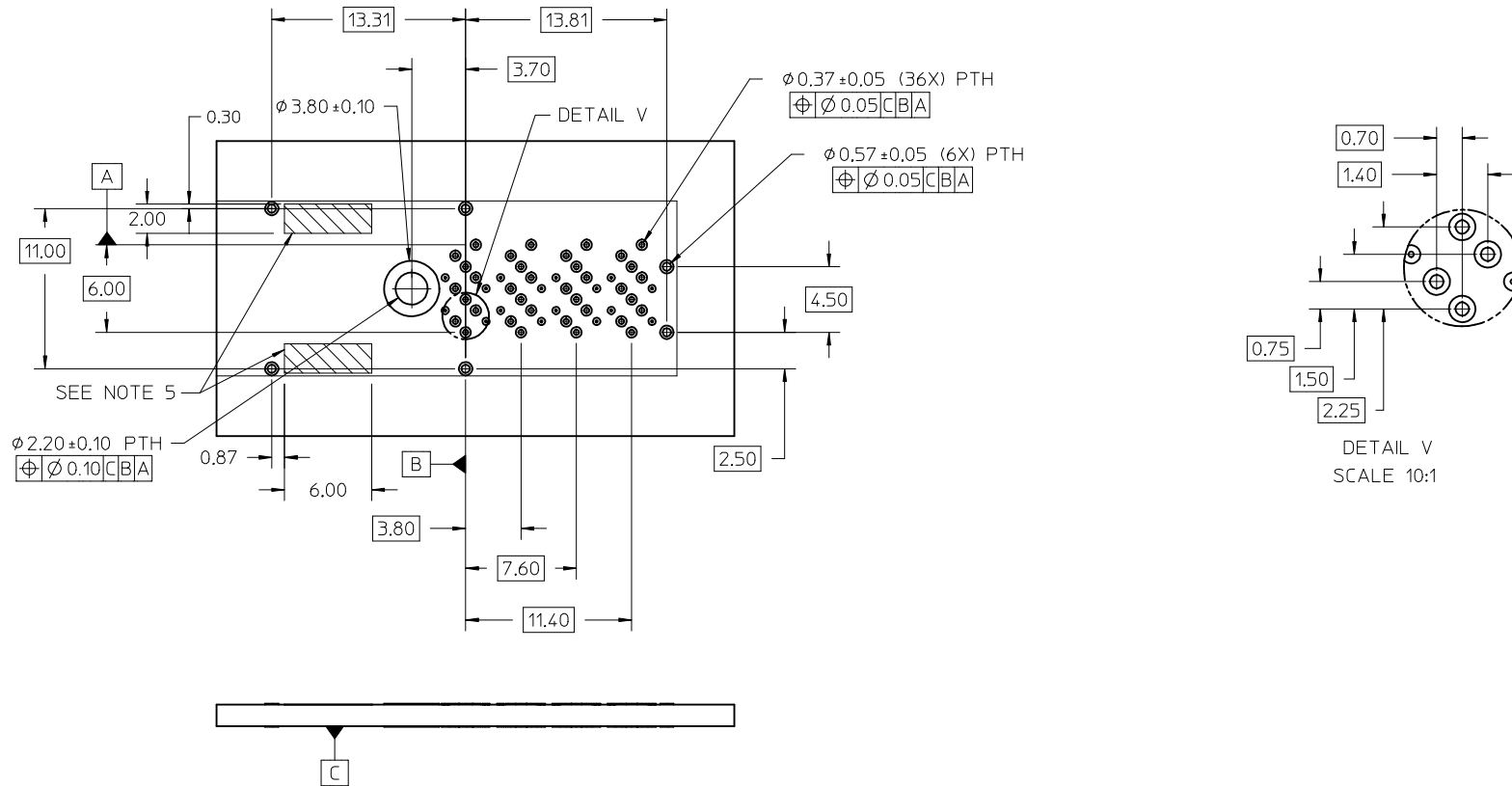
CONFIGURATION	DIM 'A' (MIN)	DIM 'B' (±0.10)
1 X 1	12.00	11.90
1 X 2	23.00	22.90
1 X 4	45.00	44.90

NOTES:

- CONNECTOR KEEP OUT ZONE: PCB COMPONENTS ARE NOT ALLOWED IN THIS AREA.

SEE SHEET 1 EC NO: UCP2017-1144 DRWN: TMCCLELL 2016/11/17 CHKD: TMCCLELLAND 2016/11/17 APPR: TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	▽=0	mm INCH	DRAWN BY DATE KLANG 2011/09/29	TITLE IPASS PLUS HD - 12G EXTERNAL		
	▽=0	4 PLACES ± --- ± ---	CHECKED BY DATE TMCCLELLAND 2013/07/31	SEE CHART DOCUMENT NO. SD-76866-1000		
	▽=0	3 PLACES ± --- ± ---	APPROVED BY DATE MBANAKIS 2013/08/01			
	2 PLACES ± 0.13 ± ---	MATERIAL NO.				
	1 PLACE ± 0.25 ± ---	ANGULAR ± 1/2°	SIZE C	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	SHEET NO. 6 OF 12	
	0 PLACE ± ±	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				

1X1 RECOMMENDED FOOTPRINT

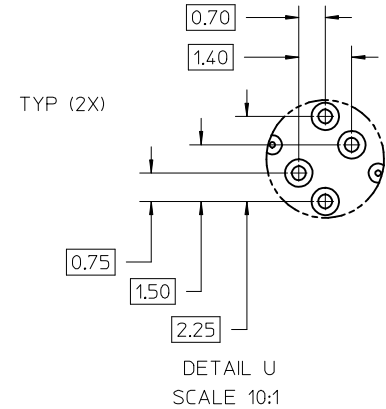
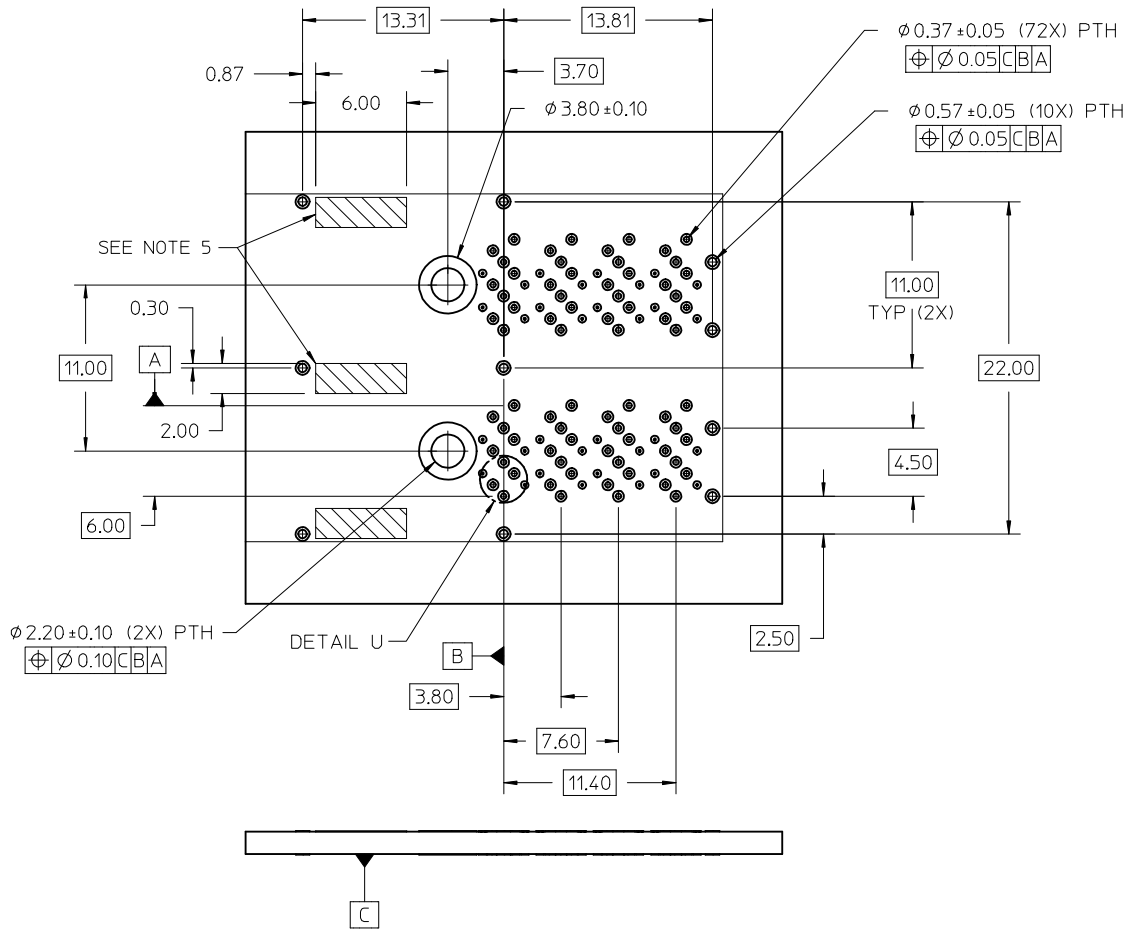


NOTES:

1. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.37ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
2. MINIMUM RECOMMENDED SPACING: 14.00MM
4. MINIMUM PCB THICKNESS: 1.57MM
4. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.57ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
5. CAGE KEEP OUT ZONE: TRACES AND VIAS ARE NOT ALLOWED ON SURFACE OF PCB IN THESE AREAS.

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS $\nabla = 0$ $\nabla = 0$ $\nabla = 0$	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>± 0.13</td> <td>± 0.005</td> </tr> <tr> <td>3 PLACES</td> <td>± 0.25</td> <td>± 0.010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.51</td> <td>± 0.020</td> </tr> <tr> <td>1 PLACE</td> <td>± 1.02</td> <td>± 0.040</td> </tr> <tr> <td>0 PLACE</td> <td>± 2.04</td> <td>± 0.080</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± 0.13	± 0.005	3 PLACES	± 0.25	± 0.010	2 PLACES	± 0.51	± 0.020	1 PLACE	± 1.02	± 0.040	0 PLACE	± 2.04	± 0.080	DIMENSION STYLE MM ONLY DRAWN BY: KLANG DATE: 2011/09/29 CHECKED BY: TMCCLELLAND DATE: 2013/07/31 APPROVED BY: MBANAKIS DATE: 2013/08/01	SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE IPASS PLUS HD - 12G EXTERNAL molex DOCUMENT NO. SD-76866-1000 SHEET NO. 7 OF 12
		mm	INCH																				
	4 PLACES	± 0.13	± 0.005																				
	3 PLACES	± 0.25	± 0.010																				
2 PLACES	± 0.51	± 0.020																					
1 PLACE	± 1.02	± 0.040																					
0 PLACE	± 2.04	± 0.080																					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	ANGULAR $\pm 1/2^\circ$	SEE CHART	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																				
REV: B1																							

1X2 RECOMMENDED FOOTPRINT

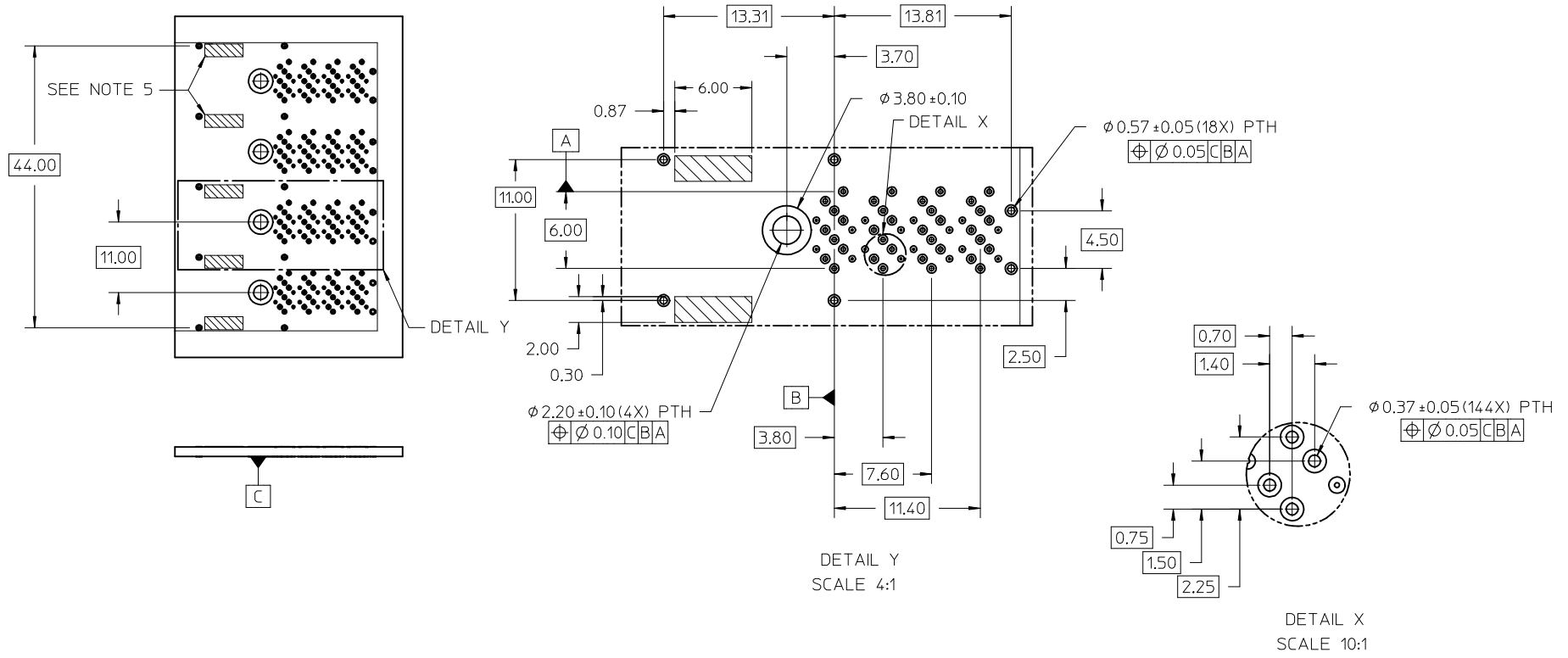


NOTES:

1. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.37 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
2. MINIMUM RECOMMENDED SPACING: 25.00MM
4. MINIMUM PCB THICKNESS: 1.57MM
4. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.57 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
5. CAGE KEEP OUT ZONE: TRACES AND VIAS ARE NOT ALLOWED ON SURFACE OF PCB IN THESE AREAS.

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.13 ± --- 1 PLACE ± 0.25 ± --- 0 PLACE ± ±	mm INCH DRAWN BY DATE KLANG 2011/09/29 CHECKED BY DATE TMCCLELLAND 2013/07/31 APPROVED BY DATE MBANAKIS 2013/08/01	TITLE IPASS PLUS HD - 12G EXTERNAL		MATERIAL NO. SEE CHART	DOCUMENT NO. SD-76866-1000
B1	DESCRIPTION DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

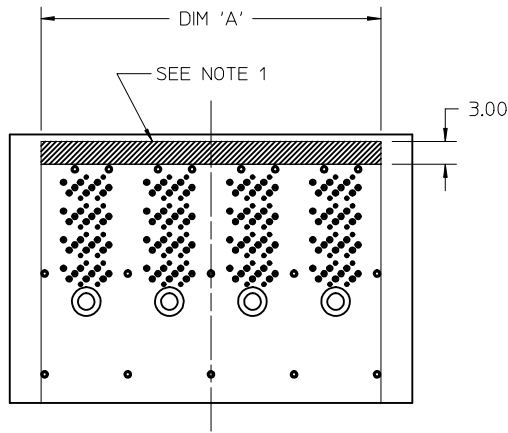
1X4 RECOMMENDED FOOTPRINT



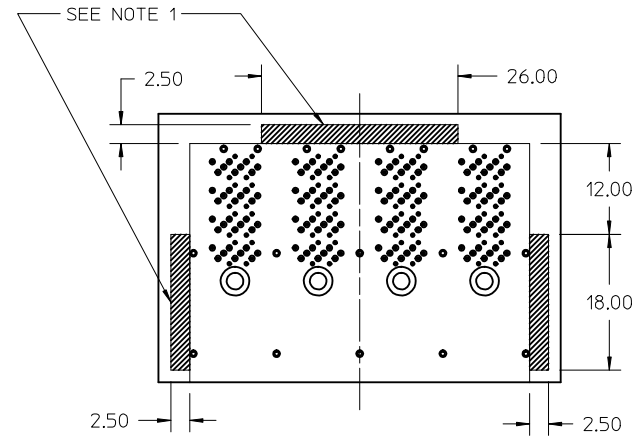
- NOTES:
1. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.37 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
 2. MINIMUM RECOMMENDED SPACING: 47.00MM
 3. MINIMUM PCB THICKNESS: 1.57MM
 4. RECOMMENDED DRILL & ANNULAR RING SIZE FOR 0.57 ϕ FINISHED PTH - REFER TO APPLICATION SPECIFICATION AS-76866-001
 5. CAGE KEEP OUT ZONE: TRACES AND VIAS ARE NOT ALLOWED ON SURFACE OF PCB IN THESE AREAS.

SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		▽=0 ▽=0 ▽=0	mm	INCH	MM ONLY	2:1	METRIC	IPASS PLUS HD - 12G EXTERNAL	
REV: B1	DESCRIPTION	4 PLACES	±	---	DRAWN BY	DATE	TITLE		
		3 PLACES	±	---	KLANG	2011/09/29			
REV: B1	DESCRIPTION	2 PLACES	±	0.13	CHECKED BY	DATE	DOCUMENT NO.		
		1 PLACE	±	0.25	TMCCLELLAND	2013/07/31			
REV: B1	DESCRIPTION	0 PLACE	±	---	APPROVED BY	DATE	SHEET NO.		
			±	---	MBANAKIS	2013/08/01			
		ANGULAR ±1/2°		MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SD-76866-1000		9 OF 12	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

RECOMMENDED TOOLING KEEP OUT AREAS



INSERTION TOOL KEEP OUT AREA



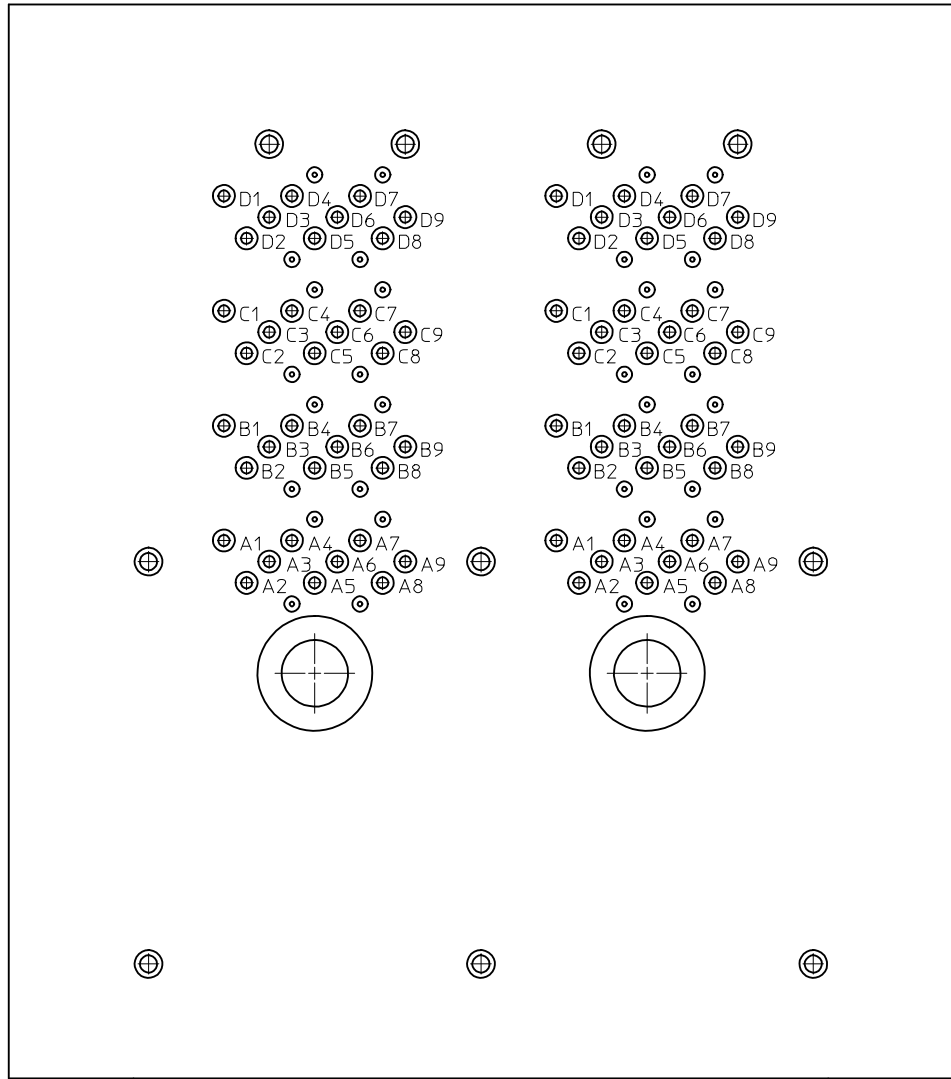
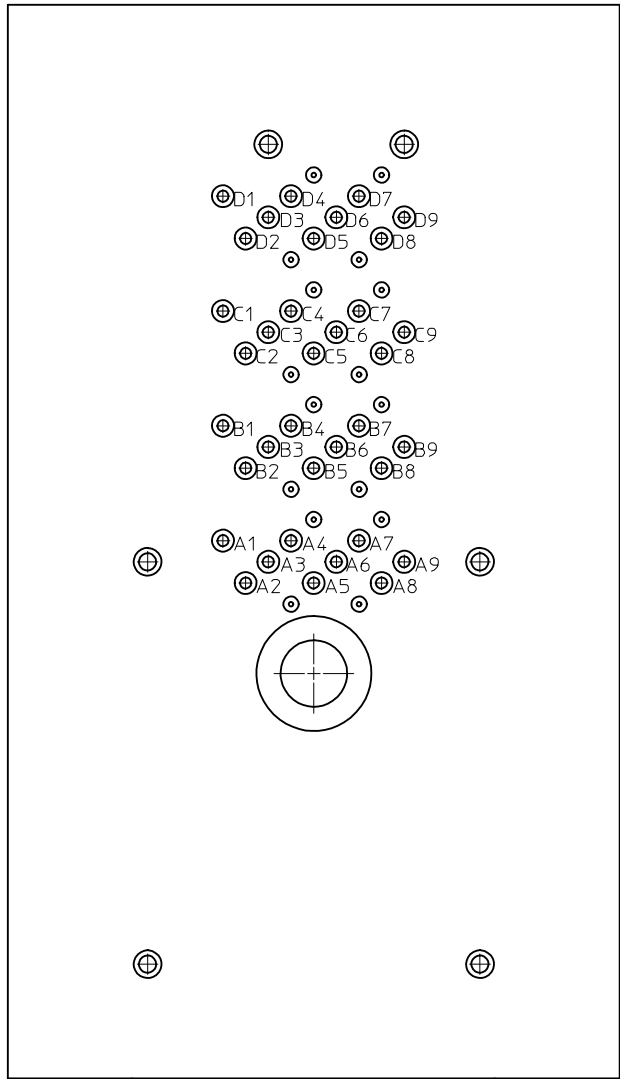
EXTRACTION TOOL KEEP OUT AREA

CONFIGURATION	DIM 'A' (MIN)
1 X 1	12.00
1 X 2	23.00
1 X 4	45.00

NOTES:
1. NO COMPONENTS ALLOWED IN THESE AREAS

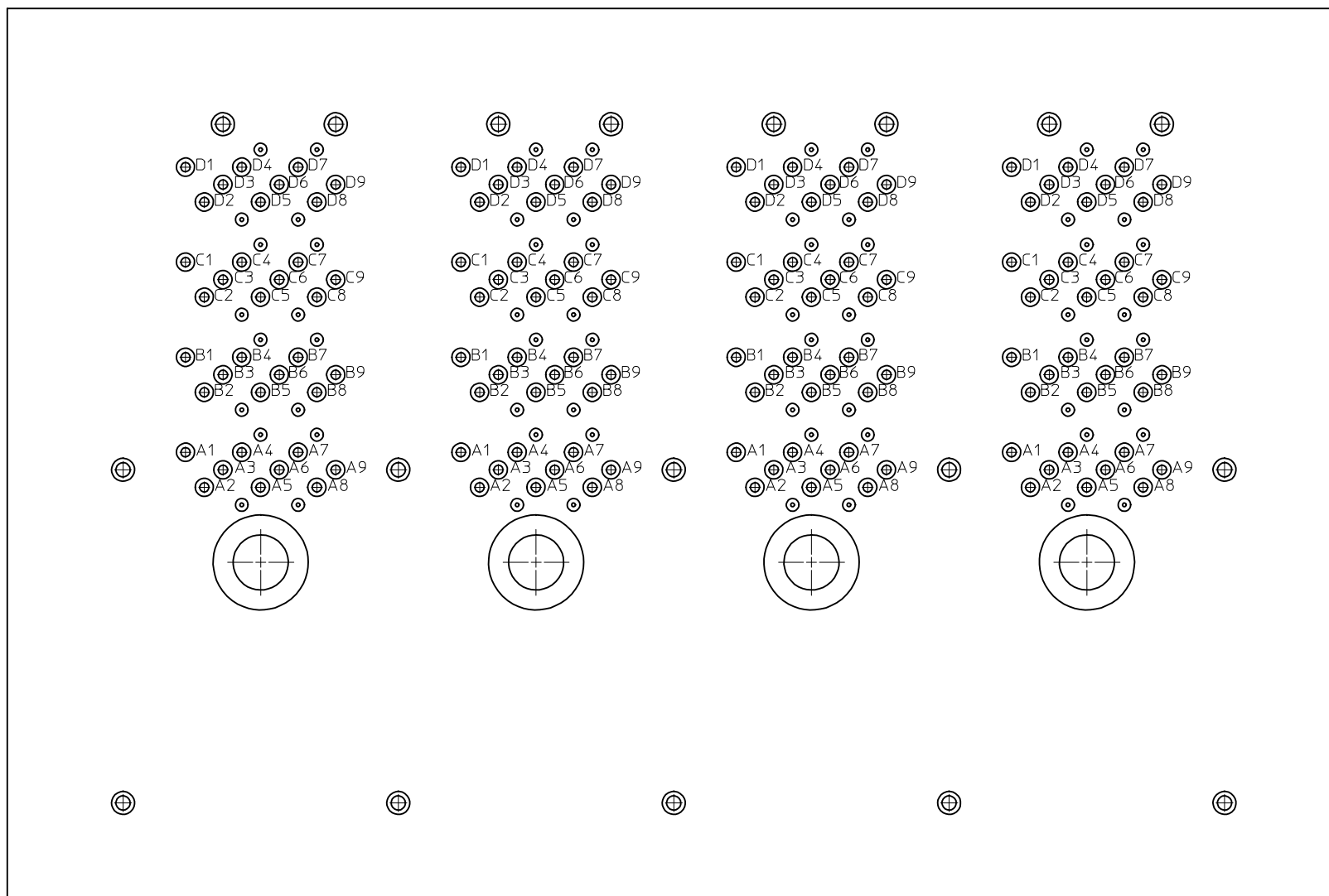
SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	▽=0	mm INCH	DRAWN BY DATE KLANG 2011/09/29	TITLE IPASS PLUS HD - 12G EXTERNAL	molex		
	▽=0	4 PLACES ± --- ± ---	CHECKED BY DATE TMCCLELLAND 2013/07/31	DOCUMENT NO. SD-76866-1000			SHEET NO. 10 OF 12
	▽=0	3 PLACES ± --- ± ---	APPROVED BY DATE MBANAKIS 2013/08/01	SIZE C			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION
	2 PLACES ± 0.13 ± ---						
	1 PLACE ± 0.25 ± ---	ANGULAR ±1/2°	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				
	0 PLACE ± ±						

1X1 & 1X2 FOOTPRINT CIRCUIT IDENTIFICATION



SEE SHEET 1 EC NO: UCP2017-1144 DRWN:TMCCLELL 2016/11/17 CHKD:TMCCLELLAND 2016/11/17 APPR:TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm	INCH	MM ONLY	8:1	METRIC	
	▽=0	4 PLACES ±---	±---	DRAWN BY	DATE	TITLE	
	▽=0	3 PLACES ±---	±---	KLANG	2011/09/29	IPASS PLUS HD - 12G EXTERNAL	
		2 PLACES ±0.13	±---	CHECKED BY	DATE		
		1 PLACE ±0.25	±---	TMCCLELLAND	2013/07/31		
		0 PLACE ±	±	APPROVED BY	DATE		
				MBANAKIS	2013/08/01		
				MATERIAL NO.	DOCUMENT NO.		
				ANGULAR ±1/2°	SEE CHART	SD-76866-1000	
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE	SHEET NO.	
					C	11 OF 12	
						THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX. INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

1X4 FOOTPRINT CIRCUIT IDENTIFICATION



SEE SHEET 1 EC NO: UCP2017-1144 DRWN: TMCCLELL 2016/11/17 CHKD: TMCCLELLAND 2016/11/17 APPR: TMCCLELL 2016/11/17	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	▽=0	mm	INCH	MM ONLY	8:1	METRIC		
	▽=0	4 PLACES ± ---	± ---	DRAWN BY DATE	TITLE IPASS PLUS HD - 12G EXTERNAL			
	▽=0	3 PLACES ± ---	± ---	KLANG 2011/09/29				
		2 PLACES ± 0.13	± ---	CHECKED BY DATE	DOCUMENT NO. SD-76866-1000			
		1 PLACE ± 0.25	± ---	TMCCLELLAND 2013/07/31				
		0 PLACE ±	±	APPROVED BY DATE	SHEET NO. 12 OF 12			
		ANGULAR ±1/2°		MBANAKIS 2013/08/01				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART				
REV B1				MATERIAL NO.	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			