

PCIe EXPANSION CARD APPLICATION SHOWN USING 1 DEGREE GUIDE HOUSING ASSEMBLY

- NOTES:
- REF. PCI EXPRESS CARD ELECTROMECHANICAL SPECIFICATION, REV 1.0a FOR IO BRACKET WINDOW LOCATION.
  - PCB AND IO BRACKET SHOWN FOR REFERENCE ONLY.
  - REFER TO SHEET 2 FOR ATCA GUIDE HOUSING ASSY. SEE SHEET 3 FOR SCREEN LENGTH + TORQUE SPEC.
  - GUIDE HOUSING MOUNTING THREAD- M2 X 0.4
  - PCB NOTCH IS SHOWN FOR PCI COMPLIANT BOARD.
  - THIS PRODUCT MEETS THE RESTRICTIONS OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (RoHS) DIRECTIVE (2002/95/EC)
  - PLATE GROUND PAD WITH EMERSON SILVER OR GOLD.
  - MATES WITH MOLEX 8X CABLE SERIES 74546-080X.
  - GUIDE HOUSING PEGS FOR ALIGNMENT ONLY. 'DO NOT SOLDER'

iPass™ is a trademark of Molex

I-PASS X8 EMI GUIDE HOUSING ASSEMBLY

MOLEX INCORPORATED

DOCUMENT NO. SD-74540-100

SHEET NO. 1 OF 3

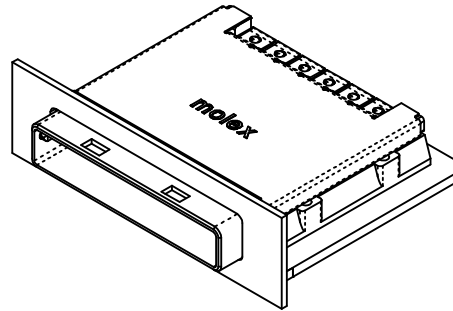
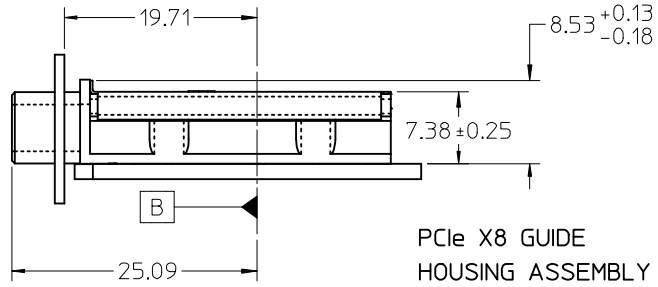
|                  |                           |
|------------------|---------------------------|
| ADD P/N TO TABLE | EC NO: CPG2012-2100       |
|                  | DRWN:TPRATT 2012/06/28    |
|                  | CHKD:AJOHNSTON 2012/06/28 |
|                  | APPR:KLLLOYD 2012/07/06   |
| REV              | DESCRIPTION               |

|                 |     |
|-----------------|-----|
| QUALITY SYMBOLS | ▽=0 |
|                 | ▽=0 |

|  |                 |       |
|--|-----------------|-------|
| GENERAL TOLERANCES (UNLESS SPECIFIED)                | mm              | INCH  |
|  | 4 PLACES ± ---  | ± --- |
|  | 3 PLACES ± ---  | ± --- |
|  | 2 PLACES ± 0.05 | ± --- |
|  | 1 PLACE ± 0.10  | ± --- |
|  | ANGULAR ±1/2°   |       |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                 |       |

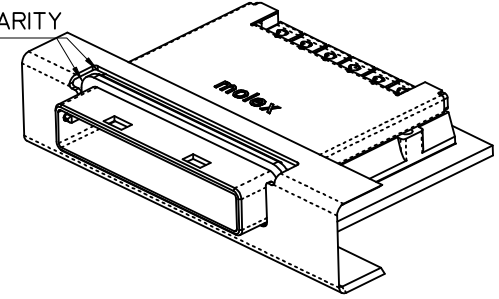
|                 |            |                                      |              |                        |
|-----------------|------------|--------------------------------------|--------------|------------------------|
| DIMENSION STYLE |            | SCALE                                | DESIGN UNITS | THIRD ANGLE PROJECTION |
| MM ONLY         |            | 2:1                                  | METRIC       |                        |
| DRAWN BY        | DATE       | TITLE                                |              |                        |
| BREED           | 2004/11/11 | I-PASS X8 EMI GUIDE HOUSING ASSEMBLY |              |                        |
| CHECKED BY      | DATE       | MOLEX INCORPORATED                   |              |                        |
| DDOYE           | 2004/11/11 |                                      |              |                        |
| APPROVED BY     | DATE       | DOCUMENT NO.                         |              |                        |
| DDOYE           | 2004/11/11 | SD-74540-100                         |              |                        |
| MATERIAL NO.    | SEE TABLE  | SHEET NO.                            |              |                        |
| SIZE            | B          | 1 OF 3                               |              |                        |

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

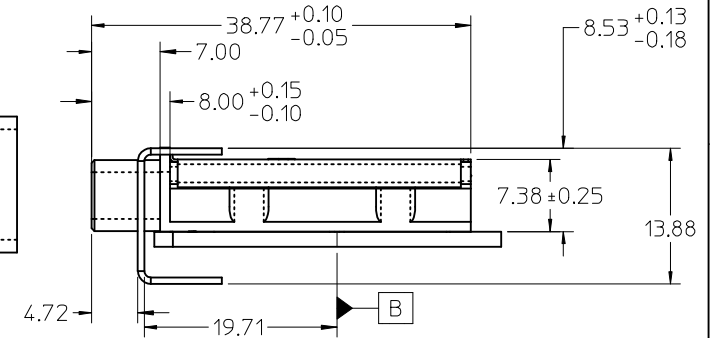
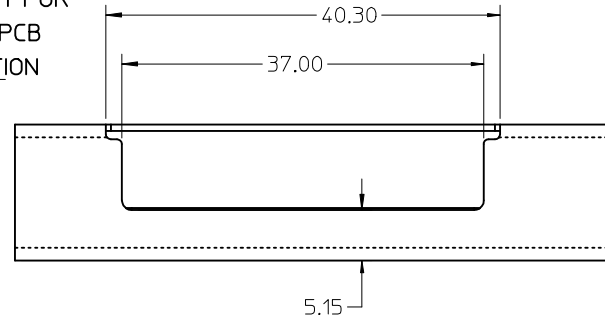
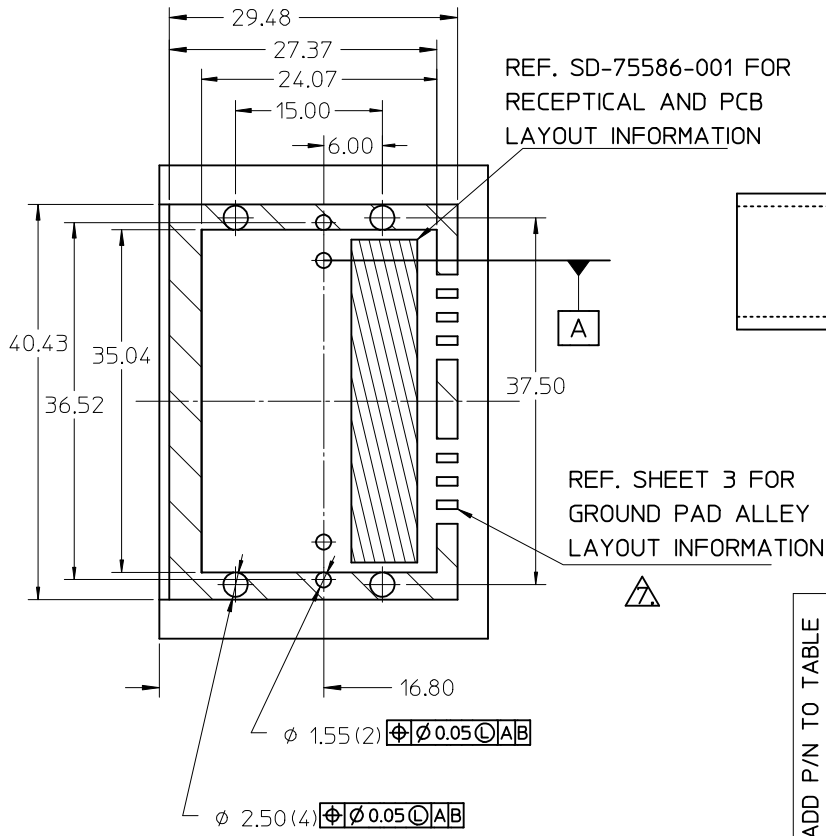


STANDARD APPLICATION SHOWN USING 0 DEG GUIDE HOUSING ASSEMBLY

GASKETS NOT SHOWN FOR CLARITY



ADVANCED TCA APPLICATION USING 0 DEG GUIDE HOUSING ASSEMBLY

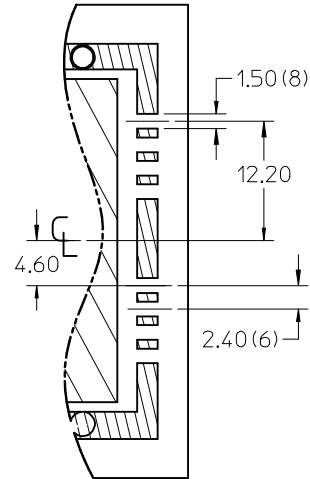


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|   |                              |  |   |               |   |                        |              |           |
|---|------------------------------|--|---|---------------|---|------------------------|--------------|-----------|
| ADD P/N TO TABLE<br>EC NO: CPG2012-2100<br>DRAWN: TPRAATT 2012/06/28<br>CHKD: AJOHNSTON 2012/06/28<br>APPR: KLLOYD 2012/07/06<br>REV<br>DESCRIPTION | QUALITY SYMBOLS              | GENERAL TOLERANCES (UNLESS SPECIFIED)  | DIMENSION STYLE   | SCALE         | DESIGN UNITS                                  | THIRD ANGLE PROJECTION |              |           |
|   | $\nabla = 0$<br>$\nabla = 0$ | mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.05 ± ---<br>1 PLACE ± 0.10 ± ---<br>ANGULAR ± 1/2° | MM ONLY<br>DRAWN BY DATE<br>BREED 2004/11/11<br>CHECKED BY DATE<br>DDOYE 2004/11/11<br>APPROVED BY DATE<br>DDOYE 2004/11/11   | 1:1<br>METRIC | TITLE<br>I-PASS X8 EMI GUIDE HOUSING ASSEMBLY |                        |              |           |
|   |                              |  |   |               |   | MATERIAL NO.           | DOCUMENT NO. | SHEET NO. |
|   |                              |  |   |               |   | SEE TABLE              | SD-74540-100 | 2 OF 3    |
| 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 |               |   |                        |              |           |

| MOLEX P/N | DESCRIPTION   | GEN   |
|-----------|---|-------|
| 745400100 | 8x EMI Guide Housing Assembly - PCIe / 1 Deg              | Gen 1 |
| 745400200 | 8x EMI Guide Housing Assembly - ATCA / 0 Deg              | Gen 1 |
| 745400205 | 8x EMI Guide Housing Assembly - W/O Gasket - ATCA / 0 Deg | Gen 1 |

| PCB THICKNESS | SCREW LENGTH | TORQUE (IN LBS) |
|---------------|--------------|-----------------|
| 1.6 (.063")   | 5MM          | 2.3             |
| 2.38 (.093")  | 6MM          | 2.3             |
| 3.2 (.125")   | 6MM          | 2.3             |
|               | +4MM MAX     | 2.3             |

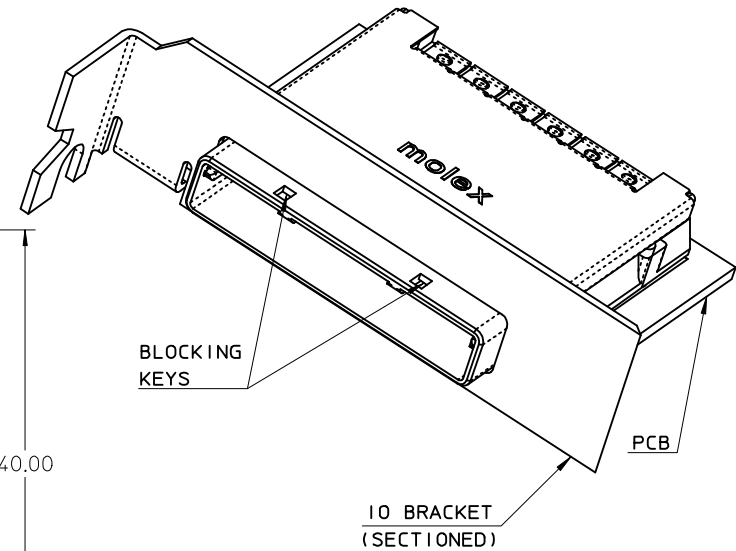
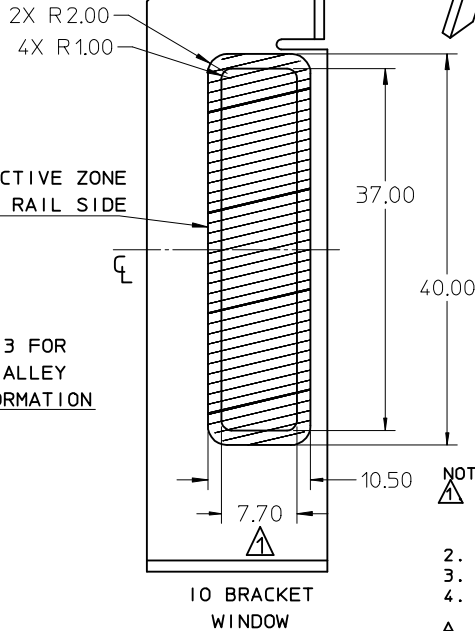
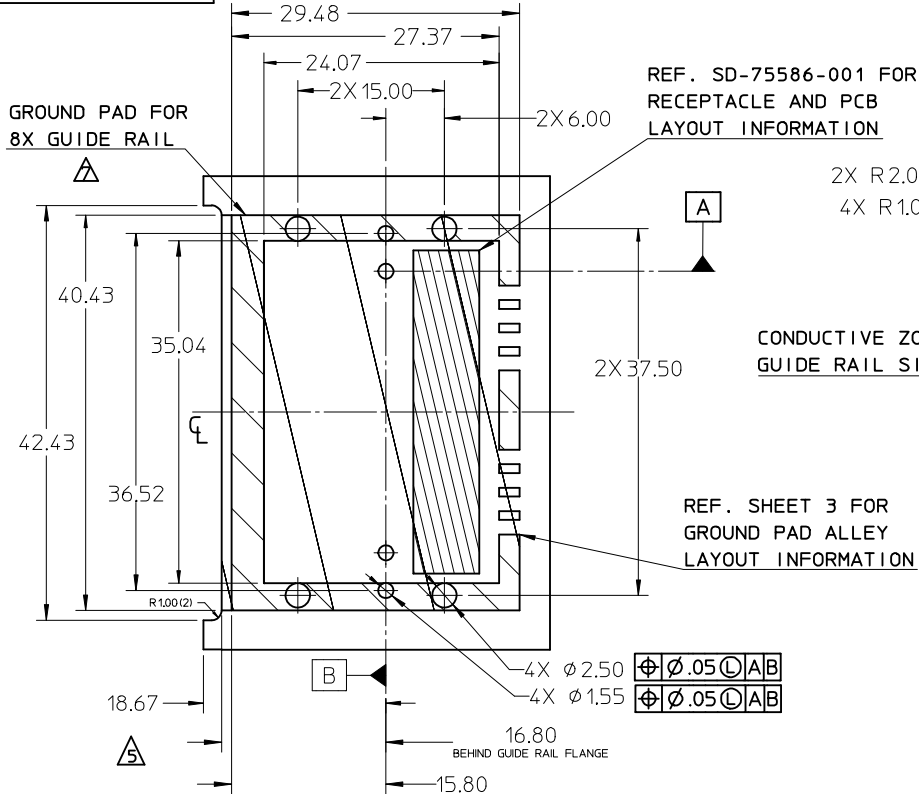


PARTIAL1  
SCALE 2:1  
GROUND PAD ALLEY  
LAYOUT INFORMATION



|   |                    |   |  |                      |                            |  |                              |                        |                        |  |
|---|--------------------|---|--|----------------------|----------------------------|--|------------------------------|------------------------|------------------------|--|
| ADD P/N TO TABLE<br>EC NO: CPG2012-2100<br>DRAWN: TPRAATT 2012/06/28<br>CHKD: A JOHNSTON 2012/06/28<br>APPR: K LLOYD 2012/07/06 | DESCRIPTION<br>REV | QUALITY SYMBOLS<br>▽=0<br>▽=0   | GENERAL TOLERANCES (UNLESS SPECIFIED)                  |                      | DIMENSION STYLE<br>MM ONLY |  | SCALE<br>1:1                 | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |  |
|   |                    | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.05 ± ---<br>1 PLACE ± 0.10 ± --- | mm INCH<br>± --- ± ---<br>± 0.05 ± ---<br>± 0.10 ± --- | DRAWN BY<br>BREED    | DATE<br>2004/11/11         | TITLE<br>I-PASS X8 EMI<br>GUIDE HOUSING ASSEMBLY |                              |                        |                        |  |
|   |                    | ANGULAR ± 1/2°  |  | CHECKED BY<br>DDOYE  | DATE<br>2004/11/11         | MOLEX INCORPORATED                               |                              |                        |                        |  |
|   |                    | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                    |  | APPROVED BY<br>DDOYE | DATE<br>2004/11/11         | MATERIAL NO.<br>SEE TABLE                        | DOCUMENT NO.<br>SD-74540-100 | SHEET NO.<br>3 OF 3    |                        |  |

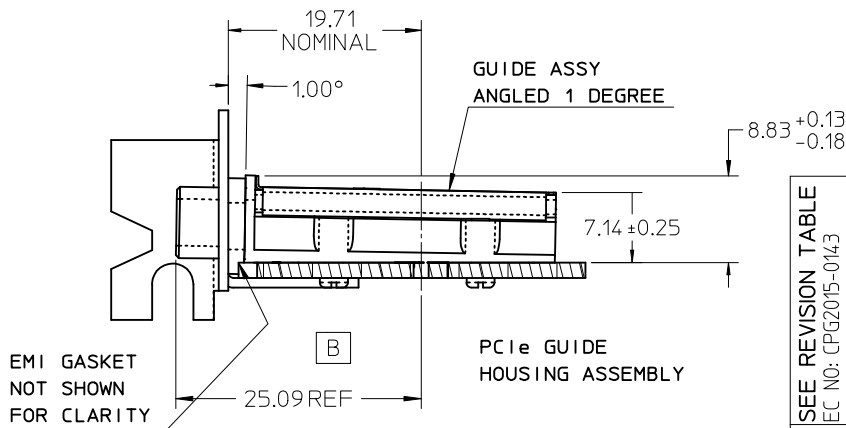
MM : TM-74540-0206



PCIe EXPANSION CARD APPLICATION SHOWN USING 1 DEGREE GUIDE HOUSING ASSEMBLY

- NOTES:
- REF. PCI EXPRESS CARD ELECTROMECHANICAL SPECIFICATION, REV 1.0a FOR 10 BRACKET WINDOW LOCATION.
  - PCB AND 10 BRACKET SHOWN FOR REFERENCE ONLY.
  - REFER TO SHEET 2 FOR ATCA GUIDE HOUSING ASSY.
  - GUIDE HOUSING MOUNTING THREAD= M2 X 0.4, SEE SHEET 3 FOR SCREW LENGTH + TORQUE SPEC.
  - PCB NOTCH IS SHOWN FOR PCI COMPLIANT BOARD.
  - THIS PRODUCT MEETS THE RESTRICTION OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (RoHS) DIRECTIVE (2002/95/EC).
  - PLATE GROUND PAD WITH EMERSION SILVER OR GOLD.
  - MATES WITH MOLEX 8X CABLE SERIES 74546-080X.
  - GUIDE HOUSING PEGS FOR ALIGNMENT ONLY, DO NOT SOLDER.
  - MATERIAL: NI PLATED ZINC DIECAST.

iPass™ is a trademark of Molex



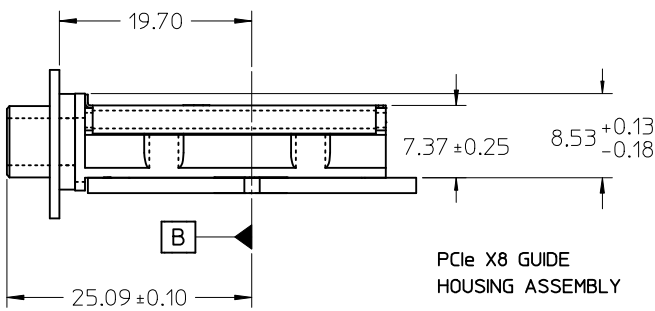
|   |                 |                                       |                   |  |              |                        |
|---|-----------------|---------------------------------------|-------------------|--|--------------|------------------------|
| SEE REVISION TABLE<br>EC NO: CPG2015-0143<br>DRAWN: WANG07 2014/07/11<br>CHKD: SYANG16 2014/07/14<br>APPR: RCHEN08 2014/07/28 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE   | SCALE  | DESIGN UNITS | THIRD ANGLE PROJECTION |
|   | ▽=0             | mm INCH                               | MM ONLY           | 2:1  | METRIC       |                        |
|   | ▽=0             | 4 PLACES ± --- ± ---                  | DRAWN BY DATE     | TITLE  |              |                        |
|   | ▽=0             | 3 PLACES ± --- ± ---                  | JERWIN 2006/05/25 | I-PASS X8 EMI GUIDE HOUSING ASSEMBLY W/ KEYS |              |                        |
|   | ▽=0             | 2 PLACES ± 0.05 ± ---                 | CHECKED BY DATE   | molex  |              |                        |

|                      |                  |               |              |           |
|----------------------|------------------|---------------|--------------|-----------|
| 1 PLACE ± 0.10 ± --- | APPROVED BY DATE | MATERIAL NO.  | DOCUMENT NO. | SHEET NO. |
| 0 PLACE ± ±          | DDOYE 2006/05/25 | SEE P/N TABLE | SD-74540-101 | 1 OF 4    |

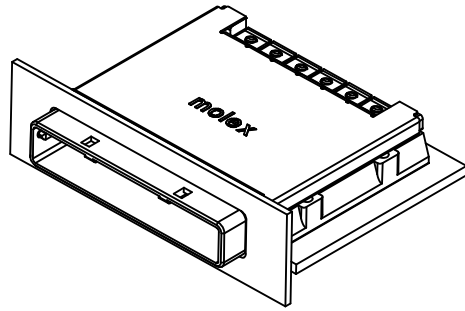
ANGULAR ± 1/2°  
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

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

10 9 8 7 6 5 4 3 2 1

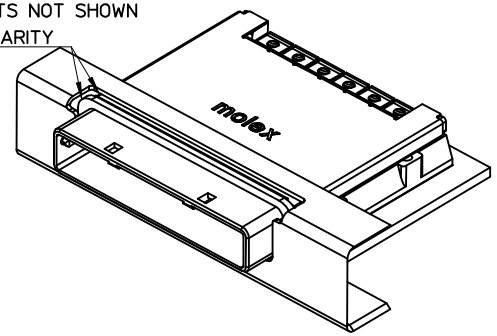


PCIe X8 GUIDE HOUSING ASSEMBLY

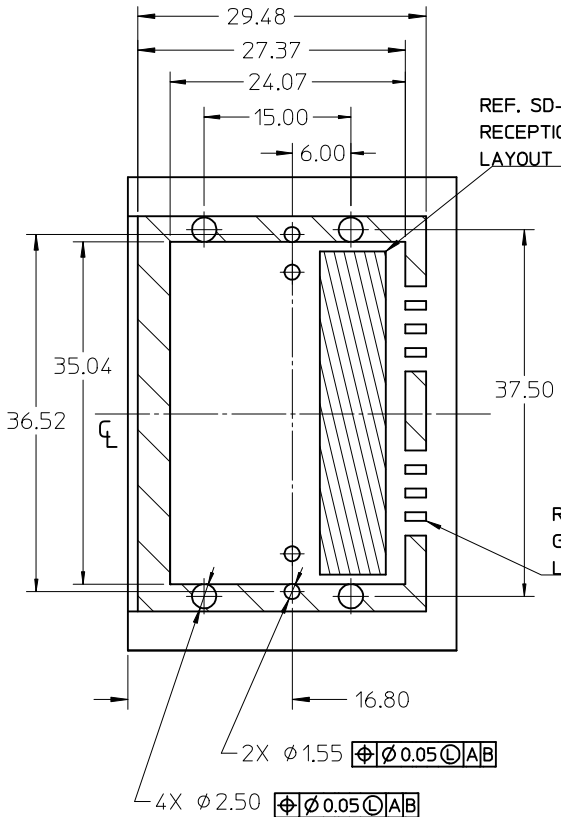


STANDARD APPLICATION SHOWN USING 0 DEG GUIDE HOUSING ASSEMBLY

GASKETS NOT SHOWN FOR CLARITY

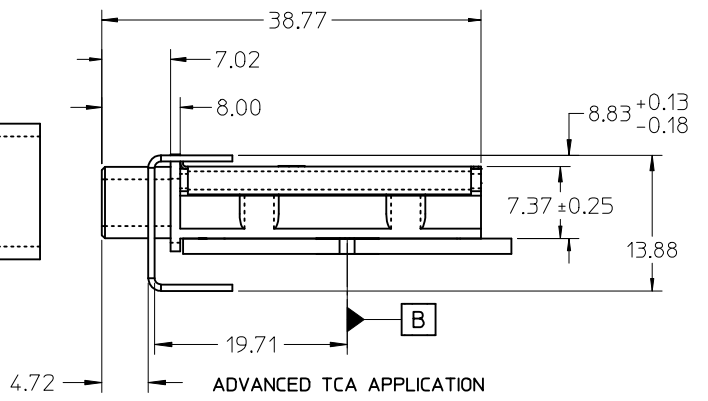
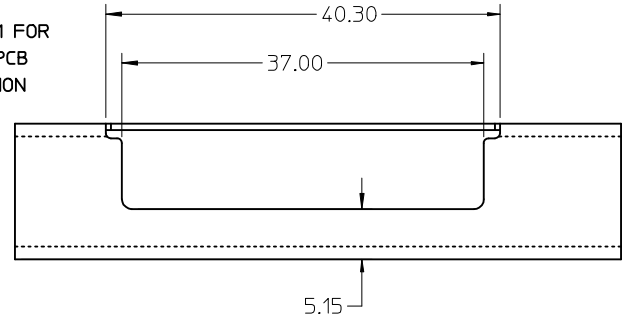


ADVANCED TCA APPLICATION USING 0 DEG GUIDE HOUSING ASSEMBLY



REF. SD-75586-001 FOR RECEPTAL AND PCB LAYOUT INFORMATION

REF. SHEET 3 FOR GROUND PAD ALLEY LAYOUT INFORMATION



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SEE REVISION TABLE

|                     |            |
|---------------------|------------|
| EC NO: CPG2015-0143 | 2014/07/11 |
| DRW:NEWANG07        | 2014/07/14 |
| CHKD:SYANG16        | 2014/07/28 |
| APPR:RCHEN08        |            |

| REV  | DESCRIPTION |
|------|-------------|
| ▽E/0 |             |
| ▽E/0 |             |
| ▽E/0 |             |

| GENERAL TOLERANCES (UNLESS SPECIFIED)                |        |
|--|--------|
|  | mm     |
| 4 PLACES   | ± 0.10 |
| 3 PLACES   | ± 0.15 |
| 2 PLACES   | ± 0.20 |
| 1 PLACE  | ± 0.25 |
| 0 PLACE  | ± 0.30 |
| ANGULAR ± 1/2°                                       |        |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |        |

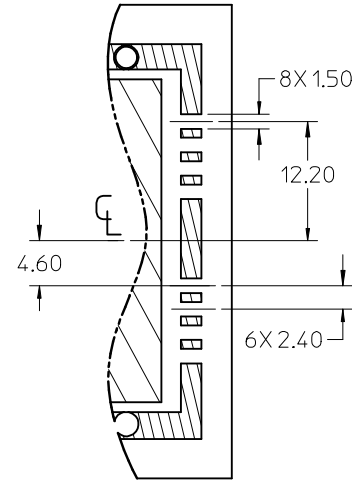
| DIMENSION STYLE |            |
|-----------------|------------|
| MM ONLY         |            |
| DRAWN BY        | DATE       |
| JERWIN          | 2006/05/25 |
| CHECKED BY      | DATE       |
| BREED           | 2006/05/25 |
| APPROVED BY     | DATE       |
| DDOYE           | 2006/05/25 |
| MATERIAL NO.    |            |
| SEE P/N TABLE   |            |

|  |              |                        |
|--|--------------|------------------------|
| SCALE  | DESIGN UNITS | THIRD ANGLE PROJECTION |
| 2:1  | METRIC       | ☉                      |
| TITLE  |              |                        |
| I-PASS X8 EMI GUIDE HOUSING ASSEMBLY W/ KEYS |              |                        |
| molex  |              |                        |
| DOCUMENT NO.                                 | SHEET NO.    |                        |
| SD-74540-101                                 | 2 OF 4       |                        |

9 8 7 6 5 4 3 2 1

| MOLEX P/N | DESCRIPTION                                  | GEN   |
|-----------|--|-------|
| 745400101 | 8x EMI Guide Housing Assembly - PCIe / 1 Deg | Gen 1 |
| 745400201 | 8x EMI Guide Housing Assembly - ATCA / 0 Deg | Gen 1 |

| PCB THICKNESS | SCREW LENGTH | TORQUE (IN LBS) |
|---------------|--------------|-----------------|
| 1.6 (.063")   | 5MM          | 2.3             |
| 2.38 (.093")  | 6MM          | 2.3             |
| 3.2 (.125")   | 6MM          | 2.3             |
| X             | +4MM MAX     | 2.3             |



GROUND PAD ALLEY  
LAYOUT INFORMATION



|   |                                      |                                       |  |                            |                      |   |   |                              |                     |  |
|---|--------------------------------------|---------------------------------------|--|----------------------------|----------------------|---|---|------------------------------|---------------------|--|
| SEE REVISION TABLE<br>EC NO: CPG2015-0143<br>DRAWN: WANG07 2014/07/11<br>CHKD: SYANG16 2014/07/14<br>APPR: RCHEN08 2014/07/28 | QUALITY SYMBOLS<br>F=0<br>F=0<br>F=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY |                      | SCALE<br>2:1  | DESIGN UNITS<br>METRIC  | THIRD ANGLE PROJECTION       |                     |  |
|   |                                      |                                       | mm   | INCH                       | DRAWN BY<br>JERWIN   | DATE<br>2006/05/25  | TITLE<br>I-PASS X8 EMI<br>GUIDE HOUSING ASSEMBLY<br>W/ KEYS<br><b>molex</b> |                              |                     |  |
|   |                                      | 4 PLACES                              | ± ---  | ± ---                      | CHECKED BY<br>BREED  | DATE<br>2006/05/25  |   |                              |                     |  |
|   |                                      | 3 PLACES                              | ± ---  | ± ---                      | APPROVED BY<br>DDOYE | DATE<br>2006/05/25  | MATERIAL NO.  | DOCUMENT NO.<br>SD-74540-101 | SHEET NO.<br>3 OF 4 |  |
| 2 PLACES  | ± 0.05                               | ± ---                                 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                            | SEE P/N TABLE        | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |                              |                     |  |
| 1 PLACE   | ± 0.10                               | ± ---                                 | ANGULAR ± 1/2°                                       |                            | SIZE<br>B            |   |   |                              |                     |  |
| 0 PLACE   | ±                                    | ±                                     |  |                            |                      |   |   |                              |                     |  |

REVISION HISTORY

| DATE<br>(YEAR/MONTH/DAY) | REV | DESCRIPTION   |
|--------------------------|-----|---|
| 2013/12/18               | H   | 1. ADDED NOTES 10. MATERIAL: Ni PLATED ZINC DIECAST. [SHT 1]<br>2. CHANGED W/ NEW MOLEX FORMAT  |
| 2014/07/11               | J   | 1. CHANGED 25.16 TO 25.09REF TO MEET PCI EXPRESS EXTERNAL CABLING SPECIFICATION @A9 [SHEET 1]<br>2. ADDED MM 3D NO. @F10 [SHEET 1]<br>3. THE MOLEX CHARACTER FIGURE UPDATE @F2 [SHEET 1], @F2 F5 [SHEET 2]<br>4. CHANGED 25.09 TO 25.09+/-0.1 @E9 [SHEET 2] |
|                          |     |   |
|                          |     |   |
|                          |     |   |

|  |  |                                       |   |   |              |                        |
|--|--|---------------------------------------|---|---|--------------|------------------------|
| SEE REVISION TABLE<br>EC NO: CPG2015-0143<br>DRW:NEWANG07 2014/07/11<br>CHKD:SYANG16 2014/07/14<br>APPR:RCHEN08 2014/07/28 | QUALITY SYMBOLS                                      | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE   | SCALE   | DESIGN UNITS | THIRD ANGLE PROJECTION |
|  | ▽F/0   | mm INCH                               | MM ONLY   | 1:1   | METRIC       |                        |
|  | ▽F/0   | 4 PLACES ± --- ± ---                  | DRAWN BY DATE   | TITLE<br>I-PASS X8 EMI<br>GUIDE HOUSING ASSEMBLY<br>W/ KEYS |              |                        |
|  | ▽F/0   | 3 PLACES ± --- ± ---                  | JERWIN 2006/05/25   |   |              |                        |
|  |  | 2 PLACES ± 0.05 ± ---                 | CHECKED BY DATE   | DOCUMENT NO.<br>SD-74540-101                                |              |                        |
|  | 1 PLACE ± 0.10 ± ---                                 | BREED 2006/05/25                      |   |   |              |                        |
|  | 0 PLACE ± ±  | APPROVED BY DATE                      | SHEET NO.<br>4 OF 4   |   |              |                        |
|  | ANGULAR ±1/2°  | DDOYE 2006/05/25                      |   |   |              |                        |
|  | 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 |   |              |                        |
|  |  | SEE P/N TABLE                         |   |   |              |                        |