



To: All Molex Sales and Marketing
From: Richard Bahou, Global Product Manager
Re: I-Trac Vertical Receptacle Product Improvements

Date: March 5, 2012

Series: 78227, 78232, 78237

I-TRAC Power Modules			
Description	Product Series		
Row Size	7	11	15
Vertical Receptacle	78227	78232	78237

What's changing?

Improved vertical receptacle power module changes include side ribs and new top rib design.

Product Overview

The I-Trac product line consists of several power module variations, used with the 7, 11, and 15 row I-Trac signal modules.

Product Improvement

Aligned with company continuous improvement policy, Molex enhanced connector product design improves quality and molding manufacturing process.

1. The new enhanced power module connector will add a 3rd side rib.
2. The new top rib design will change.
3. Combined, the new side rib and top rib shape design changes will improve molding manufacturing process.
4. Product design changes will not affect Printed Circuit Board (PCB) layout design.
5. Product performance and specification will remain unchanged.

PN and Product Series

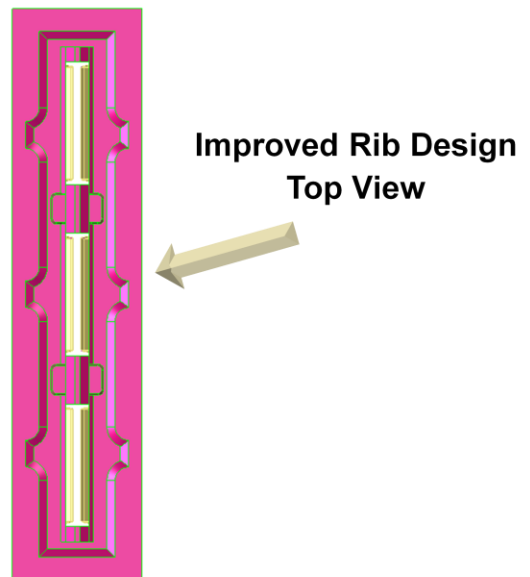
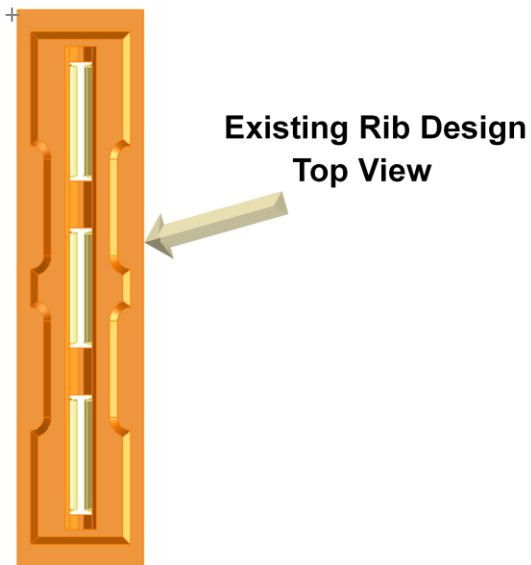
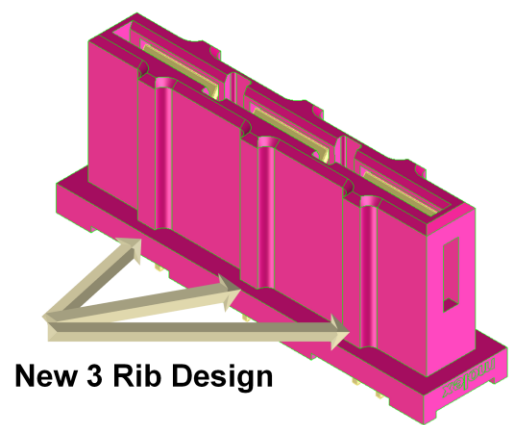
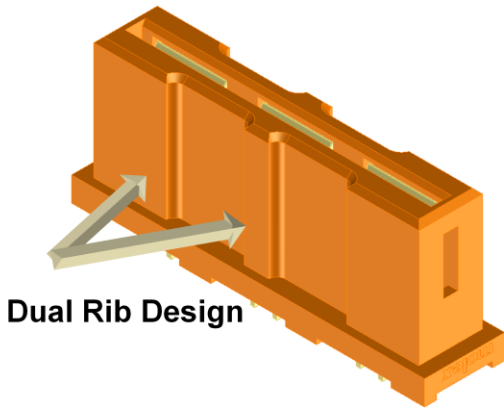
Molex will maintain same PNs and product series for 7, 11, and 15 row power connector system.

The product changes will be a running change for customer shipments commencing May 2012.

Figure 1 summarizes product design changes

Figure 1
Vertical Power Module Receptacle Design Improvements

Current	New
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For questions regarding the above, contact:

Richard Bahou
Global Product Manager – Backplane Group
Molex – Lisle, IL.
630-527-4517
richard.bahou@molex.com

F

F

E

E

D

D

C

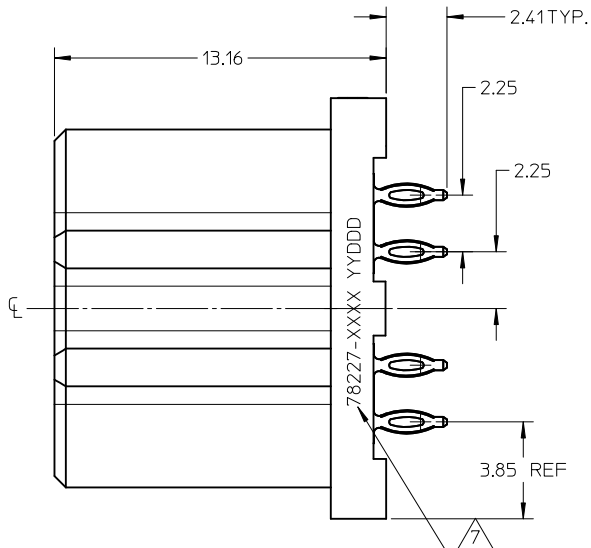
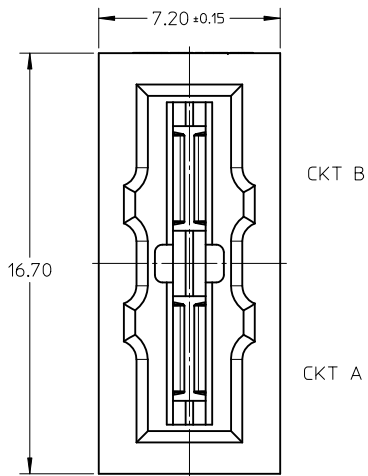
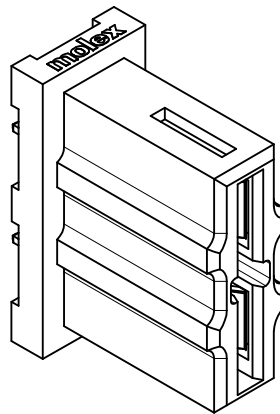
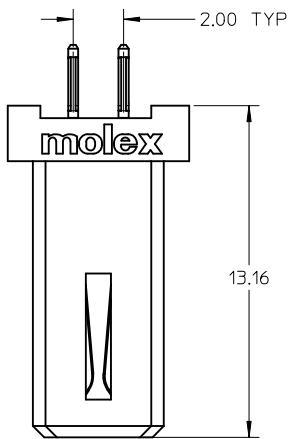
C

B

B

A

A



NOTES:

1. MATERIALS :
 HOUSING - LCP, GLASS FILLED, UL94-V0, COLOR: BLACK.
 POWER PIN - COPPER ALLOY
2. FINISHES :
 0.76 MICROMETER MINIMUM GOLD AT CONTACT AREA AND
 2.54 MICROMETER MINIMUM TIN AT SOLDER TAIL AREA
 OVER 1.27um MINIMUM NICKEL UNDERPLATE.
3. PRODUCT SPECIFICATION: PS-78231-006.
4. COMPONENT STAY AWAY ZONE FROM CONNECTOR.
5. PCB NOTE FOR PLATED HOLE.

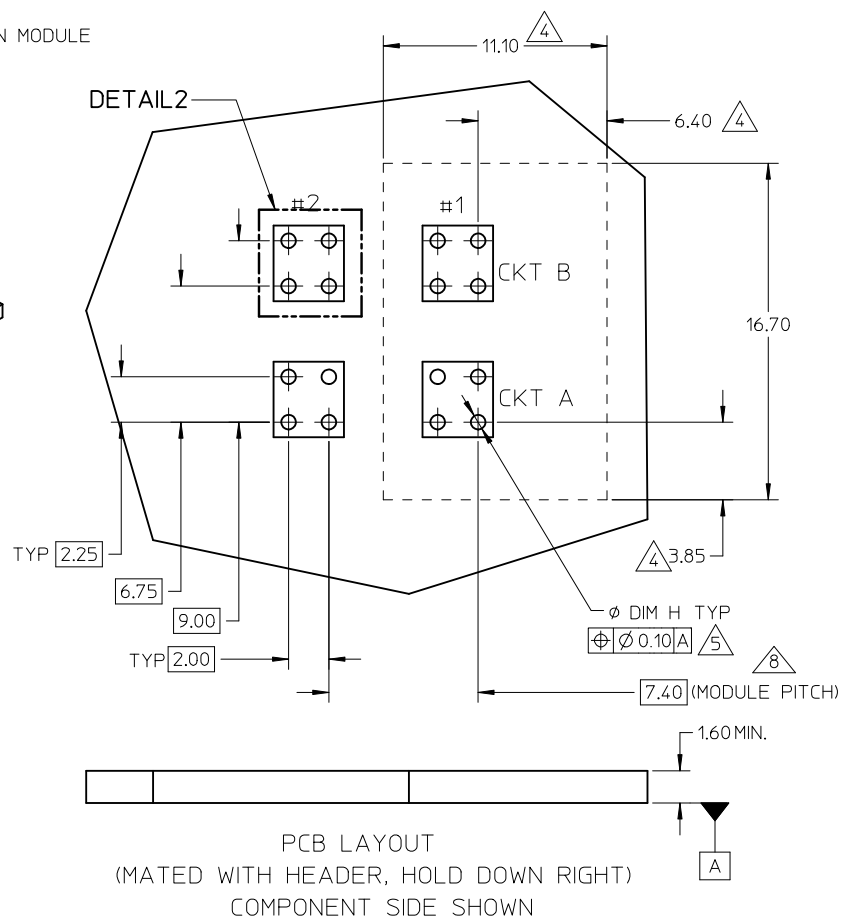
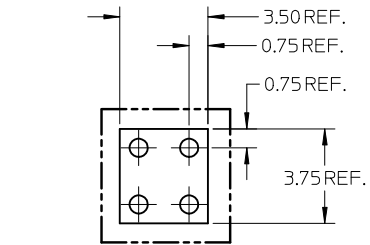
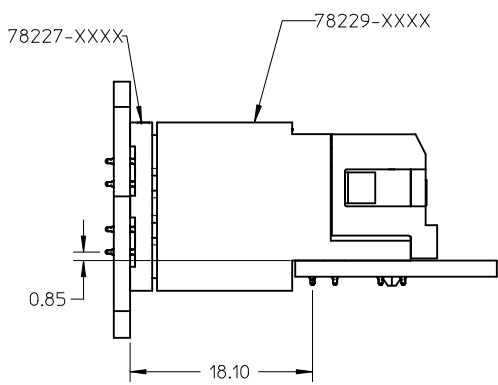
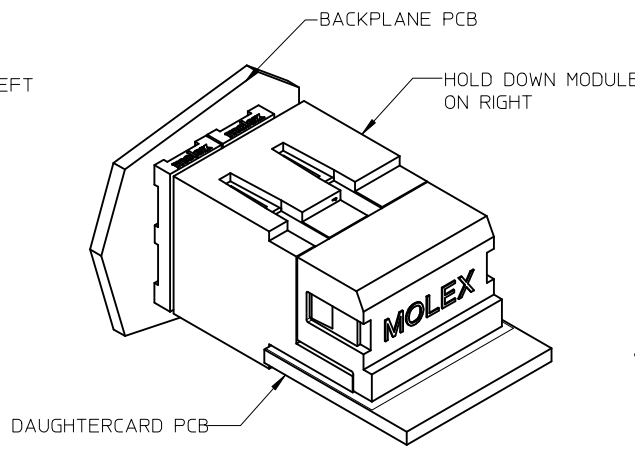
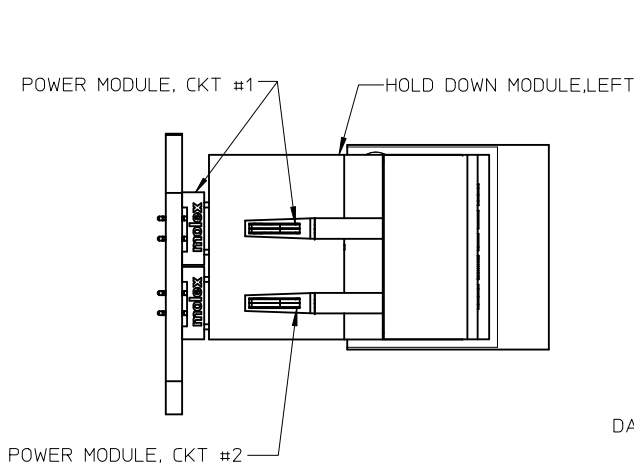
TYPE OF PLATED HOLE	DRILLED HOLE SIZE	PLATING THICKNESS	PLATED HOLE SIZE "ØDIM H"
TIN	0.838	0.007 MIN TIN/SILVER	0.725±0.075
SILVER	0.863	OVER 0.03 TO 0.08 COPPER PLATING	0.750±0.050

SEE SHEET 2 OR SHEET 3 FOR RECOMMENDED PCB LAYOUT.

6. MATES WITH 78229-****.
7. PART NUMBER AND YY-DDD CODE.
8. ADD 7.4MM FOR EACH ADDITIONAL POWER MODULE.
9. PACKAGING PROCEDURE AS PER PK-78227-001.

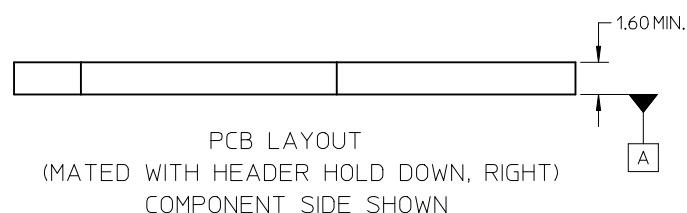
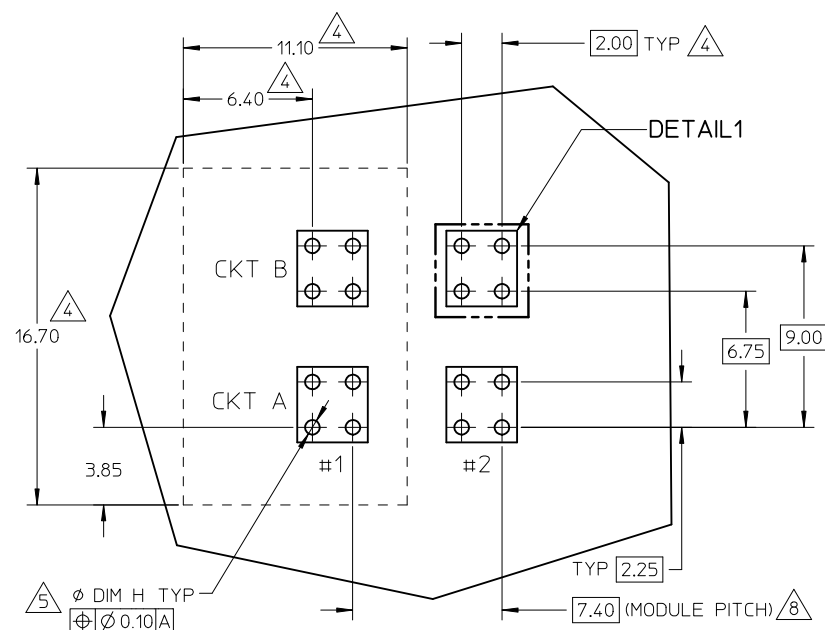
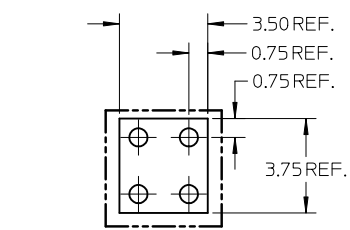
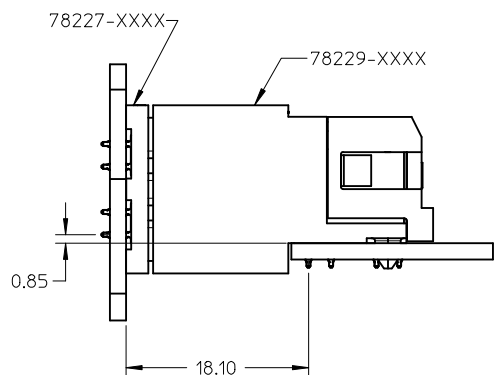
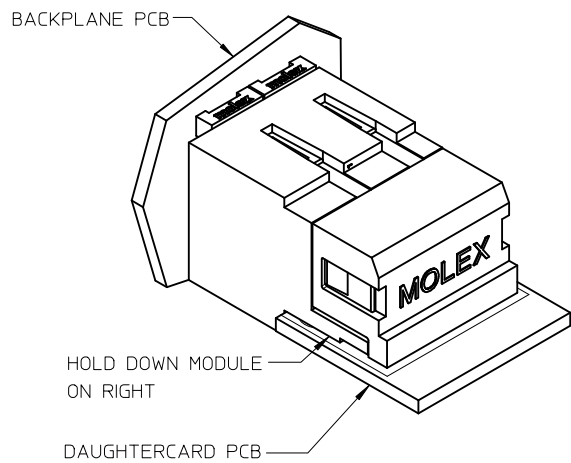
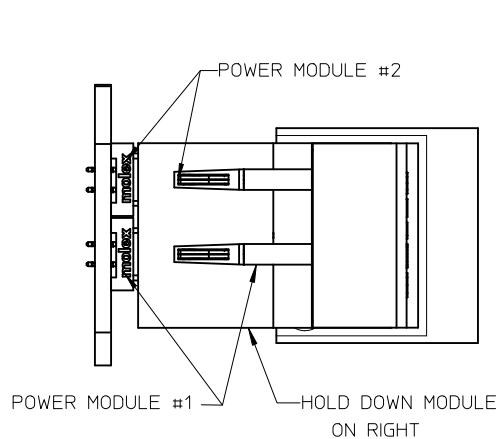
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		3 PLACES	± ---	± ---	CHECKED BY	DATE				
	2 PLACES	± 0.25	± ---	NRVITTAPELLI	2007/01/24	DOCUMENT NO.				
	1 PLACE	± ---	± ---	APPROVED BY	DATE	SHEET NO.				
		ANGULAR ± 3 °		NAGESHKIN	2012/01/06	1 OF 3				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
				SIZE	A3					
						782271001 SD-78227-011				

MATED DIMENSIONS AND PCB LAYOUT WITH HEADER HOLD DOWN LEFT

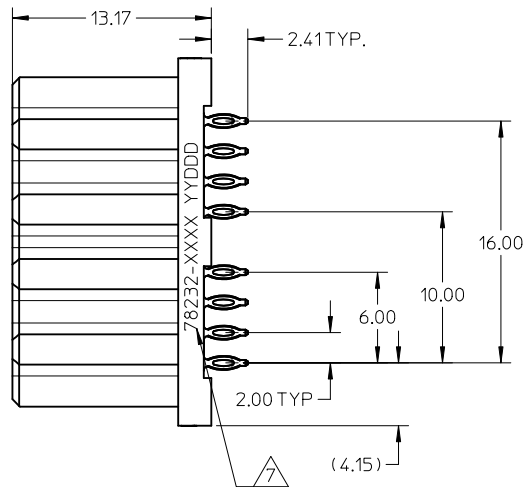
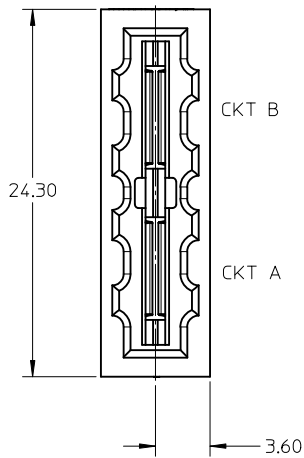
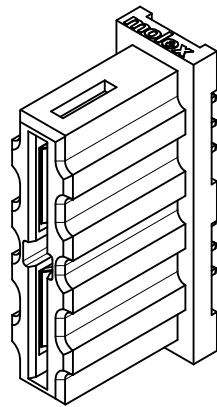
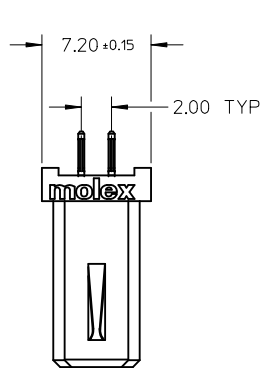


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			ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY NRVITTAPALLI	DATE 2007/01/24	MOLEX INCORPORATED				
				MATERIAL NO. 782271001	DOCUMENT NO. SD-78227-011	SHEET NO. 2 OF 3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

MATED DIMENSIONS AND PCB LAYOUT WITH HEADER HOLD DOWN RIGHT



REMOVE PB/SN EC NO: S2012-0580 DRWN: SHONG CHKD: LNG APPR: NAGESHKN	DESCRIPTION 2012/01/31 2012/02/13 2012/02/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
		$\nabla = 0$ $\square = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC	DRAWN BY: LNG DATE: 2006/08/28 CHECKED BY: NRVITTAPALLI DATE: 2007/01/24 APPROVED BY: NAGESHKN DATE: 2012/01/06 MATERIAL NO. 782271001	TITLE: I-TRAC POWER, 7 ROW VERTICAL RECEPTACLE PRESS-FIT MOLEX INCORPORATED DOCUMENT NO. SD-78227-011	SHEET NO. 3 OF 3
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					



NOTES

1. MATERIALS :
 HOUSING - LCP, GLASS FILLED, UL94-V0, COLOR: BLACK.
 POWER PIN - COPPER ALLOY
2. FINISHES :
 0.76 MICROMETER MINIMUM GOLD AT CONTACT AREA AND
 2.54 MICROMETER MINIMUM TIN AT SOLDER TAIL AREA
 OVER 1.27um MINIMUM NICKEL UNDERPLATE.
3. PRODUCT SPECIFICATION: PS-78231-006.
4. COMPONENT STAY AWAY ZONE FROM CONNECTOR.
5. PCB NOTE FOR PLATED HOLE.

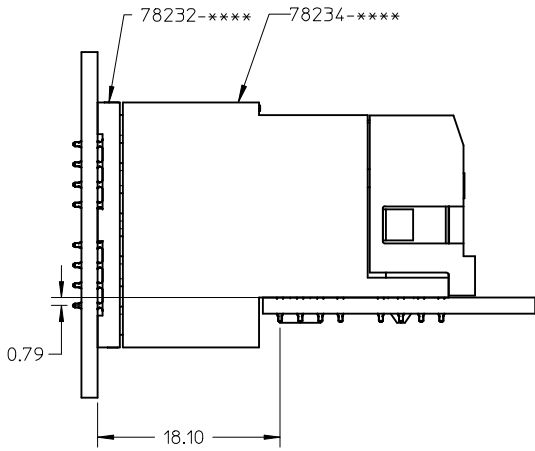
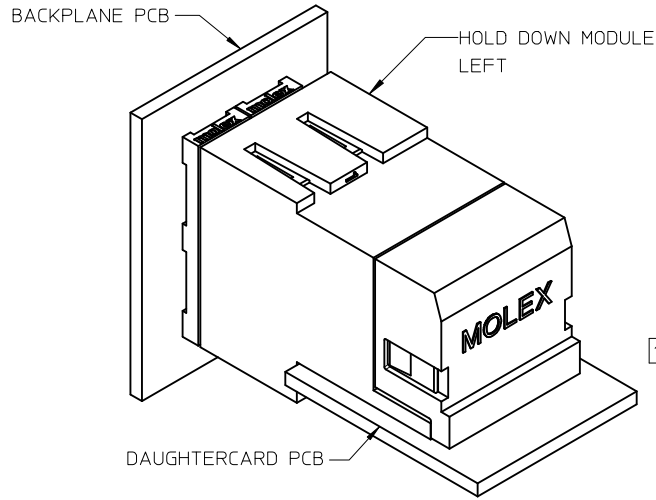
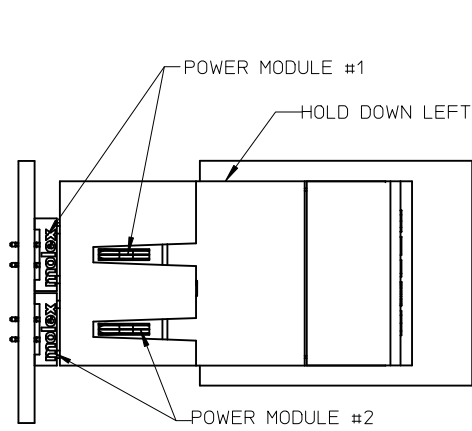
TYPE OF PLATED HOLE	DRILLED HOLE SIZE	PLATING THICKNESS	PLATED HOLE SIZE ØDIM H*
TIN	0.838	0.007 MIN TIN/SILVER OVER 0.03 TO 0.08 COPPER PLATING	0.725 ± 0.075
SILVER	0.863		0.750 ± 0.050

SEE SHEET 2 AND 3 FOR RECOMMENDED PCB LAYOUT.

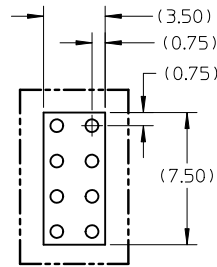
6. MATES WITH 78234-****.
7. PART NUMBER AND YEAR-WK CODE.
8. ADJACENT POWER MODULE PITCH.
9. PACKAGING PROCEDURE AS PER PK-78232-001.

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				3 PLACES ± --- ± ---	CHECKED BY DATE			I-TRAC POWER, 11 ROW VERTICAL RECEPTACLE PRESS-FIT
	2 PLACES ± 0.25 ± ---	APPROVED BY DATE			MOLEX INCORPORATED			
	1 PLACE ± --- ± ---	MATERIAL NO.			DOCUMENT NO.			
	ANGULAR ± 3 °	78232-1001			SD-78232-011			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE			SHEET NO.			
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		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

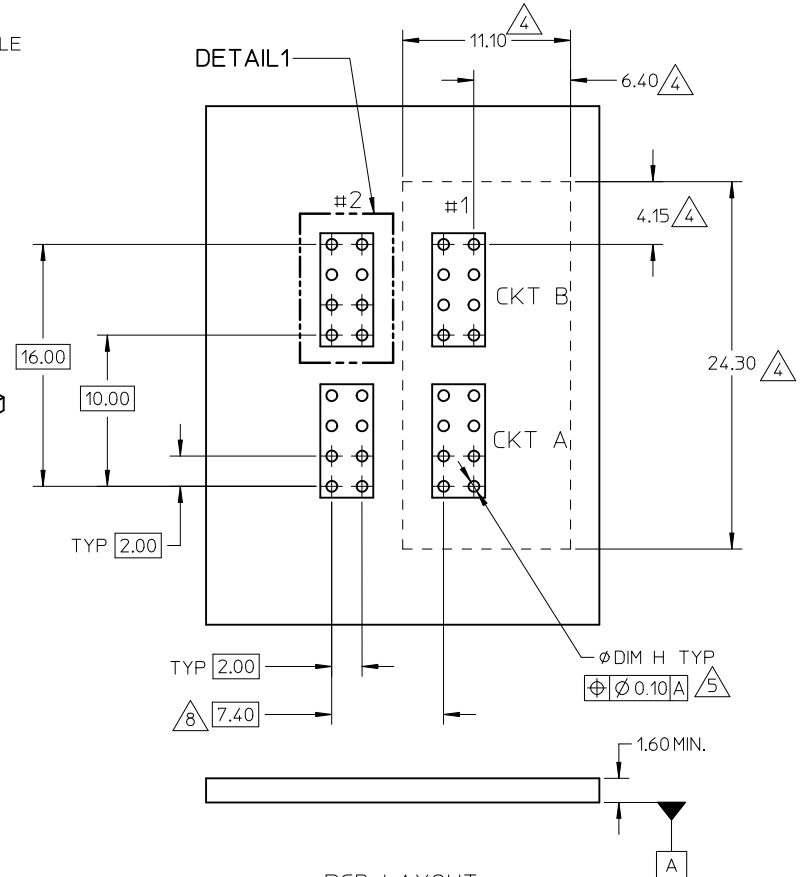
MATED DIMENSIONS AND PCB LAYOUT WITH HEADER HOLD DOWN LEFT



MATED SYSTEM FOR 78232 & 78234



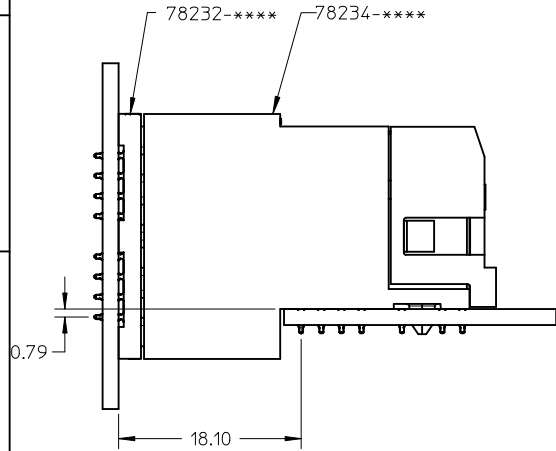
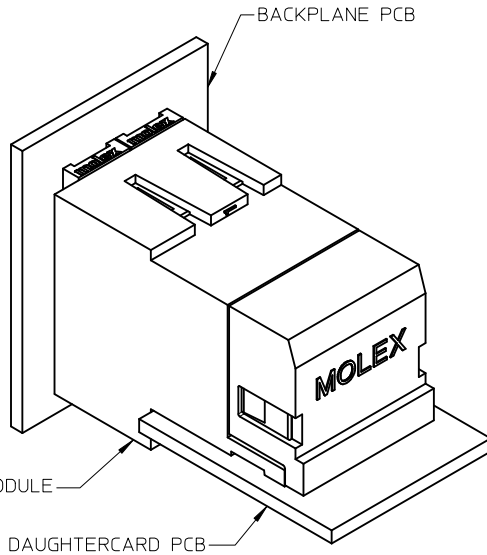
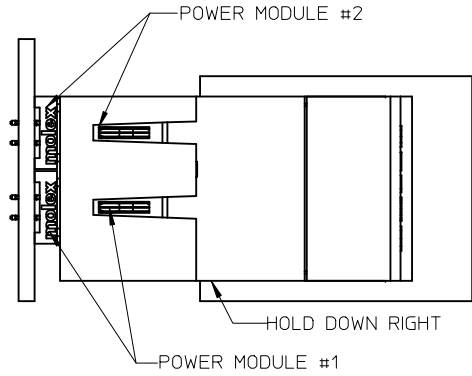
DETAIL1
COPPER PAD REFERENCE



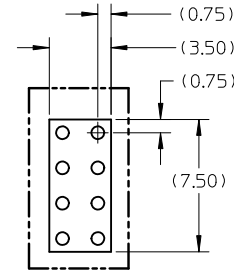
PCB LAYOUT
(MATED WITH HEADER HOLD DOWN MODULE LEFT)
COMPONENT SIDE SHOWN

REMOVE PB/SN EC NO: S2012-0580 DRWN: SHONG CHKD: LNG APPR: NAGESHKN	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
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			4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± ---	DRAWN BY DATE SHONG 2006/08/15	TITLE	I-TRAC POWER, 11 ROW VERTICAL RECEPTACLE PRESS-FIT		
			ANGULAR ± 3 °	CHECKED BY DATE LNG 2006/08/25	APPROVED BY DATE NAGESHKN 2012/01/06	MOLEX INCORPORATED		
A1		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. 78232-1001	DOCUMENT NO. SD-78232-011	SHEET NO. 2 OF 3			
				SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

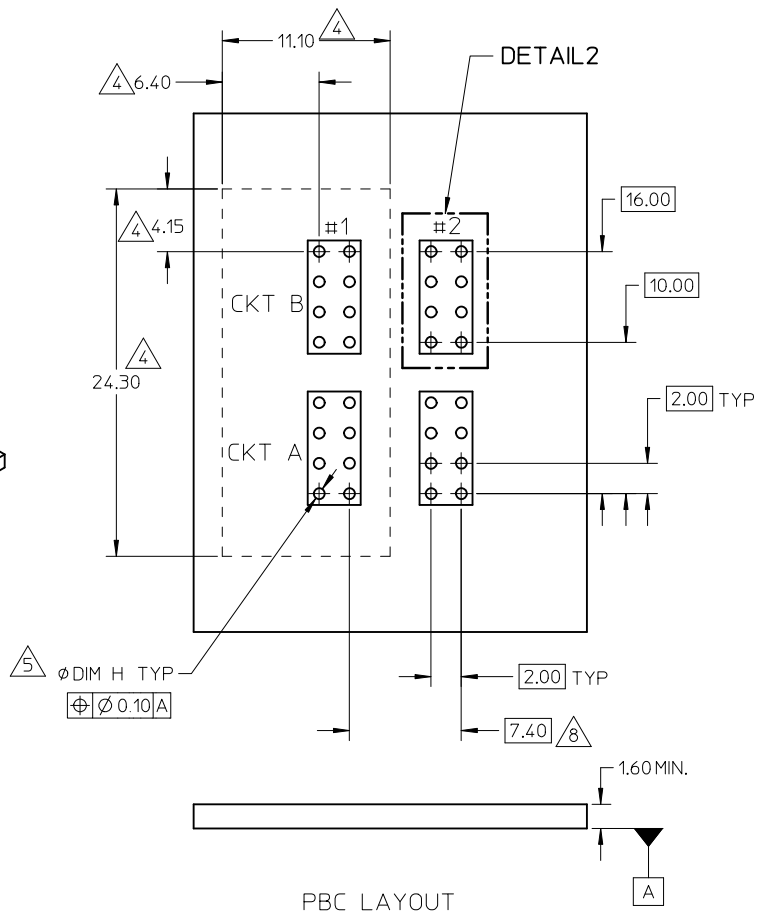
MATED DIMENSIONS AND PCB LAYOUT WITH HEADER HOLD DOWN RIGHT



MATED SYSTEM FOR 78232 & 78234

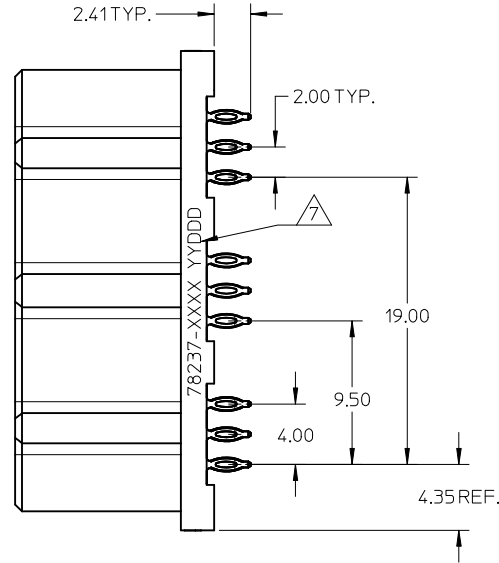
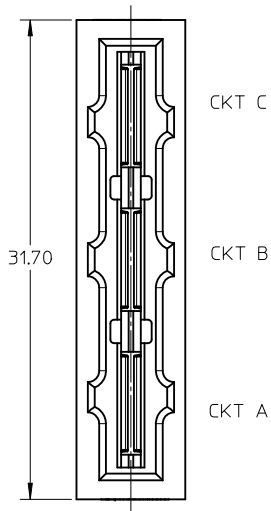
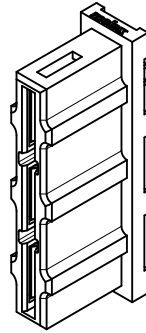
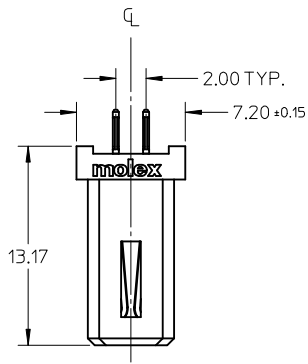


DETAIL2
COPPER PAD REFERENCE



PBC LAYOUT
(MATED WITH HEADER HOLD DOWN RIGHT)
COMPONENT SIDE SHOWN

REMOVE PB/SN EC NO: S2012-0580 DRWN: SHONG CHKD: LNG APPR: NAGESHKN	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		▽=0 ∇=0	mm INCH	MM ONLY	NTS	METRIC		
			4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± ---	DRAWN BY SHONG CHECKED BY LNG APPROVED BY NAGESHKN	DATE 2006/08/15 DATE 2006/08/25 DATE 2012/01/06	TITLE	I-TRAC POWER, 11 ROW VERTICAL RECEPTACLE PRESS-FIT	
		ANGULAR ± 3 °	MATERIAL NO. 78232-1001	DOCUMENT NO. SD-78232-011	MOLEX INCORPORATED		SHEET NO. 3 OF 3	
A1		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				



NOTES

- MATERIALS :
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- FINISHES:
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1.27µm MINIMUM NICKEL UNDERPLATE.
- PRODUCT SPECIFICATION: PS-78231-006.
- COMPONENT STAY AWAY ZONE FROM CONNECTOR.
- PCB NOTE FOR PLATED HOLE.

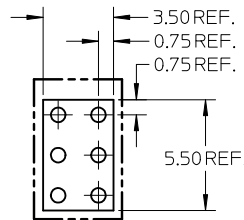
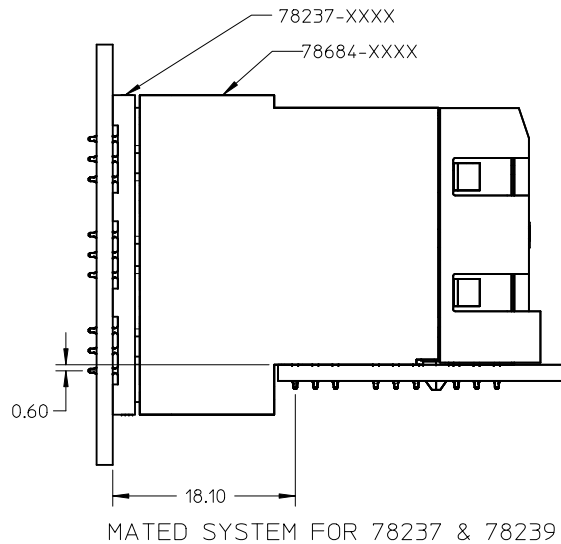
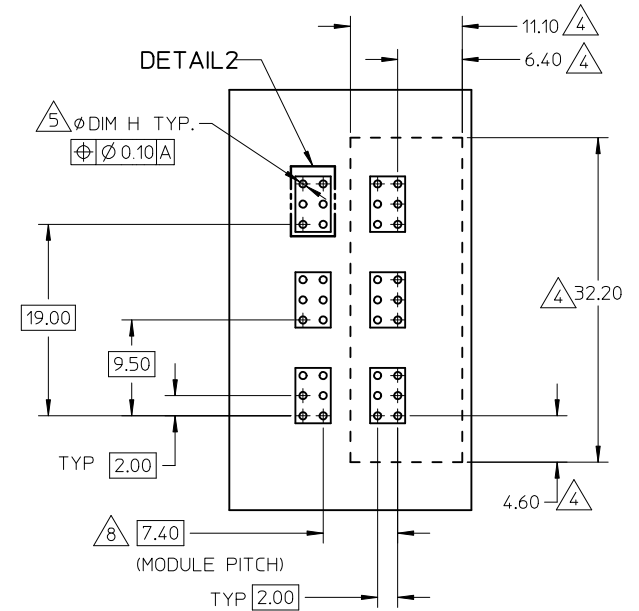
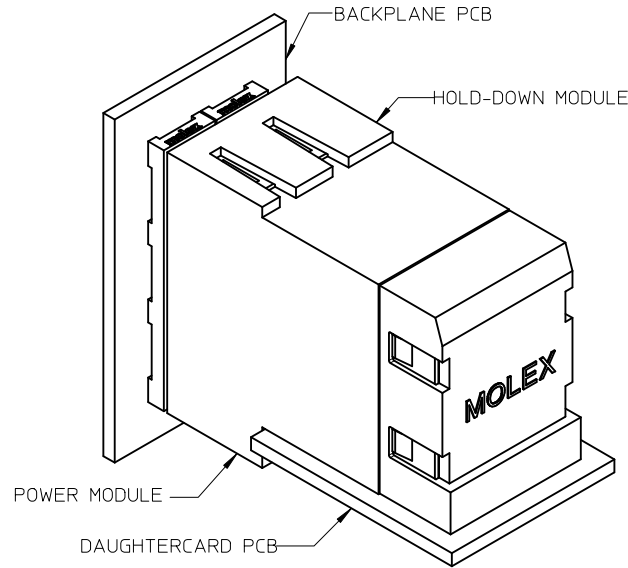
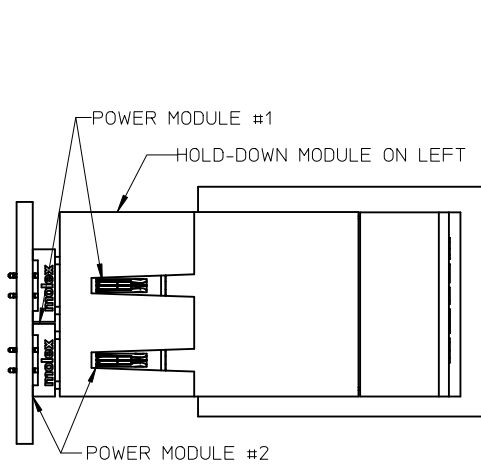
TYPE OF PLATED HOLE	DRILLED HOLE SIZE	PLATING THICKNESS	PLATED HOLE SIZE "ØDIM H"
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SILVER	0.863	OVER 0.03 TO 0.08 COPPER PLATING	0.750±0.050

SEE SHEET 2 AND 3 FOR RECOMMENDED PCB LAYOUT.

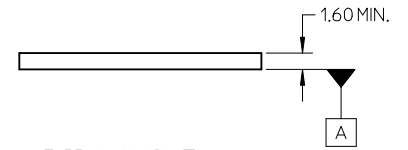
- MATES WITH 78684-****.
- PART NUMBER AND YY-DDD DATE CODE.
- ADD 7.40mm FOR EACH ADDITIONAL POWER MODULE.
- PACKAGING PROCEDURE AS PER PK-78237-001.

REMOVE PB/SN EC NO: S2012-0580 DRWN: SHONG CHYD: LNG APPR: NAGESHKN 2012/01/31 2012/02/13 2012/02/13	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	DIMENSION STYLE MM ONLY DRAWN BY DATE LNG 2006/10/05 CHECKED BY DATE NRVITTPALLI 2006/10/27 APPROVED BY DATE NAGESHKN 2012/01/06	SCALE NTS DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE I-TRAC POWER, 15 ROW VERTICAL RECEPTACLE PRESS-FIT
	DESCRIPTION A1	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. 78237-1001	MOLEX INCORPORATED DOCUMENT NO. SD-78237-011	SHEET NO. 1 OF 3
	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
	SIZE A3				

MATED DIMENSIONS AND PCB LAYOUT WITH HEADER HOLD DOWN LEFT



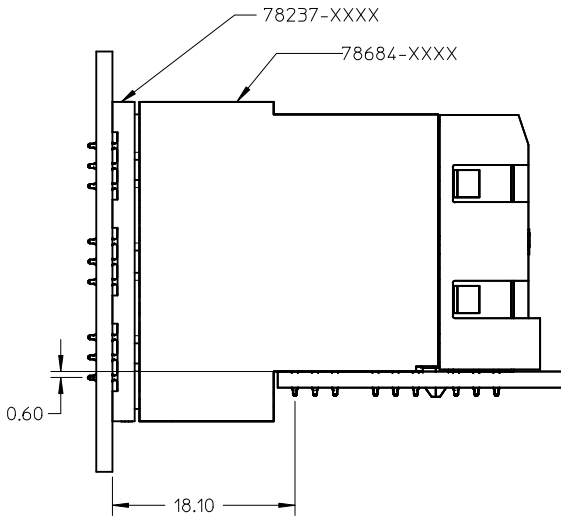
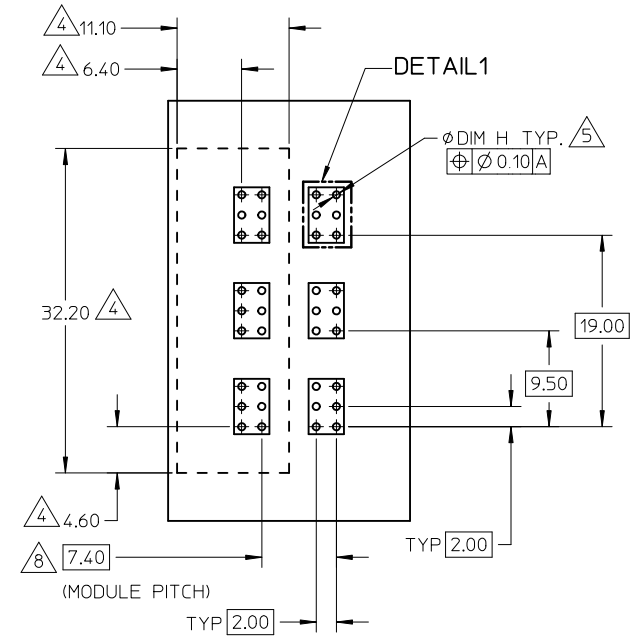
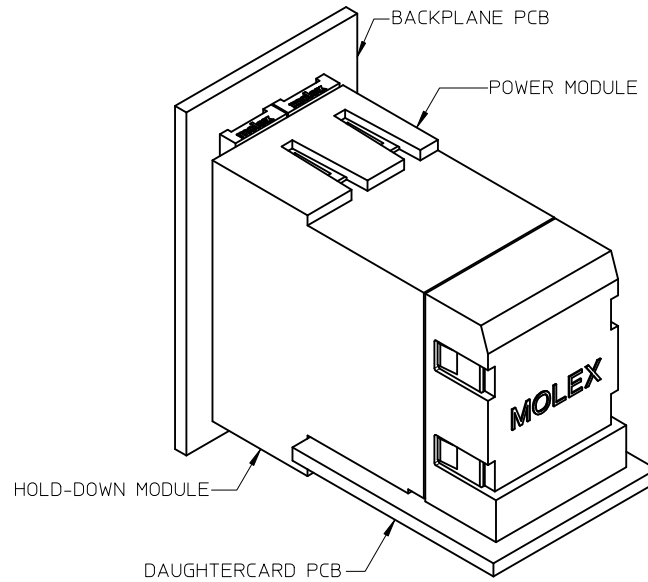
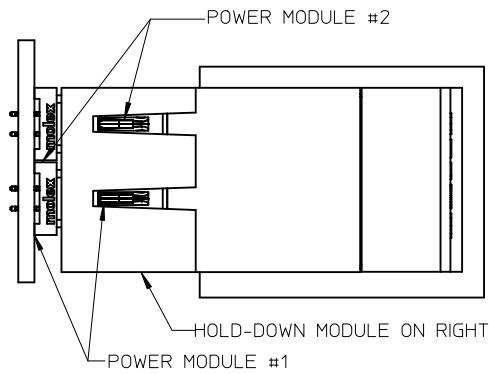
DETAIL 2
COPPER PAD REFERENCE



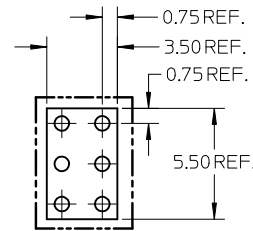
PCB LAYOUT
(MATED WITH HEADER HOLD DOWN MODULE LEFT)
COMPONENT SIDE SHOWN

REMOVE PB/SN EC NO: S2012-0580 DRWN: SHONG CHKD: LING APPR: NAGESHKN	DESCRIPTION 2012/01/31 2012/02/13 2012/02/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
			mm	INCH	MM ONLY	NTS	METRIC			
		$\nabla=0$	4 PLACES	\pm ---	\pm ---	DRAWN BY	DATE	TITLE		
		$\square=0$	3 PLACES	\pm ---	\pm ---	LNG	2006/10/05	I-TRAC POWER, 15 ROW VERTICAL RECEPTACLE PRESS-FIT		
		2 PLACES	\pm 0.25	\pm ---	CHECKED BY	DATE	MOLEX INCORPORATED			
		1 PLACE	\pm ---	\pm ---	NRVITTPALLI	2006/10/27	DOCUMENT NO. SD-78237-011			
		ANGULAR \pm 3°		APPROVED BY	DATE	SHEET NO. 2 OF 3				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		NAGESHKN	2012/01/06	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
A1	REV	SIZE	78237-1001							
		A3								

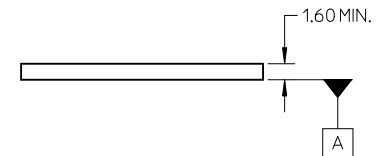
MATED DIMENSIONS AND PCB LAYOUT WITH HEADER HOLD DOWN RIGHT



MATED SYSTEM FOR 78237 & 78239



DETAIL 1
COPPER PAD REFERENCE



PCB LAYOUT
(MATED WITH HEADER HOLD DOWN MODULE RIGHT)
COMPONENT SIDE SHOWN

REMOVE PB/SN EC NO: S2012-0580 DRWN: SHONG CHKD: LNG APPR: NAGESHKN	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY LNG	DATE 2006/10/05	TITLE I-TRAC POWER, 15 ROW VERTICAL RECEPTACLE PRESS-FIT				
			4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY NRVITTAPELLI	DATE 2006/10/27	MOLEX INCORPORATED				
			2 PLACES ± 0.25 ± ---	1 PLACE ± --- ± ---	APPROVED BY NAGESHKN	DATE 2012/01/06	DOCUMENT NO. SD-78237-011				
A1			ANGULAR ± 3 °		MATERIAL NO. 78237-1001		SHEET NO. 3 OF 3				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						