

Amphenol[®]
Aerospace



R-SATA Connectors

Speeds to 6.25 Gb/s+

R-SATA Connectors



PDS-240-5

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

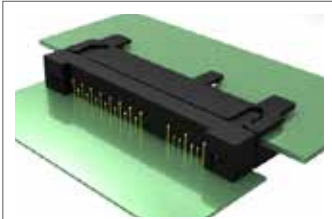
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R-SATA Combo 22 Pin Surface Mount Configuration

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



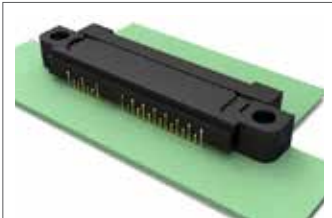
Right Angle Receptacle Surface Mount to Right Angle Plug Card Edge

End to End Boards



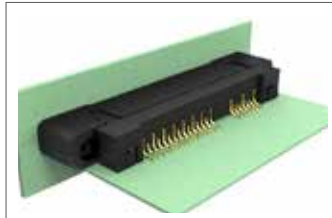
Right Angle Plug Surface Mount to Right Angle Receptacle Surface Mount

End to End Boards



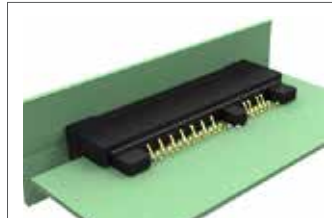
Right Angle Plug Surface Mount to Right Angle Receptacle

Boards at Right Angle



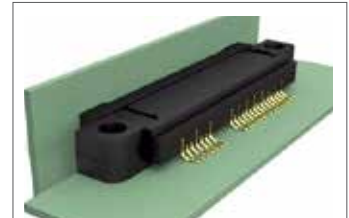
Right Angle Plug Surface Mount to Straight Receptacle

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. Series
2. Body Style
3. Contacts
4. Termination

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



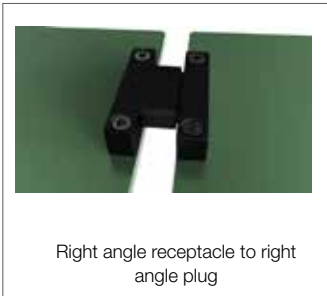
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Four Possible Mated Configurations for 7 and Combo 22 Pin Arrangements*

End to End Boards



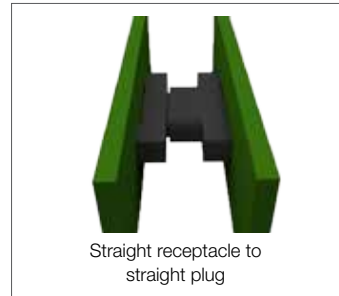
Boards at Right Angle



Boards at Right Angle



Parallel Boards



* 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

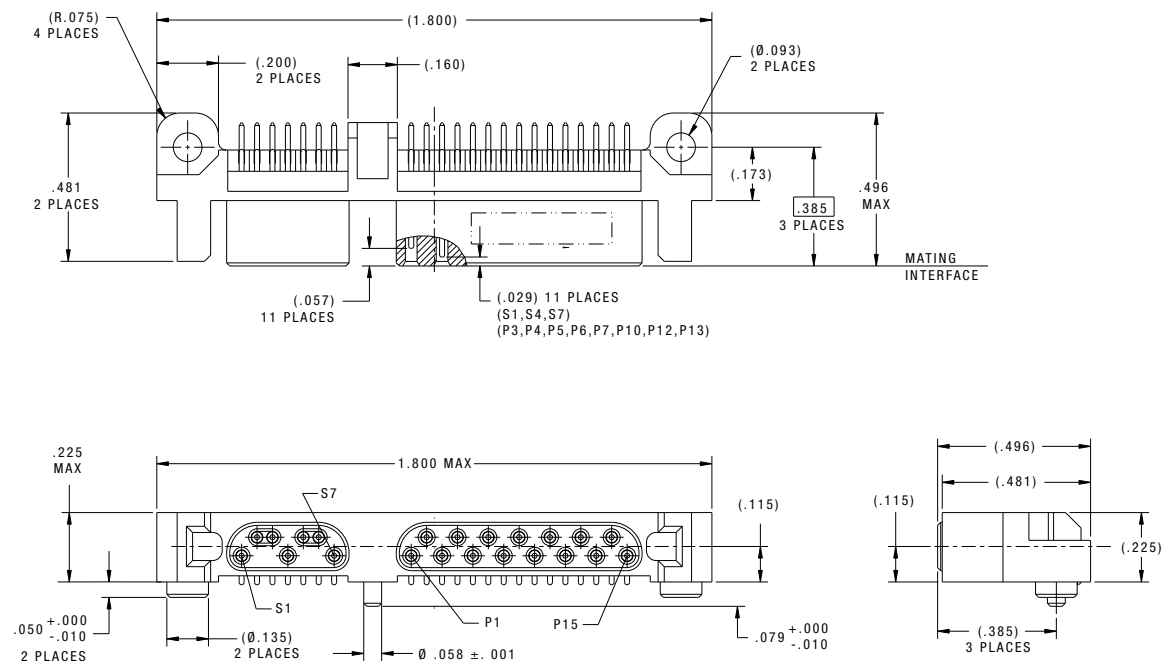
FINISH KEY	
Au/Ni	Gold over Nickel
Au/Ni-Sn/Pb	Gold over Nickel with Tin Lead Dip

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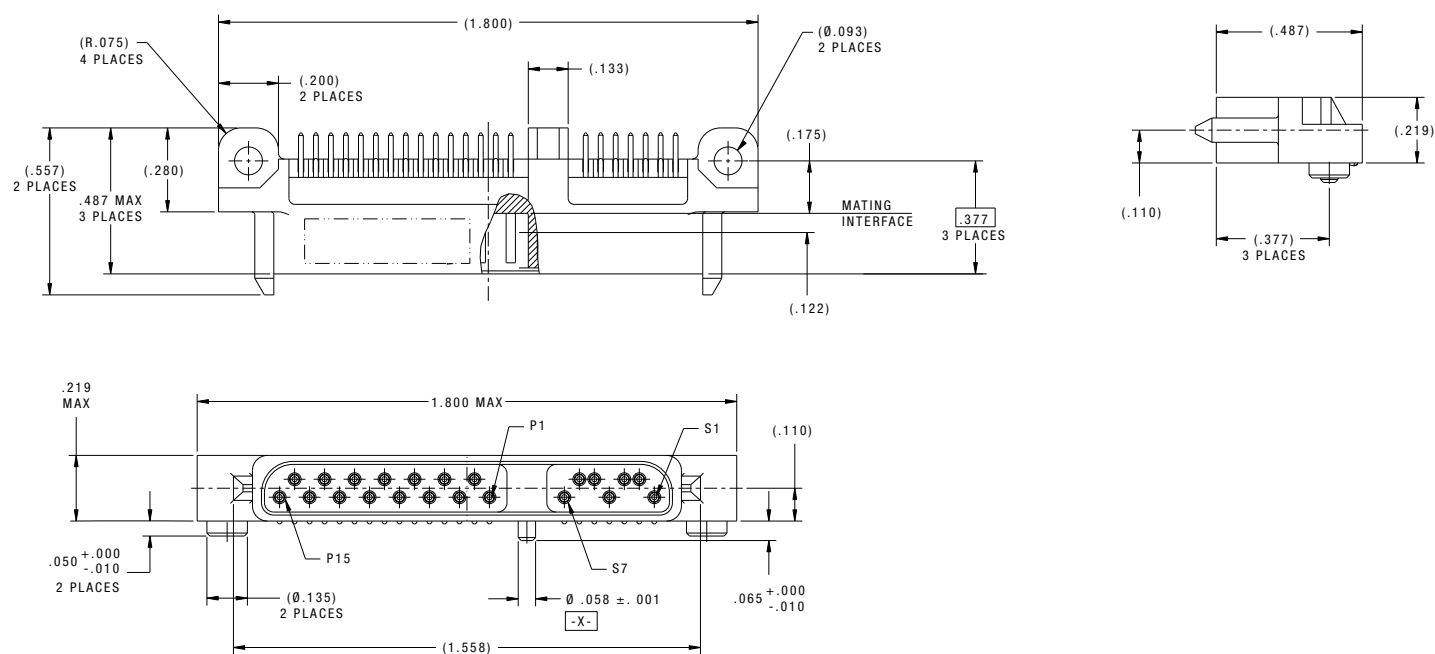
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Combo 22 Pin Surface Mount Right Angle Card Edge Plug: (RS2-PRSM22-X)



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

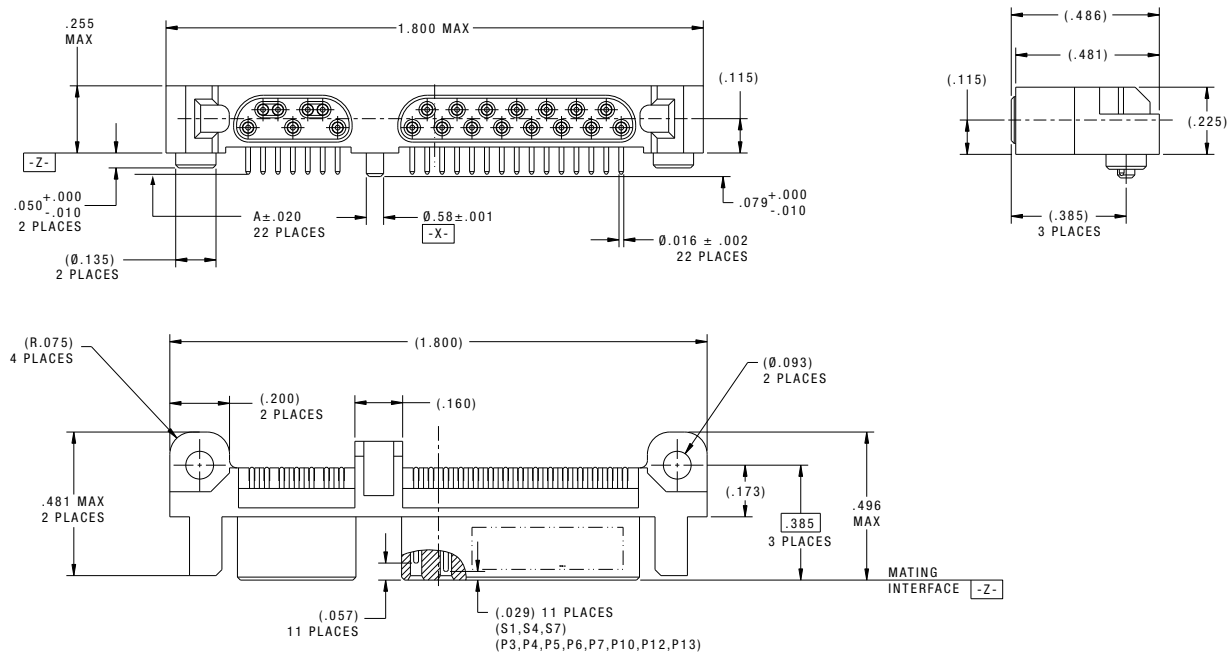


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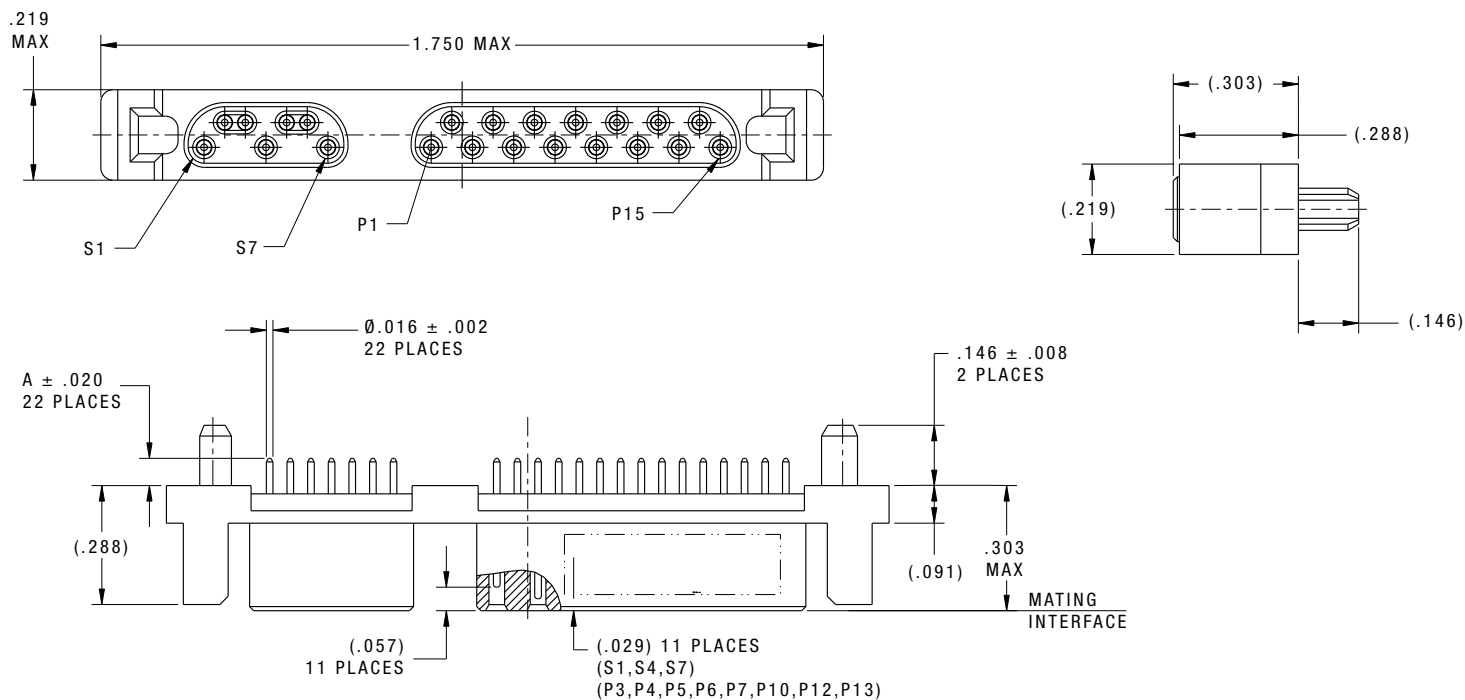
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Combo 22 Pin Right Angle Plug: (RS2-PRA22-XXXX)



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

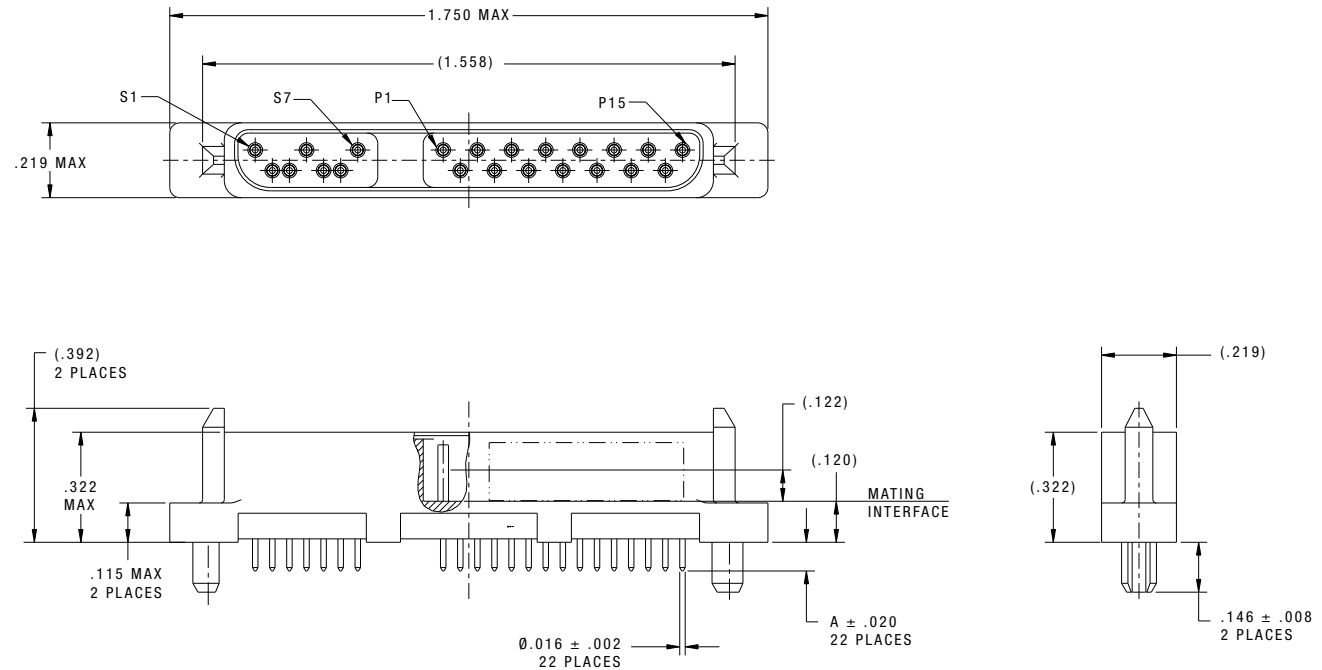


R-SATA Connectors

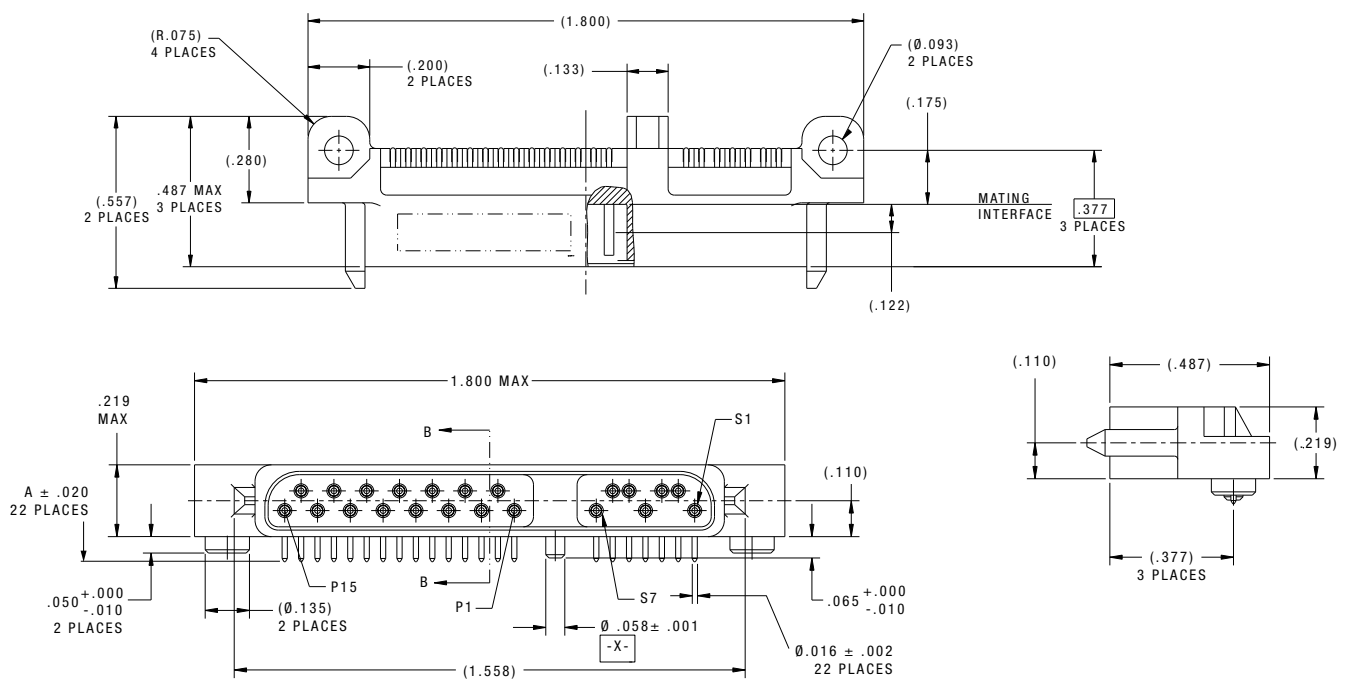
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Combo 22 Pin Straight Receptacle: (RS2-RST22-XXXX)



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

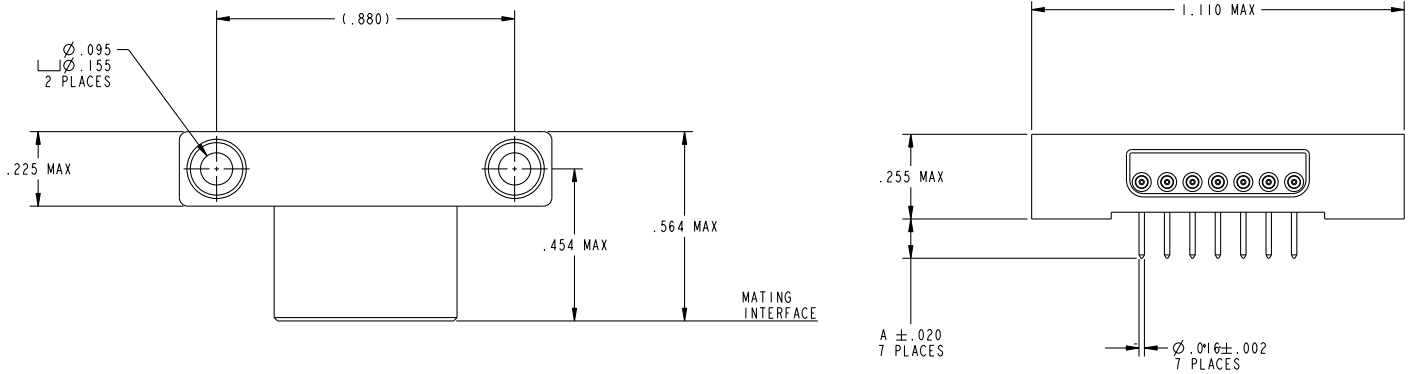


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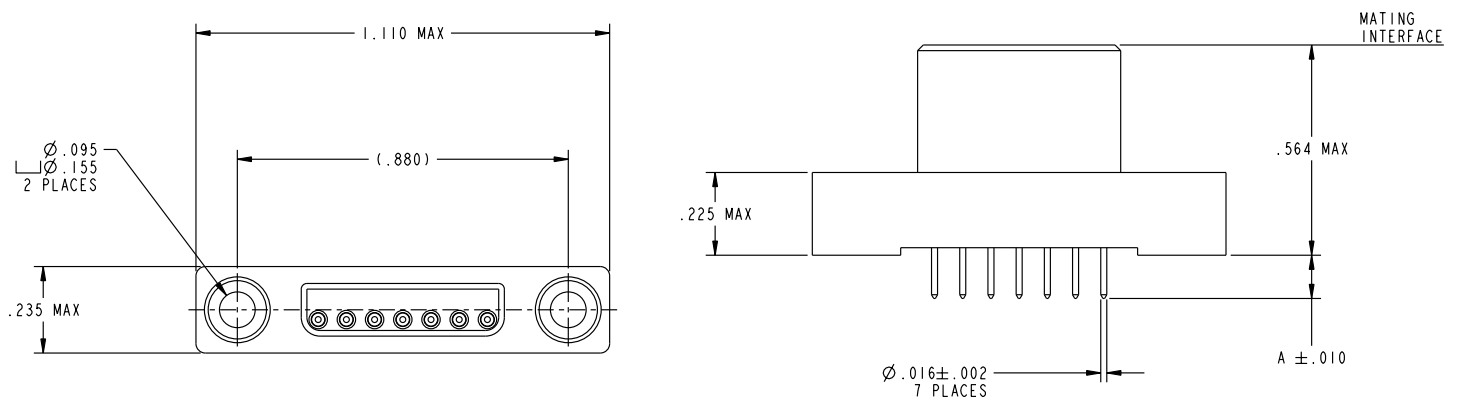
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7 Pin Right Angle Plug : (RS2-PRA07-XXXX)



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

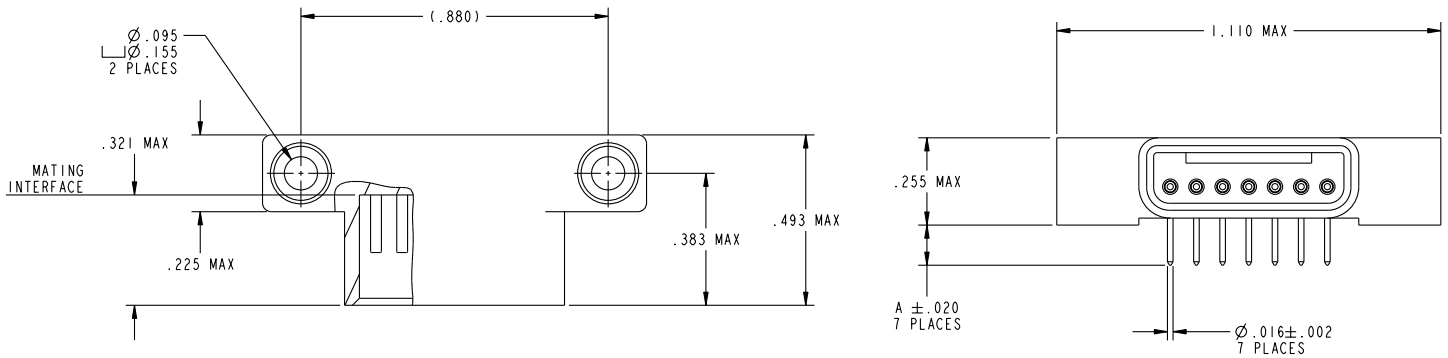


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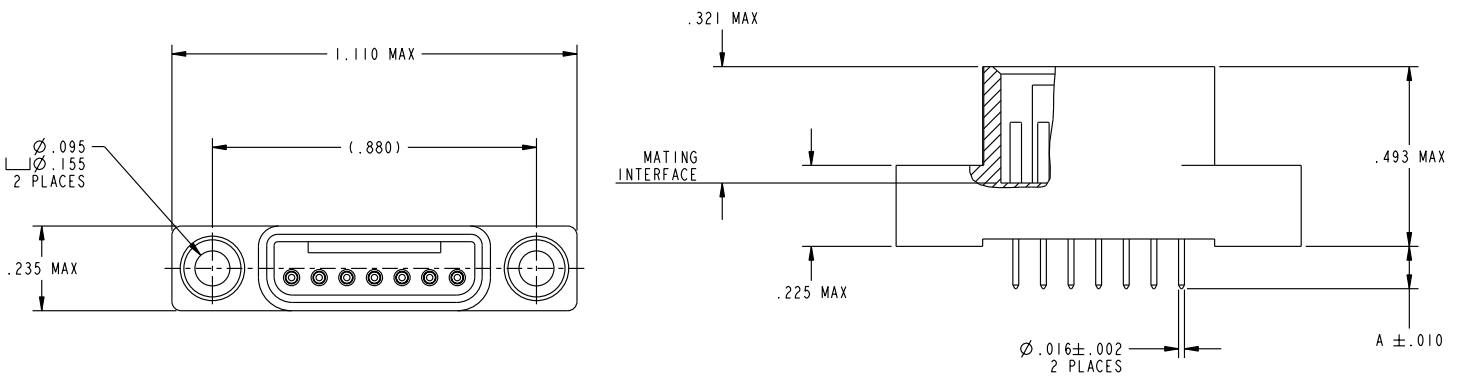
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7 Pin Right Angle Receptacle: (RS2-RRA07-XXXX)



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



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