

PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION

**Part Number:** [0740572504](#)  
**Status:** **Active**  
**Overview:** [vhdm](#)  
**Description:** 2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header, Vertical, 6-Row, Open Signal Module, 150 Circuits, 25 Columns, Pin Length 5.15mm (.203"), 0.76µm (30µ") Gold (Au) Plating

**Documents:**

[3D Model](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Drawing \(PDF\)](#)

**Agency Certification**

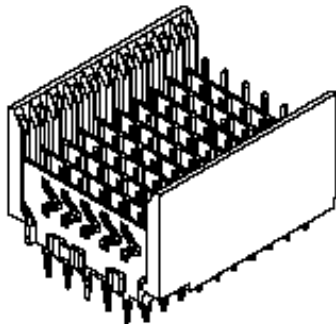
UL E29179

**General**

Product Family Backplane Connectors  
Series [74057](#)  
Application Backplane  
Application Tooling Documents <a href="http://www.molex.com/pdm\_docs/ats/TM-622010999.pdf">Tooling Manual</a>  
Comments Open Header  
Component Type PCB Header  
Overview [vhdm](#)  
Product Name VHDM®  
Style N/A

**Physical**

Circuits (Loaded) 150  
Circuits (maximum) 150  
Color - Resin Black  
Durability (mating cycles max) 200  
First Mate / Last Break No  
Flammability 94V-0  
Guide to Mating Part No  
Keying to Mating Part None  
Material - Metal Beryllium Copper, High Performance Alloy (HPA)  
Material - Plating Mating Gold  
Material - Plating Termination Tin-Lead  
Material - Resin High Temperature Thermoplastic  
Number of Columns N/A  
Number of Pairs Open Pin Field  
Number of Rows 6  
Orientation Vertical  
PC Tail Length (in) 0.098 In  
PC Tail Length (mm) 2.50 mm  
PCB Locator No  
PCB Retention None  
PCB Thickness Recommended (in) 0.071 In  
PCB Thickness Recommended (mm) 1.80 mm  
Packaging Type Tube  
Pitch - Mating Interface (in) 0.079 In  
Pitch - Mating Interface (mm) 2.00 mm  
Pitch - Term. Interface (in) 0.079 In  
Pitch - Term. Interface (mm) 2.00 mm  
Plating min: Mating (µin) 30  
Plating min: Mating (µm) 0.75



Series

image - Reference only

**EU RoHS**

**RoHS Compliant by Exemption**

**REACH SVHC**

**Contains SVHC: No Halogen-Free**

**Status**

**Not Reviewed**

**China RoHS**



**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**

[74057Series](#)

**Mates With**

[74030](#) VHDM® Board-to-Board Daughtercard Receptacle

**Application Tooling | FAQ**

*Tooling specifications and manuals are found by selecting the products below. Crimp Height Specifications are then contained in the Application Tooling Specification document.*

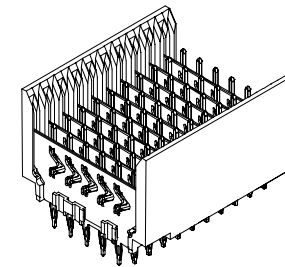
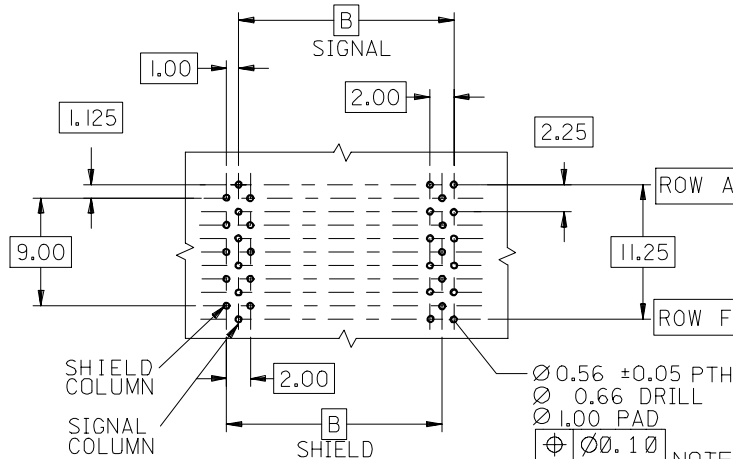
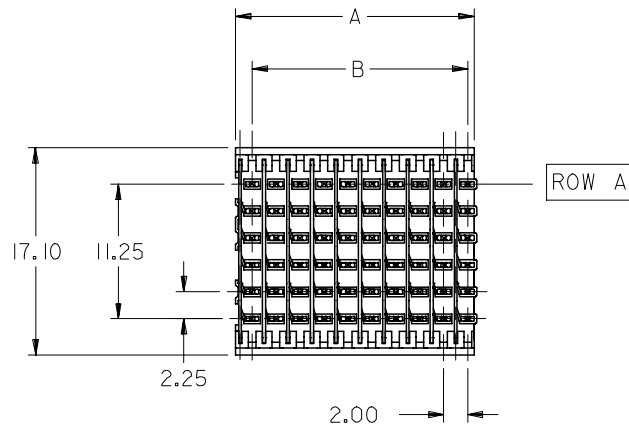
**Global**

| Description                            | Product #                  |
|----------------------------------------|----------------------------|
| Flat Rock Tooling for Pneumatic Press  | <a href="#">0622013700</a> |
| VHDM® Signal Pin                       | <a href="#">0622015700</a> |
| Insert Repair Tool                     |                            |
| VHDM® 6 Row Pin and Shield Repair Tool | <a href="#">0622015800</a> |

|                                                                          |                              |                                                                                             |                            |
|--------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------|----------------------------|
| Plating min: Termination (µin)                                           | 30                           | VHDM® 6 Row Shield Extraction Tool                                                          | <a href="#">0622016000</a> |
| Plating min: Termination (µm)                                            | 0.75                         | VHDM® Insertion Module for Advanced Mate Signal Header, 6 Row by 25 Wide, 50.00mm (1.97")   | <a href="#">0622020204</a> |
| Polarized to PCB                                                         | Yes                          | VHDM® Insertion Module for Standard Shield Signal Header, 6 Row by 25 Wide, 50.00mm (1.97") | <a href="#">0622020208</a> |
| Stackable                                                                | Yes                          |                                                                                             |                            |
| Surface Mount Compatible (SMC)                                           | Yes                          |                                                                                             |                            |
| Temperature Range - Operating                                            | 105°C                        |                                                                                             |                            |
| Termination Interface: Style                                             | Through Hole - Compliant Pin |                                                                                             |                            |
| <b>Electrical</b>                                                        |                              |                                                                                             |                            |
| Current - Maximum per Contact                                            | 1A                           |                                                                                             |                            |
| Data Rate                                                                | 3.125 Gbps                   |                                                                                             |                            |
| Real Signals (per 25mm)                                                  | 75                           |                                                                                             |                            |
| Shield Type                                                              | Ground Plane Shield          |                                                                                             |                            |
| Shielded                                                                 | Yes                          |                                                                                             |                            |
| Voltage - Maximum                                                        | 120V AC (RMS)/DC             |                                                                                             |                            |
| <b>Material Info</b>                                                     |                              |                                                                                             |                            |
| <b>Reference - Drawing Numbers</b>                                       |                              |                                                                                             |                            |
| Packaging Specification                                                  | PK-74057-003                 |                                                                                             |                            |
| Sales Drawing                                                            | SD-74057-002                 |                                                                                             |                            |
| VHDM and Very High Density Metric are trademarks of Amphenol Corporation |                              |                                                                                             |                            |

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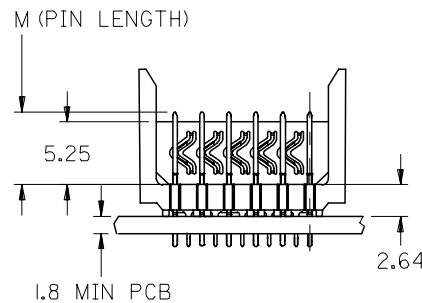
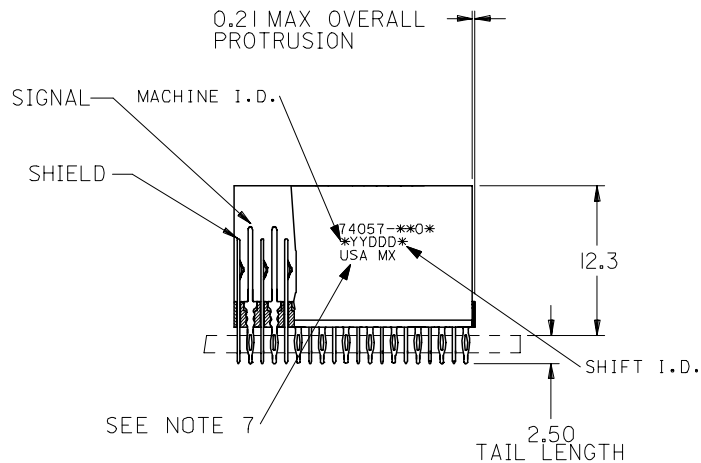
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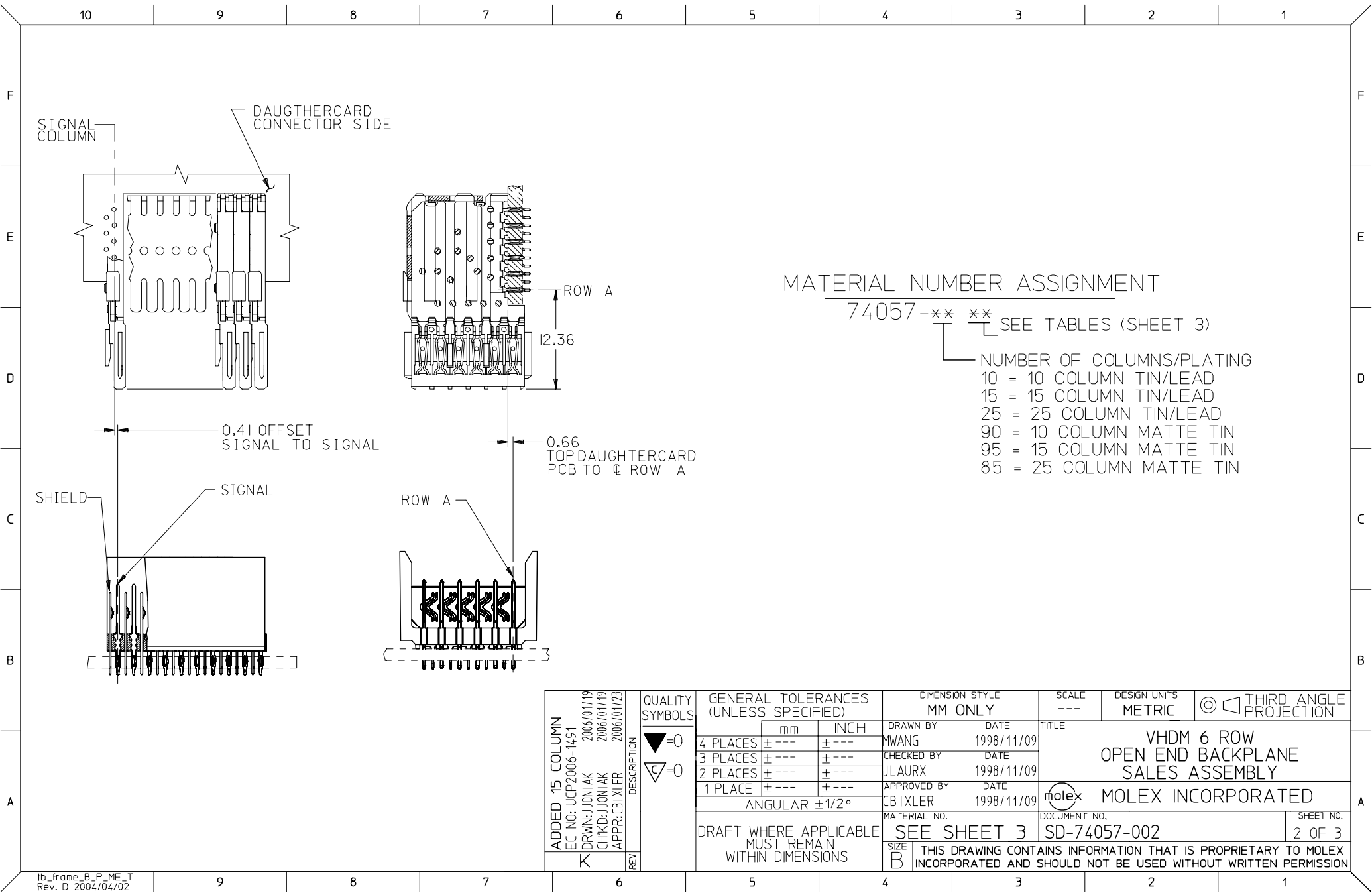
# BACKPLANE HOLE PATTERN RECOMMENDED DIMENSIONS

## NOTES:

1. MATERIALS:  
HOUSING - LIQUID CRYSTAL POLYMER (LCP),  
GLASS-FILLED, UL 94V-0, COLOR: BLACK  
SIGNAL PIN & SHIELD - COPPER ALLOY
2. FINISHES:  
CONTACT AREA: SELECTIVE GOLD (Au)  
PCB TAILS: SELECTIVE TIN/LEAD (Sn/Pb)  
OR SELECTIVE MATTE TIN (Sn)  
NICKEL (Ni) OVERALL.
3. THIS PART CONFORMS TO MOLEX PRODUCT  
SPECIFICATION PS-74031-999
4. FOR MIXED CONTACT LENGTHS CONSULT  
MOLEX FOR AVAILABILITY
5. FOR SPECIFIC MATERIAL NUMBERS & MATING  
INFORMATION REFER TO SHEET 2
6. PACKAGE PER PK-74057-003
7. EITHER MARK PART WITH PART NUMBER & DATE  
CODE APPROXIMATELY WHERE SHOWN OR PLACE  
LABEL ON THE TUBE.



|                                                                                                                          |  |              |  |                                                  |                                                            |                                                                                                                               |                            |             |                |                                                             |                        |  |
|--------------------------------------------------------------------------------------------------------------------------|--|--------------|--|--------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------|----------------|-------------------------------------------------------------|------------------------|--|
| ADDED 15 COLUMN<br>EC NO: UCP2006-1491<br>DRWN: JONIAK 2006/01/19<br>CHKD: JONIAK 2006/01/19<br>APPR: CBIXLER 2006/01/23 |  |              |  | QUALITY SYMBOLS<br><div>▽=0</div> <div>▽=0</div> | GENERAL TOLERANCES (UNLESS SPECIFIED)                      |                                                                                                                               | DIMENSION STYLE<br>MM ONLY |             | SCALE<br>2.5:1 | DESIGN UNITS<br>METRIC                                      | THIRD ANGLE PROJECTION |  |
| DESCRIPTION<br>K                                                                                                         |  |              |  | REV                                              |                                                            | mm                                                                                                                            | INCH                       | DRAWN BY    | DATE           | TITLE<br>VHDM 6 ROW<br>OPEN END BACKPLANE<br>SALES ASSEMBLY |                        |  |
|                                                                                                                          |  |              |  |                                                  | 4 PLACES                                                   | ± ---                                                                                                                         | ± ---                      | MWANG       | 1998/11/09     |                                                             |                        |  |
|                                                                                                                          |  |              |  |                                                  | 3 PLACES                                                   | ± ---                                                                                                                         | ± ---                      | CHECKED BY  | DATE           |                                                             |                        |  |
|                                                                                                                          |  |              |  |                                                  | 2 PLACES                                                   | ± ---                                                                                                                         | ± ---                      | JLAURX      | 1998/11/09     |                                                             |                        |  |
|                                                                                                                          |  |              |  |                                                  | 1 PLACE                                                    | ± ---                                                                                                                         | ± ---                      | APPROVED BY | DATE           |                                                             |                        |  |
|                                                                                                                          |  |              |  |                                                  | ANGULAR ±1/2°                                              |                                                                                                                               | CBIXLER                    | 1998/11/09  | molex          | MOLEX INCORPORATED                                          |                        |  |
|                                                                                                                          |  |              |  |                                                  | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                                                                                                               | MATERIAL NO.               |             | DOCUMENT NO.   |                                                             | SHEET NO.              |  |
| SEE SHEET 3                                                                                                              |  | SD-74057-002 |  | 1 OF 3                                           |                                                            |                                                                                                                               |                            |             |                |                                                             |                        |  |
|                                                                                                                          |  |              |  |                                                  | SIZE<br>B                                                  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                            |             |                |                                                             |                        |  |



MATERIAL NUMBER ASSIGNMENT

74057-\*\*\* \*\* SEE TABLES (SHEET 3)

- NUMBER OF COLUMNS/PLATING
- 10 = 10 COLUMN TIN/LEAD
  - 15 = 15 COLUMN TIN/LEAD
  - 25 = 25 COLUMN TIN/LEAD
  - 90 = 10 COLUMN MATTE TIN
  - 95 = 15 COLUMN MATTE TIN
  - 85 = 25 COLUMN MATTE TIN

|                                                                                                                               |             |                                                            |                                       |           |                                                                                                                                  |                        |                              |                                                                                                          |                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------|---------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| ADDED 15 COLUMN<br>EC NO: UCP2006-1491<br>DRWN: JONIAK 2006/01/19<br>CHKD: JONIAK 2006/01/19<br>APPR: CBIXLER 2006/01/23<br>K | DESCRIPTION | QUALITY SYMBOLS<br><br>▽=0<br>▽=0                          | GENERAL TOLERANCES (UNLESS SPECIFIED) |           | DIMENSION STYLE<br>MM ONLY                                                                                                       |                        | SCALE<br>---                 | DESIGN UNITS<br>METRIC                                                                                   |  THIRD ANGLE<br>PROJECTION |
|                                                                                                                               |             |                                                            |                                       | mm        | INCH                                                                                                                             | DRAWN BY<br>MWANG      | DATE<br>1998/11/09           | TITLE<br><br>VHDM 6 ROW<br>OPEN END BACKPLANE<br>SALES ASSEMBLY                                          |                                                                                                                 |
|                                                                                                                               |             |                                                            | 4 PLACES                              | ± ---     | ± ---                                                                                                                            | CHECKED BY<br>JLAURX   | DATE<br>1998/11/09           |                                                                                                          |                                                                                                                 |
|                                                                                                                               |             |                                                            | 3 PLACES                              | ± ---     | ± ---                                                                                                                            |                        |                              |                                                                                                          |                                                                                                                 |
|                                                                                                                               |             |                                                            | 2 PLACES                              | ± ---     | ± ---                                                                                                                            |                        |                              |                                                                                                          |                                                                                                                 |
|                                                                                                                               |             |                                                            | 1 PLACE                               | ± ---     | ± ---                                                                                                                            | APPROVED BY<br>CBIXLER | DATE<br>1998/11/09           |  MOLEX INCORPORATED |                                                                                                                 |
|                                                                                                                               |             |                                                            | ANGULAR ±1/2°                         |           | MATERIAL NO.<br>SEE SHEET 3                                                                                                      |                        | DOCUMENT NO.<br>SD-74057-002 |                                                                                                          |                                                                                                                 |
| REV                                                                                                                           |             | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                       | SIZE<br>B | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |                              |                                                                                                          |                                                                                                                 |

| 10          | 9      | 8                    | 7                | 6     | 5     | 4    | 3                 | 2           | 1      |                      |                  |       |       |      |                   |
|-------------|--------|----------------------|------------------|-------|-------|------|-------------------|-------------|--------|----------------------|------------------|-------|-------|------|-------------------|
| PART NUMBER | COLUMN | NUMBER OF SIGNAL PIN | NUMBER OF SHIELD | A     | B     | M    | Au (um) THICKNESS | PART NUMBER | COLUMN | NUMBER OF SIGNAL PIN | NUMBER OF SHIELD | A     | B     | M    | Au (um) THICKNESS |
| 74057-1001  | 10     | 60                   | 10               | 20.00 | 18.00 | 4.75 | 0.76              | 74057-9001  | 10     | 60                   | 10               | 20.00 | 18.00 | 4.75 | 0.76              |
| 74057-1006  |        |                      |                  |       |       |      | 1.27              | 74057-9006  |        |                      |                  |       |       |      | 1.27              |
| 74057-1501  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              | 74057-9501  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              |
| 74057-1506  |        |                      |                  |       |       |      | 1.27              | 74057-9506  |        |                      |                  |       |       |      | 1.27              |
| 74057-2501  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              | 74057-8501  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              |
| 74057-2501  |        |                      |                  |       |       |      | 1.27              | 74057-8501  |        |                      |                  |       |       |      | 1.27              |
| 74057-1002  | 10     | 60                   | 10               | 20.00 | 18.00 | 6.25 | 0.76              | 74057-9002  | 10     | 60                   | 10               | 20.00 | 18.00 | 6.25 | 0.76              |
| 74057-1007  |        |                      |                  |       |       |      | 1.27              | 74057-9007  |        |                      |                  |       |       |      | 1.27              |
| 74057-1502  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              | 74057-9502  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              |
| 74057-1507  |        |                      |                  |       |       |      | 1.27              | 74057-9507  |        |                      |                  |       |       |      | 1.27              |
| 74057-2502  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              | 74057-8502  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              |
| 74057-2507  |        |                      |                  |       |       |      | 1.27              | 74057-8507  |        |                      |                  |       |       |      | 1.27              |
| 74057-1003  | 10     | 60                   | 10               | 20.00 | 18.00 | 4.25 | 0.76              | 74057-9003  | 10     | 60                   | 10               | 20.00 | 18.00 | 4.25 | 0.76              |
| 74057-1008  |        |                      |                  |       |       |      | 1.27              | 74057-9008  |        |                      |                  |       |       |      | 1.27              |
| 74057-1503  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              | 74057-9503  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              |
| 74057-1508  |        |                      |                  |       |       |      | 1.27              | 74057-9508  |        |                      |                  |       |       |      | 1.27              |
| 74057-2503  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              | 74057-8503  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              |
| 74057-2508  |        |                      |                  |       |       |      | 1.27              | 74057-8508  |        |                      |                  |       |       |      | 1.27              |
| 74057-1004  | 10     | 60                   | 10               | 20.00 | 18.00 | 5.15 | 0.76              | 74057-9004  | 10     | 60                   | 10               | 20.00 | 18.00 | 5.15 | 0.76              |
| 74057-1009  |        |                      |                  |       |       |      | 1.27              | 74057-9009  |        |                      |                  |       |       |      | 1.27              |
| 74057-1504  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              | 74057-9504  | 15     | 90                   | 15               | 30.00 | 28.00 |      | 0.76              |
| 74057-1509  |        |                      |                  |       |       |      | 1.27              | 74057-9509  |        |                      |                  |       |       |      | 1.27              |
| 74057-2504  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              | 74057-8504  | 25     | 150                  | 25               | 50.00 | 48.00 |      | 0.76              |
| 74057-2509  |        |                      |                  |       |       |      | 1.27              | 74057-8509  |        |                      |                  |       |       |      | 1.27              |

# TIN/LEAD CHART

## LEAD FREE CHART

|                                                                                                                              |                                   |             |                                                            |                                                                                                                                  |                            |                                                                                 |                    |                                                                                                 |                           |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------|---------------------------|--|--|--|--|
| ADDED 15 COLUMN<br>EC NO: UCP2006-1491<br>DRAWN: JONI AK 2006/01/19<br>CHK'D: JONI AK 2006/01/19<br>APPR: CB XLER 2006/01/23 | QUALITY SYMBOLS<br><br>▽=0<br>▽=0 | DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED)                      |                                                                                                                                  | DIMENSION STYLE<br>MM ONLY |                                                                                 | SCALE<br>---       | DESIGN UNITS<br>METRIC                                                                          | THIRD ANGLE<br>PROJECTION |  |  |  |  |
|                                                                                                                              |                                   |             |                                                            | mm                                                                                                                               | INCH                       | DRAWN BY<br>J JON IAK                                                           | DATE<br>2006/01/10 | TITLE<br><br>VHDM 6 ROW<br>OPEN END BACKPLANE<br>SALES ASSEMBLY<br><br>MOLEX MOLEX INCORPORATED |                           |  |  |  |  |
|                                                                                                                              |                                   |             | 4 PLACES                                                   | ± ---                                                                                                                            | ± ---                      | CHECKED BY<br>J JON IAK                                                         | DATE<br>2006/01/10 |                                                                                                 |                           |  |  |  |  |
|                                                                                                                              |                                   |             | 3 PLACES                                                   | ± ---                                                                                                                            | ± ---                      |                                                                                 |                    |                                                                                                 |                           |  |  |  |  |
|                                                                                                                              |                                   |             | 2 PLACES                                                   | ± ---                                                                                                                            | ± ---                      | APPROVED BY<br>J JON IAK                                                        | DATE<br>2006/01/10 |                                                                                                 |                           |  |  |  |  |
|                                                                                                                              |                                   |             | 1 PLACE                                                    | ± ---                                                                                                                            | ± ---                      | MATERIAL NO. DOCUMENT NO. SHEET NO.<br>J JON IAK 2006/01/10 SD-74057-002 3 OF 3 |                    |                                                                                                 |                           |  |  |  |  |
|                                                                                                                              |                                   |             | ANGULAR ±1/2°                                              |                                                                                                                                  |                            |                                                                                 |                    |                                                                                                 |                           |  |  |  |  |
|                                                                                                                              |                                   |             | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                                                                                                                  |                            |                                                                                 |                    | SEE CHARTS                                                                                      |                           |  |  |  |  |
|                                                                                                                              |                                   |             | SIZE<br>B                                                  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                            |                                                                                 |                    |                                                                                                 |                           |  |  |  |  |



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

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Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331