



R-SATA Connectors

Speeds to 6.25 Gb/s+

R-SATA Connectors

OVERVIEW

The new rugged R-SATA series is designed for harsh environment and rugged storage applications across all market segments. R-SATA series connectors are perfectly suited as the primary internal storage interconnect for desktop and mobile PC's, connecting the system to peripherals such as hard drives, solid state drives, optical drives, and removable magnetic media drives.

The R-SATA series supports SATA 3.0 speed protocol, delivering 6.25 Gb/s data rates and beyond. This series of connectors utilize a Micro-Hyperboloid contact system that offers low insertion and extraction forces, high durability counts and is resistant to shock, vibration and fretting corrosion.

With a growing demand across all markets for high performing storage data solutions - Amphenol's R-SATA series is designed to be intermountable with commercial/standard SATA connectors. Allowing to ruggedize standard commercial off the shelf drives by simply utilizing Amphenol's R-SATA connectors to meet today's ever-growing performance demands.

Amphenol is the leader in interconnection products through its long history of engineering expertise and providing high performance products and solutions. The R-SATA series is the next generation of data storage connectors designed to meet your rugged data storage performance demands.

APPLICATION FLEXIBILITY

- + Four body styles for 7 and Combo (Power/Signal) 22 pin arrangements
- + Right Angle Plug - Daughterboard
- + Straight Receptacle - Motherboard
- + Right Angle Receptacle - PC
- + Straight Plug - Parallel Boards



Micro-Hyperboloid
Socket Contact



Cross Section
- Mated View

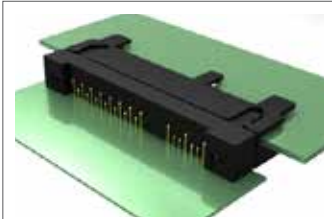
FEATURES AND BENEFITS

- + Ruggedized SATA style
- + Supports SATA 3.0 speed protocol (6.25 Gb/s) & beyond
- + Rugged Micro-Hyperboloid contacts
- + Low insertion/extraction force
- + 20K mating cycles
- + Resistant to shock, vibration & fretting corrosion
- + 7 pin R-SATA & Combo (Power/Signal) 22 pin R-SATA contact arrangements (two differential pairs, 3 ground)
- + Select options are Foot print compatible with 3M SATA Connectors

R-SATA Connectors

R-SATA Combo 22 Pin Surface Mount Configuration

End to End Boards



Right Angle Receptacle to Right Angle Plug Card Edge

End to End Boards



Right Angle Plug to Right Angle Receptacle Surface Mount

End to End Boards



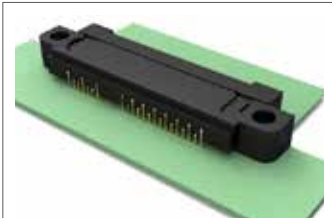
Right Angle Receptacle Surface Mount to Right Angle Plug Card Edge

End to End Boards



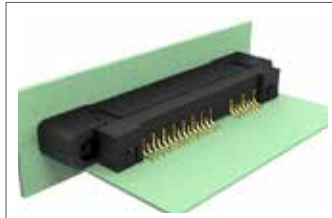
Right Angle Plug Surface Mount to Right Angle Receptacle Surface Mount

End to End Boards



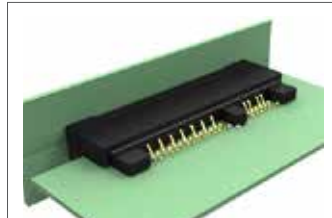
Right Angle Plug Surface Mount to Right Angle Receptacle

Boards at Right Angle



Right Angle Plug Surface Mount to Straight Receptacle

Boards at Right Angle



Straight Receptacle to Right Angle Plug Card Edge

Boards at Right Angle



Straight Plug to Right Angle Receptacle Surface Mount

How to Order - Combo 22 Pin Surface Mount Configurations

- 1.
- 2.
- 3.
- 4.

| Series | Body Style | Contacts | Termination |
|--------|------------|----------|-------------|
| RS2- | RRSM | 22- | X |

| SERIES | |
|--------|--------|
| RS2 | R-SATA |

| BODY STYLE | |
|------------|--|
| PRSM | *Plug, Right Angle, Surface Mount |
| RRSM | Receptacle, Right Angle, Surface Mount |
| PRCE | Plug, Card Edge |

| CONTACTS | |
|----------|-------------|
| 22 | 22 Contacts |

| TERMINATION | |
|-------------|-----------------------------|
| 2 | Gold/Nickel |
| 6 | Gold/Nickel w/ Tin lead dip |

*Reccomend the RS2-PRCE22-X as the drive side connector



R-SATA Connectors

Four Possible Mated Configurations for 7 and Combo 22 Pin Arrangements*

End to End Boards



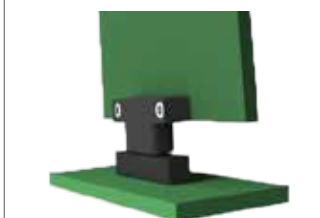
Right angle receptacle to right angle plug

Boards at Right Angle



Right angle plug to straight receptacle

Boards at Right Angle



Right angle receptacle to straight plug

Parallel Boards



Straight receptacle to straight plug

* 7 pin configuration shown

How to Order - R-SATA with PCB Termination

| 1. Series | 2. Body Style | 3. Contacts | 4. Termination |
|-----------|---------------|-------------|----------------|
| RS2 - | RRA | 07- | 0702 |

| 1. SERIES | |
|-----------|--------|
| RS2 | R-SATA |

| 2. BODY STYLE | |
|---------------|-------------------------|
| PRA | Plug, Right Angle |
| PST | Plug, Straight |
| RRA | Receptacle, Right Angle |
| RST | Receptacle, Straight |

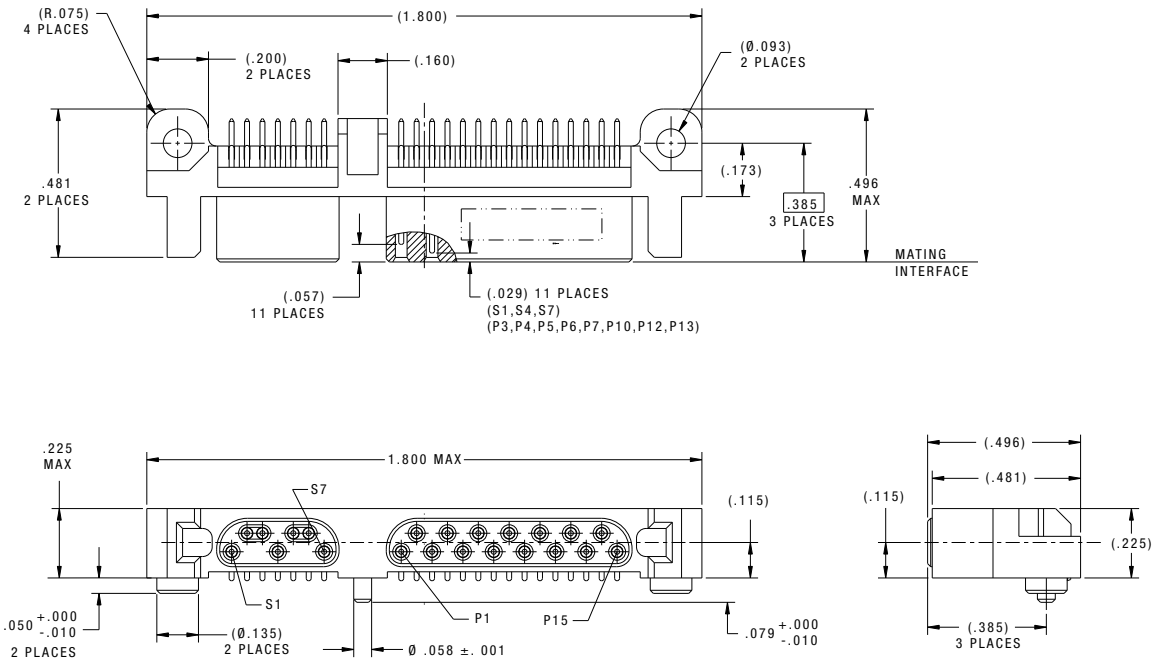
| 3. CONTACTS | |
|-------------|-------------|
| 07 | 7 Contacts |
| 22 | 22 Contacts |

| 4. TERMINATION | |
|----------------|---------------------------------|
| 0702 | PCB .070" Stickout, AU/Ni |
| 0706 | PCB .070" Stickout, AU/Ni-Sn/Pb |
| 0902 | PCB .090" Stickout, AU/Ni |
| 0906 | PCB .090" Stickout, AU/Ni-Sn/Pb |
| 1102 | PCB .110" Stickout, AU/Ni |
| 1106 | PCB .110" Stickout, AU/Ni-Sn/Pb |
| 1302 | PCB .130" Stickout, AU/Ni |
| 1306 | PCB .130" Stickout, AU/Ni-Sn/Pb |

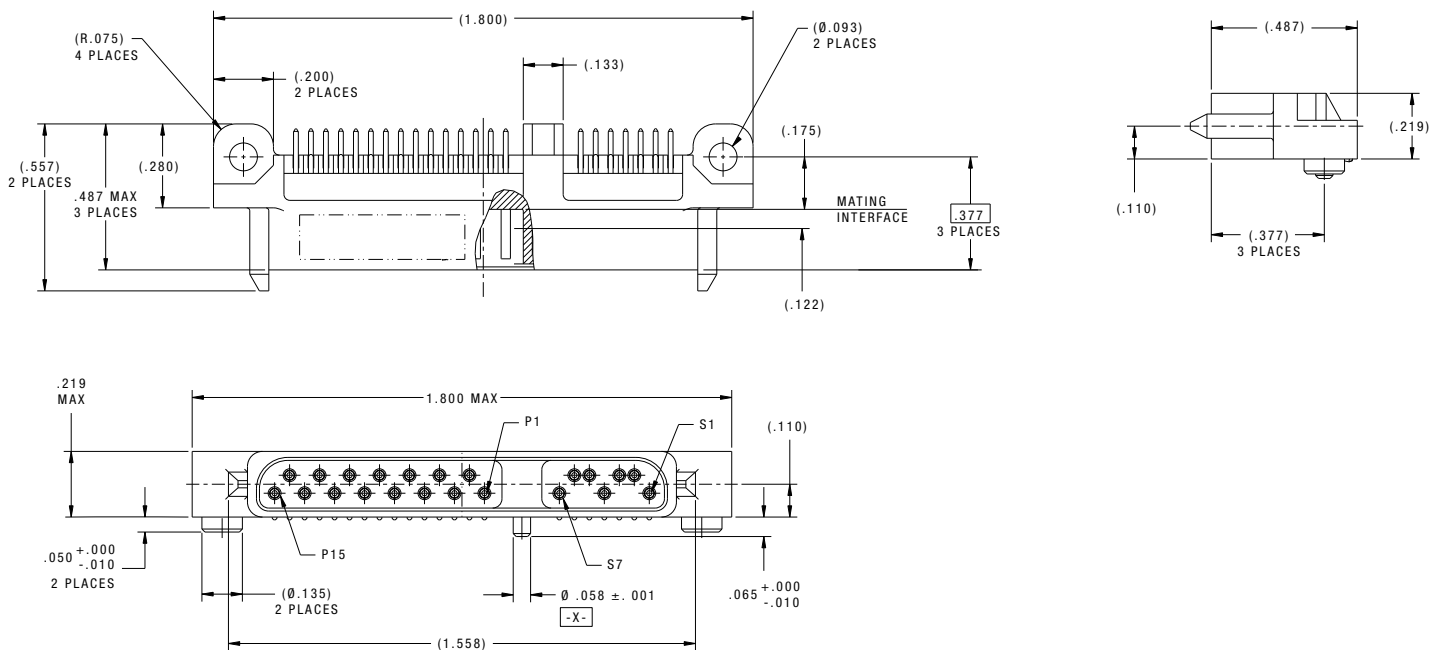
| FINISH KEY | |
|-------------|------------------------------------|
| Au/Ni | Gold over Nickel |
| Au/Ni-Sn/Pb | Gold over Nickel with Tin Lead Dip |

R-SATA Connectors

Combo 22 Pin Surface Mount Right Angle Card Edge Plug: (RS2-PRSM22-X)

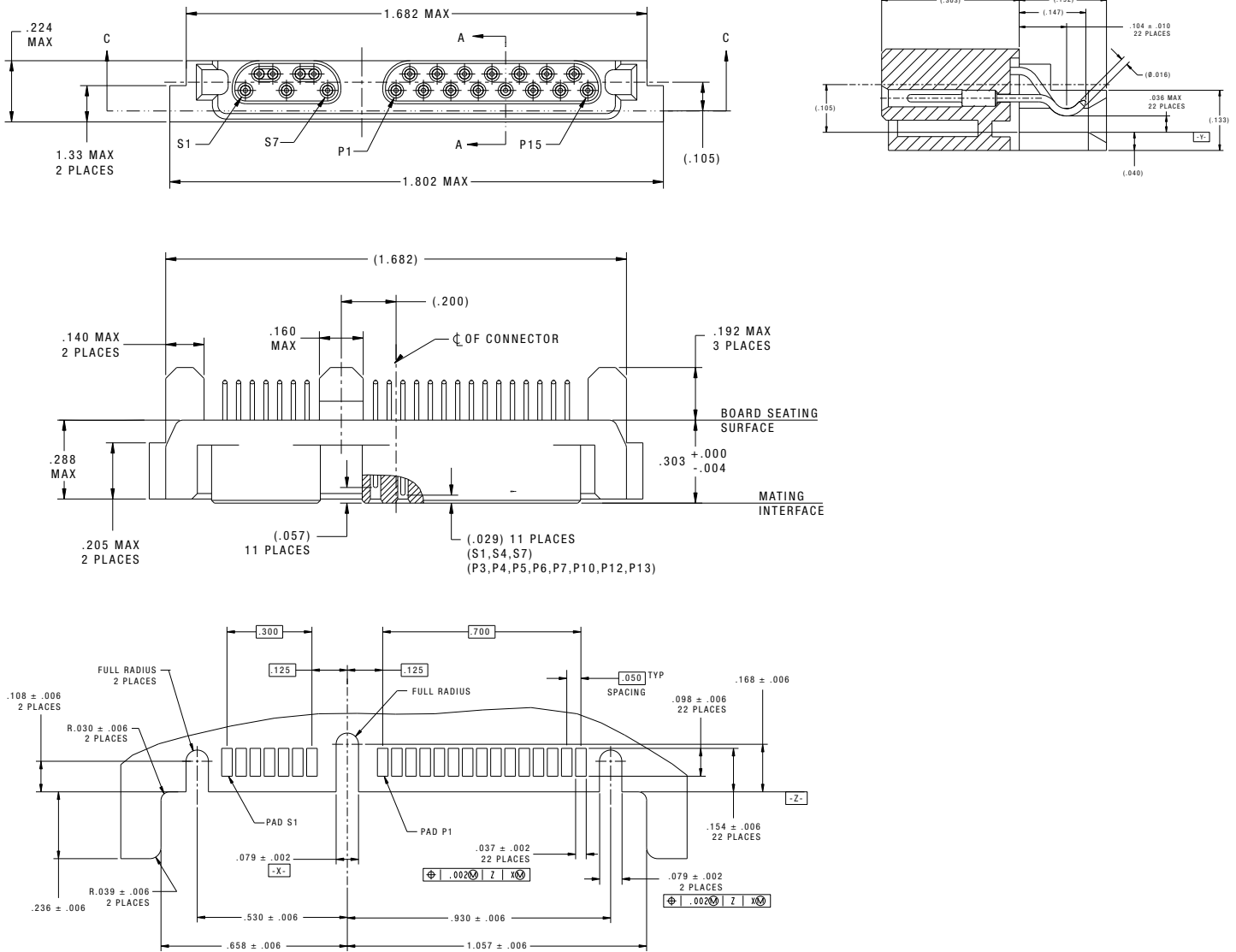


Combo 22 Pin Surface Mount Right Angle Receptacle: (RS2-RRSM22-X)



R-SATA Connectors

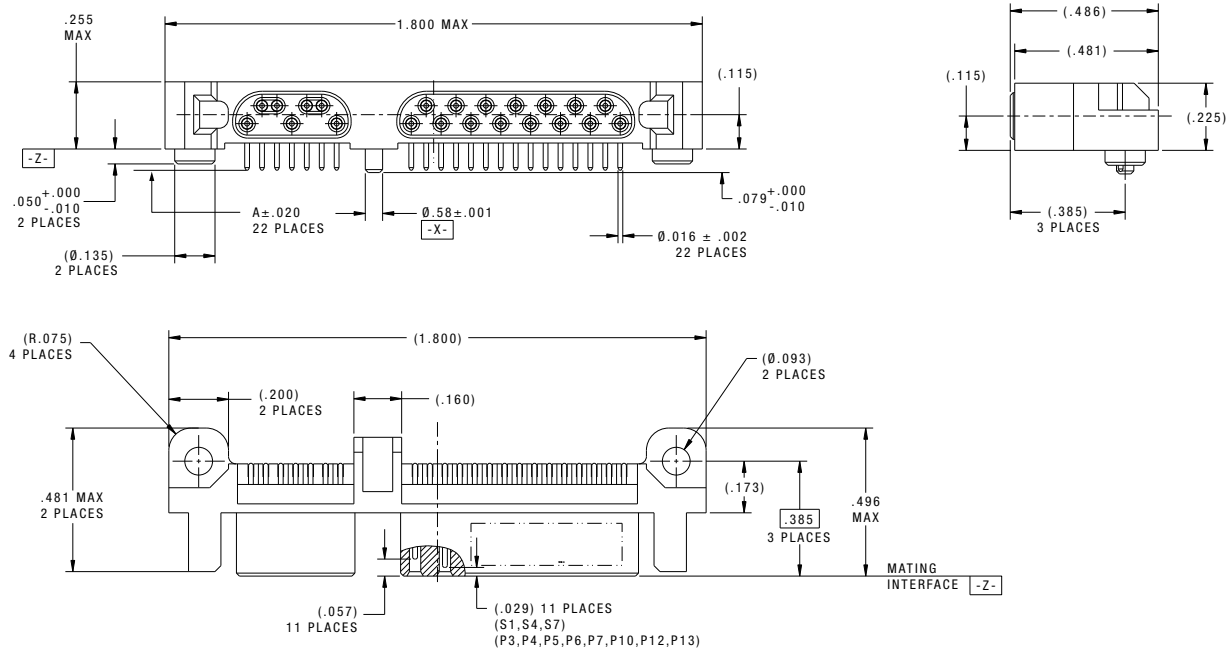
Combo 22 Pin Surface Mount Right Angle Plug: (RS2-PRCE22-X)



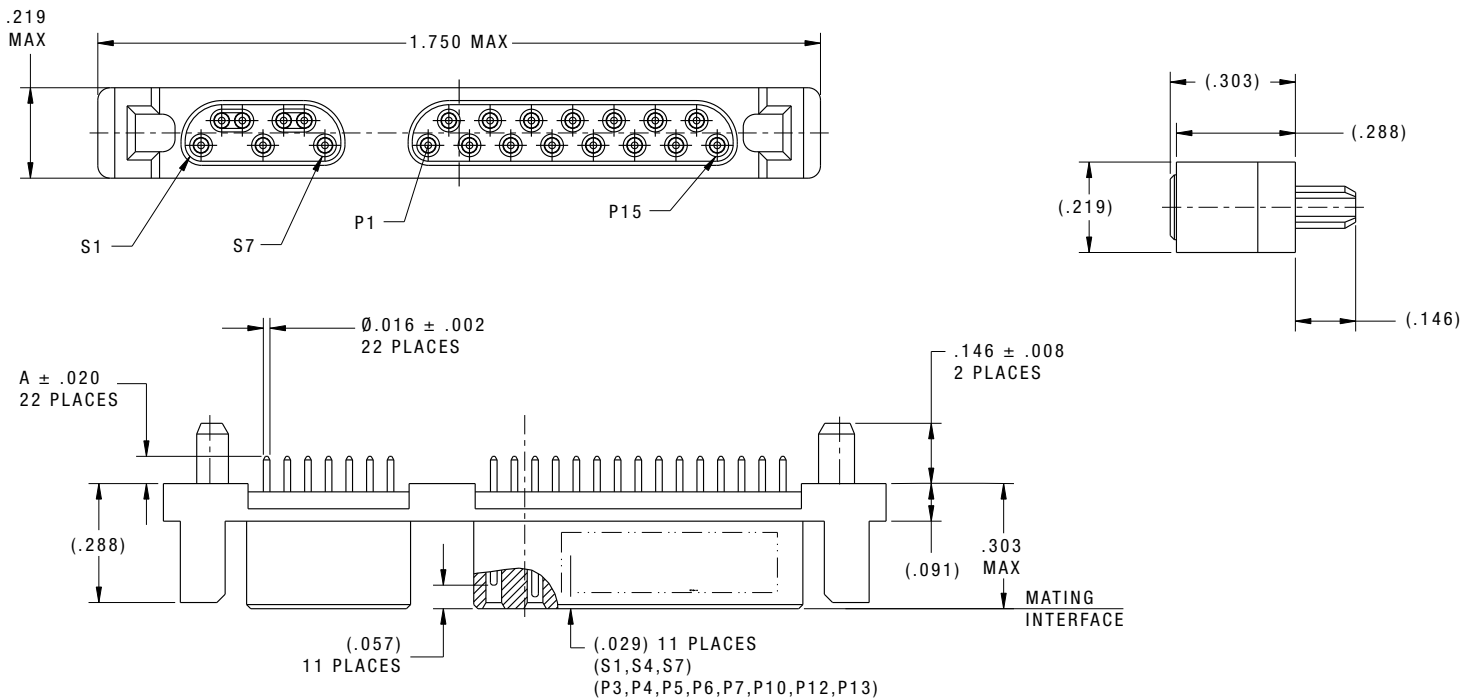
Foot print compatible with 3M Part # 5622-6309-ML

R-SATA Connectors

Combo 22 Pin Right Angle Plug: (RS2-PRA22-XXXX)

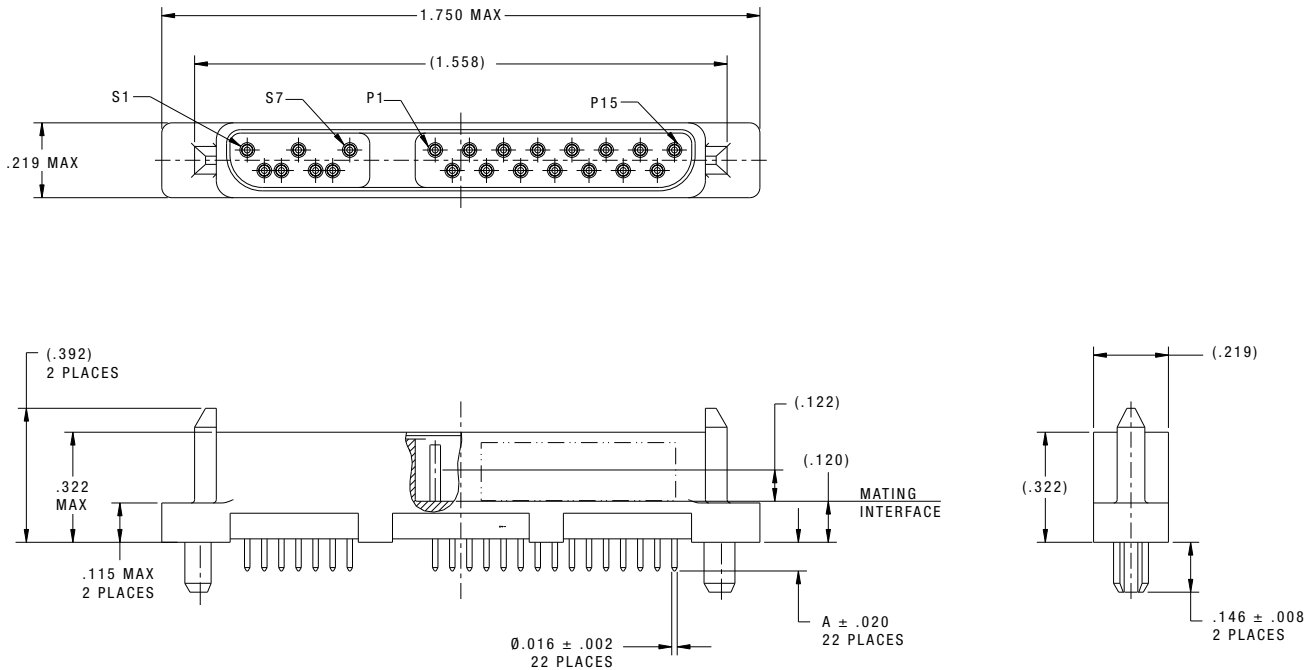


Combo 22 Pin Straight Plug: (RS2-PST22-XXXX)

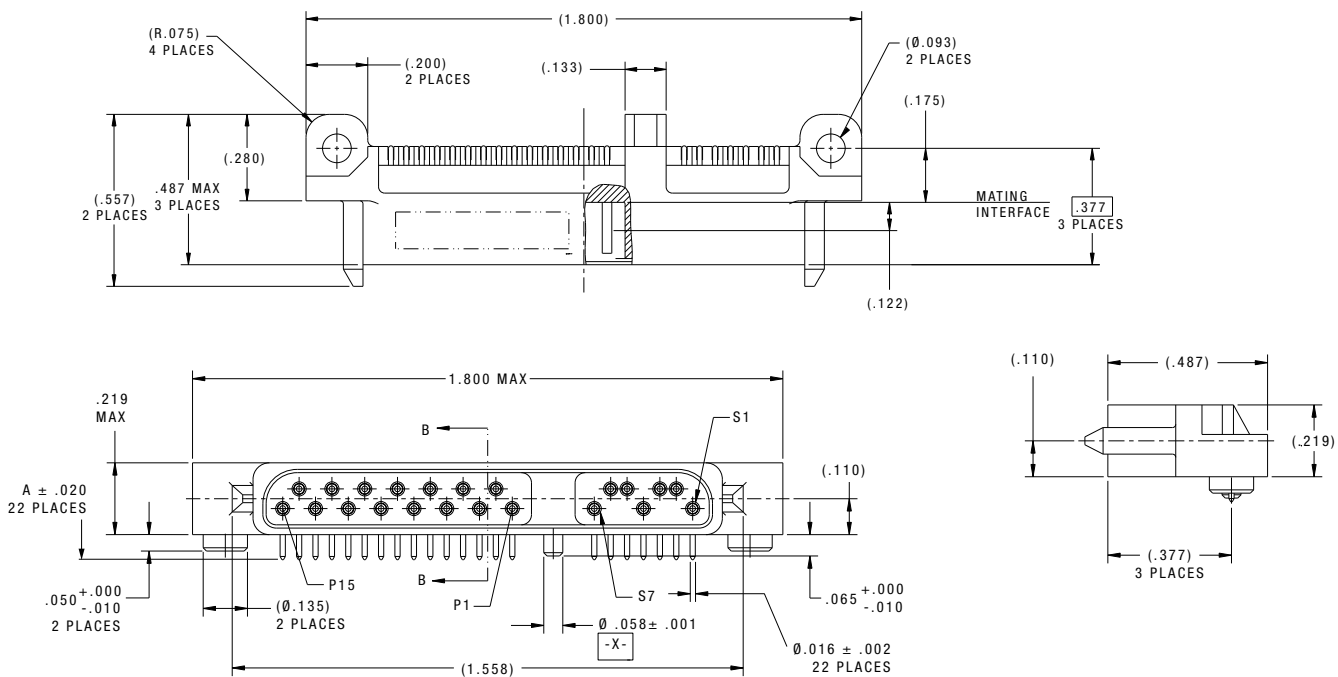


R-SATA Connectors

Combo 22 Pin Straight Receptacle: (RS2-RST22-XXXX)

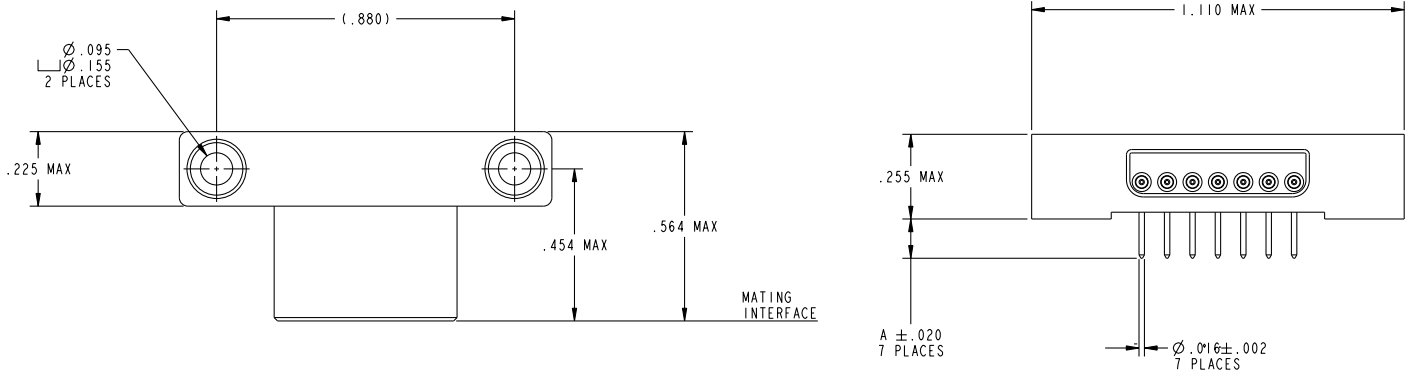


Combo 22 Pin Right Angle Receptacle: (RS2-RRA22-XXXX)

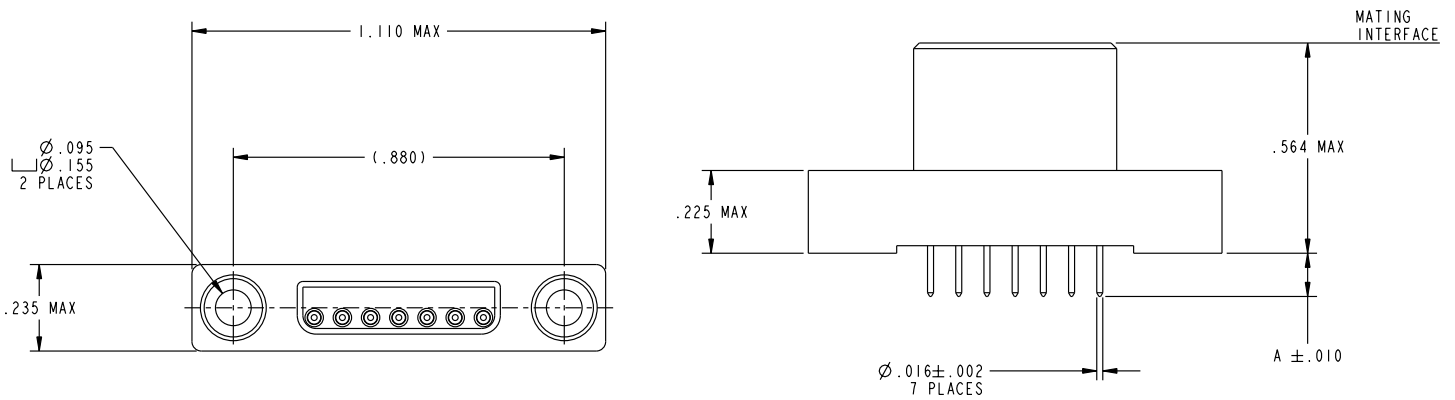


R-SATA Connectors

7 Pin Right Angle Plug : (RS2-PRA07-XXXX)



7 Pin Straight Plug: (RS2-PST07-XXXX)

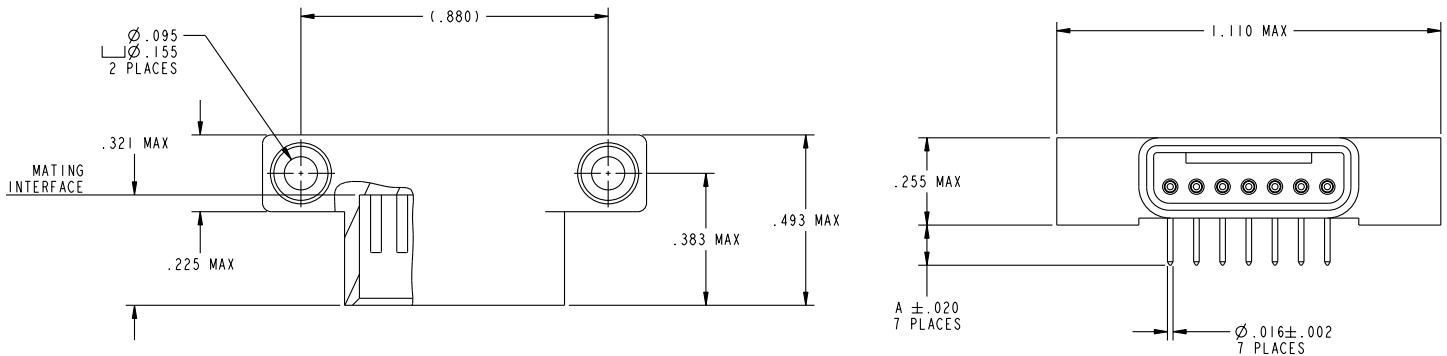


R-SATA Connectors

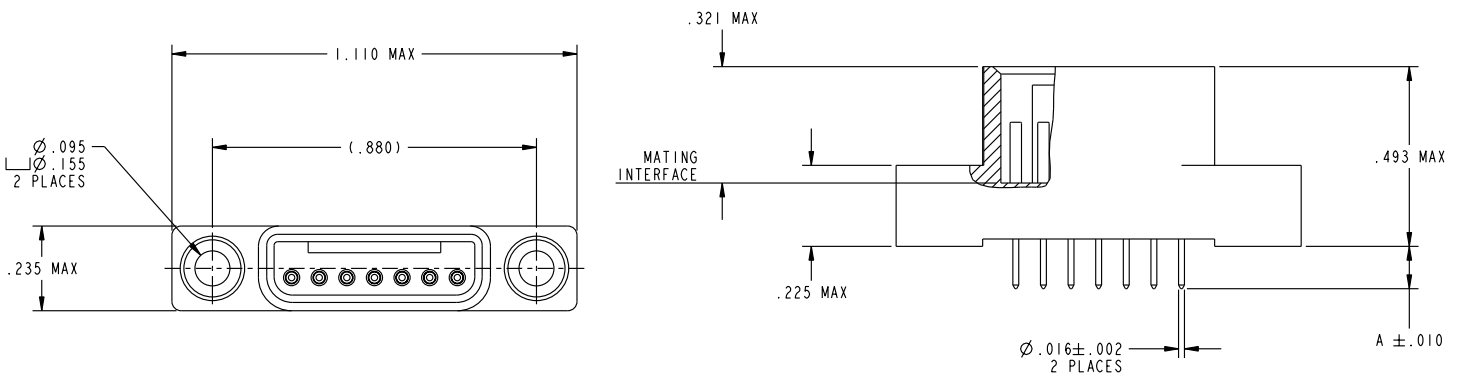
Amphenol®
Aerospace

PDS-240-5

7 Pin Right Angle Receptacle: (RS2-RRA07-XXXX)



7 Pin Straight Receptacle: (RS2-RST07-XXXX)



Notice: Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements or suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all connectors.

AMPHENOL is a registered trademark of Amphenol Corporation. ©2015 Amphenol Corporation REV:10/20/2015