

R-VPX Ruggedized

VITA 46

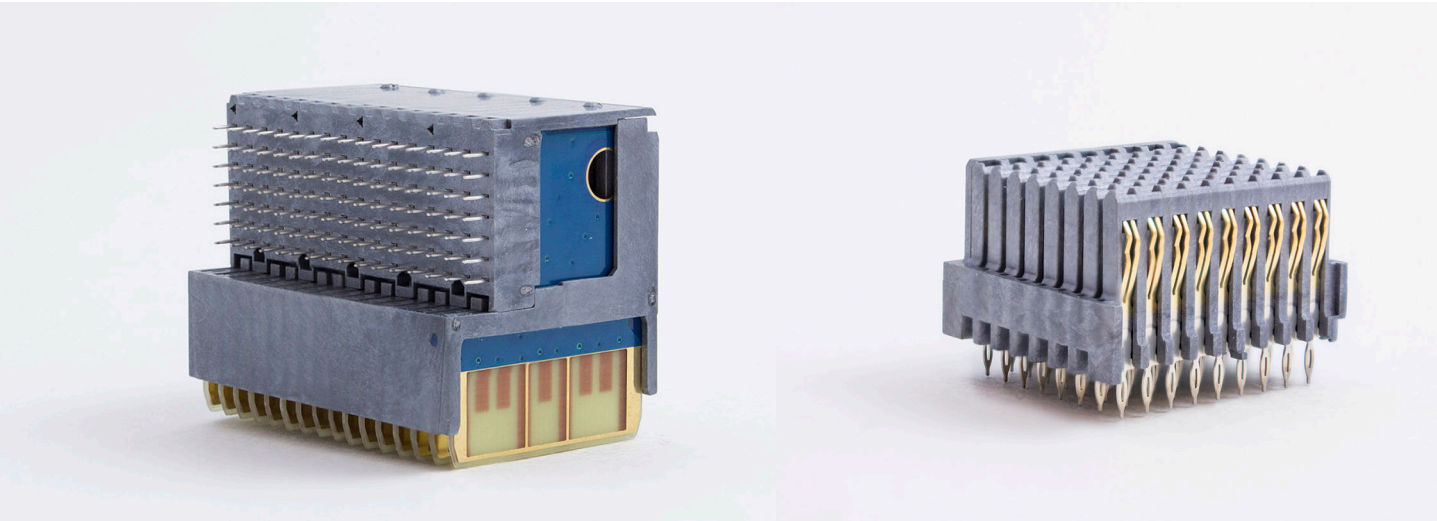
For High Speed Embedded Computing Applications



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R-VPX Ruggedized VITA 46



Amphenol's R-VPX is a ruggedized, high-speed, board-to-board interconnect system capable of data rates in excess of 10 Gbps, meeting and exceeding VITA 46 standards. This connector system gives users modularity and flexibility by utilizing PCB wafer construction with customized wafer-loading patterns.

R-VPX Ruggedized VITA 46 Connectors are designed for embedded computing applications in:



Commercial and Military Aerospace



Electronic Systems - C4ISR



Missile Defense



Ground Systems



Space Systems

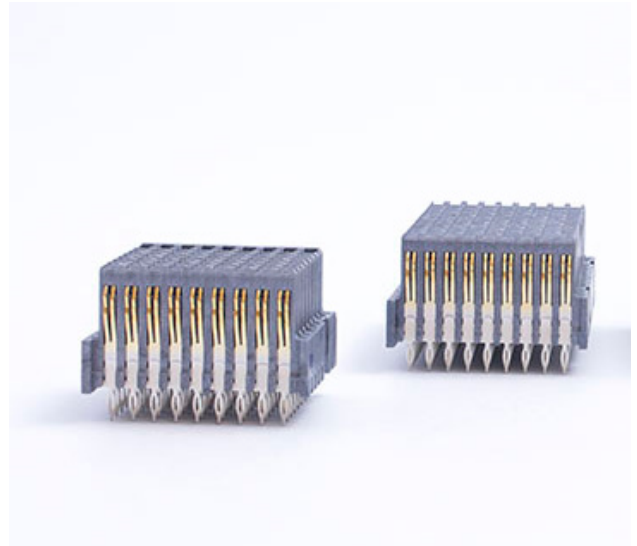


Other Ruggedized Environments

R-VPX Overview:

FEATURES & BENEFITS:

- Qualified to VITA 46 for Open VPX applications
- Fully intermountable & intermateable to existing VITA 46 connectors
- Meets and exceeds VITA 47
- Modular COTS lightweight connector system
- Low mating force connector system
- Pin-Less backplane connector family
- Supports .8 inch card slot pitches
- Up to 140 signals per inch
- Contact current rating 1.5 Amps
- Can be combined with high power modules, RF Modules (VITA 67) and Optical modules (VITA 66)



SUPPORTED HIGH-SPEED PROTOCOLS

- 1000BASE-KX
- 10GBASE-KX4
- 10GBASE-KR10
- 40GBASE-KR4
- InfiniBand SDR, DDR, and QDR
- PCIe Gen 1, 2, and 3
- Serial RapidIO 2.5, 3.125, 5, and 6.25 Gbaud

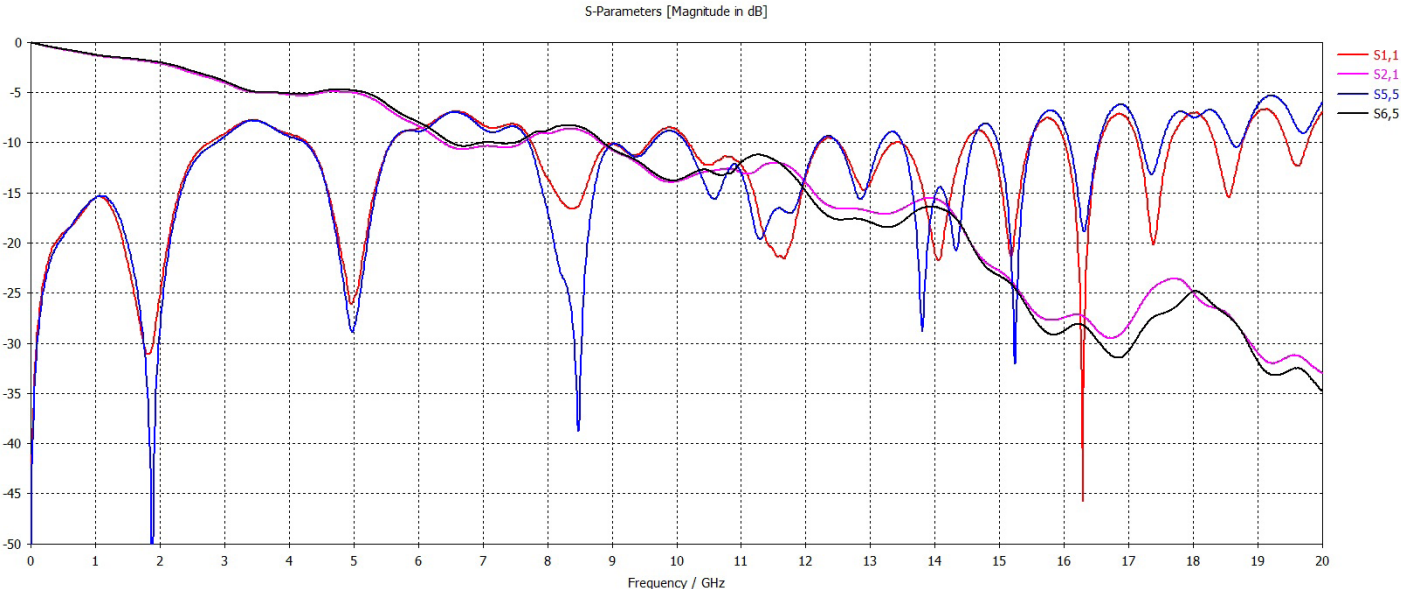


PRODUCT DEVELOPMENT

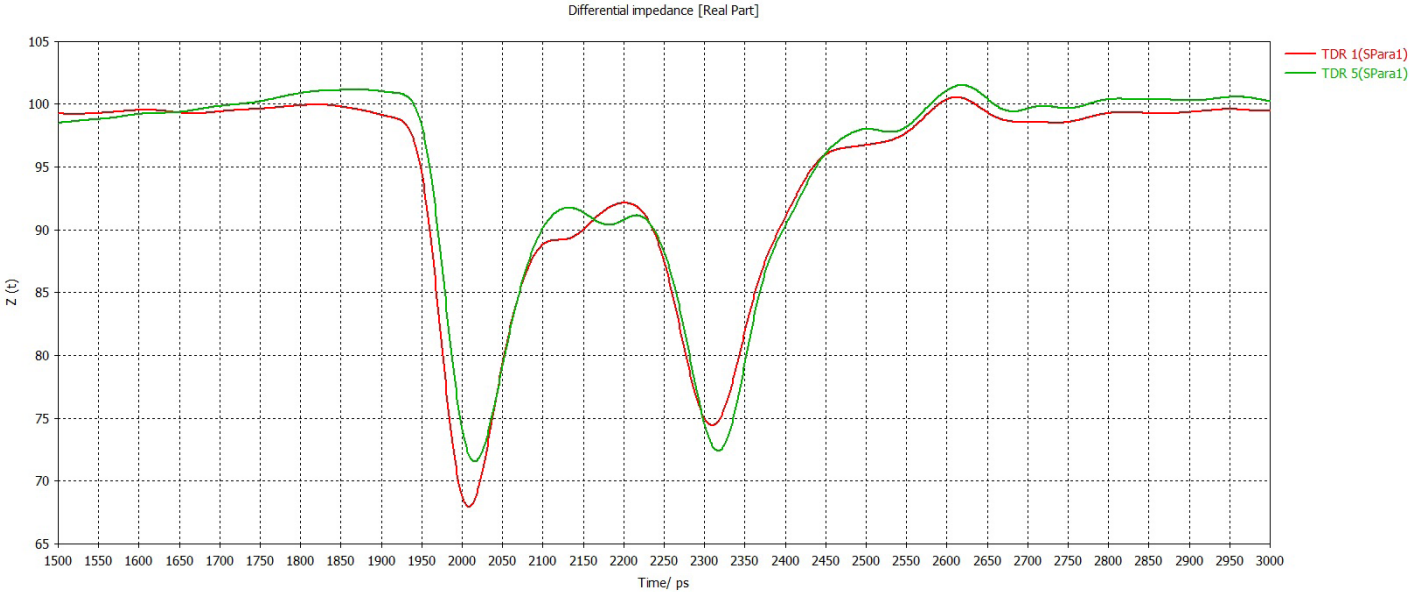
- 16 Gb/S VITA 46 Connectors: available in 2018.
- 25+ Gb/S VITA 46 Connectors: available by the end of 2018.

R-VPX Overview:

Signal Integrity Comparison: Insert and Return Loss



Signal Integrity Comparison: Impedance



Note ≈ 44 ps 10-90% TDR Rise time

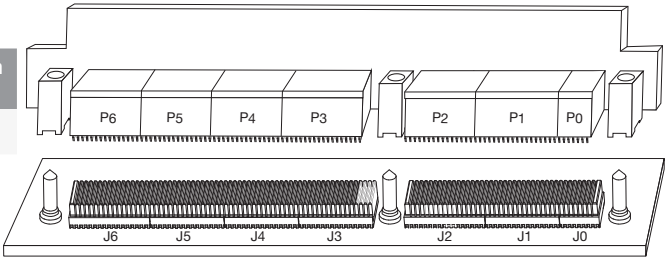
R-VPX Part Number List:

| Part Number | Gender | Size | Insert Type | Plating | Contact Finish |
|--------------|------------------|------|---------------------------|-----------------|----------------|
| RVPX-P08VM1 | Std Module | 8 | P0 V- VITA 46 | 50 Micro-Inches | Tin |
| RVPX-P08DM1 | Std Module | 8 | P0 Differential 10Gb/s | 50 Micro-Inches | Tin |
| RVPX-P08SM1 | Std Module | 8 | P0 Single-Ended | 50 Micro-Inches | Tin |
| RVPX-P08PM1 | Std Module | 8 | P0 Power | 50 Micro-Inches | Tin |
| RVPX-P16DM1 | Std Module | 16 | P1-P6 Differential 10Gb/s | 50 Micro-Inches | Tin |
| RVPX-PE16DM1 | Evolution Module | 16 | P1-P6 Differential 16Gb/s | 50 Micro-Inches | Tin |
| RVPX-P16SM1 | Std Module | 16 | P1-P6 Single-Ended | 50 Micro-Inches | Tin |
| RVPX-P16PM1 | Std Module | 16 | P1-P6 Power | 50 Micro-Inches | Tin |
| RVPX-P08VM2 | Std Module | 8 | P0 V- VITA 46 | 50 Micro-Inches | Tin-Lead |
| RVPX-P08DM2 | Std Module | 8 | P0 Differential 10Gb/s | 50 Micro-Inches | Tin-Lead |
| RVPX-P08SM2 | Std Module | 8 | P0 Single-Ended | 50 Micro-Inches | Tin-Lead |
| RVPX-P08PM2 | Std Module | 8 | P0 Power | 50 Micro-Inches | Tin-Lead |
| RVPX-P16DM2 | Std Module | 16 | P1-P6 Differential 10Gb/s | 50 Micro-Inches | Tin-Lead |
| RVPX-PE16DM2 | Evolution Module | 16 | P1-P6 Differential 16Gb/s | 50 Micro-Inches | Tin-Lead |
| RVPX-P16SM2 | Std Module | 16 | P1-P6 Single-Ended | 50 Micro-Inches | Tin-Lead |
| RVPX-P16PM2 | Std Module | 16 | P1-P6 Power | 50 Micro-Inches | Tin-Lead |
| RVPX-P08VC1 | Std Module | 8 | P0 V- VITA 46 | 30 Micro-Inches | Tin |
| RVPX-P08DC1 | Std Module | 8 | P0 Differential 10Gb/s | 30 Micro-Inches | Tin |
| RVPX-P08SC1 | Std Module | 8 | P0 Single-Ended | 30 Micro-Inches | Tin |
| RVPX-P08PC1 | Std Module | 8 | P0 Power | 30 Micro-Inches | Tin |
| RVPX-P16DC1 | Std Module | 16 | P1-P6 Differential 10Gb/s | 30 Micro-Inches | Tin |
| RVPX-PE16DC1 | Evolution Module | 16 | P1-P6 Differential 16Gb/s | 30 Micro-Inches | Tin |
| RVPX-P16SC1 | Std Module | 16 | P1-P6 Single-Ended | 30 Micro-Inches | Tin |
| RVPX-P16PC1 | Std Module | 16 | P1-P6 Power | 30 Micro-Inches | Tin |
| RVPX-P08VC2 | Std Module | 8 | P0 V- VITA 46 | 30 Micro-Inches | Tin-Lead |
| RVPX-P08DC2 | Std Module | 8 | P0 Differential 10Gb/s | 30 Micro-Inches | Tin-Lead |
| RVPX-P08SC2 | Std Module | 8 | P0 Single-Ended | 30 Micro-Inches | Tin-Lead |
| RVPX-P08PC2 | Std Module | 8 | P0 Power | 30 Micro-Inches | Tin-Lead |
| RVPX-P16DC2 | Std Module | 16 | P1-P6 Differential 10Gb/s | 30 Micro-Inches | Tin-Lead |
| RVPX-PE16DC2 | Evolution Module | 16 | P1-P6 Differential 16Gb/s | 30 Micro-Inches | Tin-Lead |
| RVPX-P16SC2 | Std Module | 16 | P1-P6 Single-Ended | 30 Micro-Inches | Tin-Lead |
| RVPX-P16PC2 | Std Module | 16 | P1-P6 Power | 30 Micro-Inches | Tin-Lead |
| RVPX-J08EM1 | Backplane | 8 | J0 End | 50 Micro-Inches | Tin |
| RVPX-J08EC1 | Backplane | 8 | J0 End | 30 Micro-Inches | Tin |
| RVPX-J08EM2 | Backplane | 8 | J0 End | 50 Micro-Inches | Tin-Lead |
| RVPX-J08EC2 | Backplane | 8 | J0 End | 30 Micro-Inches | Tin-Lead |
| RVPX-J16MM1 | Backplane | 16 | J1, J3-J5 Middle | 50 Micro-Inches | Tin |
| RVPX-J16MC1 | Backplane | 16 | J1, J3-J5 Middle | 30 Micro-Inches | Tin |
| RVPX-J16EM1 | Backplane | 16 | J2, J6 End | 50 Micro-Inches | Tin |
| RVPX-J16EC1 | Backplane | 16 | J2, J6 End | 30 Micro-Inches | Tin |
| RVPX-J16MM2 | Backplane | 16 | J1, J3-J5 Middle | 50 Micro-Inches | Tin-Lead |
| RVPX-J16MC2 | Backplane | 16 | J1, J3-J5 Middle | 30 Micro-Inches | Tin-Lead |
| RVPX-J16EM2 | Backplane | 16 | J2, J6 End | 50 Micro-Inches | Tin-Lead |
| RVPX-J16EC2 | Backplane | 16 | J2, J6 End | 30 Micro-Inches | Tin-Lead |

DAUGHTER CARD: How to Order

Complete steps 1-6 to create your part number

| 1. | 2. | 3. | 4. | 5. | 6. |
|----------------|--------|------|-------------|-----------------|----------------------------|
| Connector Type | Gender | Size | Insert Type | Contact Plating | Contact Termination Finish |
| RVPX- | P | 16 | D | M | 1 |



STEP 1 :

| Connector Type | |
|----------------|-------------------------|
| R-VPX- | Rugged High Speed Board |

STEP 3 :

| Size | |
|------|--------------------|
| 08 | 8 Position Insert |
| 16 | 16 Position Insert |

STEP 5 :

| Contact Plating | |
|-----------------|----------------------|
| M | 50 Micro-Inches Gold |
| C | 30 Micro-Inches Gold |

STEP 2 :

| Gender | |
|--------|--------------------------|
| P | Module 10 Gb/s |
| PE | Evolution Module 16 Gb/s |

STEP 4 :

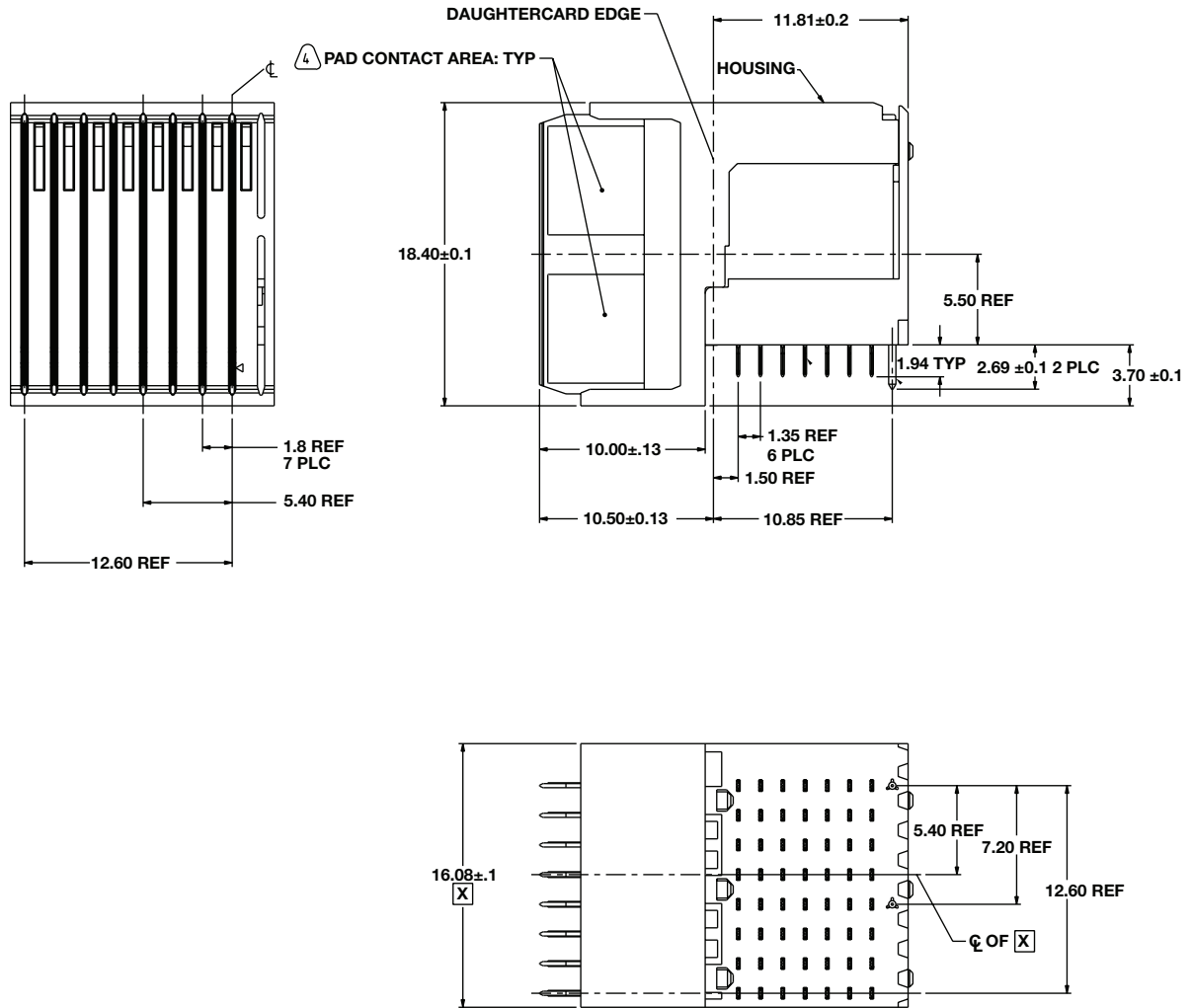
| Insert Type | |
|-------------|--------------------------|
| D | Differential |
| S | Single-Ended |
| P | Power |
| V | Standard VITA 46 P0 Load |

STEP 6 :

| Contact Termination Finish | | |
|----------------------------|----------|---|
| 1 | Tin |  |
| 2 | Tin-Lead | |

| Daughter Card | | | |
|------------------------|--------------|------------------------------------|--------------|
| Module Position | | Part No. Amphenol R-VPX Connectors | |
| P0 | | RVPX-P08VCX | RVPX-P08VMX* |
| P1, P2, P3, P4, P5, P6 | Differential | RVPX-P16DCX | RVPX-P16DMX* |
| | Single-Ended | RVPX-P16SCX | RVPX-P16SMX* |
| †Keying Guide Modules | | RVPX-HMD-X | RVPX-HMM-X |

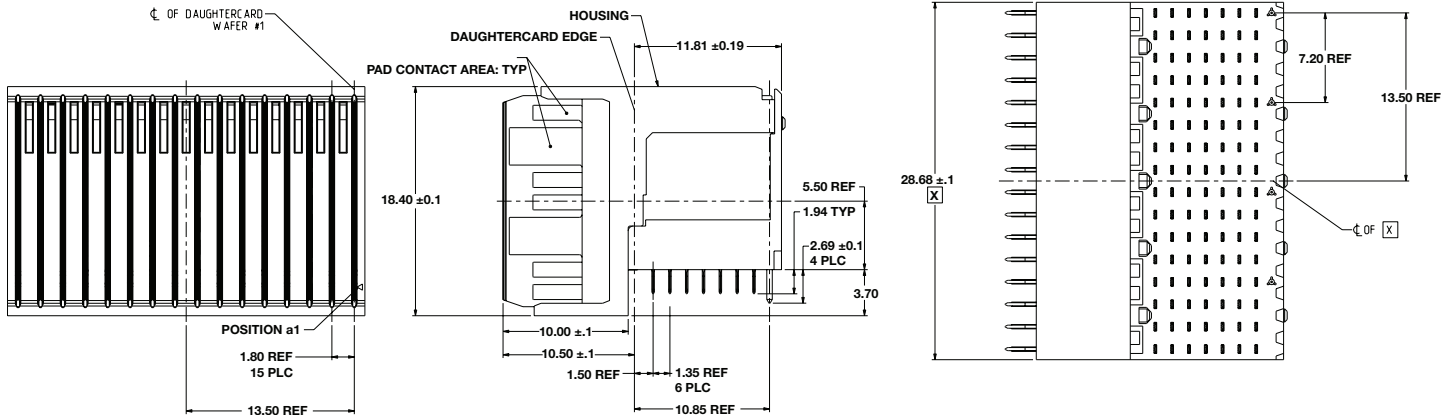
DAUGHTER CARD: 8 Position Half Left End Module



PLATING THICKNESS AND MATERIAL BY PART NUMBER

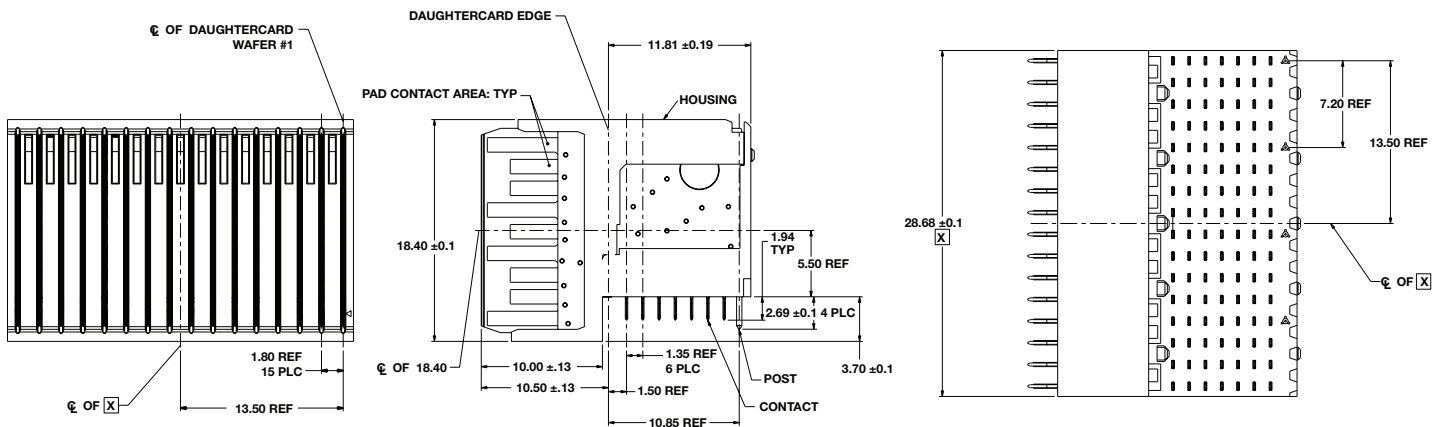
| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|-------------|----------------------|--------------------------------------|----------------|
| RVPX-P08VM1 | 50 µ-Inch min. | Tin | 50 µ-Inch Min. |
| RVPX-P08VM2 | | Tin-lead | |
| RVPX-P08VC1 | 30 µ-Inch min. | Tin | |
| RVPX-P08VC2 | | Tin-lead | |

DAUGHTER CARD: 16 Position Center Differential Module



| PLATING THICKNESS AND MATERIAL BY PART NUMBER | | | |
|---|----------------------|--------------------------------------|----------------|
| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
| RVPX-P16DM1 | 50 μ-Inch min. | Tin | 50 μ-Inch Min. |
| RVPX-P16DM2 | | Tin-lead | |
| RVPX-P16DC1 | 30 μ-Inch min. | Tin | |
| RVPX-P16DC2 | | Tin-lead | |

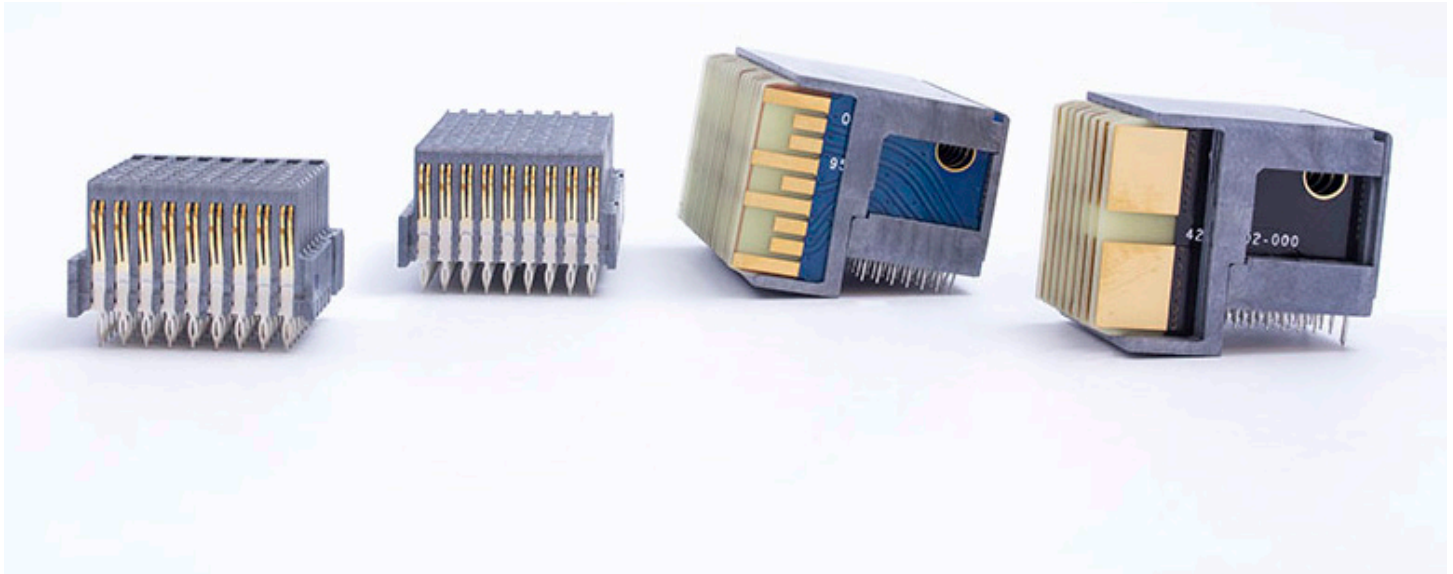
DAUGHTER CARD: 16 Position Center Single End



| PLATING THICKNESS AND MATERIAL BY PART NUMBER | | | |
|---|----------------------|--------------------------------------|----------------|
| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
| RVPX-P16SM1 | 50 μ-Inch min. | Tin | 50 μ-Inch Min. |
| RVPX-P16SM2 | | Tin-lead | |
| RVPX-P16SC1 | 30 μ-Inch min. | Tin | |
| RVPX-P16SC2 | | Tin-lead | |

R-VPX EVOLUTION SERIES

HIGH SPEED EVOLUTION



Amphenol introduces R-VPX Evolution Module capable of 16+Gbps data rate transfer performance.

Evolution is specifically designed to support the latest high speed protocols while still meeting open VPX requirements. Evolution meets the performance requirements of VITA 46 & 47 while still intermateable with existing VITA 46 backplane connectors. This connector systems is optimized for speed for and ruggedized to handle harsh environment requirements in military applications across the board.

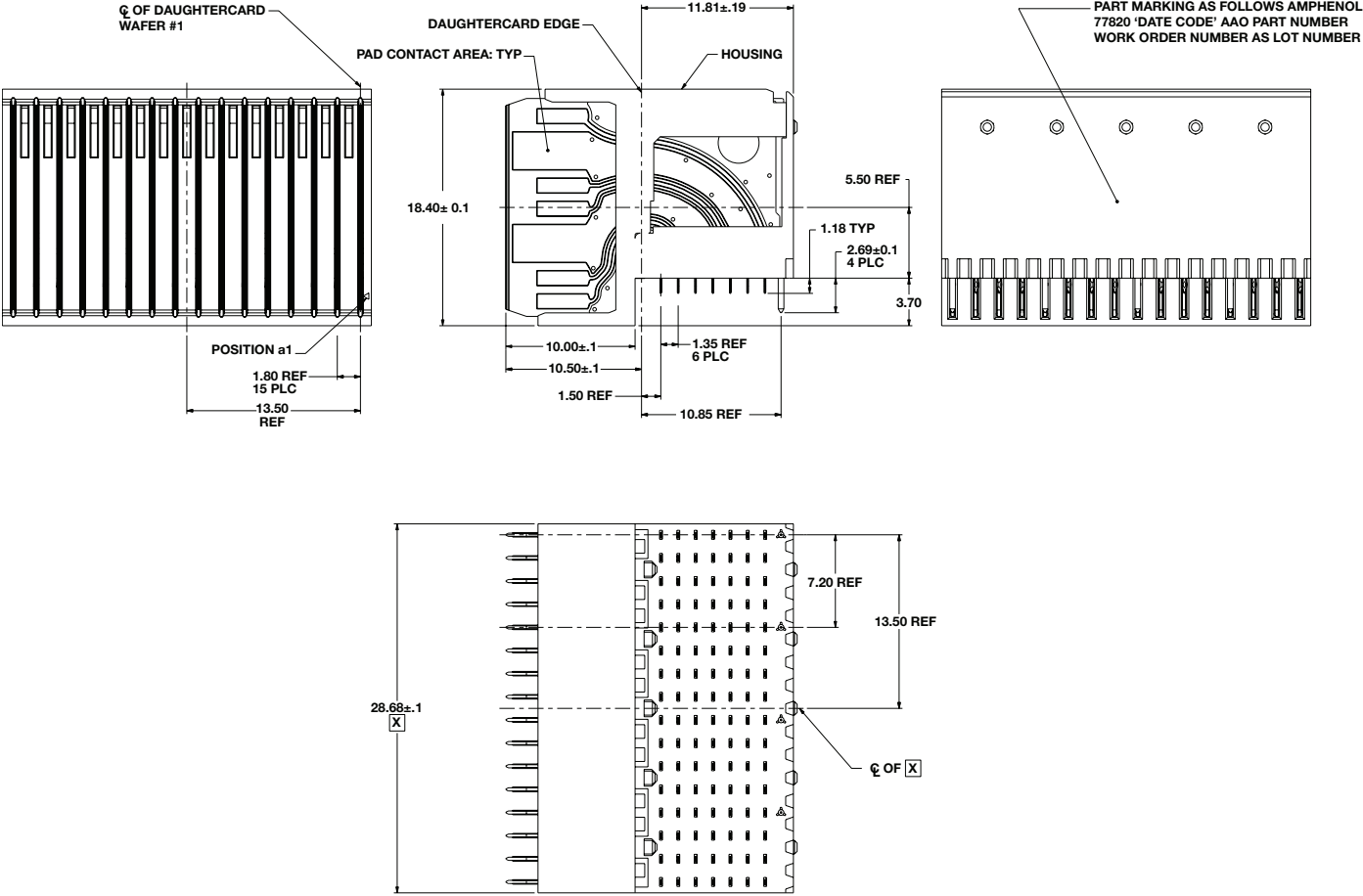
FEATURES AND BENEFITS

Supports High Speeded Protocols

- PCIe Gen 4
- 1000BASE-KX
- 10GBASE-KX4
- 100GBASE-KR4
- Infiniband SDR, DDR, and QDR
- Serial RapidIO 12.5 Gbaud

EVOLUTION SERIES- HIGH SPEED EVOLUTION

DAUGHTER CARD: Right-Angle Plug Assembly, 16 Center

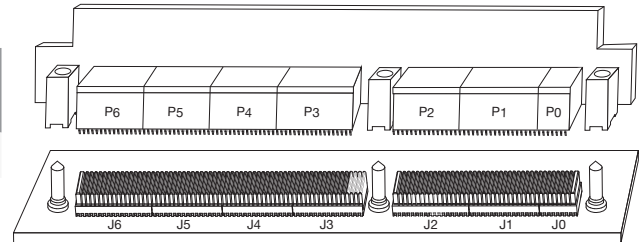


| PLATING THICKNESS AND MATERIAL BY PART NUMBER | | | |
|---|----------------------|--------------------------------------|----------------|
| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
| RVPX-PE16DM1 | 50 µ-Inch min. | Tin | 50 µ-Inch Min. |
| RVPX-PE16DM2 | | Tin-lead | |
| RVPX-PE16DC1 | 30 µ-Inch min. | Tin | |
| RVPX-PE16DC2 | | Tin-lead | |

BACKPLANE: How to Order

Complete steps 1-6 to create your part number

| 1. | 2. | 3. | 4. | 5. | 6. |
|----------------|--------|------|-------------|-----------------|----------------------------|
| Connector Type | Gender | Size | Insert Type | Contact Plating | Contact Termination Finish |
| RVPX- | J | 16 | E | M | 1 |



STEP 1 :

| Connector Type |
|-------------------------------|
| RVPX- Rugged High Speed Board |

STEP 2 :

| Gender |
|-------------|
| J Backplane |

STEP 3 :

| Size |
|-----------------------|
| 08 8 Position Insert |
| 16 16 Position Insert |

STEP 4 :

| Insert Type |
|---------------------------|
| M Middle (NA for Size 08) |
| E End |

STEP 5 :

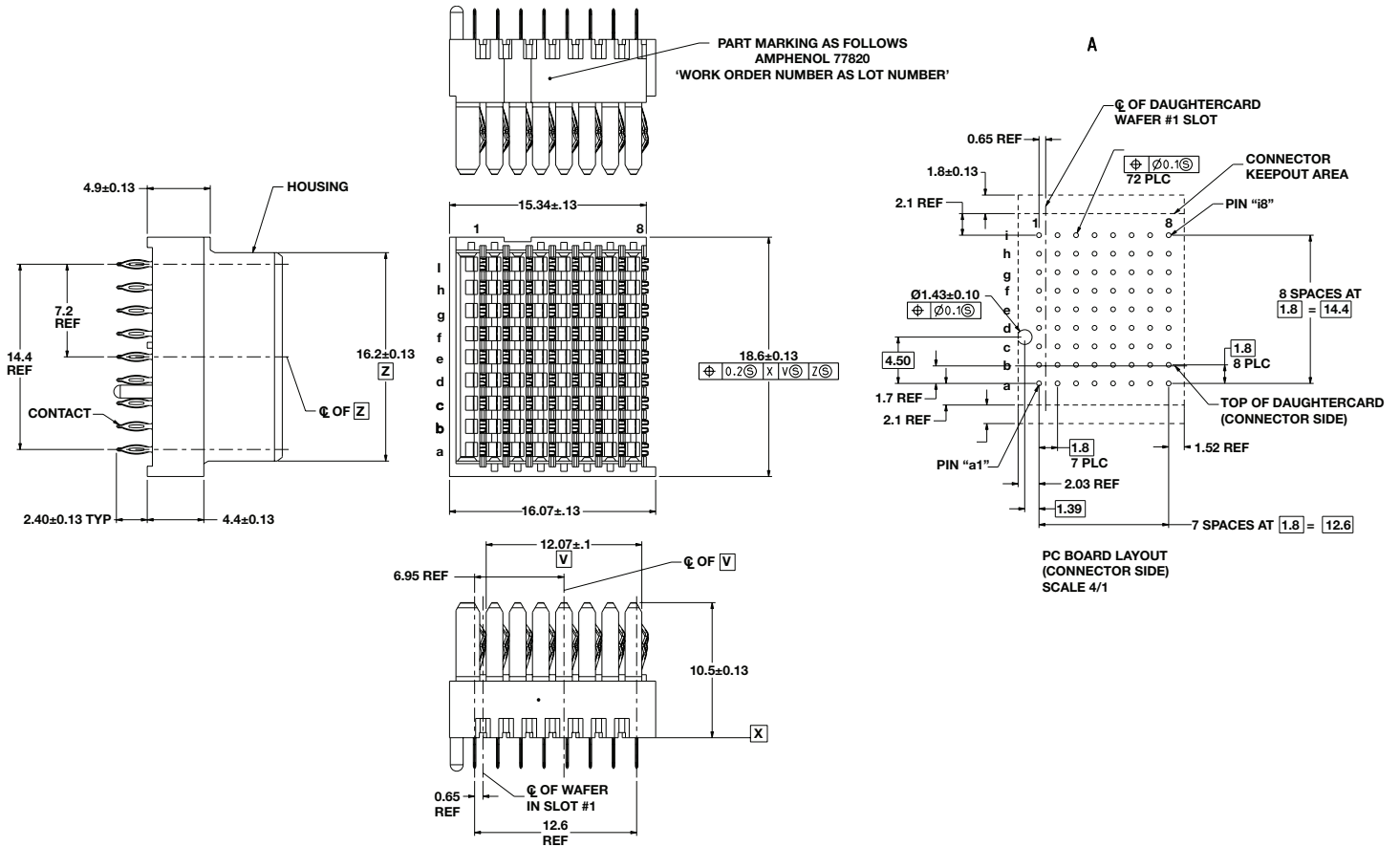
| Contact Plating |
|------------------------|
| M 50 Micro-Inches Gold |
| C 30 Micro-Inches Gold |

STEP 6 :

| Contact Termination Finish |
|----------------------------|
| 1 Tin |
| 2 Tin-Lead |

| Backplane | | |
|-----------------------|------------------------------------|--------------|
| Module Position | Part No. Amphenol R-VPX Connectors | |
| J0 | RVPX-J08ECX | RVPX-J08EMX* |
| J1, J3, J4, J5 | RVPX-J16MCX | RVPX-J16MMX* |
| J2, J6 | RVPX-J16ECX | RVPX-J16EMX* |
| †Keying Guide Modules | | |
| | RVPX-HPD-X | RVPX-HPM-X |

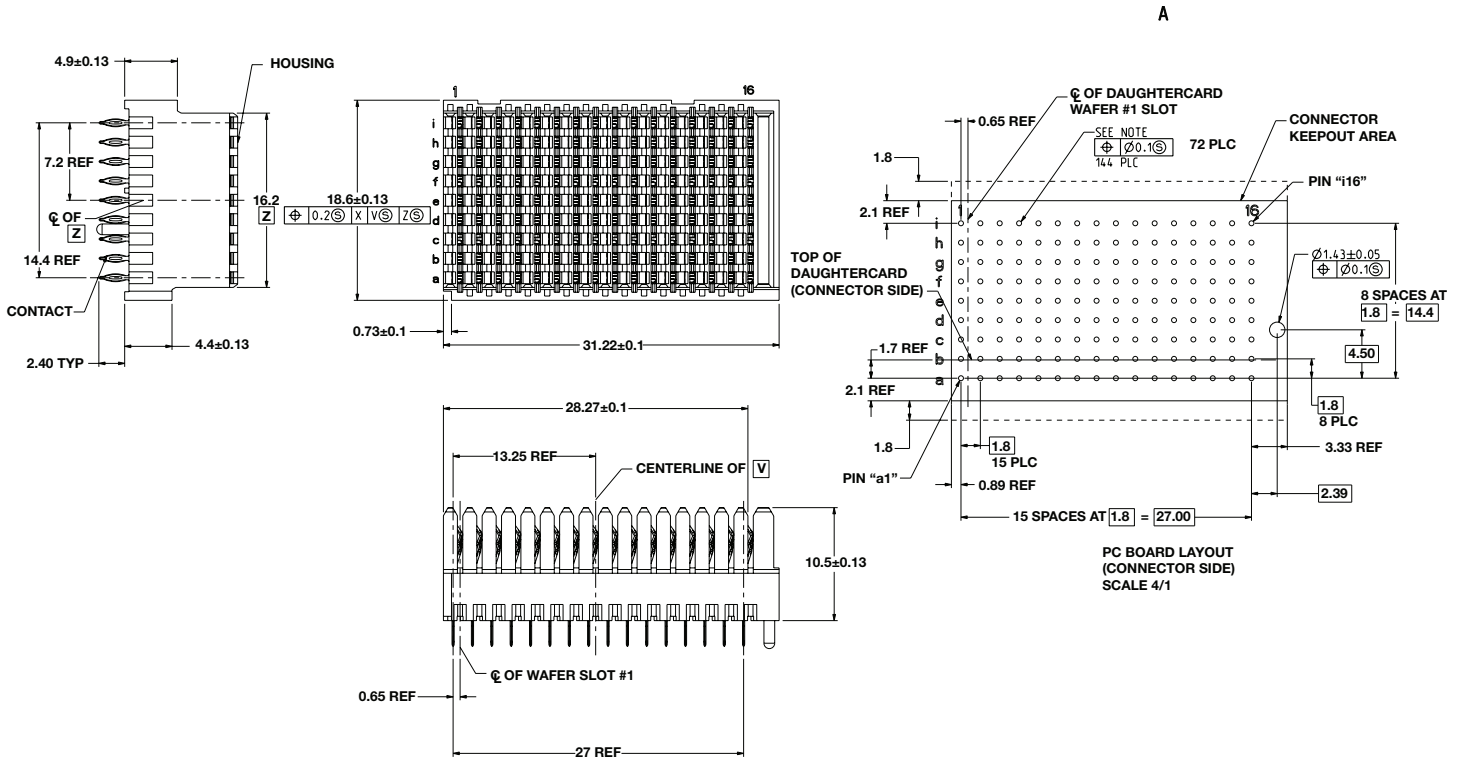
BACKPLANE: 8 Position Left End Backplane



PLATING THICKNESS AND MATERIAL BY PART NUMBER

| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|-------------|----------------------|--------------------------------------|----------------|
| RVPX-J08EM1 | 50 µ-Inch min. | Tin | 50 µ-Inch Min. |
| RVPX-J08EM2 | | Tin-lead | |
| RVPX-J08EC1 | 30 µ-Inch min. | Tin | |
| RVPX-J08EC2 | | Tin-lead | |

BACKPLANE: 16 Position Right End Backplane



| PLATING THICKNESS AND MATERIAL BY PART NUMBER | | | |
|---|----------------------|--------------------------------------|----------------|
| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
| RVPX-J16EM1 | 50 μ-Inch min. | Tin | 50 μ-Inch Min. |
| RVPX-J16EM2 | | Tin-lead | |
| RVPX-J16EC1 | 30 μ-Inch min. | Tin | |
| RVPX-J16EC2 | | Tin-lead | |

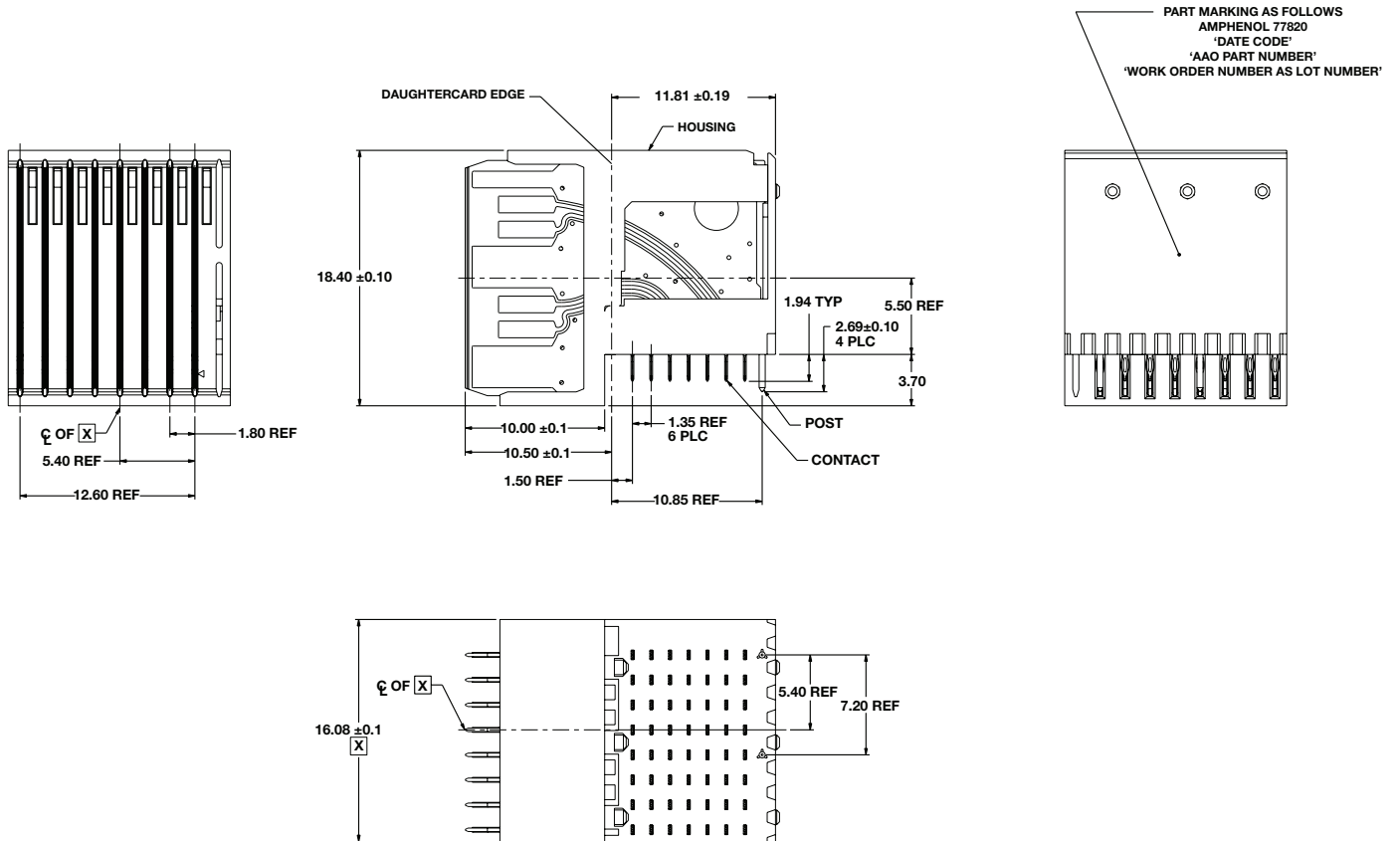
R-VPX REAR TRANSITION MODULE Part Number List:

| Part Number | Gender | Size | Insert Type | Plating | Contact Finish |
|----------------|---------------|------|---------------------------------|-----------------|----------------|
| RVPX-RP016VC1 | RTM Module | 16 | End - RP0 | 30 Micro-Inches | Tin |
| RVPX-RP016VC2 | RTM Module | 16 | End - RP0 | 30 Micro-Inches | Tin-Lead |
| RVPX-RP016VM1 | RTM Module | 16 | End - RP0 | 50 Micro-Inches | Tin |
| RVPX-RP016VM2 | RTM Module | 16 | End - RP0 | 50 Micro-Inches | Tin-Lead |
| RVPX-RP116DC1 | RTM Module | 16 | RP1 Differential | 30 Micro-Inches | Tin |
| RVPX-RP116DC2 | RTM Module | 16 | RP1 Differential | 30 Micro-Inches | Tin-Lead |
| RVPX-RP116DM1 | RTM Module | 16 | RP1 Differential | 50 Micro-Inches | Tin |
| RVPX-RP116DM2 | RTM Module | 16 | RP1 Differential | 50 Micro-Inches | Tin-Lead |
| RVPX-RP116DSC1 | RTM Module | 16 | RP1 Differential & Single-Ended | 30 Micro-Inches | Tin |
| RVPX-RP116DSC2 | RTM Module | 16 | RP1 Differential & Single-Ended | 30 Micro-Inches | Tin-Lead |
| RVPX-RP116DSM1 | RTM Module | 16 | RP1 Differential & Single-Ended | 50 Micro-Inches | Tin |
| RVPX-RP116DSM2 | RTM Module | 16 | RP1 Differential & Single-Ended | 50 Micro-Inches | Tin-Lead |
| RVPX-RP208DC1 | RTM Module | 8 | RP2 Single-Ended | 30 Micro-Inches | Tin |
| RVPX-RP208DC2 | RTM Module | 8 | RP2 Single-Ended | 30 Micro-Inches | Tin-Lead |
| RVPX-RP208DM1 | RTM Module | 8 | RP2 Differential | 50 Micro-Inches | Tin |
| RVPX-RP208DM2 | RTM Module | 8 | RP2 Differential | 50 Micro-Inches | Tin-Lead |
| RVPX-RP208SM1 | RTM Module | 8 | RP2 Differential | 50 Micro-Inches | Tin |
| RVPX-RP208SM2 | RTM Module | 8 | RP2 Differential | 50 Micro-Inches | Tin-Lead |
| RVPX-RP208SC1 | RTM Module | 8 | RP2 Differential | 30 Micro-Inches | Tin |
| RVPX-RP208SC2 | RTM Module | 8 | RP2 Differential | 30 Micro-Inches | Tin-Lead |
| RVPX-RP116DC1 | RTM Module | 16 | RP3-RP6 Differential | 30 Micro-Inches | Tin |
| RVPX-RP116DC2 | RTM Module | 16 | RP3-RP6 Differential | 30 Micro-Inches | Tin-Lead |
| RVPX-RP116DM1 | RTM Module | 16 | RP3-RP6 Differential | 50 Micro-Inches | Tin |
| RVPX-RP116DM2 | RTM Module | 16 | RP3-RP6 Differential | 50 Micro-Inches | Tin-Lead |
| RVPX-P16SC1 | RTM Module | 16 | RP3-RP6 Single Ended | 30 Micro-Inches | Tin |
| RVPX-P16SC2 | RTM Module | 16 | RP3-RP6 Single Ended | 30 Micro-Inches | Tin-Lead |
| RVPX-P16SM1 | RTM Module | 16 | RP3-RP6 Single Ended | 50 Micro-Inches | Tin |
| RVPX-P16SM2 | RTM Module | 16 | RP3-RP6 Single Ended | 50 Micro-Inches | Tin-Lead |
| RVPX-RJ0116MC1 | RTM Backplane | 16 | RJ0 15 Columns of contacts | 30 Micro-Inches | Tin |
| RVPX-RJ0116MC2 | RTM Backplane | 16 | RJ0 15 Columns of contacts | 30 Micro-Inches | Tin-Lead |
| RVPX-RJ0116MM1 | RTM Backplane | 16 | RJ0 15 Columns of contacts | 50 Micro-Inches | Tin |
| RVPX-RJ0116MM2 | RTM Backplane | 16 | RJ0 15 Columns of contacts | 50 Micro-Inches | Tin-Lead |
| RVPX-RJ0216MC1 | RTM Backplane | 16 | RJ0 7 Columns of contacts | 30 Micro-Inches | Tin |
| RVPX-RJ0216MC2 | RTM Backplane | 16 | RJ0 7 Columns of contacts | 30 Micro-Inches | Tin-Lead |
| RVPX-RJ0216MM1 | RTM Backplane | 16 | RJ0 7 Columns of contacts | 50 Micro-Inches | Tin |
| RVPX-RJ0216MM2 | RTM Backplane | 16 | RJ0 7 Columns of contacts | 50 Micro-Inches | Tin-Lead |
| RVPX-J16MC1 | RTM Backplane | 16 | RJ1 16 Columns of contacts | 30 Micro-Inches | Tin |
| RVPX-J16MC2 | RTM Backplane | 16 | RJ1 16 Columns of contacts | 30 Micro-Inches | Tin-Lead |
| RVPX-J16MM1 | RTM Backplane | 16 | RJ1 16 Columns of contacts | 50 Micro-Inches | Tin |
| RVPX-J16MM2 | RTM Backplane | 16 | RJ1 16 Columns of contacts | 50 Micro-Inches | Tin-Lead |

R-VPX REAR TRANSITION MODULE Part Number List:

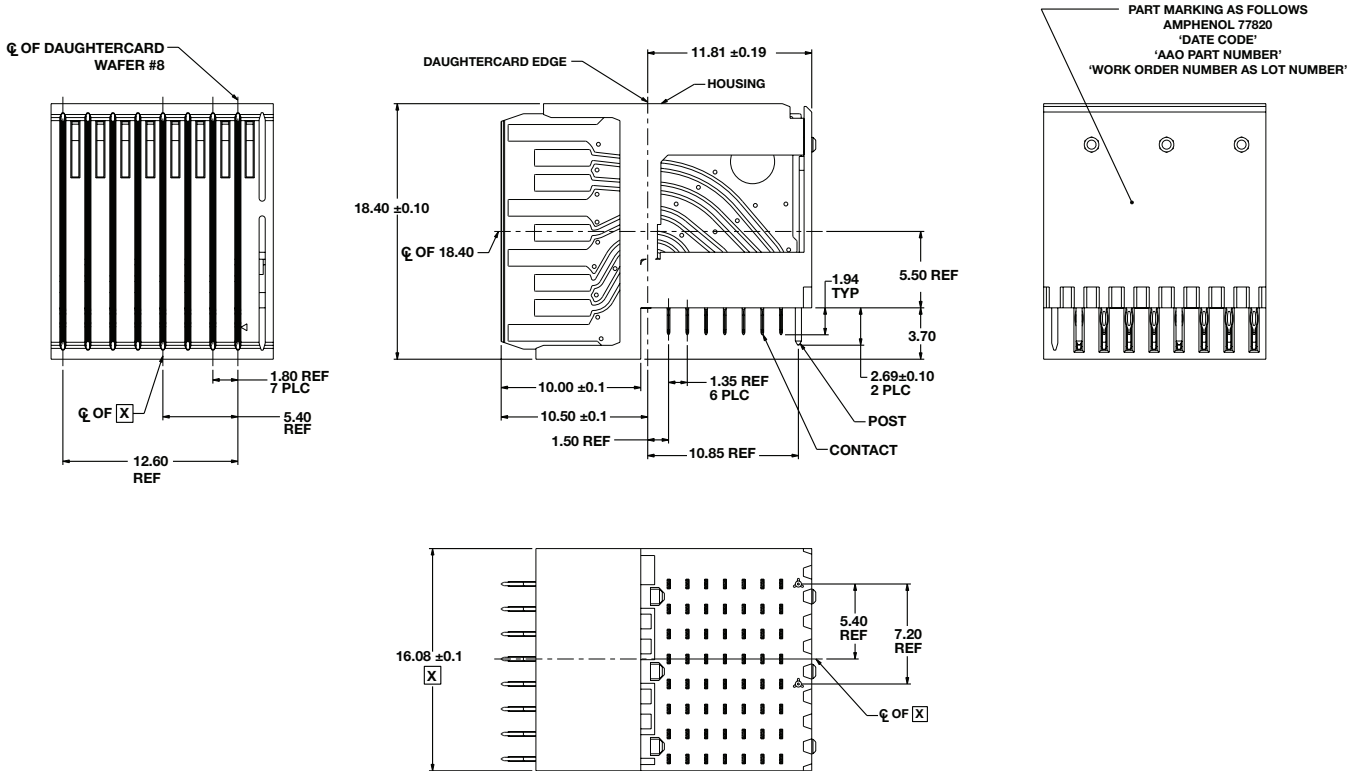
| Part Number | Gender | Size | Insert Type | Plating | Contact Finish |
|----------------|---------------|------|---------------------------|-----------------|----------------|
| RVPX-RJ1216MC1 | RTM Backplane | 16 | RJ1 8 Columns of contacts | 30 Micro-Inches | Tin |
| RVPX-RJ1216MC2 | RTM Backplane | 16 | RJ1 8 Columns of contacts | 30 Micro-Inches | Tin-Lead |
| RVPX-RJ1216MM1 | RTM Backplane | 16 | RJ1 8 Columns of contacts | 50 Micro-Inches | Tin |
| RVPX-RJ1216MM2 | RTM Backplane | 16 | RJ1 8 Columns of contacts | 50 Micro-Inches | Tin-Lead |
| RVPX-J08EC1 | RTM Backplane | 8 | RJ2 End | 30 Micro-Inches | Tin |
| RVPX-J08EC2 | RTM Backplane | 8 | RJ2 End | 30 Micro-Inches | Tin-Lead |
| RVPX-J08EM1 | RTM Backplane | 8 | RJ2 End | 50 Micro-Inches | Tin |
| RVPX-J08EM2 | RTM Backplane | 8 | RJ2 End | 50 Micro-Inches | Tin-Lead |
| RVPX-J16EC1 | RTM Backplane | 16 | RJ3 End | 30 Micro-Inches | Tin |
| RVPX-J16EC2 | RTM Backplane | 16 | RJ3 End | 30 Micro-Inches | Tin-Lead |
| RVPX-J16EM1 | RTM Backplane | 16 | RJ3 End | 50 Micro-Inches | Tin |
| RVPX-J16EM2 | RTM Backplane | 16 | RJ3 End | 50 Micro-Inches | Tin-Lead |
| RVPX-J16MC1 | RTM Backplane | 16 | RJ4-RJ6 | 30 Micro-Inches | Tin |
| RVPX-J16MC2 | RTM Backplane | 16 | RJ4-RJ6 | 30 Micro-Inches | Tin-Lead |
| RVPX-J16MM1 | RTM Backplane | 16 | RJ4-RJ6 | 50 Micro-Inches | Tin |
| RVPX-J16MM2 | RTM Backplane | 16 | RJ4-RJ6 | 50 Micro-Inches | Tin-Lead |

REAR TRANSITION MODULE: Right Angle Plug Assembly, Half Left End, Daughtercard Differential



| PLATING THICKNESS AND MATERIAL BY PART NUMBER | | | |
|---|----------------------|--------------------------------------|----------------|
| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
| RVPX-RP208DM1 | 50 μ-Inch min. | Tin | 50 μ-Inch Min. |
| RVPX-RP208DM2 | | Tin-lead | |
| RVPX-RP208DC2 | 30 μ-Inch min. | Tin | |
| RVPX-RP208DC2 | | Tin-lead | |

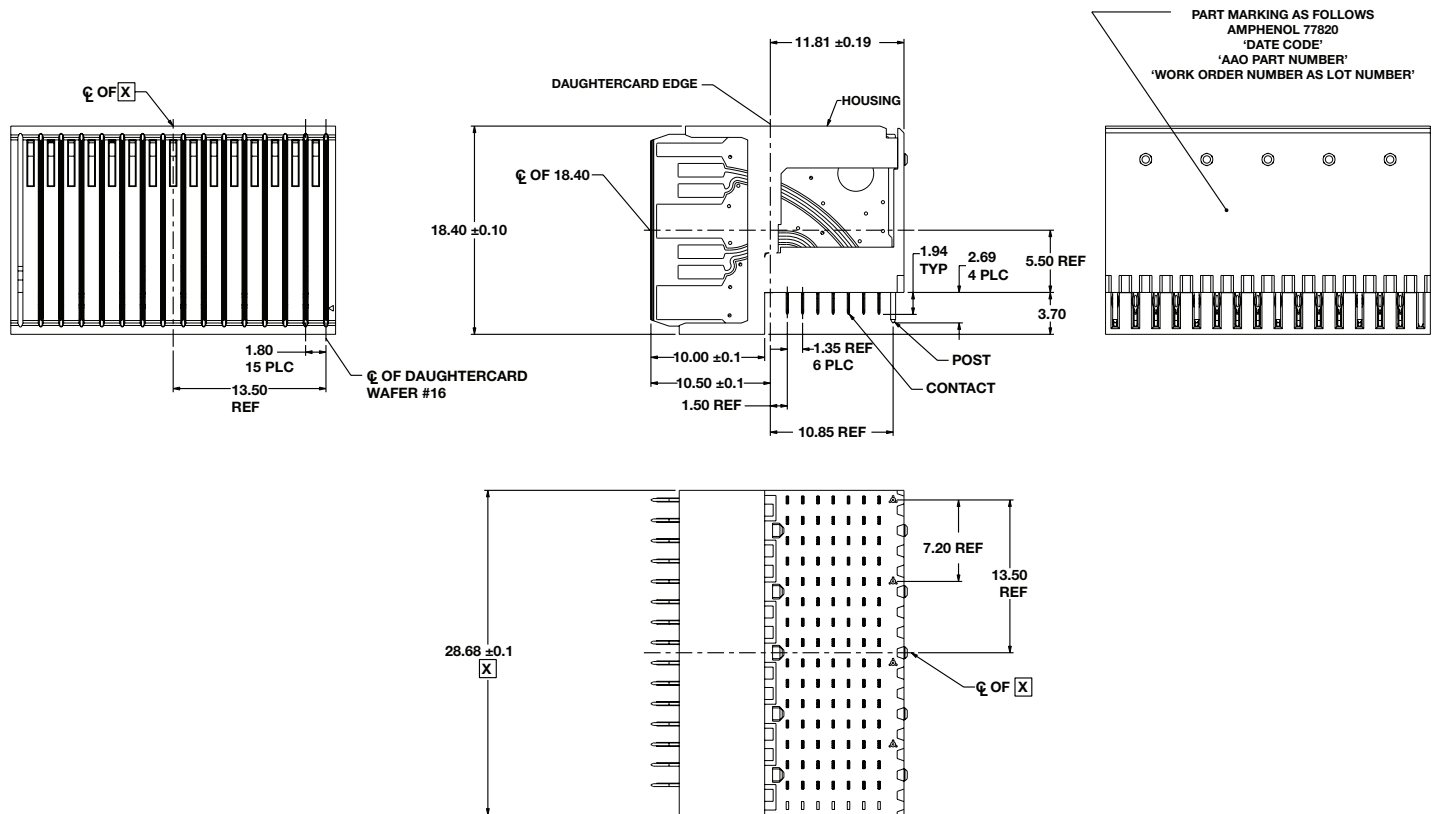
REAR TRANSITION MODULE: Right Angle Plug Assembly, Center RVPX Daughtercard Differential



PLATING THICKNESS AND MATERIAL BY PART NUMBER

| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|---------------|----------------------|--------------------------------------|----------------|
| RVPX-RP208SM1 | 50 µ-Inch min. | Tin | 50 µ-Inch Min. |
| RVPX-RP208SM2 | | Tin-lead | |
| RVPX-RP208SC1 | 30 µ-Inch min. | Tin | |
| RVPX-RP208SC2 | | Tin-lead | |

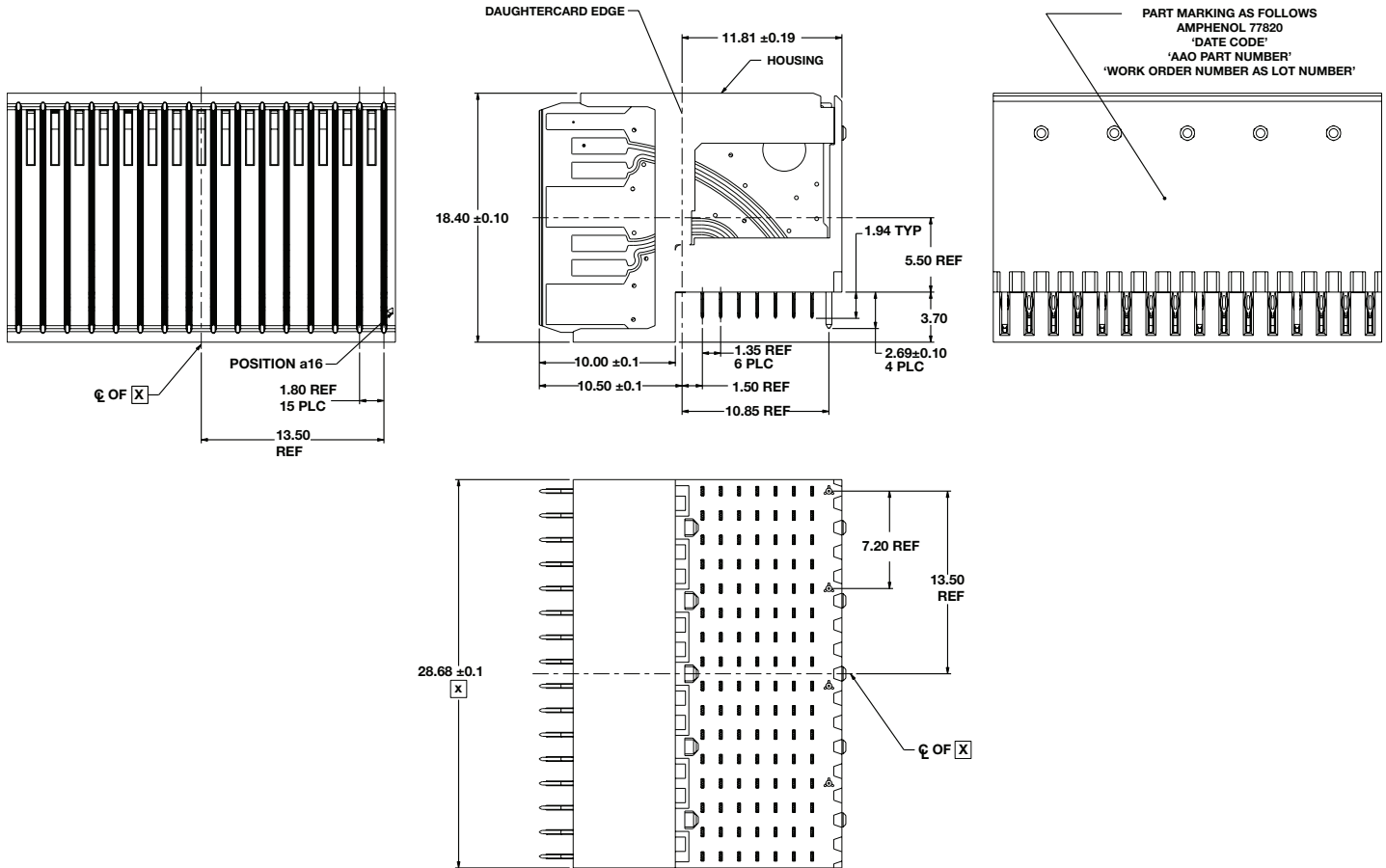
REAR TRANSITION MODULE: Right Angle Plug Assembly, Center RVPX Daughtercard



PLATING THICKNESS AND MATERIAL BY PART NUMBER

| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|---------------|----------------------|--------------------------------------|----------------|
| RVPX-RP016VM1 | 50 µ-Inch min. | Tin | 50 µ-Inch Min. |
| RVPX-RP016VM2 | | Tin-lead | |
| RVPX-RP016VC1 | 30 µ-Inch min. | Tin | |
| RVPX-RP016VC2 | | Tin-lead | |

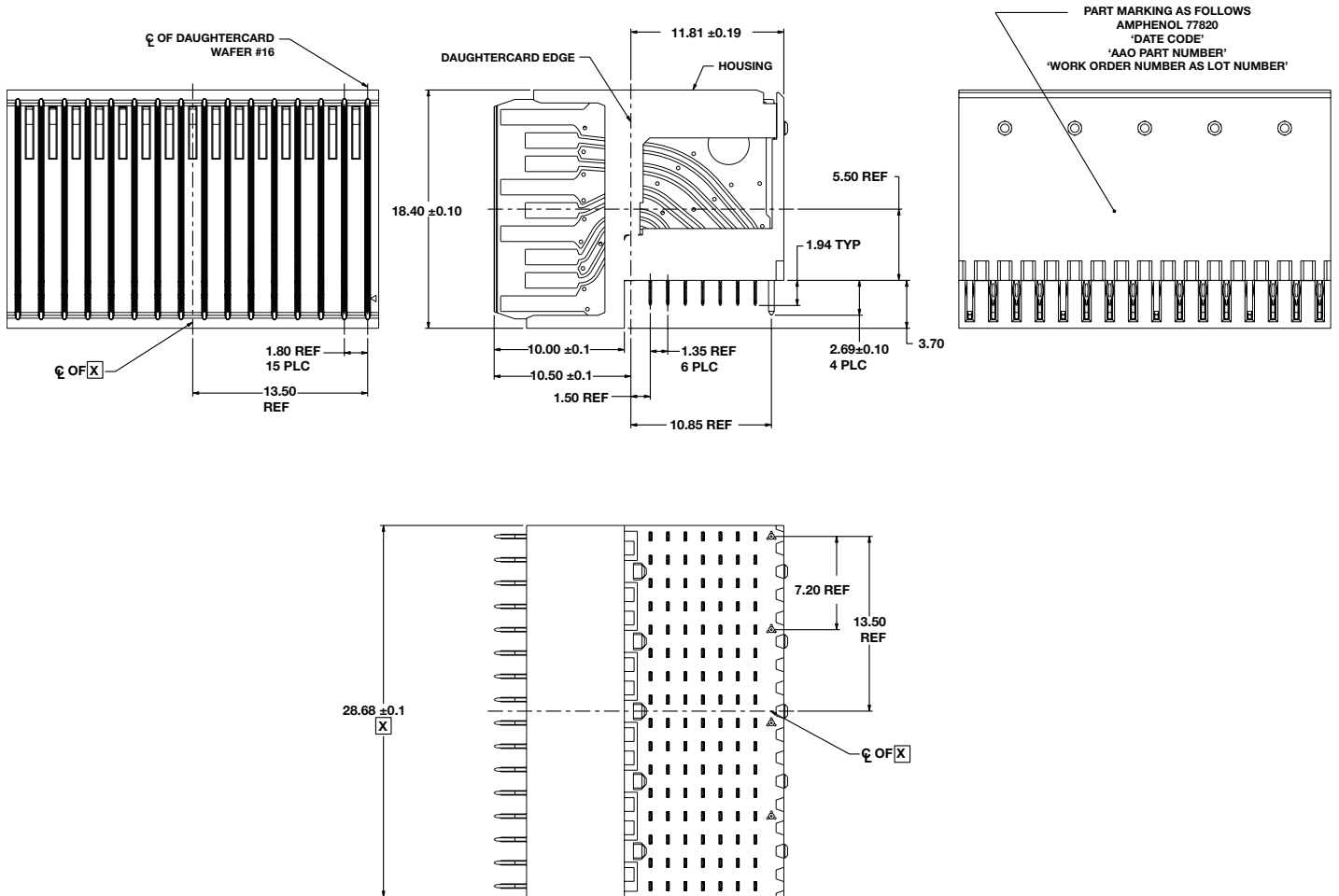
REAR TRANSITION MODULE: Right Angle Plug Assembly, Center RVPX Daughtercard Differential



PLATING THICKNESS AND MATERIAL BY PART NUMBER

| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|---------------|----------------------|--------------------------------------|----------------|
| RVPX-RP116DM1 | 50 μ-Inch min. | Tin | 50 μ-Inch Min. |
| RVPX-RP116DM2 | | Tin-lead | |
| RVPX-RP116DC1 | 30 μ-Inch min. | Tin | |
| RVPX-RP116DC2 | | Tin-lead | |

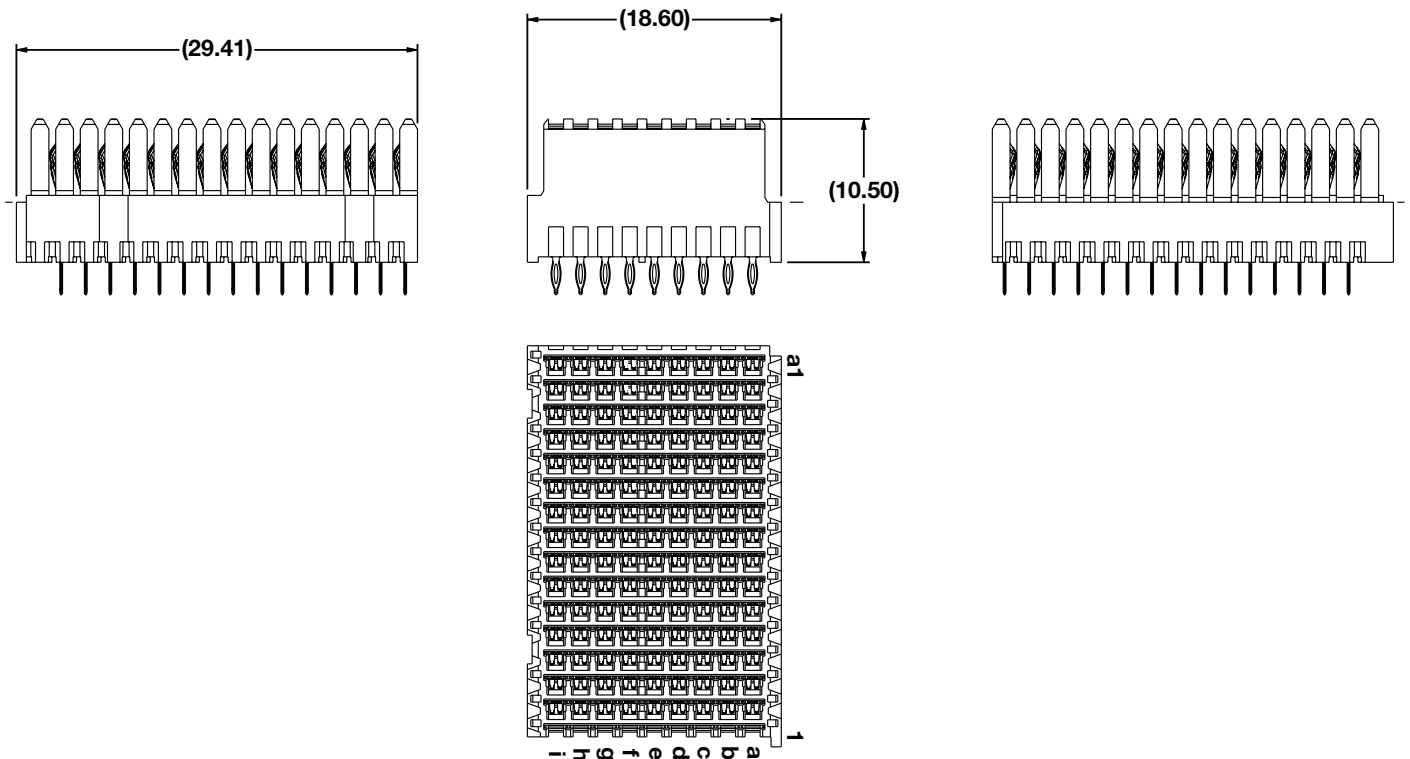
REAR TRANSITION MODULE: Right Angle Plug Assembly, Center RVPX Daughtercard Differential-SE



PLATING THICKNESS AND MATERIAL BY PART NUMBER

| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|----------------|----------------------|--------------------------------------|----------------|
| RVPX-RP116DSM1 | 50 µ-Inch min. | Tin | 50 µ-Inch Min. |
| RVPX-RP116DSM2 | | Tin-lead | |
| RVPX-RP116DSC1 | 30 µ-Inch min. | Tin | |
| RVPX-RP116DSC2 | | Tin-lead | |

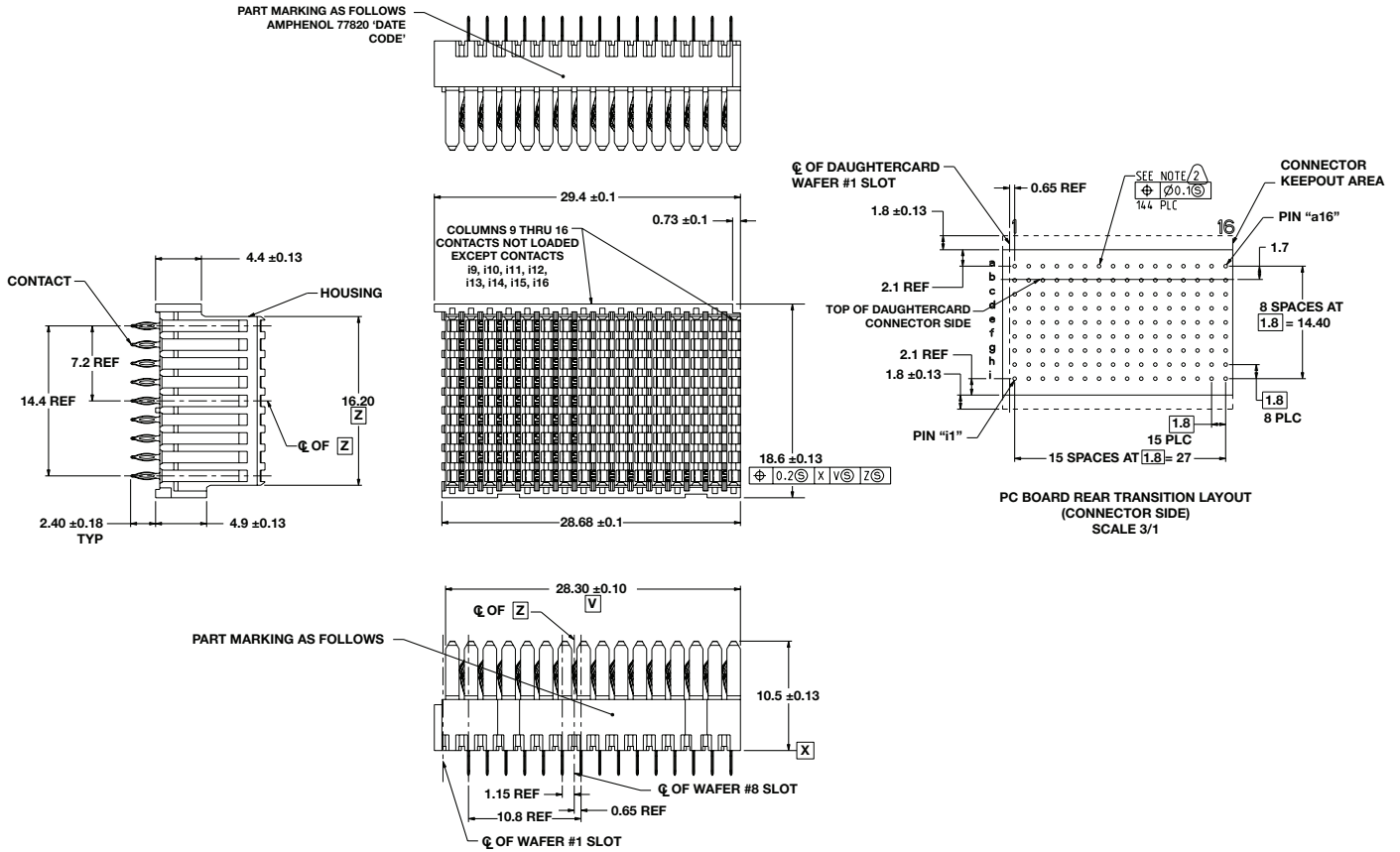
BACKPLANE: Rear Transition Module Center



PLATING THICKNESS AND MATERIAL BY PART NUMBER

| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|-----------------|----------------------|--------------------------------------|---------------------|
| RVPX-RJ0116MM1M | 50 μ -Inch min. | Tin | 50 μ -Inch Min. |
| RVPX-RJ0116MM2M | | Tin-lead | |
| RVPX-RJ0116MC1M | 30 μ -Inch min. | Tin | |
| RVPX-RJ0116MC2M | | Tin-lead | |

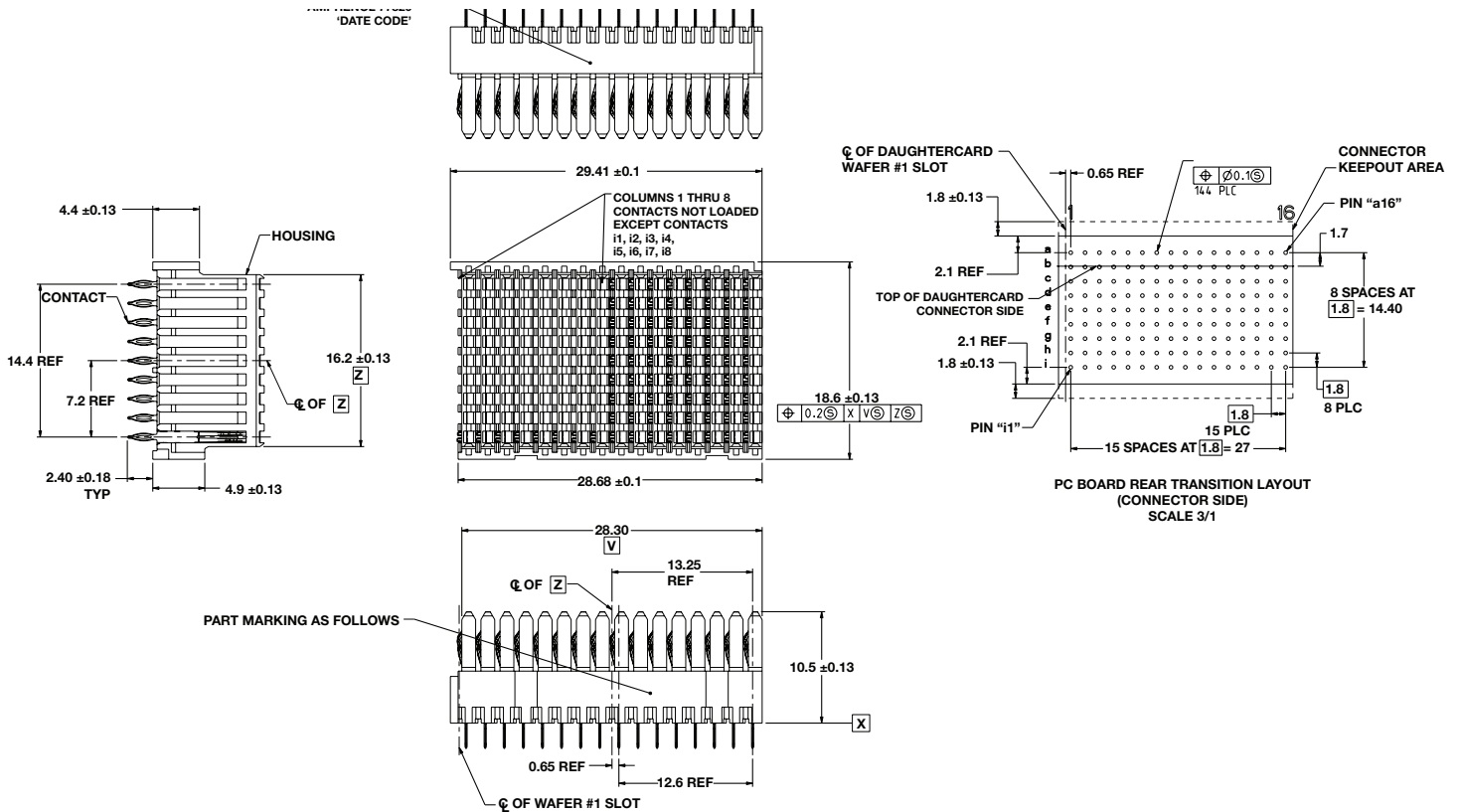
BACKPLANE: Rear Transition Module Vertical Receptacle Center, Partial Load



PLATING THICKNESS AND MATERIAL BY PART NUMBER

| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|----------------|----------------------|--------------------------------------|----------------|
| RVPX-RJ0216MM1 | 50 μ-Inch min. | Tin | 50 μ-Inch Min. |
| RVPX-RJ0216MM2 | | Tin-lead | |
| RVPX-RJ0216MC1 | 30 μ-Inch min. | Tin | |
| RVPX-RJ0216MC2 | | Tin-lead | |

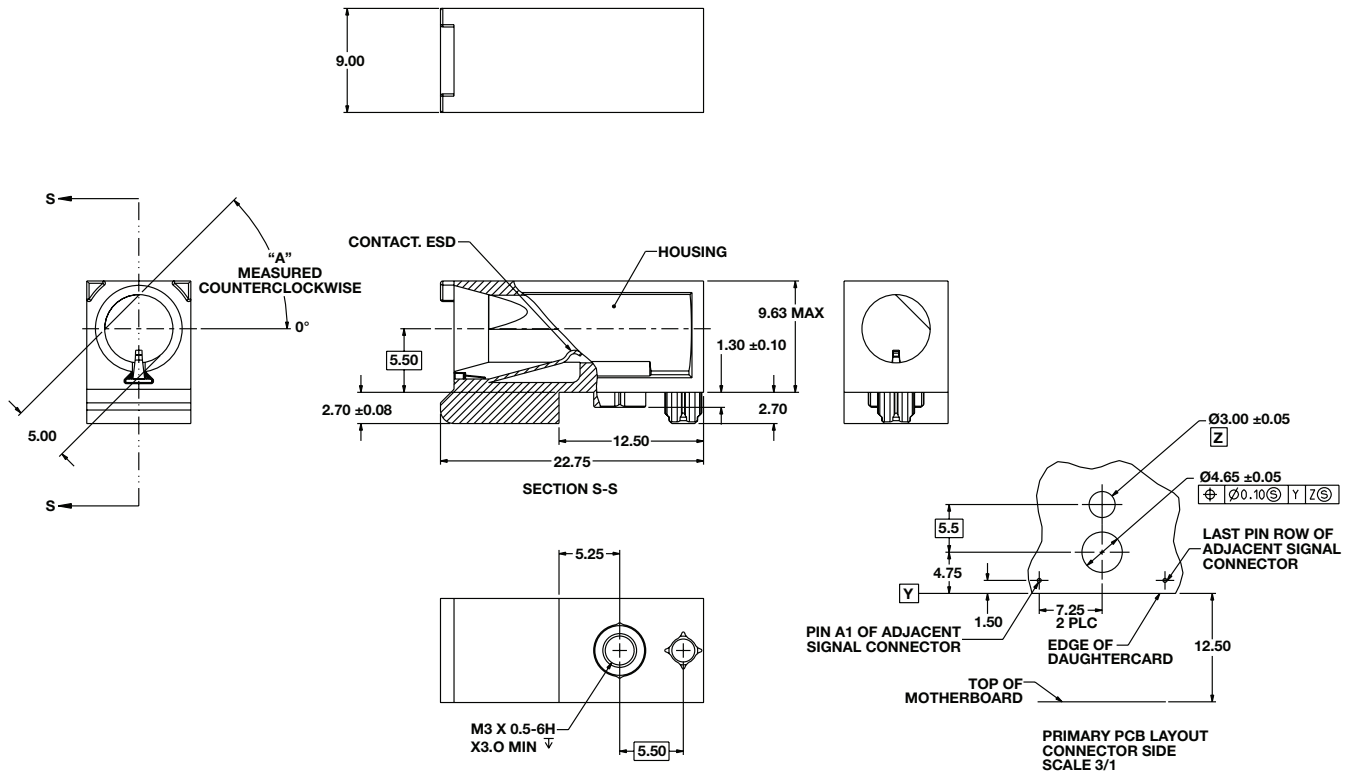
BACKPLANE: Rear Transition Module Vertical Receptacle Center, Partial Load



PLATING THICKNESS AND MATERIAL BY PART NUMBER

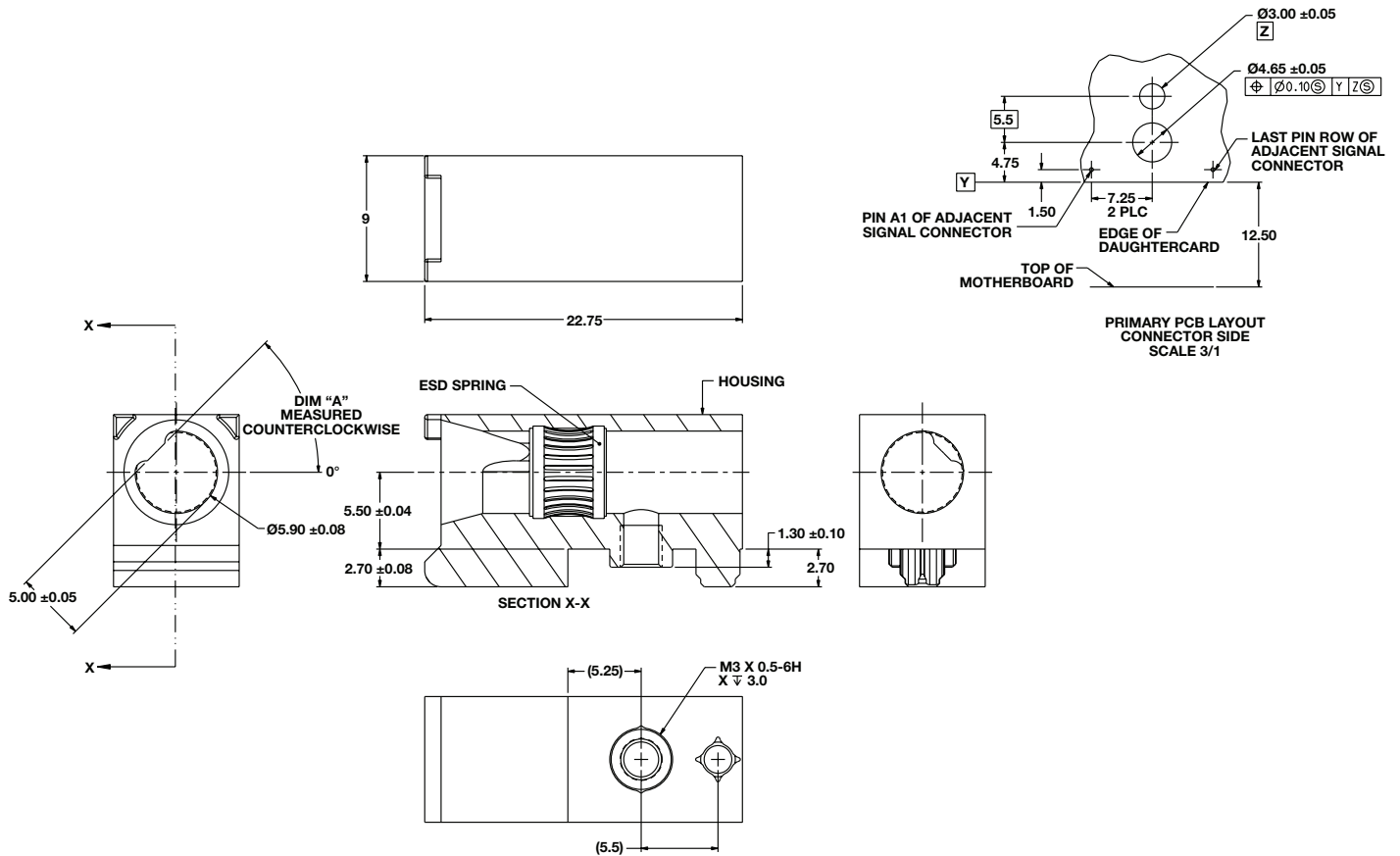
| Part Number | Gold In Contact Area | Compliant Contact Termination Finish | Nickel Overall |
|----------------|----------------------|--------------------------------------|----------------|
| RVPX-RJ1216MM1 | 50 µ-Inch min. | Tin | 50 µ-Inch Min. |
| RVPX-RJ1216MM2 | | Tin-lead | |
| RVPX-RJ1216MC1 | 30 µ-Inch min. | Tin | |
| RVPX-RJ1216MC2 | | Tin-lead | |

HARDWARE: Zinc Die Cast Guide Modules



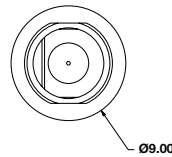
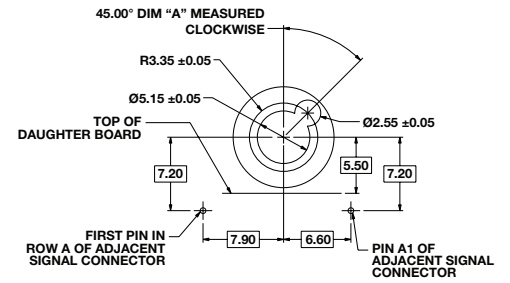
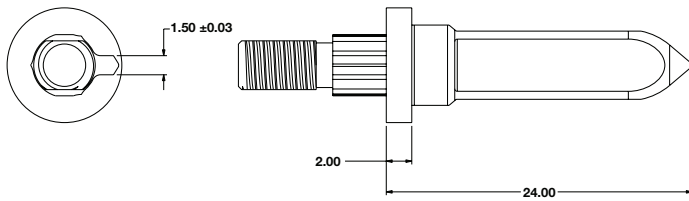
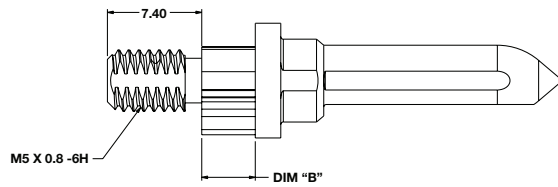
| ZINC DIE CAST GUIDE MODULES | |
|-----------------------------|--------|
| Part Number | DIM. A |
| RVPX-HMD-1 | 0 |
| RVPX-HMD-2 | 45 |
| RVPX-HMD-3 | 90 |
| RVPX-HMD-7 | 270 |
| RVPX-HMD-8 | 315 |
| RVPX-HMD-9 | No Key |

HARDWARE: Machined Aluminum Guide Modules



| MACHINED ALUMINUM GUIDE MODULES | |
|---------------------------------|--------|
| Part Number | DIM. A |
| RVPX-HMM-1 | 0 |
| RVPX-HMM-2 | 45 |
| RVPX-HMM-3 | 90 |
| RVPX-HMM-4 | 270 |
| RVPX-HMM-5 | 315 |
| RVPX-HMM-6 | 8 |
| RVPX-HMM-7 | 0 |
| RVPX-HMM-8 | 45 |
| RVPX-HMM-9 | 90 |
| RVPX-HMM-10 | 270 |
| RVPX-HMM-12 | 315 |
| RVPX-HMM-13 | 8 |

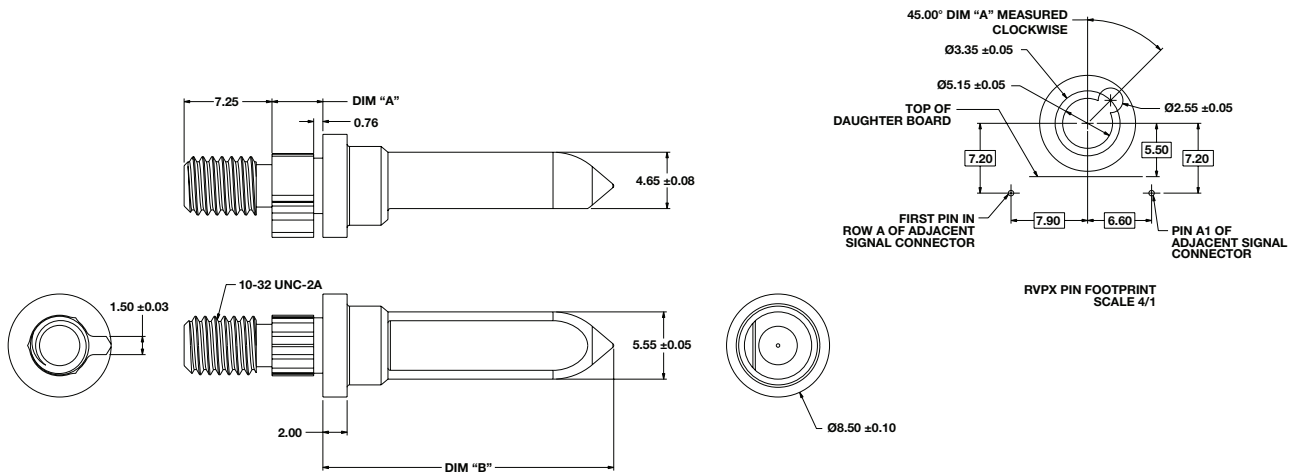
HARDWARE: Zinc Die Cast Guide Pins



RVPX PIN FOOTPRINT
SCALE 4/1

| ZINC DIE CAST GUIDE PINS | |
|--------------------------|--------|
| Part Number | DIM. B |
| RVPX-HPD-2 | 2.60 |
| RVPX-HPD-3 | 4.20 |
| RVPX-HPD-4 | 5.70 |

HARDWARE: Machined Stainless Steel Guide Pins



| MACHINED STAINLESS STEEL GUIDE PINS | | |
|-------------------------------------|--------|--------|
| Part Number | DIM. A | DIM. B |
| RVPX-HPM-1 | 1.32 | 24.0 |
| RVPX-HPM-2 | 2.60 | 24.0 |
| RVPX-HPM-3 | 4.20 | 24.0 |
| RVPX-HPM-4 | 5.70 | 24.0 |
| RVPX-HPM-5 | 7.30 | 24.0 |
| RVPX-HPM-10 | 1.32 | 19.0 |
| RVPX-HPM-12 | 4.20 | 19.0 |
| RVPX-HPM-13 | 5.70 | 19.0 |

TOOLS: Backplane Connector Removal

BACKPLANE CONNECTOR REMOVAL

Amphenol has a two step process for backplane removal. First the backplane housing is removed using tool 640-0003-000 or 640-0001-000 for 8 and 16 position housings respectively.

The tool is placed around the housing with the fingers interlocking the base of the housing you would like to remove. Then the screw is turned until the housing comes off its contacts.

Second tool 640-0002-000 is used to remove the contacts. Gently place the comb under the last row of contacts and rock it back until the contacts come out of their holes. Repeat until all rows are removed.



| ORDER GUIDE | |
|--------------|------------------------------------|
| PART NUMBER | DESCRIPTION |
| 640-0001-000 | 8 Position Connector Removal Tool |
| 640-0003-000 | 16 Position Connector Removal Tool |
| 640-0002-000 | Contact Removal Comb Tool |

INSTALLATION:

The RVPX connector is design for simple installation. A Mechanical electric press or Arbor Press is used to compress the compliants into the plated thru holes seating the connector. Care should be taken to ensure even distribution of force across the housings. This can easily be achieved with the use of flat rock tooling.

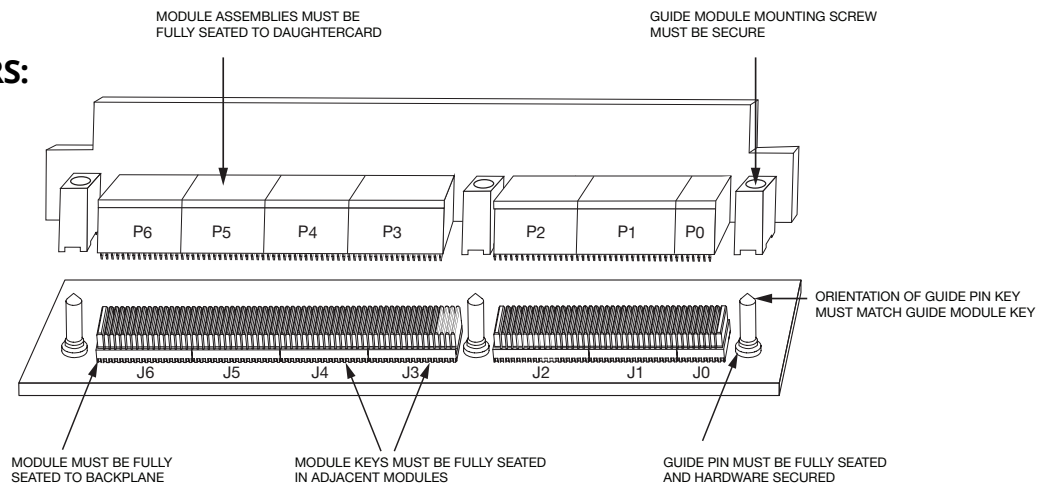
When pressing the module assemblies the connector over hangs the module board slightly. Because of this overhang a support plate is needed to ensure the connector gets fully seated without bowing of the PCB.

Extraction tools are available and suggested for backplane connector removal.

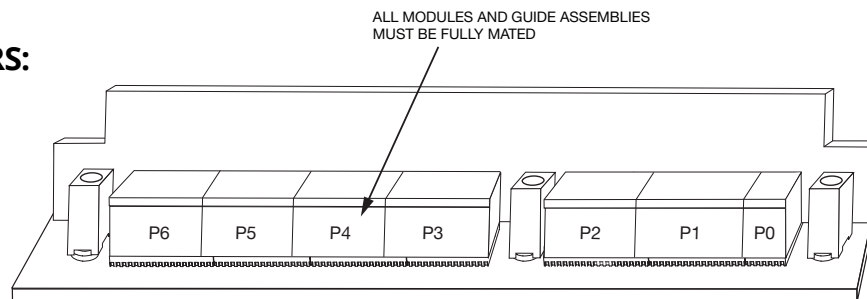
VISUAL AID

The illustration below shows a typical application of RVPX connectors. This illustration should be used by production personnel to ensure a correctly applied product.

MOUNTED CONNECTORS:



MATED CONNECTORS:



Amphenol



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Sidney, NY 13838
800-678-0141

Amphenol Commercial Air Division

40-60 Delaware Avenue
Sidney, NY 13838
1-800-687-0141

Amphenol Nexus Technologies

50 Sunnyside Avenue
Stamford, CT 06902
203-327-7300

Amphenol PCD

72 Cherry Hill Drive
Beverly, MA 01915
978-624-3400

Amphenol SV Microwave

2400 Centrepark West Drive
West Palm Beach, FL
561-840-1800

Amphenol Times Microwave, Inc.

358 Hall Avenue
Wallingford, CT 06492
800-867-2629

Amphenol Fiber Systems International

1300 Central Expressway North, Suite 100
Allen, TX 75013
214-547-2400

Amphenol Borisch Technologies

4511 East Paris AVE
Grand Rapids, MI 49512
616-554-9820

Amphenol Printed Circuit

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[RVPX-PE216DM2](#) [RVPX-JE216MM1](#) [RVPX-JE216MM2](#) [RVPX-P08VM1](#) [RVPX-P16DM1](#) [RVPX-P16SM1](#) [RVPX-](#)
[PE16DM1](#) [RVPX-HPD-4](#) [RVPX-J08EM1](#) [RVPX-J16EM1](#) [RVPX-J16MM1](#) [RVPX-JE216EM1](#) [RVPX-JE216EM2](#)
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