

## Welcome to the World of AirBorn Interconnect Solutions

### JULY 2009

AirBorn has been manufacturing high reliability interconnect systems for more than 45 years with leading-edge, innovative technology that is more reliable and better-performing than practically all other alternatives.

Our advanced technologies, experienced design support, incomparable lead times and personalized customer service and support provide customers with complete solutions to a vast array of highly specialized design requirements in diverse markets and applications.

You will find in this catalog technical drawings and specification information that will help you solve your interconnection needs from the design stage through production specification.

The products in this catalog are organized by the AirBorn part number assigned to them.

Each connector part number identifies five elements:

- AirBorn Series
- Body
- Size (number of contacts)
- Contact Type
- Hardware Type

Each catalog page shows the choices available for each of these elements. By selecting one option from any category on the page, you can build a set of connectors to meet your requirements.

If you do not find a particular connector size or option, please contact AirBorn for further assistance. AirBorn can manufacture special configurations for your exact specifications.

### When everything matters, go AirBorn.

www.AirBorn.com

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"R" SERIES - .075" MIL-C-55302



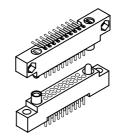
## Daughterboard to Motherboard or Chassis

Right angle plug mating to straight receptacle.

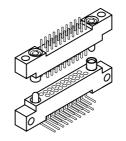
Right angle receptacle mating to straight plug.

Right angle plug mating to straight receptacle.

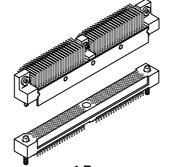
Right angle receptacle mating to straight plug.



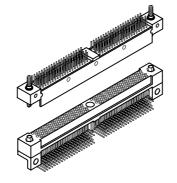
<u>2 Row</u> Sizes: 10 thru 100 Page: R-9



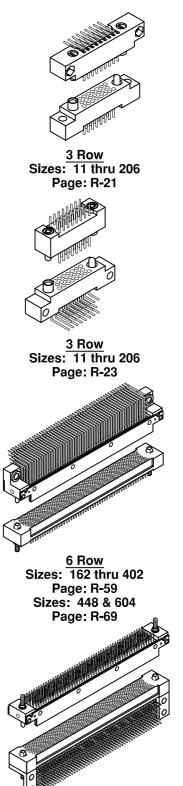
<u>2 Row</u> Sizes: 10 thru 100 Page: R-11



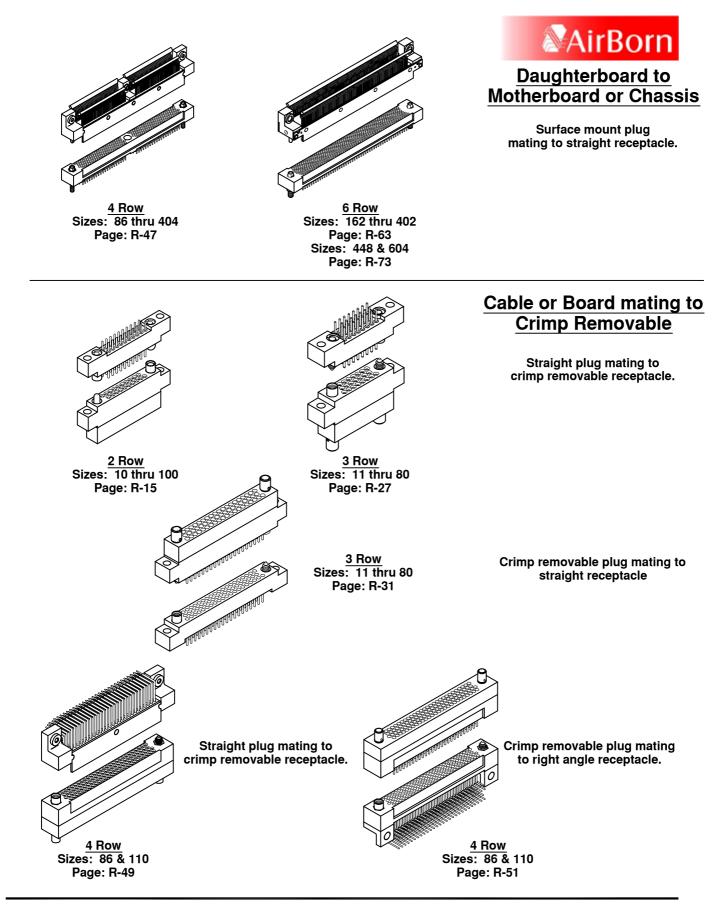
4 Row Sizes: 86 thru 404 Page: R-43

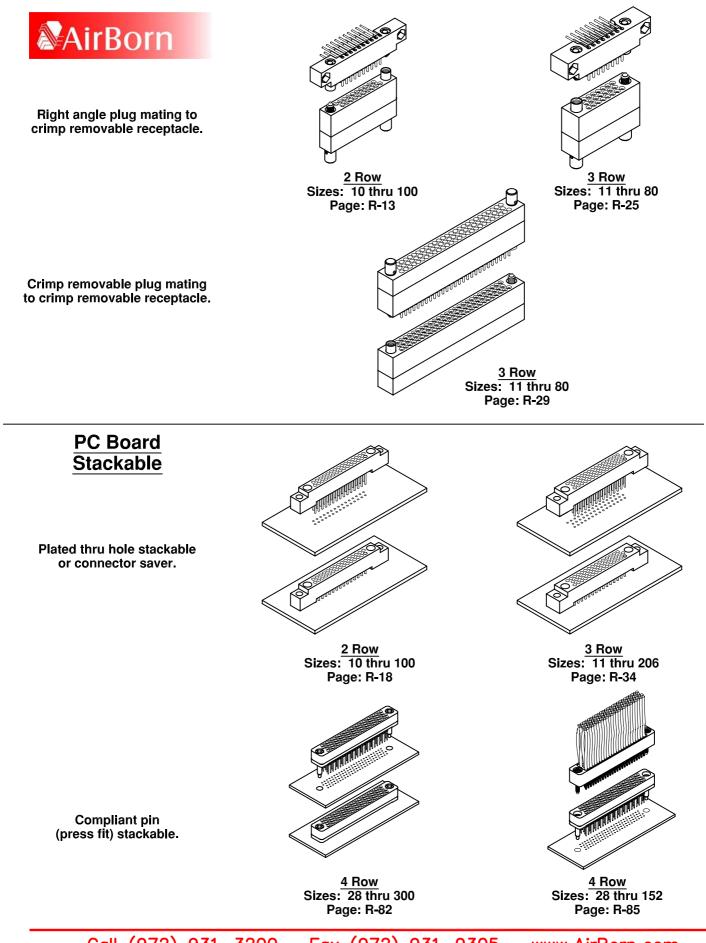


4 Row Sizes: 86 thru 404 Page: R-45



<u>6 Row</u> Sizes: 162 thru 402 Page: R-61 Sizes: 448 & 604 Page: R-71





Call (972) 931-3200 · Fax (972) 931-9305 · www.AirBorn.com "R" Series Connectors R-3

## Contents

A	<b>\ir</b> B	orn

"R" Se		Board Level Connectors	AirB
R-1	Index		
R-4	Contents		
R-6	Specifications		
R-7	Performance		
R-8	Part number descri	ption	
	2-Row Connectors	- Board to Board, Board to Cable, Sizes: 10-100	
R-9	RM252, RM272	Plug, right angle with or without mounting ears	
	RM222, RM242	Receptacle, straight, with or without mounting ears	6
R-11	RM212, RM232	Plug, straight, with or without mounting ears	
	RM262, RM282	Receptacle, right angle, with or without mounting e	ears
R-13	RM252, RM272	Plug, right angle, with or without mounting ears	
	RM222, RM242	Receptacle, straight, crimp removable, with or with	nout mounting ears
R-15	RM212, RM232	Plug, straight, with or without mounting ears	4
D 40	RM222, RM242	Receptacle, straight, crimp removable, with or with	
R-18 R-18.1	RM222, RM242 RA2	Receptacle, straight, stackable or connector saver Receptacle, straight with or without potting well or	
R-19	RM252, RM272	Board layout - plug, right angle	mounting ears
11-10	RM212, RM232	Board layout - plug, straight	
R-20	RM262, RM282	Board layout - receptacle, right angle	
	RM222, RM242	Board layout - receptacle, straight	
	3-Row Connectors	- Board to Board, Board to Cable, Sizes: 11-206	
R-21	RM352, RM372	Plug, right angle with or without mounting ears	
	RM322, RM342	Receptacle, straight, with or without mounting ears	6
R-23	RM312, RM332	Plug, straight, with or without mounting ears	
	RM362, RM382	Receptacle, right angle, with or without mounting e	ears
R-25	RM352, RM372	Plug, right angle, with or without mounting ears	
	RM322, RM342	Receptacle, straight, crimp removable, with or with	nout mounting ears
R-27	RM312, RM332	Plug, straight, with or without mounting ears	4
D 20	RM322, RM342	Receptacle, straight, crimp removable, with or with	
R-29	RM312, RM332 RM322, RM342	Plug, straight, crimp removable, with or without mo Receptacle, straight, crimp removable, with or with	
R-31	RM312, RM332	Plug, straight, crimp removable, with or without mo	
IX OI	RM322, RM342	Receptacle, straight, with or without mounting ears	5
R-33	RA3	Plug, straight, with or without potting well or moun	
R-33.2		Receptacle, straight, with or without potting well of	
R-33.4	RA	RA Assembly instructions, crimp instructions and o	
R-34	RM322, RM342	Receptacle, straight, stackable or connector saver	
R-35	RM352, RM372	Board layout - plug, right angle	
	RM312, RM332	Board layout - plug, straight	
R-36	RM362, RM382	Board layout - receptacle, right angle	
D 20	RM322, RM342	Board layout - receptacle, straight	
R-38 R-39	Contacts, 2 & 3 row	plarization chart, 2 & 3 row	
R-40		, ence chart, 2 & 3 row	
R-41	Jacksets and guide		
	4-Row Connectors	- Board to Board, Board to Cable, Sizes: 86-300	
R-43	RM452	Plug, right angle, with mounting ears	
	RM422	Receptacle, straight, with mounting ears	
R-45	RM412	Plug, straight, with mounting ears	
_	RM462	Receptacle, right angle, with mounting brackets	
R-47	RM412	Plug, surface mount, with mounting ears	
D 40	RM422	Receptacle, straight, with mounting ears	
R-49	RM412	Plug, right angle, with mounting ears	unting core
-	RM422	Receptacle, straight, crimp removable, without mo	unung ears

- Continued on next page



## Contents

-- Continued from previous page

R-51	RM412 RM462	Plug, straight, crimp removable, with or without mounting ears Receptacle, right angle, with mounting ears
R-53	RM452	Board layout - plug, right angle
	RM412	Board layout - plug, straight
R-54	RM462	Board layout - receptacle, right angle
D	RM422	Board layout - receptacle, straight
R-55	RM412	Board layout - plug, straddle mount SMT, with mounting ears
R-56	RM412	Configuration chart - plug, straddle mount SMT
R-57	RM4	Polarization chart - guide hardware
R-58	RM4	Contacts, 4 row
	6-Row Connectors	- PC Card SMT to Board, Sizes: 162-402
R-59	RM672	Plug, right angle, with mounting ears
	RM642	Receptacle, straight, with mounting ears
R-61	RM632	Plug, straight, with mounting ears
	RM682	Receptacle, right angle, with mounting brackets
R-63	RM632	Plug, surface mount, with mounting ears
	RM642	Receptacle, straight, with mounting ears
R-65	RM672	Board layout - plug, right angle
	RM632	Board layout - plug, straight
R-66	RM682	Board layout - receptacle, right angle
11.00	RM642	Board layout - receptacle, straight
R-67	RM632	Board layout - plug, straddle mount SMT, with mounting ears
<b>B</b> 00		- PC Card SMT to Board, Sizes: 448 & 604
R-69	RM652	Plug, right angle, with mounting ears
/	RM622	Receptacle, straight, with mounting ears
R-71	RM612	Plug, straight, with mounting ears
	RM662	Receptacle, right angle, with mounting brackets
R-73	RM612	Plug, surface mount, with mounting ears
	RM622	Receptacle, straight, with mounting ears
R-75	RM652	Board layout - plug, right angle
	RM612	Board layout - plug, straight
R-76	RM662	Board layout - receptacle, right angle
	RM622	Board layout - receptacle, straight
R-77	RM612	Board layout - plug, straddle mount SMT, with mounting ears
R-78	RM6	Contacts, 6 row
	4-Row Connectors	- Press fit, Stackable, Sizes: 28-300
R-79	RC422, RC442	Specifications, Stackable Compliant Pin Connectors
R-80	RC422, RC442	Performance, Stackable Compliant Pin Connectors
R-81	RC422, RC442	Receptacle, standard and low profile
R-82	RC422, RC442	Part number build-up
R-82.1	RC4C2	Plug, with potting well, stranded wire
R-82.2	RC4C2	Part number build-up
R-83	RC422, RC442	Typical applications
R-83.1	RC4C2	Press fit stackable with cable mate
R-84	RC422, RC442	Board layout
11-04	10422, 10442	



## Specifications Materials and Finishes \*

Pin Contacts:	BeCu, per ASTM-B196, ASTM B 197/B 197M-, or brass alloy per ASTM B 16/B 16M or ASTM-B134
Socket Contacts:	BeCu per ASTM-B194 and/or ASTM-B196, ASTM B 197/B 197M-, or brass per ASTM B 16/B 16M or ASTM-B134
Contact Finish:	Gold plate per ASTM B 488-, SAE AMS 2422, or localized finish per MIL-C-55302
Solder:	Sn/Pb Alloy - 63% Tin, 37% Lead composition ( ⊠). SAC305 - 96.5% Tin, 3.0% Silver, 0.5% Copper composition.
Molded Insulators:	Glass filled polyphenylene sulfide per MIL-M-24519, Type GST-40F
Jackscrews:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Jacksockets:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Jackscrew Knobs:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Guide Pins, Guide Sockets:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Guide Sockets, Polarized "D" type:	BeCu per ASTM-B196, ASTM B 197/B 197M-, Nickel plated per SAE AMS-QQ-N-290
Connector Markings:	Contact numbers are stamped on the side of the connector. Numbers are stamped on the low-numbered side only on 2-row and 3-row right angle connectors
Tolerances:	Unless otherwise specified: Fractions = ±1/64" Decimals = ±.010" Angles = ±5°

Note: AirBorn can manufacture special configurations for your exact specifications.

\* = Reference the above listed specifications or an equivalent industry standard when applicable

 $\boxtimes$  Symbolizes options that are not ROHS compliant.



## **Performance** Reference MIL-C-55302

Contact Rating:	3-amperes (2 amperes for .016 diameter)				
Solderability:	Terminals (except wire wrap $^{\textcircled{R}}$ , crimp and stackables) tested in accordance with MIL-STD-202, Method 208				
Wire Size:	Stranded #26 AWG				
Operating Temperature:	-65° to +125° C or -85° to +257° F				
Category:		<u>Method Per:</u> E AS 13441			
Test Voltage:	750 V, RMS, 60 Hz @ sea level 250 V, RMS, 60 Hz @ 70,000 feet	#3001			
Insulation Resistance:	5,000 megohms minimum @ 500 VDC	#3003			
Durability:	500 connector mating cycles				
Vibration:	Mated connectors, Test condition III	#2005			
Salt Spray:	Mated connectors, Test condition B	#1001			
Shock:	Mated connectors, Test condition G	#2004			
Humidity:	Test Type II, except steps 7A and 7B not required	#1002			
Temperature Cycling:	Mated connectors, Test condition A	#1003			
Contact Resistance:	.015 ohms max (interface measurement) @ 3 amperes	#3004			
Connector Mating Force:	2.50 oz. x number of contacts average				
Outgassing:	The entire connector assembly shall have maxin 1.0 percent of the original specimen mass and s condensable material (VCM) content of 0.1 perc	hall have a maximum volatile			
Sizes 50 and larger: Upon engagement, center area of mating fa due to slight flexing of molding. Vibration or closure.					
Guides and Jacks:	If location of pin or socket contacts is reversed, I guides or jacks is also reversed; except when us				
	When polarized positions are changed, apply Lc threads.	ctite <sup>®</sup> 242-12 or equivalent to			



## **Part Number Description**

Each part number consists of at least five elements: series, body description, size (number of contacts), type of contacts, and type of hardware. A sixth element is added whenever special modifications or options are available.

Each catalog page shows the choices available for each of these elements. By selecting one option from each category on the page, you can build a set of connectors to meet your requirements.

Each element is identified by a combination of letters and/or numbers in fixed field lengths, and separated by a hyphen (-). Each space must be filled in to complete the number. When the size, for example, is less than 100, indicate as 010, 080, etc.

#### Series:

This will always be a two letter designator, and will identify the connector series. All .075" connectors begin with the letter "R". The second letter designates the various styles of .075" connectors.

#### Body:

Each digit of the Body Designator will normally identify (1) the number of rows, (2) the style of body, and (3) the body materials. The three digit number to identify the body consists of one digit from each group.

#### Size:

The size is determined by the number of contacts in the connector, and is an integral part of the part number. Order only sizes shown on the catalog page unless otherwise noted.

#### Contacts:

Each page also identifies all contact options for a given connector. The first two digits designate the type of contacts and terminations; the third digit designates the plating option.

### Hardware:

The hardware designator is four digits; two for style of hardware and two for polarization or wiring instruction. Follow the choices for each connector.

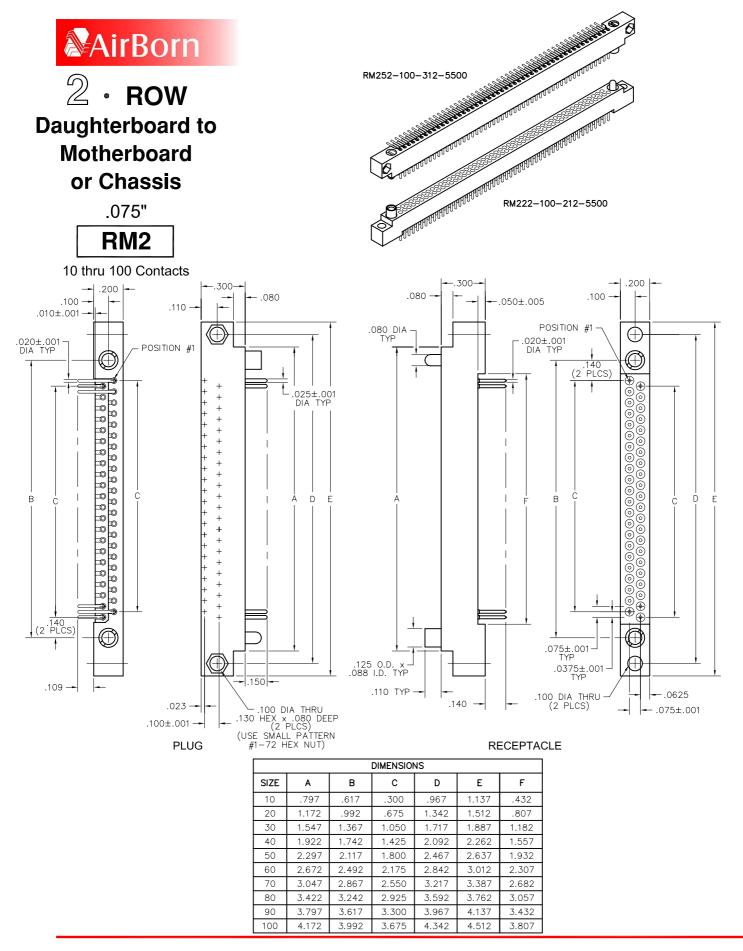
### **Special Instructions (Options):**

Special instructions are referenced by a three digit number added to the end of the part number. The last three digits are included only when applicable. AirBorn, Inc. will provide individual code numbers as needed.

### Note:

Each page is as comprehensive as possible. However, if you do not find a particular connector size or option, please contact the factory for further assistance.

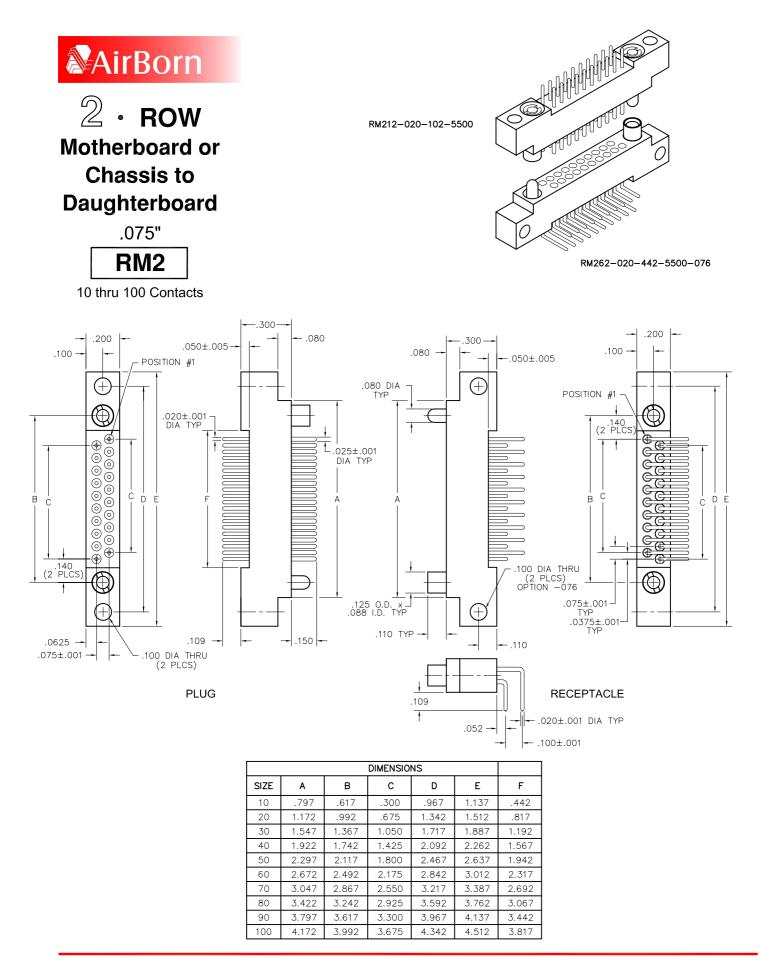
Symbolizes options that are not RoHS compliant.



"R" Series Connectors R-9

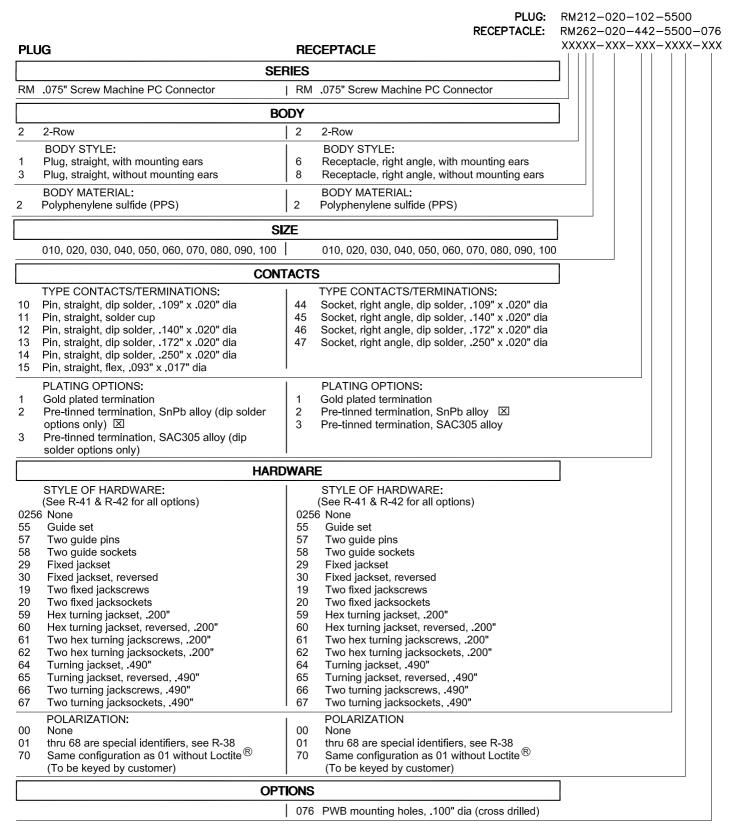
	AirBorn
	<b>PLUG:</b> RM252-100-312-5500
	RECEPTACLE: RM222-100-212-5500
PLUG	RECEPTACLE XXXX-XXX-XXX
RM .075" Screw Machine PC Connector	SERIES
RM .075 Screw Machine PC Connector	
2 2-Row	BODY
BODY STYLE:	BODY STYLE:
5 Plug, right angle, with mounting ears	2 Receptacle, straight with mounting ears
7 Plug, right angle, without mounting ears	4 Receptacle, straight without mounting ears
BODY MATERIAL: 2 Polyphenylene sulfide (PPS)	BODY MATERIAL: 2 Polyphenylene sulfide (PPS)
	SIZE
010, 020, 030, 040, 050, 060, 070, 080, 090, 100	0 010, 020, 030, 040, 050, 060, 070, 080, 090, 100
	CONTACTS
TYPE CONTACTS/TERMINATIONS:	TYPE CONTACTS/TERMINATIONS:
Pin, right angle, dip solder, .109" x .020" dia	20 Socket, straight, dip solder, .109" x .020 dia
Pin, right angle, dip solder, .140" x .020" dia Pin, right angle, dip solder, .172" x .020" dia	21       Socket, straight, dip solder, .140" x .020 dia         22       Socket, straight, dip solder, .172" x .020 dia
Pin, right angle, dip solder, 109" x 016" dia	23 Socket, straight, dip solder, .250" x .020 dia
Pin, right angle, dip solder, 140" x 016" dia	24 Socket, straight, solder cup
Bein, right angle, dip solder, .172" x .016" dia Pin, right angle, dip solder, .250" x .020" dia	25 Socket, straight, flex circuit, .093" x .017 dia 26 Socket, straight, wire wrap <sup>®</sup> , .500" x .018 square
	27 Socket, straight, whe wrap $^{\mathbb{R}}$ , .375" x .018 square
	28 Socket, straight, wire wrap <sup>®</sup> , .625" x .018 square
	29 Socket, connector saver, .150" x .025" dia 50 Socket, straight, dip solder, .140" x .016" dia
	51 Socket, straight, dip solder, 172" x 016" dia
	53 Socket, straight, stackable, .212" x .025" dia
	54 Socket, straight, stackable, .244" x .025" dia 55 Socket, straight, stackable, .275" x .025" dia
	64 Socket, straight, press fit, .203" (Board .093"125" thk)
	65 Socket, straight, press fit, .323" (Board .156"200" thk)
	66 Socket, straight, press fit, .403" (Board .250"+ thk)
PLATING OPTIONS: 1 Gold plated termination	PLATING OPTIONS: 1 Gold plated termination
2 Pre-tinned termination, SnPb alloy 🗵	2 Pre-tinned termination, SnPb alloy (dip solder options only)
3 Pre-tinned termination, SAC305 alloy	3 Pre-tinned termination, SAC305 alloy (dip solder options only)
	HARDWARE
STYLE OF HARDWARE: (See R-41 & R-42 for all options)	STYLE OF HARDWARE: (See R-41 & R-42 for all options)
0256 None	0256 None
55 Guide set	55 Guide set
57 Two guide pins 58 Two guide sockets	57 Two guide pins 58 Two guide sockets
29 Fixed jackset	29 Fixed jackset
30 Fixed jackset, reversed	30 Fixed jackset, reversed
<ul> <li>19 Two fixed jackscrews</li> <li>20 Two fixed jacksockets</li> </ul>	19 Two fixed jackscrews 20 Two fixed jacksockets
59 Hex turning jackset, .200"	59 Hex turning jackset, 200"
60 Hex turning jackset, reversed, 200"	60 Hex turning jackset, reversed, 200"
Two hex turning jackscrews, 200" Two hex turning jacksockets, 200"	61 Two hex turning jackscrews, 200" 62 Two hex turning jacksockets, 200"
4 Turning jackset, 490"	64 Turning jackset, 490"
55 Turning jackset, reversed, 490"	65 Turning jackset, reversed, 490"
66 Two turning jackscrews, .490" 67 Two turning jacksockets, .490"	66 Two turning jackscrews, 490" 67 Two turning jacksockets, 490"
POLARIZATION:	POLARIZATION
00 None	00 None
<ul> <li>thru 68 are special identifiers, see R-38</li> <li>Same configuration as 01 without Loctite<sup>®</sup></li> </ul>	<ul> <li>01 thru 68 are special identifiers, see R-38</li> <li>70 Same configuration as 01 without Loctite<sup>®</sup></li> </ul>
70 Same configuration as 01 without Loctite <sup>™</sup> (To be keyed by customer)	70 Same configuration as 01 without Loctite <sup>™</sup> (To be keyed by customer)
	OPTIONS
3N Bond #1-72 small pattern hex nuts into mounting	
Si = Option pot PoHS compliant	,

⊠ = Option not RoHS compliant

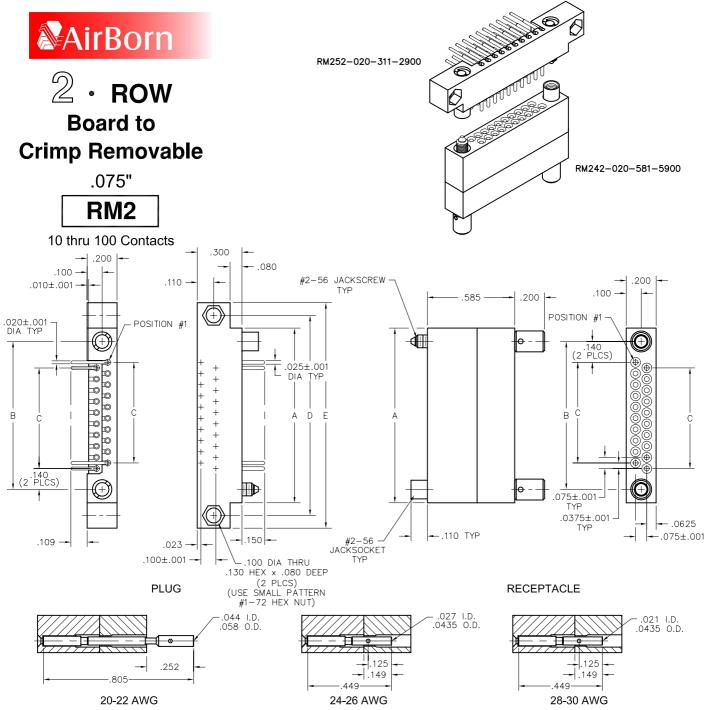


"R" Series Connectors R-11





⊠ = Option not RoHS compliant



NOTE:

When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

CRIMP REMOVABLE CONTACTS					
SIZE	PART NUMBER				
20-22 AWG	RM200-000-571-0000				
24-26 AWG	RM200-000-581-0000				
28-30 AWG	RM200-000-591-0000				

DIMENSIONS							
SIZE	А	В	С	D	E		
10	.797	.617	.300	.967	1.137		
20	1.172	.992	.675	1.342	1.512		
30	1.547	1.367	1.050	1.717	1.887		
40	1.922	1.742	1.425	2.092	2.262		
50	2.297	2.117	1.800	2.467	2.637		
60	2.672	2.492	2.175	2.842	3.012		
70	3.047	2.867	2.550	3.217	3.387		
80	3.422	3.242	2.925	3.592	3.762		
90	3.797	3.617	3.300	3.967	4.137		
100	4.172	3.992	3.675	4.342	4.512		



**RECEPTACLE:** 

PLUG: RM252-020- 311-2900 RM242-020-581-5900 XXXXX-XXX-XXX-XXXXXX

PLL	IG	RE	CEPTACLE:	XXXXX-XXX-XXX-XX
	SE	RIES		ו וו
RM	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector	
	B	ODY		ן
2	2-Row	2	2-Row	
	BODY STYLE:	Ì	BODY STYLE:	
5 7	Plug, right angle, with mounting ears Plug, right angle, without mounting ears	2	Receptacle, straight, with mounting ears Receptacle, straight, without mounting ears	
<u>'</u>	BODY MATERIAL:	14	BODY MATERIAL:	
2	Polyphenylene sulfide (PPS)	2	Polyphenylene sulfide (PPS)	
	S	IZE		
	010, 020, 030, 040, 050, 060, 070, 080, 090, 10	0	010, 020, 030, 040, 050, 060, 070, 080, 090, 1	00 00
	CON	TACT	S	
	TYPE CONTACTS/TERMINATIONS:	1	TYPE CONTACTS/TERMINATIONS:	-
31	Pin, right angle, dip solder, .109" x .020" dia	00	Contacts not supplied	、 <u> </u>
32	Pin, right angle, dip solder, .140" x .020" dia	57	Socket, straight, crimp removable (20-22 AWG	
33 34	Pin, right angle, dip solder, .172" x .020" dia Pin, right angle, dip solder, .109" x .016" dia	58 59	Socket, straight, crimp removable (24-26 AWG Socket, straight, crimp removable (28-30 AWG	
35	Pin, right angle, dip solder, .140" x .016" dia		oocket, straight, chimp removable (20-50 Awo	
36	Pin, right angle, dip solder, .172" x .016" dia			
37	Pin, right angle, dip solder, .250" x .020" dia			
	PLATING OPTIONS:		PLATING OPTIONS:	
1	Gold plated termination	0	No plating (use with Contact Option "00" only)	
2 3	Pre-tinned termination, SnPb alloy 🛛 Pre-tinned termination, SAC305 alloy	1	Gold plated termination	
		DWAR	F	]
	STYLE OF HARDWARE:		STYLE OF HARDWARE:	
	(See R-41 & R-42 for all options)		(See R-41 & R-42 for all options)	
0256	S None	025	6 None	
55	Guide set	55	Guide set	
57	Two guide pins	57	Two guide pins	
58	Two guide sockets	58	Two guide sockets	
29 30	Fixed jackset	29	Fixed jackset	
50 19	Fixed jackset, reversed Two fixed jackscrews	19	Fixed jackset, reversed Two fixed jackscrews	
20	Two fixed jacksockets	20	Two fixed jacksockets	
59	Hex turning jackset, .200" knob	59	Hex turning jackset, .200" knob	
50	Hex turning jackset, reversed, 200" knob	60	Hex turning jackset, reversed, 200" knob	
61	Two hex turning jackscrews, 200" knob	61	Two hex turning jackscrews, 200" knob	
52	Two hex turning jacksockets, 200" knob	62	Two hex turning jacksockets, .200" knob	
64	Turning jackset, 490" knob	64	Turning jackset, 490" knob	
65 26	Turning jackset, reversed, .490" knob	65	Turning jackset, reversed, .490" knob	
56 57	Two turning jackscrews, .490" knob Two turning jacksockets, .490" knob	66	Two turning jackscrews, 490" knob Two turning jacksockets, 490" knob	
	POLARIZATION:	1	POLARIZATION	
00	None	00	None	
01	thru 68 are special identifiers, see R-38	01	thru 68 are special identifiers, see R-38	
70	Same configuration as 01 without Loctite <sup>®</sup>	70	Same configuration as 01 without Loctite $^{\mathbb{R}}$	
	(To be keyed by customer)		(To be keyed by customer)	
	OP	TIONS		
BN	Bond #1-72, sm. pattern hex nuts into mtg. ears	s		

BN Bond #1-72, sm. pattern hex nuts into mtg. ears

\* Full compliment of crimp removable sockets packaged with connectors

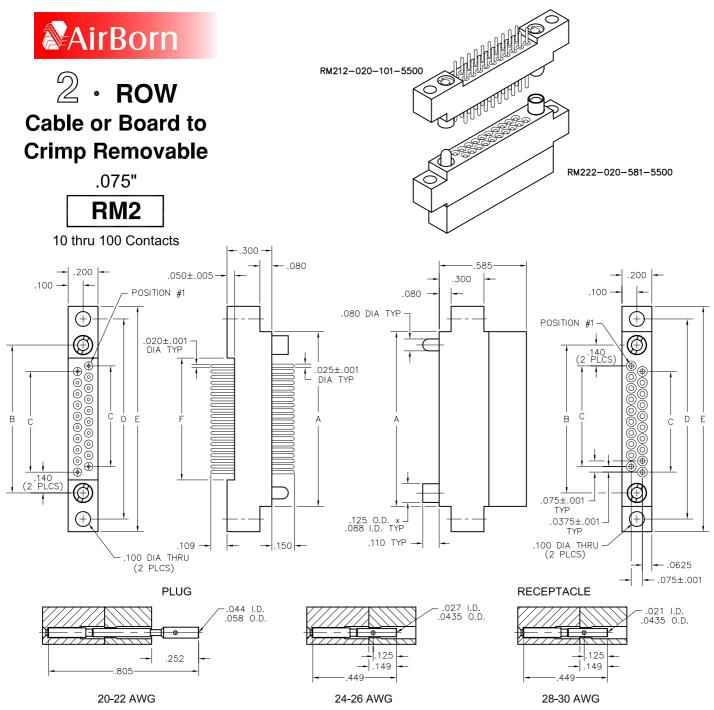
1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number M22520/2-01

2. Crimp positioner - AirBorn part number: CDG4602 (24-26 AWG and 28-30 AWG); CDG4603 (20-22 AWG)

3. Crimp removal tool - AirBorn part number: CDG8161 (All AWGs)

4. Crimp contact part number on previous page.

⊠ = Option not RoHS compliant



NOTE:

When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

CRIMP REMOVABLE CONTACTS					
SIZE	PART NUMBER				
20-22 AWG	RM200-000-571-0000				
24-26 AWG	RM200-000-581-0000				
28-30 AWG	RM200-000-591-0000				

DIMENSIONS								
SIZE	А	A B C D E				F		
10	.797	.617	.300	.967	1.137	.442		
20	1.172	.992	.675	1.342	1.512	.817		
30	1.547	1.367	1.050	1.717	1.887	1.192		
40	1.922	1.742	1.425	2.092	2.262	1.567		
50	2.297	2.117	1.800	2.467	2.637	1.942		
60	2.672	2.492	2.175	2.842	3.012	2.317		
70	3.047	2.867	2.550	3.217	3.387	2.692		
80	3.422	3.242	2.925	3.592	3.762	3.067		
90	3.797	3.617	3.300	3.967	4.137	3.442		
100	4.172	3.992	3.675	4.342	4.512	3.817		

				<b>AirBorn</b>
PLU	IG	RF	PLUG: RECEPTACLE: CEPTACLE	RM212-020-101-550 RM222-020-581-550 XXXXX-XXX-XXX-XXX
		RIES		
RM	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector	
	BC	DY		<u> </u>
2	2-Row	2	2-Row	
1 3	BODY STYLE: Plug, straight, with mounting ears Plug, straight, without mounting ears BODY MATERIAL:	24	BODY STYLE: Receptacle, straight, with mounting ears Receptacle, straight, without mounting ears BODY MATERIAL:	
2	Polyphenylene sulfide (PPS)	2	Polyphenylene sulfide (PPS)	
	SL	ZE		$\neg$
	010, 020, 030, 040, 050, 060, 070, 080, 090, 100		010, 020, 030, 040, 050, 060, 070, 080, 090,	100
	CONT	ACTS	3	
10 11 12 13 14 15	TYPE CONTACTS/TERMINATIONS: Pin, straight, dip solder, .109" x .020" dia Pin, straight, solder cup Pin, straight, dip solder, .140" x .020" dia Pin, straight, dip solder, .172" x .020" dia Pin, straight, dip solder, .250" x .020" dia Pin, straight, flex, .093" x .017" dia	00 57 58 59	TYPE CONTACTS/TERMINATIONS: Contacts not supplied Socket, straight, crimp removable (20-22 AWC Socket, straight, crimp removable (24-26 AWC Socket, straight, crimp removable (28-30 AWC	G)*
1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy (dip solder options only) ⊠ Pre-tinned termination, SAC305 alloy (dip solder options only)	01	PLATING OPTIONS: No plating (use with Contact Option "00" only) Gold plated termination	
	HARD	WAR	E	7
0250 55 57 58 29 30 19 20 59 60 61 62 64 65 66 67 00 01	STYLE OF HARDWARE: (See R-41 & R-42 for all options) 5 None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jackscets Hex turning jackset, .200" Hex turning jackset, reversed, .200" Two hex turning jackscrews, .200" Two hex turning jackscets, .200" Turning jackset, .490" Turning jackset, .490" Two turning jackscrews, .490" Two turning jackscets, .490" POLARIZATION: None thru 68 are special identifiers, see R-38		STYLE OF HARDWARE: (See R-41 & R-42 for all options) 6 None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jackscrews Two fixed jacksckets Hex turning jackset, .200" Hex turning jackset, reversed, .200" Two hex turning jackscrews, .200" Two hex turning jackscrews, .200" Two hex turning jackscrews, .200" Turning jackset, reversed, .490" Turning jackset, reversed, .490" Two turning jackscrews, .490" Two turning jackscrews, .490" POLARIZATION None thru 68 are special identifiers, see R-38	
70	Same configuration as 01 without Loctite <sup>®</sup> (To be keyed by customer) Il compliment of crimp removable sockets package	70	Same configuration as 01 without Loctite $^{ extsf{R}}$ (To be keyed by customer)	

1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number M22520/2-01

Crimp positioner - AirBorn part number: CDG4602 (24-26 AWG and 28-30 AWG)

CDG4603 (20-22 AWG)

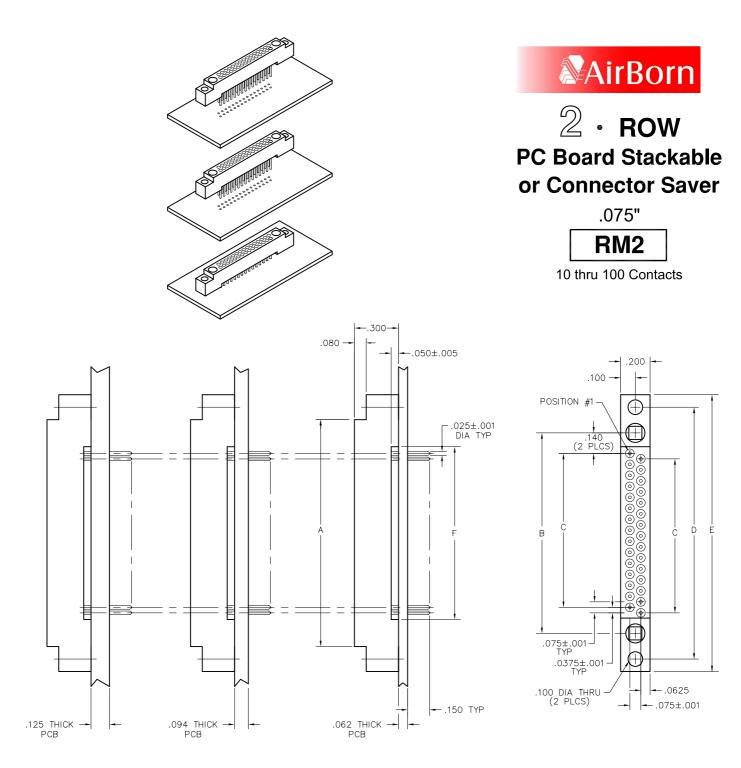
3. Crimp removal tool - AirBorn part number: CDG8161 (All AWGs)

4. Crimp contact part number on previous page.

⊠ = Option not RoHS compliant

## Ask About AirBorn's Accelerated Delivery Service

5 · · ·



## NOTE:

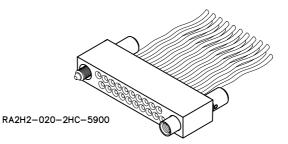
Stacking connectors cannot have mating hardware. (-0256 indicates no hardware)

PC BOARD THICKNESS	TERMINATION LENGTH	PART NUMBER EXAMPLES
.062	.212	RM222-030-531-0256
.094	.244	RM222-030-541-0256
.125	.275	RM222-030-551-0256
CONNECTOR SAVER	.150	RM222-030-291-0256

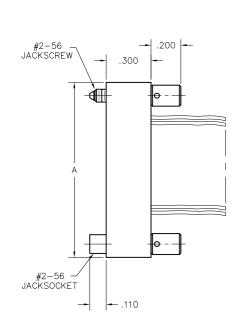
			DIMENSIO	NS		
SIZE	А	В	С	D	Е	F
10	.797	.617	.300	.967	1.137	.442
20	1.172	.992	.675	1.342	1.512	.817
30	1.547	1.367	1.050	1.717	1.887	1.192
40	1.922	1.742	1.425	2.092	2.262	1.567
50	2.297	2.117	1.800	2.467	2.637	1.942
60	2.672	2.492	2.175	2.842	3.012	2.317
70	3.047	2.867	2.550	3.217	3.387	2.692
80	3.422	3.242	2.925	3.592	3.762	3.067
90	3.797	3.617	3.300	3.967	4.137	3.442
100	4.172	3.992	3.675	4.342	4.512	3.817

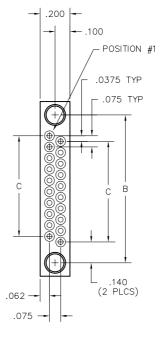
### Ask About AirBorn's Accelerated Delivery Service

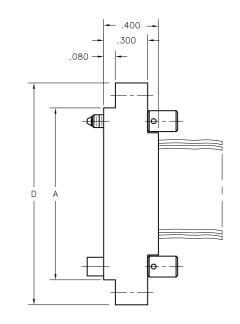




10 thru 100 Contacts







RECEPTACLE WITH MOUNTING EARS AND

POTTING WELL

RECEPTACLE WITHOUT MOUNTING EARS OR POTTING WELL

	DIMENSIONS						
SIZE	A	В	С	D			
10	.797	.617	.300	1.137			
20	1.172	.992	.675	1.512			
30	1.547	1.367	1.050	1.887			
40	1.922	1.742	1.425	2.262			
50	2.297	2.117	1.800	2.637			
60	2.672	2.492	2.175	3.012			
70	3.047	2.867	2.550	3.387			
80	3.422	3.242	2.925	3.762			
90	3.797	3.617	3.300	4.137			
100	4.172	3.992	3.675	4.512			

	RA2 RECEPTACLE CONNECTORS MATE WITH:					
MATE	DESCRIPTION	PAGE				
RM212	2 ROW STRAIGHT PLUG WITH EARS	R-11				
RM232	2 ROW STRAIGHT PLUG WITHOUT EARS	R-11				
RM252	2 ROW RIGHT ANGLE PLUG WITH EARS	R-13				
RM272	2 ROW RIGHT ANGLE PLUG WITHOUT EARS	R-13				

#### REPLACEMENT CONTACTS:

RA000-001-200-0000 RA000-001-400-0000

SEE PAGE R-33.4 FOR CRIMP INSTRUCTIONS, CONTACT INSERTION AND CONTACT REMOVAL TOOLS.



		020-2HC-5900 XXX-XXX-XXX					
RA	SERIES .075" Screw Machine PC Connector						
	BODY						
2	2-Row				- WIRE CODES-		
-	BODY STYLE:		туг	E and CC		LEN	сти
E F	Receptacle, straight, w/ potting well, w/ mounting ears Receptacle, straight, w/ potting well, w/out mounting ears						
G	Receptacle, straight, w/out potting well, w/ mounting ears		Code		Color	Code	Lengtl (+1"/-0
Н	Receptacle, straight, w/out potting well, w/out mounting ears		Mil-W-1		<b>T</b>		•
_	BODY MATERIAL:		A B	22 awg 22 awg	Ten repeating White	A B	6" 12"
2	Polyphenylene sulfide (PPS)		Č	22 awg 24 awg	Ten repeating	Ċ	18"
	SIZE		D	24 awg	White	D	24"
010	. 020, 030, 040, 050, 060, 070, 080, 090, 100		E	26 awg	Ten repeating	E	30"
			F G	26 awg 28 awg	White Ten repeating	F G	36" 42"
	CONTACTS		н	28 awg	White	Н	48"
	TYPE CONTACTS/TERMINATIONS:		J	30 awg	Ten repeating	J	54"
2	Socket, crimp, 28-30 awg. contacts		K	30 awg	White	K	60"
4	Socket, crimp, 22-26 awg. contacts						66" 72"
	WIRING OPTIONS:			2759/33		M	72 84"
XX	Crimped terminations, see wiring codes at right		L	22 awg	Ten repeating	P	96"
	HARDWARE		M N	22 awg 24 awg	White Ten repeating	R	108"
	DE HARDWARE		P	24 awg 24 awg	White	S	120"
025			R	26 awg	Ten repeating		
550			S	26 awg	White		
	1-5568 Guide set, polarized (see page R-38)		Т	28 awg	Ten repeating		
557	0 Guide set, polarized, same as 5501 without Loctite <sup>®</sup> (to be keyed by customer)		U V	28 awg 30 awg	White Ten repeating		
570	D Two guide pins		Ŵ	30 awg 30 awg	White		
580	5			oo ang	· · · · · ·	1	
				USIN	NG WIRE COD	)FS <sup>.</sup>	
290 300	,				2-020-2HC-		
190					ΥΫ́		
200				Type and	Color —	— Len	gth
590	<b>0</b> ,						
600) 610)	51 /						
620	<b>U</b> ,			lor sequ			
640				•	ing wire colors		
650	<b>3</b>		(Beę Blac		position #1)		
660	5,		Blac				
670	0 Two turning jacksockets, .490" knob		Red				
× =	= Option not RoHS compliant		Ora				
			Yell				
If po	tting well is used with a pre-wired connector, it will be potted and not rep	airable.	Gre	en			

If potting well is used with a pre-wired connector, it will be potted and not repairable. If potting well is not used with a pre-wired connector, it will not be potted. Contacts that are not potted in place can be removed and replaced only one time. See page R-33.4 for crimp instructions, contact insertion and contact removal tools.

> Repeat this sequence until connector is fully loaded.

Blue

Violet Grey White

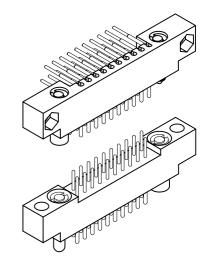


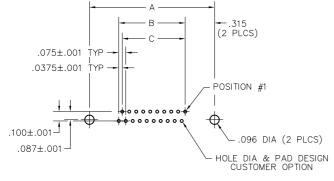
# 2 ⋅ ROW Right Angle PTH Plug Straight PTH Plug

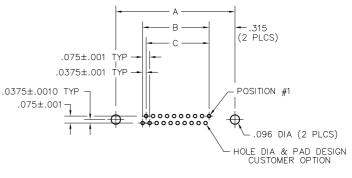


10 thru 100 Contacts Recommended Board Layout

	DIME	NSIONS	
SIZE	A	В	С
10	.967	.337	.300
20	1.342	.712	.675
30	1.717	1.087	1.050
40	2.092	1.462	1.425
50	2.467	1.837	1.800
60	2.842	2.212	2.175
70	3.217	2.587	2.550
80	3.592	2.962	2.925
90	3.967	3.337	3.300
100	4.342	3.712	3.675



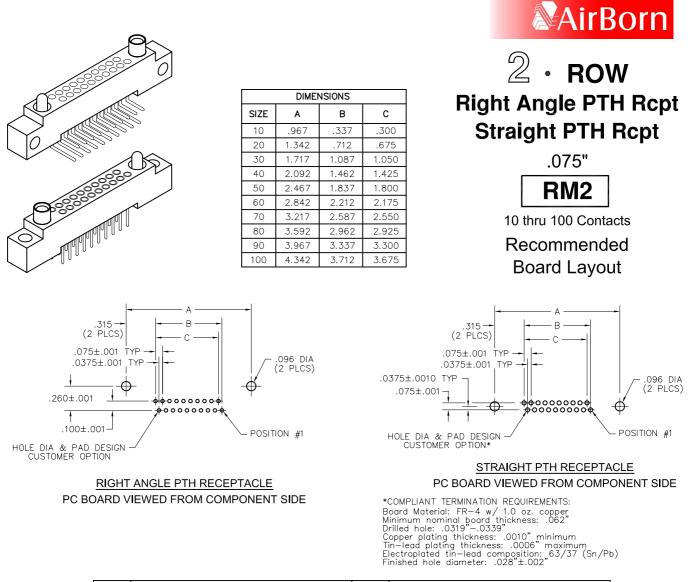




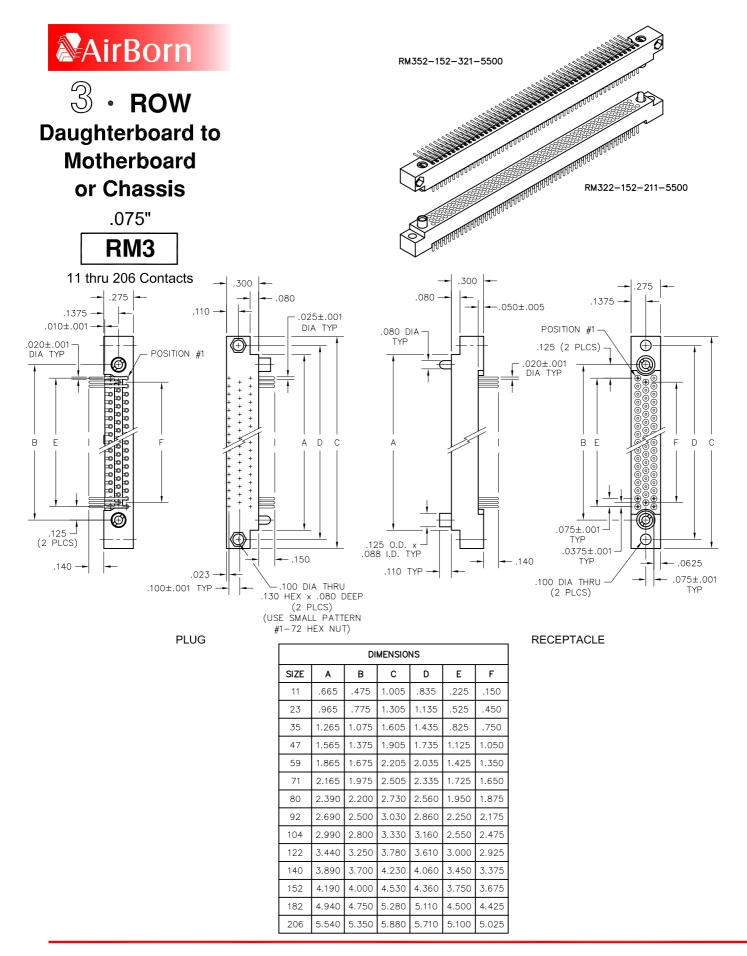
### RIGHT ANGLE PTH PLUG PC BOARD VIEWED FROM COMPONENT SIDE

#### SIZE CONTACT ID SIZE CONTACT ID 4 Ì (3)(2)(30)(29)(28) (3)(2)(1) 5 1 10 60 60) 59) 58 *\_*10 9 8 7 6 33 ( 32 ) 31 (10)(9)(8)(35)(34)(33) 3 ( 2 3 ( 2 1 70 20 (20)(19)(18) 70(69)68 13)(12 38)(37 (36) 11 (40)(39)(38) (15)(14)(13) 3 (2 3 ( 2 ) 1 30 80 (30)(29)(28) (80)(79)(78) 18) 17 43) 42 (41) 16 (20)(19)(18)(45)(44)(43) (3)(2) 3 ( 2 1 1 40 90 (40)(39)(38) (23)(22)(21) (90)(89)(88) 48)(47)(46) (50)(49)(48)(25)(24)(23)(3)(2)(1) 3 ) 2 ) 1 50 100 (100)(99)(98) (50)(49)(48) (28)(27)(26) (53)(52)(51)

### STRAIGHT PTH PLUG PC BOARD VIEWED FROM COMPONENT SIDE



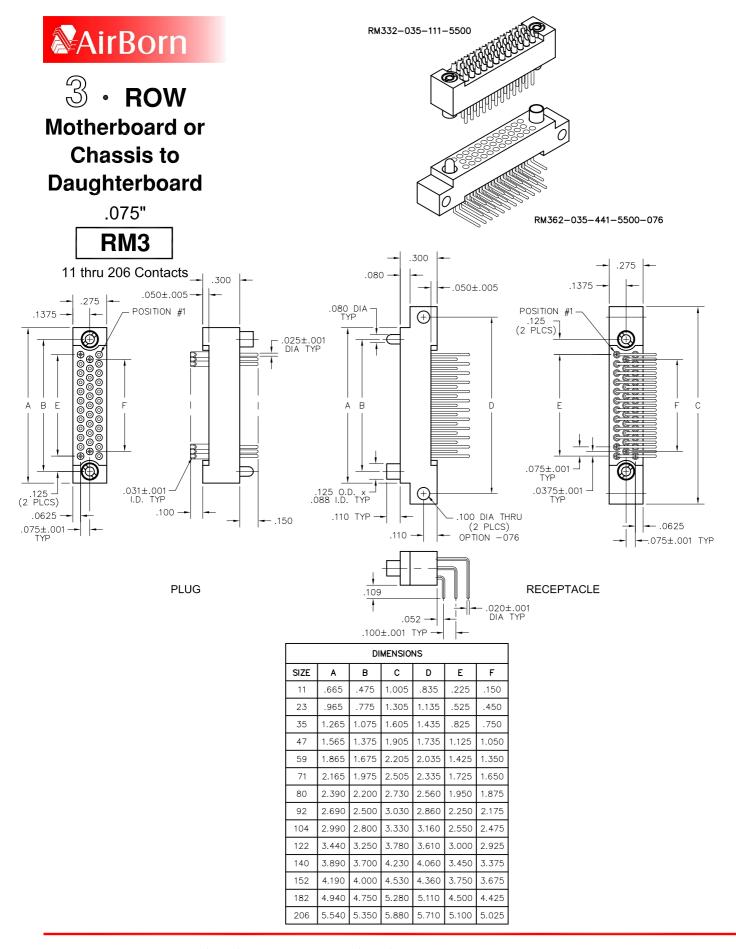
SIZE	CONTACT ID	SIZE	CONTACT ID
10	$ \begin{array}{c} (10) 9 \\ (5) 4 \\ (5) 4 \\ (2) 1 \end{array} $	60	60 (59 58 33 32 31) 30 29 28 3 2 1
20	20     19     18     13     12     11       10     9     8     3     2     1	70	70     69     68     38     37     36       35     34     33     3     2     1
30	30     29     28     18     17     16       15     14     13     3     2     1	80	$\begin{array}{c} (80) \hline 79 \\ 40 \hline 39 \\ 38 \\ \end{array} $
40	(40) (39) (38)     (23) (22) (21)       (20) (19) (18)     (3) (2) (1)	90	90 89 88 48 47 46 45 44 43 3 2 1
50	(50) (49) (48)     (28) (27) (26)       (25) (24) (23)     (3) (2) (1)	100	(00)(99)(98) (53)(52)(51) (50)(49)(48) (3)(2)(1) (50)(49)(48) (53)(52)(51)(52)(51) (53)(52)(51)(52)(51)(52)(52)(52)(52)(52)(52)(52)(52)(52)(52



"R" Series Connectors R-21

				AirBori
PLU	IG	RE	PLUG: RECEPTACLE: CEPTACLE	RM352-152-321-5500 RM322-152-211-5500 XXXXX-XXX-XXX-XXX
	Si	RIES		
RM	075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector	
	E	ODY		$\neg             $
3	3-Row	3	3-Row	
5 7	BODY STYLE: Plug, right angle, with mounting ears Plug, right angle, without mounting ears	24	BODY STYLE: Receptacle, straight, with mounting ears Receptacle, straight, without mounting ears	
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)	
		SIZE		┓
	011, 023, 035, 047, 059, 071, 080, 092, 104, 122, 140, 152, 182, 206		011, 023, 035, 047, 059, 071, 080, 092, 104, 122, 140, 152, 182, 206	
	CO	ITACTS	3	
32 33 34	TYPE CONTACTS/TERMINATIONS: Pin, right angle, dip solder, .109" x .020" dia Pin, right angle, dip solder, .140" x .020" dia Pin, right angle, dip solder, .172" x .020" dia Pin, right angle, dip solder, .109" x .016" dia Pin, right angle, dip solder, .140" x .016" dia Pin, right angle, dip solder, .172" x .016" dia Pin, right angle, dip solder, .250" x .020" dia	20 21 22 23 24 25 26 27 28 29 50 51 53 54 55 64 65 66	TYPE CONTACTS/TERMINATIONS: Socket, straight, dip solder, .109" x .020" dia Socket, straight, dip solder, .140" x .020" dia Socket, straight, dip solder, .172" x .020" dia Socket, straight, dip solder, .250" x .020 dia Socket, straight, solder cup Socket, straight, solder cup Socket, straight, wire wrap ®, .500" x .018 sq Socket, straight, wire wrap ®, .375" x .018 sq Socket, straight, wire wrap ®, .375" x .018 sq Socket, straight, wire wrap ®, .375" x .018 sq Socket, straight, wire wrap ®, .625" x .018 sq Socket, straight, wire wrap ®, .625" x .018 sq Socket, connector saver, .150" x .025" dia Socket, straight, dip solder, .172" x .016" dia Socket, straight, dip solder, .172" x .016" dia Socket, straight, stacking, .212" x .025" dia Socket, straight, stacking, .244" x .025" dia Socket, straight, press-fit, .203" (Board .093"125 Socket, straight, press-fit, .323" (Board .156"200 Socket, straight, press-fit, .403" (Board .250"+ thk	)" thk)
1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy Pre-tinned termination, SAC305 alloy	1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy (dip solder op Pre-tinned termination, SAC305 alloy (dip solder	
	HAR	DWAR	Ε	
0256 55 57 58 29 30 59 60 61 62 64 65 66 67 00 01 70	STYLE OF HARDWARE: (See R-41 & R-42 for all options) 5 None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jackscet, reversed, 200" Hex turning jackset, reversed, 200" Two hex turning jackscrews, .200" Two hex turning jackscrews, .200" Turning jackset, reversed, .200" Turning jackset, .490" Turning jackset, .490" Two turning jackscrews, .490" Two turning jackscrews, .490" POLARIZATION: None thru 68 are special identifiers, see R-38 Same configuration as 01 without Loctite ® (To be keyed by customer)	025 55 57 58 29 30 19 20 59 60 61 62 64 65 66 67 00 01 70	STYLE OF HARDWARE: (See R-41 & R-42 for all options) 6 None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jackscetes Hex turning jackscet, 200" Hex turning jackset, reversed, 200" Two hex turning jackscrews, .200" Two hex turning jackscrews, .200" Turning jackset, reversed, .200" Turning jackset, reversed, .200" Two hex turning jackscrews, .200" Turning jackset, .200" Turning	
		TIONS		
	OF			

 $\boxtimes$  = Option not RoHS compliant



"R" Series Connectors R-23

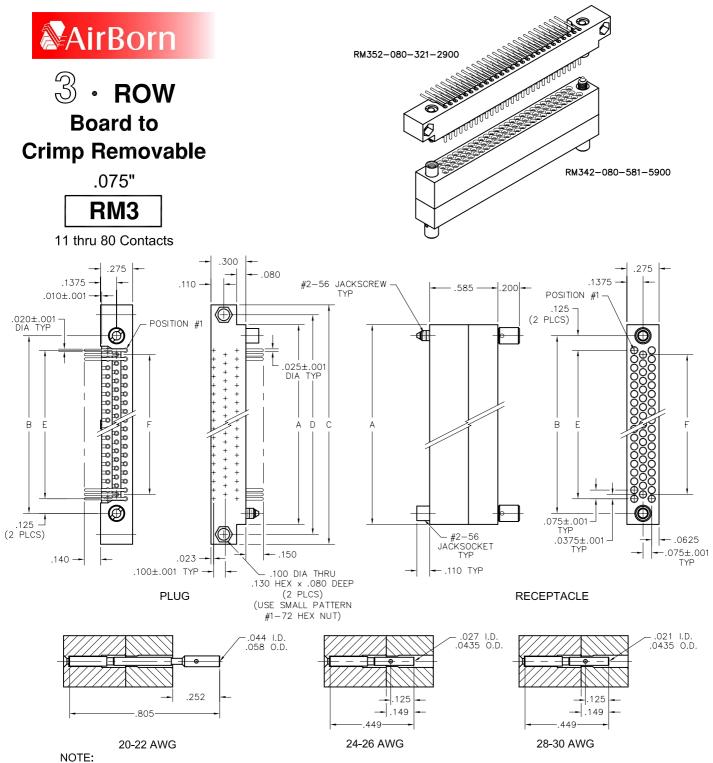


#### PLUG: RM332-035-111-5500 RECEPTACLE:

RM362-035-441-5500-076 xxxxx-xxx-xxx-xxxx-xxx

PLU	IG	RE	CEPTACLE		XX-XXX-	
		RIES		וו ר		
RM	.075" Screw Machine PC Connector		.075" Screw Machine PC Connector	J     L		
				<b>-</b>		
		DDY				
3	3-Row	3	3-Row			
	BODY STYLE:		BODY STYLE:			
1 ว	Plug, straight, with mounting ears Plug, straight, without mounting ears	6	Receptacle, right angle, with mounting ears Receptacle, right angle, without mounting ears			
3	<b>0</b> , <b>0</b> , <b>0</b>	8				
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)			
		12		1		
	S	ZE				
	011, 023, 035, 047, 059, 071, 080, 092, 104, 122, 140, 152, 182, 206		011, 023, 035, 047, 059, 071, 080, 092, 104, 122, 140, 152, 182, 206			
	CON	ТАСТ	6	]		
	TYPE CONTACTS/TERMINATIONS:	1	TYPE CONTACTS/TERMINATIONS:	1		
10	Pin, straight, dip solder, 109" x .020" dia	44	Socket, right angle, dip solder, .109" x .020" dia	a		
11	Pin, straight, solder cup	45	Socket, right angle, dip solder, .140" x .020" dia	a		
12	Pin, straight, dip solder, 140" x .020" dia	46	Socket, right angle, dip solder, 172" x .020" dia			
13	Pin, straight, dip solder, .172" x .020" dia	47	Socket, right angle, dip solder, .250" x .020" dia	a		
14 15	Pin, straight, dip solder, .250" x .020" dia Pin, straight, flex, .093" x .017 dia					
10		1				
1	PLATING OPTIONS: Gold plated termination	1	PLATING OPTIONS: Gold plated termination			
1 2	Pre-tinned termination, SnPb alloy (dip solder	1	Pre-tinned termination, SnPb alloy			
2	options only)	3	Pre-tinned termination, SAC305 alloy			
3	Pre-tinned termination, SAC305 alloy (dip		······································			
	solder options only)					
	HARI	WAR	E			
	STYLE OF HARDWARE:		STYLE OF HARDWARE:	_		
	(See R-41 & R-42 for all options)		(See R-41 & R-42 for all options)			
	S None		6 None			
55 57	Guide set Two guide pins	55 57	Guide set Two guide pins			
58	Two guide sockets	58	Two guide sockets			
29	Fixed jackset	29	Fixed jackset			
30	Fixed jackset, reversed	30	Fixed jackset, reversed			
19	Two fixed jackscrews	19	Two fixed jackscrews			
20	Two fixed jacksockets	20	Two fixed jacksockets			
59	Hex turning jackset, .200"	59	Hex turning jackset, .200"			
60	Hex turning jackset, reversed, 200"	60	Hex turning jackset, reversed, .200"			
61 62	Two hex turning jackscrews, .200"	61	Two hex turning jackscrews, .200"			
62 64	Two hex turning jacksockets, .200" Turning jackset, .490"	62 64	Two hex turning jacksockets, .200" Turning jackset, .490"			
65	Turning jackset, reversed, .490"	65	Turning jackset, reversed, .490"			
66	Two turning jackscrews, .490"	66	Two turning jackscrews, 490"			
67	Two turning jacksockets, .490"	67	Two turning jacksockets, .490"			
~~	POLARIZATION:		POLARIZATION			-
00	None	00	None			
01	thru 68 are special identifiers, see R-38	01	thru 68 are special identifiers, see R-38			
70	Same configuration as 01 without Loctite $^{\mathbb{R}}$ (To be keyed by customer)	70	Same configuration as 01 without Loctite <sup><math>(\mathbb{R})</math></sup> (To be keyed by customer)			
		1		٦		
	OP	TIONS				
		076	PWB mounting holes, .100" dia (cross drilled)			
_						

⊠ = Option not RoHS compliant



When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

CRIMP REMOVABLE CONTACTS				
SIZE	PART NUMBER			
20-22 AWG	RM300-000-571-0000			
24-26 AWG	RM300-000-581-0000			
28-30 AWG	RM300-000-591-0000			

DIMENSIONS						
SIZE	А	в	с	D	E	F
11	.665	.475	1.005	.835	.225	.150
23	.965	.775	1.305	1.135	.525	.450
35	1.265	1.075	1.605	1.435	.825	.750
47	1.565	1.375	1.905	1.735	1.125	1.050
59	1.865	1.675	2.205	2.035	1.425	1.350
71	2.165	1.975	2.505	2.335	1.725	1.650
80	2.390	2.200	2.730	2.560	1.950	1.875

		AirBo	rr
		PLUG: RM352-080-321-2 RECEPTACLE: RM342-080-581-5	2900
PLUG		RECEPTACLE XXXXX-XXX-XXX-XXX-XXX-XXX-XXX-XXX-XXX-	XXXX
	SE	ERIES	
RM .07	75" Screw Machine PC Connector	RM .075" Screw Machine PC Connector	
	Row	3 3-Row	
	ODY STYLE: lug, right angle, with mounting ears	BODY STYLE: 2 Receptacle, straight, with mounting ears	
	lug, right angle, without mounting ears	4 Receptacle, straight, with mounting ears	
	ODY MATERIAL:	I BODY MATERIAL:	
	olyphenylene sulfide (PPS)	2 Polyphenylene sulfide (PPS)	
01	1, 023, 035, 047, 059, 071, 080	011, 023, 035, 047, 059, 071, 080	
	CON	ITACTS	
ΤY	YPE CONTACTS/TERMINATIONS:	TYPE CONTACTS/TERMINATIONS:	
	in, right angle, dip solder, .109" x .020" dia	00 Contacts not supplied	
	in, right angle, dip solder, .140" x .020" dia	57 Socket, straight, crimp removable (20-22 AWG)*	
	in, right angle, dip solder, .172" x .020" dia	58 Socket, straight, crimp removable (24-26 AWG)* 59 Socket, straight, crimp removable (28-30 AWG)*	
	in, right angle, dip solder, .109" x .016" dia in, right angle, dip solder, .140" x .016" dia	59 Socket, straight, crimp removable (28-30 AWG)*	
	in, right angle, dip solder, .172" x .016" dia		
PI	LATING OPTIONS:	PLATING OPTIONS:	
	old plated termination	0 No plating (use with Contact Option "00" only)	
	re-tinned termination, SnPb alloy 🗵	1 Gold plated termination	
B Pr	re-tinned termination, SAC305 alloy		
	HARD	DWARE	
	TYLE OF HARDWARE:	STYLE OF HARDWARE:	
(S) 256 N	See R-41 & R-42 for all options)	(See R-41 & R-42 for all options) 0256 None	
	oone Guide set	55 Guide set	
	Two guide pins	57 Two guide pins	
	Two guide sockets	58 Two guide sockets	
	Fixed jackset	29 Fixed jackset	
	Fixed jackset, reversed	30 Fixed jackset, reversed	
	Γwo fixed jackscrews Γwo fixed jacksockets	19 Two fixed jackscrews 20 Two fixed jacksockets	
	Hex turning jackset, 200" knob	59 Hex turning jackset, 200" knob	
	lex turning jackset, reversed, 200" knob	60 Hex turning jackset, reversed, .200" knob	
51 T	wo hex turning jackscrews, 200" knob	61 Two hex turning jackscrews, 200" knob	
	Two hex turning jacksockets, 200" knob	62 Two hex turning jacksockets, 200" knob	
	Furning jackset, .490" knob	64 Turning jackset, .490" knob	
	Furning jackset, reversed, .490" knob Fwo turning jackscrews, .490" knob	65 Turning jackset, reversed, .490" knob 66 Two turning jackscrews, .490" knob	
	Two turning jacksockets, .490" knob	67 Two turning jacksockets, .490" knob	
	POLARIZATION:	POLARIZATION	-
	None	00 None	
	hru 68 are special identifiers, see R-38	01 thru 68 are special identifiers, see R-38	
	Same configuration as 01 without Loctite $^{\mathbb{R}}$ To be keyed by customer)	70 Same configuration as 01 without Loctite <sup>®</sup> (To be keyed by customer)	
(	,	TIONS	

\* Full compliment of crimp removable sockets packaged with connectors

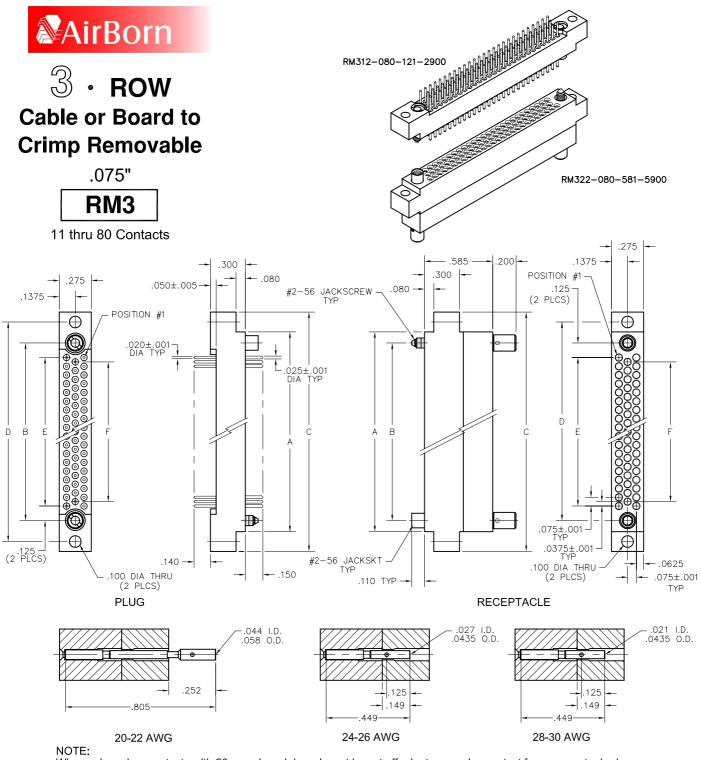
Crimp tool - AirBorn part number: CDG4601, Mil Spec number M22520/2-01
 Crimp positioner - AirBorn part number: CDG4602 (24-26 AWG and 28-30 AWG)

CDG4603 (20-22 AWG)

3. Crimp removal tool - AirBorn part number: CDG8161 (All AWGs)

4. Crimp contact part number on previous page.

⊠ = Option not RoHS compliant



When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

CRIMP REMOVABLE CONTACTS					
SIZE PART NUMBER					
20-22 AWG	RM300-000-571-0000				
24-26 AWG	RM300-000-581-0000				
28-30 AWG	RM300-000-591-0000				

SIZE	A	В	С	D	E	F
11	.665	.475	1.005	.835	.225	.150
23	.965	.775	1.305	1.135	.525	.450
35	1.265	1.075	1.605	1.435	.825	.750
47	1.565	1.375	1.905	1.735	1.125	1.050
59	1.865	1.675	2.205	2.035	1.425	1.350
71	2.165	1.975	2.505	2.335	1.725	1.650
80	2.390	2.200	2.730	2.560	1.950	1.875

\* Full compliment of crimp removable sockets packaged with connectors
 1. Crimp tool - AirBorn part number. CDG4601, Mil Spec number M22520/2-01

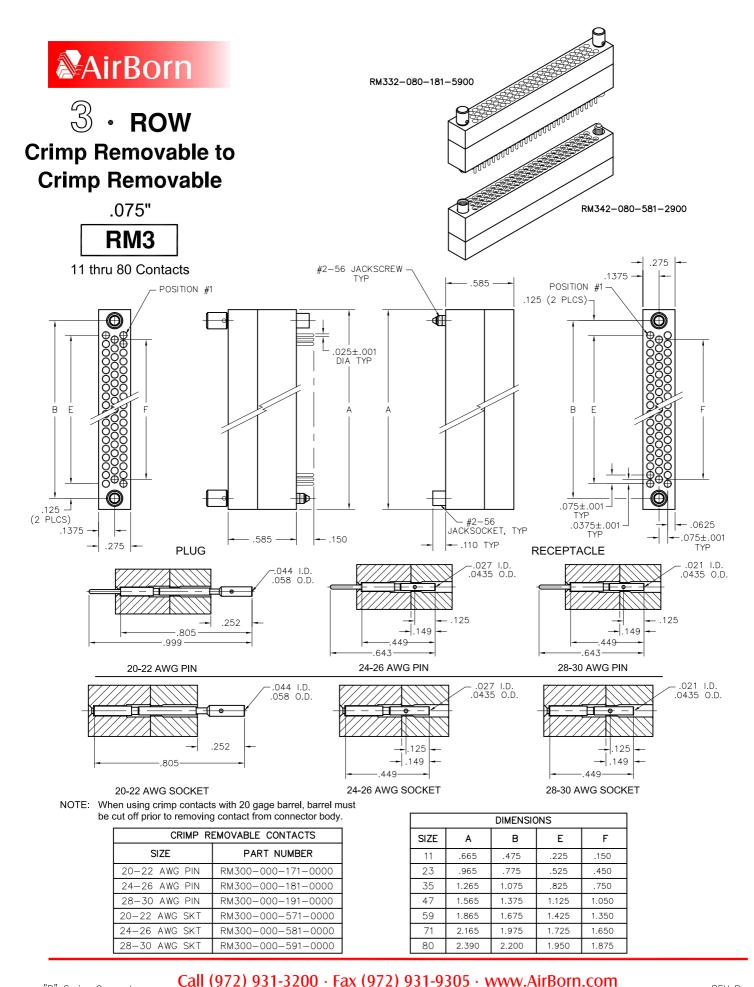
2. Crimp positioner - AirBorn part number: CDG4602 (24-26 AWG and 28-30 AWG)

CDG4603 (20-22 AWG)

3. Crimp removal tool - AirBorn part number: CDG8161 (All AWGs)

4. Crimp contact part number on previous page.

⊠ = Option not RoHS compliant



"R" Series Connectors R-29 REV B CTR077



PLUG: RM332-080-181-5900 **RECEPTACLE:** RM342-080-581-2900

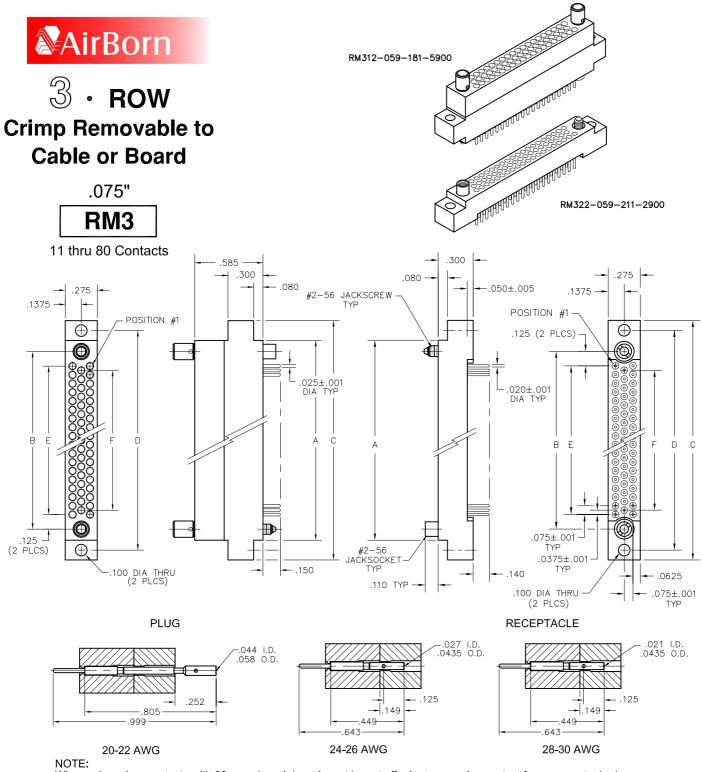
PLU	G	REG	CEPTACLE	xxxxx-xxx-	-XXX-XXX
	SER			ווו ר	
RM	.075" Screw Machine PC Connector		.075" Screw Machine PC Connector		
	BO			<u>,</u>	
3	3-Row	3	3-Row	J     L	
	BODY STYLE:	1	BODY STYLE:		
1 3	Plug, straight, with mounting ears Plug, straight, without mounting ears	2 4	Receptacle, straight, with mounting ears Receptacle, straight, without mounting ears		
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)		
	SIZ	Έ		]	
	011, 023, 035, 047, 059, 071, 080		011, 023, 035, 047, 059, 071, 080	-	
	CONT	ACTS	3	7	
00 17 18 19	TYPE CONTACTS/TERMINATIONS: Contacts not supplied Pin, straight, crimp removable (20-22 AWG)* Pin, straight, crimp removable (24-26 AWG)* Pin, straight, crimp removable (28-30 AWG)*	00 57 58 59	TYPE CONTACTS/TERMINATIONS: Contacts not supplied Socket, straight, crimp removable (20-22 AWG Socket, straight, crimp removable (24-26 AWG Socket, straight, crimp removable (28-30 AWG	)*	
0 1	PLATING OPTIONS: No plating (use with Contact Option "00" only) Gold plated termination	0	PLATING OPTIONS: No plating (use with Contact Option "00" only) Gold plated termination	_	
	HARD	WAR	Ε		
0256 55 57 58 29 30 19 20 59 60 61 62 64 65 66 67	STYLE OF HARDWARE: (See R-41 & R-42 for all options) 5 None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jackscrews Two fixed jacksckets Hex turning jackset, .200" knob Hex turning jackset, reversed, .200" knob Two hex turning jackscrews, .200" knob Two hex turning jacksckets, .200" knob Two hex turning jacksckets, .200" knob Turning jackset, reversed, .490" knob Turning jackset, reversed, .490" knob Two turning jackscrews, .490" knob Two turning jacksckets, .490" knob Two turning jacksckets, .490" knob	025 55 57 58 29 30 19 20 59 60 61 62 64 65 66 66 67	STYLE OF HARDWARE: (See R-41 & R-42 for all options) 6 None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jacksckets Hex turning jackset, .200" knob Hex turning jackset, reversed, .200" knob Two hex turning jackscrews, .200" knob Two hex turning jacksckets, .200" knob Two hex turning jacksckets, .200" knob Two hex turning jackscrews, .200" knob Turning jackset, reversed, .490" knob Turning jackset, reversed, .490" knob Two turning jackscrews, .490" knob Two turning jackscrews, .490" knob	_	
00 01 70	POLARIZATION: None thru 68 are special identifiers, see R-38 Same configuration as 01 without Loctite <sup>®</sup> (To be keyed by customer) I compliment of crimp removable sockets package	00 01 70	POLARIZATION None thru 68 are special identifiers, see R-38 Same configuration as 01 without Loctite <sup>®</sup> (To be keyed by customer)		

Crimp tool - AirBorn part number: CDG4601, Mil Spec number M22520/2-01
 Crimp positioner - AirBorn part number: CDG4602 (24-26 AWG and 28-30 AWG)

CDG4603 (20-22 AWG)

3. Crimp removal tool - AirBorn part number: CDG8161 (All AWGs)

4. Crimp contact part number on previous page.



When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

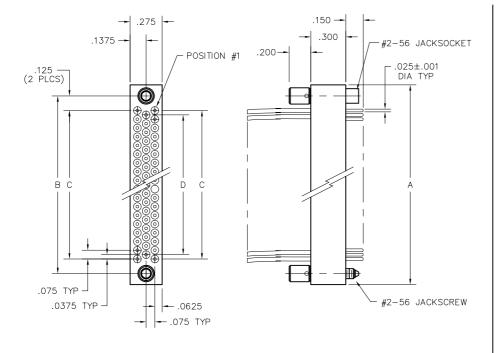
CRIMP REMOVABLE CONTACTS						
SIZE	PART NUMBER					
20-22 AWG	RM300-000-171-0000					
24-26 AWG	RM300-000-181-0000					
28-30 AWG	RM300-000-191-0000					

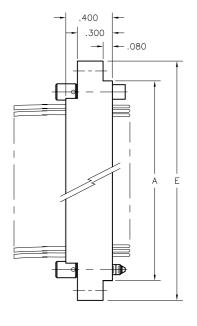
DIMENSIONS							
SIZE	A	В	С	D	Е	F	
11	.665	.475	1.005	.835	.225	.150	
23	.965	.775	1.305	1.135	.525	.450	
35	1.265	1.075	1.605	1.435	.825	.750	
47	1.565	1.375	1.905	1.735	1.125	1.050	
59	1.865	1.675	2.205	2.035	1.425	1.350	
71	2.165	1.975	2.505	2.335	1.725	1.650	
80	2.390	2.200	2.730	2.560	1.950	1.875	

					AirBor
PLU	G		RECEPTACLE	PLUG RECEPTACLE	
		SERIES			
M	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector		
		BODY			
	3-Row	3	3-Row		
	BODY STYLE: Plug, straight, with mounting ears Plug, straight, without mounting ears	2 4	BODY STYLE: Receptacle, straight, with mounting ear Receptacle, straight, without mounting		
	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)		
		SIZE			
	011, 023, 035, 047, 059, 071, 080		011, 023, 035, 047, 059, 071, 080		
		ONTAC	TS		
0 7 8 9	TYPE CONTACTS/TERMINATIONS: Contacts not supplied Pin, straight, crimp removable (20-22 AWG)* Pin, straight, crimp removable (24-26 AWG)* Pin, straight, crimp removable (28-30 AWG)*	20 21 22 23 24 25 26 27 28 29 50 51 53 54 55 64 65 66	Socket, straight, dip solder, .109" x .02 Socket, straight, dip solder, .140" x .02 Socket, straight, dip solder, .172" x .02 Socket, straight, dip solder, .250" x .02 Socket, straight, solder cup Socket, straight, solder cup Socket, straight, wire wrap ®, .500" x .0 Socket, straight, wire wrap ®, .375" x .0 Socket, straight, dip solder, .140" x .01 Socket, straight, dip solder, .140" x .01 Socket, straight, dip solder, .140" x .01 Socket, straight, stacking, .212" x .025 Socket, straight, stacking, .275" x .025 Socket, straight, stacking, .275" x .025 Socket, straight, press-fit, .203" (Board Socket, straight, press-fit, .403" (Board	0" dia 0" dia 0 dia 2" dia 018 sq 018 sq 018 sq dia 6" dia 6" dia 6" dia ' dia ' dia . 093"125" thk) 156"200" thk)	
	PLATING OPTIONS: No plating (use with Contact Option "00" only) Gold plated termination	1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy (di Pre-tinned termination, SAC305 alloy		
	н	ARDWA	RE		
57890909090724567 01	STYLE OF HARDWARE: (See R-41 & R-42 for all options) S None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jackscrews, 200" knob Two hex turning jackscrews, .490" knob Turning jackset, reversed, .490" knob Two turning jackscrews, .490" knob Two tur	55 57 58 29 30 19 20 59 60 61 62 64 65 66 67 00 01	STYLE OF HARDWARE: (See R-41 & R-42 for all options) 66 None Guide set Two guide pins Two guide sockets Fixed jackset Fixed jackset, reversed Two fixed jackscrews Two fixed jackscrews Two fixed jackscrews, 200" knob Hex turning jackset, reversed, .200" kn Two hex turning jackscrews, .200" kn Two hex turning jackscrews, .200" kn Turning jackset, reversed, .490" knob Turning jackset, reversed, .490" knob Turning jackscrews, .490" knob Two turning jackscrews, .490" knob	ob 0b	
	Same configuration as 01 without Loctite <sup>®</sup> (To be keyed by customer) II compliment of crimp removable sockets packaged with crimp tool - AirBorn part number: CDG4601, Mil Spec nur crimp positioner - AirBorn part number: CDG4602 (24-26 rrimp removal tool - AirBorn part number: CDG8161 (All crimp contact part number on previous page. • Option not RoHS compliant	nber M22 AWG an	2520/2-01		



RA3D2-059-3EA-5900





PLUG WITHOUT MOUNTING EARS OR POTTING WELL PLUG WITH MOUNTING EARS AND POTTING WELL

DIMENSIONS							
SIZE	А	В	с	D	Е		
11	.665	.475	.225	.150	1.005		
23	.965	.775	.525	.450	1.305		
35	1.265	1.075	.825	.750	1.605		
47	1.565	1.375	1.125	1.050	1.905		
59	1.865	1.675	1.425	1.350	2.205		
71	2.165	1.975	1.725	1.650	2.505		
80	2.390	2.200	1.950	1.875	2.730		
104	2.990	2.800	2.550	2.475	3.330		

RA3 PLUG CONNECTORS MATE WITH:						
MATE DESCRIPTION						
RM322	3 ROW STRAIGHT RECEPTACLE WITH EARS	R-21				
RM342	3 ROW STRAIGHT RECEPTACLE WITHOUT EARS	R-21				
RM362	3 ROW RIGHT ANGLE RECEPTACLE WITH EARS	R-23				
RM382	3 ROW RIGHT ANGLE RECEPTACLE WITHOUT EARS	R-23				

#### REPLACEMENT CONTACTS:

RA000-001-100-0000 RA000-001-300-0000

SEE PAGE R-33.4 FOR CRIMP INSTRUCTIONS, CONTACT INSERTION AND CONTACT REMOVAL TOOLS.

# AirBorn

PLUG: RA3D2-059-3EA-5900 XXXXX-XXX-XXX-XXX SERIES RA .075" Screw Machine PC Connector BODY 3-Row 3 BODY STYLE: Plug, straight, w/ potting well, w/ mounting ears А Plug, straight, w/ potting well, w/out mounting ears в С Plug, straight, w/out potting well, w/ mounting ears D Plug, straight, w/out potting well, w/out mounting ears BODY MATERIAL: Polyphenylene sulfide (PPS) 2 SIZE 011, 023, 035, 047, 059, 071, 080, 104 CONTACTS TYPE CONTACTS/TERMINATIONS: Pin, crimp, 28-30 awg. contact 1 3 Pin, crimp, 22-26 awg. contact WIRING OPTIONS: ΧХ See wiring codes at right HARDWARE STYLE OF HARDWARE: 0256 None Guide Hardware 5500 Guide set 5501-5568 Guide set, polarized (see page R-38) Guide set, polarized, same as 5501 without Loctite® 5570 (to be keyed by customer) 5700 Two guide pins Two guide sockets 5800 Jacking Hardware 2900 Fixed jackset 3000 Fixed jackset, reversed Two fixed jackscrews 1900 2000 Two fixed jacksockets Hex turning jackset, .200" knob 5900 6000 Hex turning jackset, reversed, .200" knob 6100 Two hex turning jackscrews, .200" knob Two hex turning jacksockets, .200" knob 6200 Turning jackset, .490" knob 6400 6500 Turning jackset, reversed, .490" knob Two turning jackscrews, .490" knob 6600 Two turning jacksockets, .490" knob 6700

⊠ = Option not RoHS compliant

If potting well is used with a pre-wired connector, it will be potted and not repairable. If potting well is not used with a pre-wired connector, it will not be potted. Contacts that are not potted in place can be removed and replaced only one time. See page R-33.4 for crimp instructions, contact insertion and contact removal tools.

### - WIRE CODES-

TYPE and COLOR			LEN	GTH
Code Mil-W-1	<b>Size</b>	Color	Code	Length (+1"/-0")
A B C D E F G H J K	22 awg 22 awg 24 awg 24 awg 26 awg 26 awg 28 awg 30 awg 30 awg	Ten repeating White Ten repeating White Ten repeating White Ten repeating White Ten repeating White	A B C D E F G H J K -	6" 12" 18" 24" 30" 36" 42" 48" 54" 60" 66"
Mil-W-2	2759/33		M	72"
L M N P R S T U V W	22 awg 22 awg 24 awg 24 awg 26 awg 26 awg 28 awg 28 awg 30 awg 30 awg	Ten repeating White Ten repeating White Ten repeating White Ten repeating White Ten repeating White Mhite	N P R S	84" 96" 108" 120"

### USING WIRE CODES:

RA3D2-059-3EA-5900

Length

Type and Color

Color sequence for Ten repeating wire colors:

(Beginning in position #1) Black Brown Red Orange Yellow Green Blue Violet Grey White

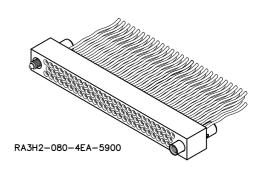
Repeat this sequence until connector is fully loaded.

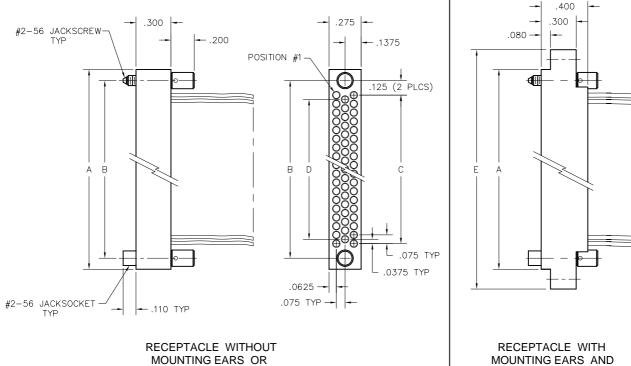


# 3 · ROW Crimped Wire I/O Receptacle



11 thru 104 Contacts





POTTING WELL

	DIMENSIONS						
SIZE	А	В	С	D	E		
11	.665	.475	.225	.150	1.005		
23	.965	.775	.525	.450	1.305		
35	1.265	1.075	.825	.750	1.605		
47	1.565	1.375	1.125	1.050	1.905		
59	1.865	1.675	1.425	1.350	2.205		
71	2.165	1.975	1.725	1.650	2.505		
80	2.390	2.200	1.950	1.875	2.730		
104	2.990	2.800	2.550	2.475	3.330		

POTTING WELL

RA3 RECEPTACLE CONNECTORS MATE WITH:			
MATE	ATE DESCRIPTION		
RM312	3 ROW STRAIGHT PLUG WITH EARS	R-32	
RM332	3 ROW STRAIGHT PLUG WITHOUT EARS	R-32	
RM352	3 ROW RIGHT ANGLE PLUG WITH EARS	R-26	
RM372	3 ROW RIGHT ANGLE PLUG WITHOUT EARS	R-26	

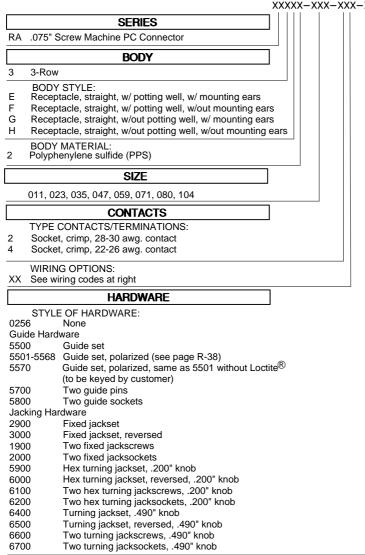
### REPLACEMENT CONTACTS:

RA000-001-200-0000 RA000-001-400-0000

SEE PAGE R-33.4 FOR CRIMP INSTRUCTIONS, CONTACT INSERTION AND CONTACT REMOVAL TOOLS.

# AirBorn

PLUG: RA3H2-080-4EA-5900 XXXXX-XXX-XXX-XXX-XXX



☑ = Option not RoHS compliant

If potting well is used with a pre-wired connector, it will be potted and not repairable. If potting well is not used with a pre-wired connector, it will not be potted. Contacts that are not potted in place can be removed and replaced only one time. See page R-33.4 for crimp instructions, contact insertion and contact removal tools.

### - WIRE CODES-

TYPE and COLOR			LEN	GTH
Code	Size	Color	Code	Length
Mil-W-1	6878/4			(+1"/-0")
A B C D E F G H J K	22 awg 22 awg 24 awg 26 awg 26 awg 28 awg 28 awg 30 awg 30 awg	White Ten repeating White Ten repeating White	A B C D E F G H J K L	6" 12" 18" 24" 30" 36" 42" 48" 54" 60" 66"
Mil-W-2	2759/33		M	72"
L M N P R S T U V W	22 awg 22 awg 24 awg 24 awg 26 awg 26 awg 28 awg 28 awg 30 awg 30 awg	Ten repeating White Ten repeating White Ten repeating White Ten repeating White Ten repeating White White	N P R S	84" 96" 108" 120"

### USING WIRE CODES:

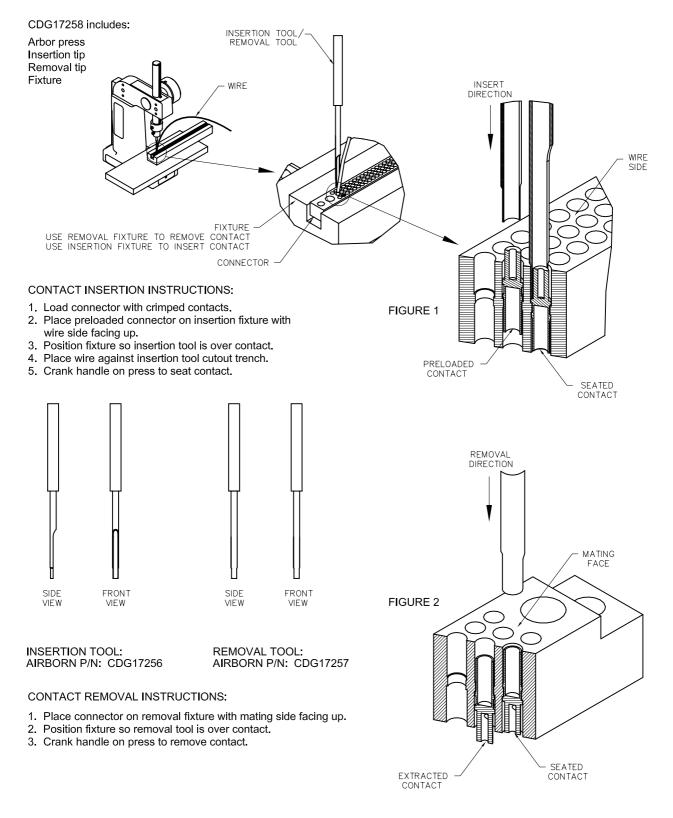
RA3H2-080-4EA-5900

Type and Color \_\_\_\_\_ Length

Color sequence for Ten repeating wire colors: (Beginning in position #1) Black Brown Red Orange Yellow Green Blue Violet Grey White

Repeat this sequence until connector is fully loaded.



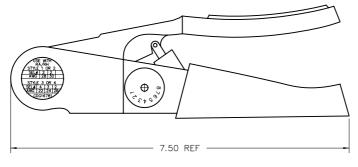


# **RA Crimp Instructions**



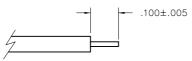
### 1. SET UP CRIMP TOOL

Install proper positioner into the crimp tool. Crimp settings are shown on the positioner for various wire gauge sizes. Adjust the wheel to the proper setting.



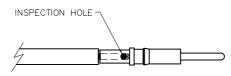
### 2. STRIP WIRE

Remove insulation from wire as shown.



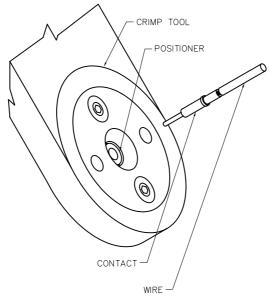
### 3. INSERT WIRE

Insert wire into the contact. Wire should be visible in the inspection hole.



### 4. INSERT CONTACT INTO CRIMP TOOL

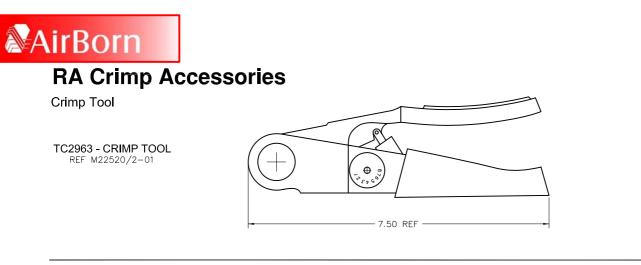
Make sure the contact is fully seated in the positioner. Squeeze the handles fully. The ratcheting mechanism of the tool will not allow a partial crimp. The handles will not return to the open position until fully compressed. Release the handles and remove the contact.



## 5. INSPECT CRIMPED CONTACT

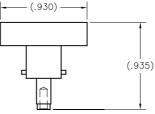
Crimp indentions should be uniform in depth and location.



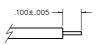


Crimp Positioner



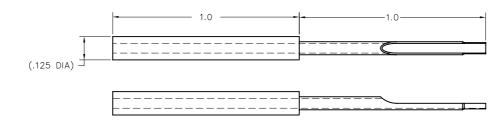


TOOL SELECTION TABLE		
CONTACT	POSITIONER	
RA000-001-100-0000		
RA000-001-200-0000	00010781	
RA000-001-300-0000	CDG16781	
RA000-001-400-0000		

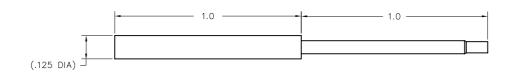


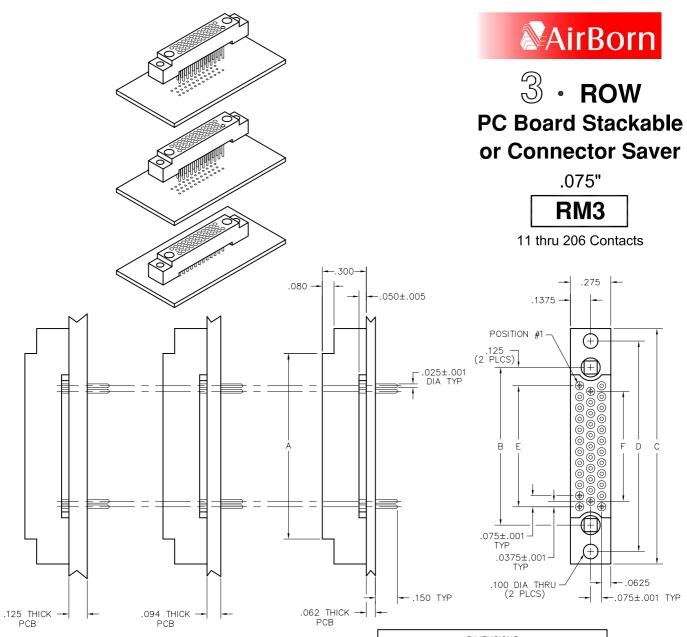
INSULATION STRIPPING EXPOSE .100 BARE WIRE LENGTH FOR INSERTION INTO CONTACT.

Insertion Tool - CDG17256



Removal Tool - CDG17257



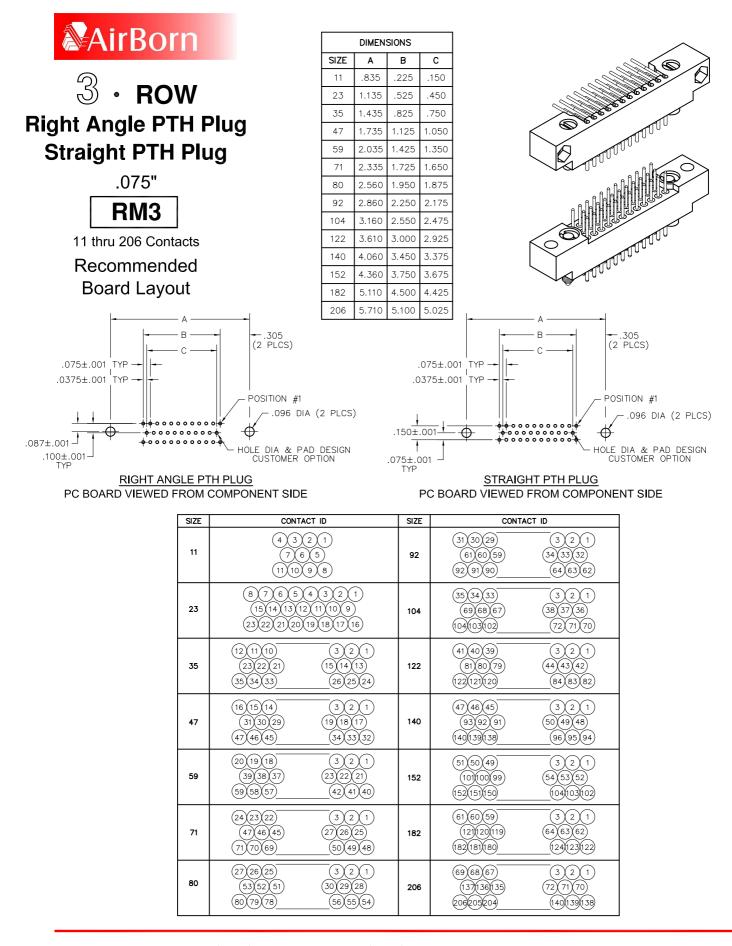


## NOTE:

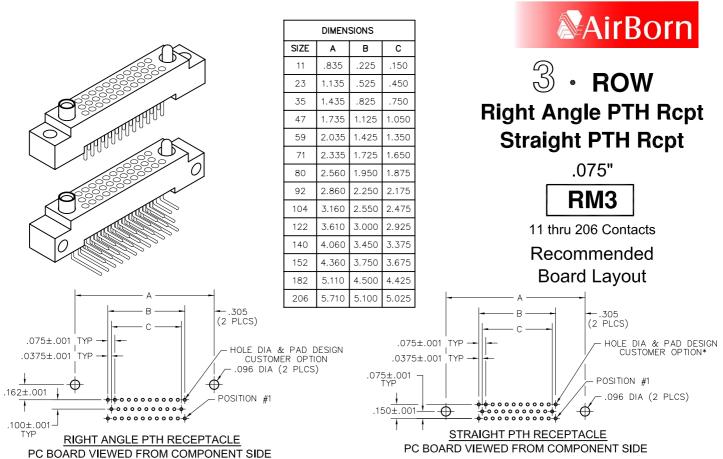
Stacking connectors cannot have mating hardware. (-0256 indicates no hardware)

PC BOARD THICKNESS	TERMINATION LENGTH	PART NUMBER
.062	.212	RM322-035-531-0256
.094	.244	RM322-035-541-0256
.125	.275	RM322-035-551-0256
CONNECTOR SAVER	.150	RM322-035-291-0256

DIMENSIONS						
SIZE	A	В	С	D	E	F
11	.665	.475	1.005	.835	.225	.150
23	.965	.775	1.305	1.135	.525	.450
35	1.265	1.075	1.605	1.435	.825	.750
47	1.565	1.375	1.905	1.735	1.125	1.050
59	1.865	1.675	2.205	2.035	1.425	1.350
71	2.165	1.975	2.505	2.335	1.725	1.650
80	2.390	2.200	2.730	2.560	1.950	1.875
92	2.690	2.500	3.030	2.860	2.250	2.175
104	2.990	2.800	3.330	3.160	2.550	2.475
122	3.440	3.250	3.780	3.610	3.000	2.925
140	3.890	3.700	4.230	4.060	3.450	3.375
152	4.190	4.000	4.530	4.360	3.750	3.675
182	4.940	4.750	5.280	5.110	4.500	4.425
206	5.540	5.350	5.880	5.710	5.100	5.025



"R" Series Connectors R-35



\*COMPLIANT TERMINATION REQUIREMENTS: Board Material: FR-4 w/ 1.0 oz. copper Minimum nominal board thickness: .062" Drilled hole: .0319"-.0339" Copper plating thickness: .0010" minimum

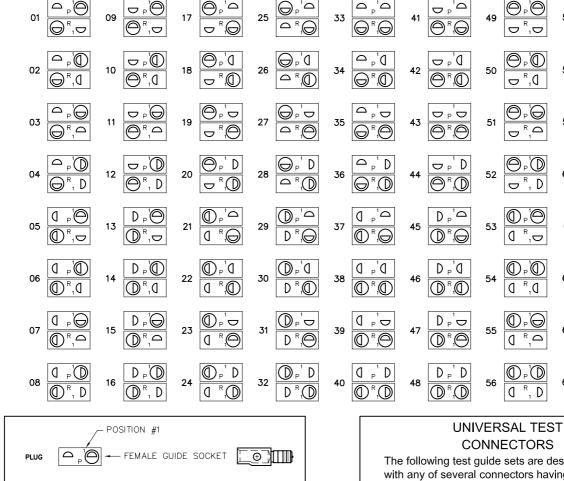
Tin-lead plating thickness: .0006" maximum Electroplated tin-lead composition: 63/37 (Sn/Pb) Finished hole diameter: .028"±.002"

	Copper plating thickness: .0010 minimum				
SIZE	CONTACT ID	SIZE	CONTACT ID		
11	(1)(10)(9)(8) (7)(6)(5) (4)(3)(2)(1)	92	(92)(9)(90)         (64)(63)(62)           (61)(60)(59)         (34)(33)(32)           (31)(30)(29)         (3)(2)(1)		
23	23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	104	(0403)(02         72,71,70           6968)(67         38,37,36           35,34,33         3,2,1		
35	35     34     33     26     25     24       23     22     21     15     14     13       12     11     10     3     2     1	122	(122)(120         84)83         82           (81)80         (79)         (44)43         42           (41)40         (39)         (3)2         1		
47	47     46     45     34     33     32       31     30     29     19     18     17       16     15     14     3     2     1	140	(40)(39)(38)         96)(95)(94)           (93)(92)(91)         (50)(49)(48)           (47)(46)(45)         (3)(2)(1)		
59	\$9\$58         57         42         41         40           39         38         37         23         22         21           20         19         18         3         2         1	152	(52)(5)(50)         (04)(03)(02)           (0)(00)(99)         (54)(53)(52)           (51)(50)(49)         (3)(2)(1)		
71	$\begin{array}{c ccccc} (71) & (70) & (69) & (50) & (49) & (48) \\ (47) & (46) & (45) & (27) & (26) & (25) \\ (24) & (22) & (3) & (2) & (16) $	182	(82(8)(80)         (24)(23)(22)           (12)(20)(119)         64)(63)(62)           (61)(60)(59)         (3)(2)(1)		
80	80     79     78     56     55     54       53     52     51     30     29     28       27     26     25     3     2     1	206	208203204         (40)(139)(138)           (137)(136)(135)         (72)(71)(70)           (69)(68)(67)         (3)(2)(1)		

Ask About AirBorn's Accelerated Delivery Service

# Polarization

# 2 & 3 Row D-Shaped Guide Sets



IIII

For optimum safety, use polarization number 01-06-11-16-17-22-27 or 32 when possible. These positions will exclude entry or guide pins at both ends of connectors when an attempt is made to mate incorrectly.

POSITION #1

- MALE GUIDE PIN

Select the appropriate two digit number above and include as the last two digits of the hardware code in the part number.

## Example:

Plug	RM252-100-311-5501
Receptacle	RM222-100-211-5501

To order polarization guide set only, see catalog page R-42. This set consists of one "D-shaped" guide pin, one "D-shaped" guide socket and two spanner nuts (#2-56 UNC thread).

To change polarization position of guide sets, order spanner nut wrench, part number TN-1680.

The following test guide sets are designed to mate with any of several connectors having different polarization positions. Note that the square quide pin in test connector will enter the D-shaped socket in any of the four positions in which it may be installed. Likewise, the round guide socket in test connector will fit the D-shaped pin in any

position.

AirBorn

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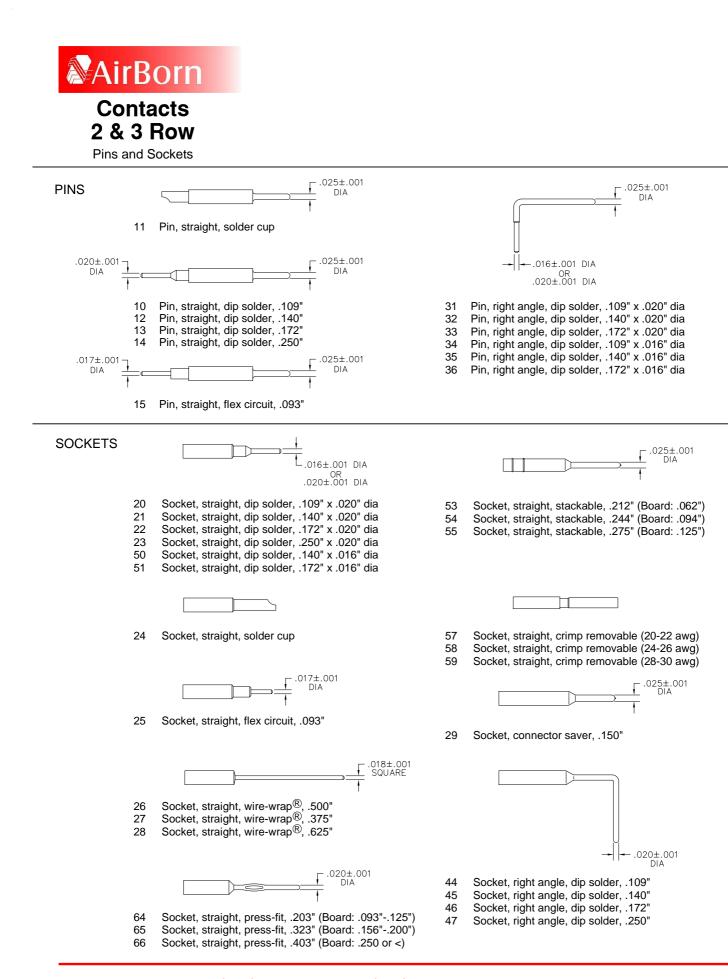
D <sub>P</sub> D

D<sup>R</sup>. D

D R. O

DR

5565 CD8783		For positions 5501 thru 5516	
5566 CD8783		For positions 5517 thru 5532	
5567P CD8784		For positions 5533 thru 5548	
5567R CD7743		For positions 5533 thru 5548	
5568P CD7743	<b>O</b> <sup>°</sup> d	For positions 5549 thru 5564	
5568R CD8784	□ <sup>R</sup> ,□	For positions 5549 thru 5564	
Hardware type shown above catalog order number.			



R-39



# **Military Cross Reference Chart**

# M55302/190, 191, 192, 193

Rows	Series & Body Type	e Number of Contacts	Type of Terminal	Hardware
2	M55302/190L	Sockets	A = 241	X = 5500
	RM222 1	0, 20, 30, 40, 50, 60, 70, 80, 90, 100	) B = 201	Y = 5501
			C = 211	F = 2900
3	M55302/192L	Sockets	D = 221	S = 5900
	RM322	122	E = 251	N = 7600
		152	F = 271	L = 5100
			G = 261	M = 6400
			H = 281	
_			A = 311	X = 5500
2	M55302/191	Pins	B = 321	Y = 5501
	RM252 1	0, 20, 30, 40, 50, 60, 70, 80, 90, 100	) C = 331	F = 2900
				S = 5900
		Pins	A = 311	N = 7600
3	M55302/193	122	B = 321	L = 5100
	RM352	152	C = 331	M = 6400

Hardware Description

## **Terminal Description** Refer 1901 1921

Refer 190L, 192L, 191, 193
Type X = Full round Type Y = "D-shaped"
Type F = Fixed jackset Type S = Short turning hex jackset
Type N = Turning hex jackset Type L = Turning slotted jackset Type M = Short turning slotted jackset

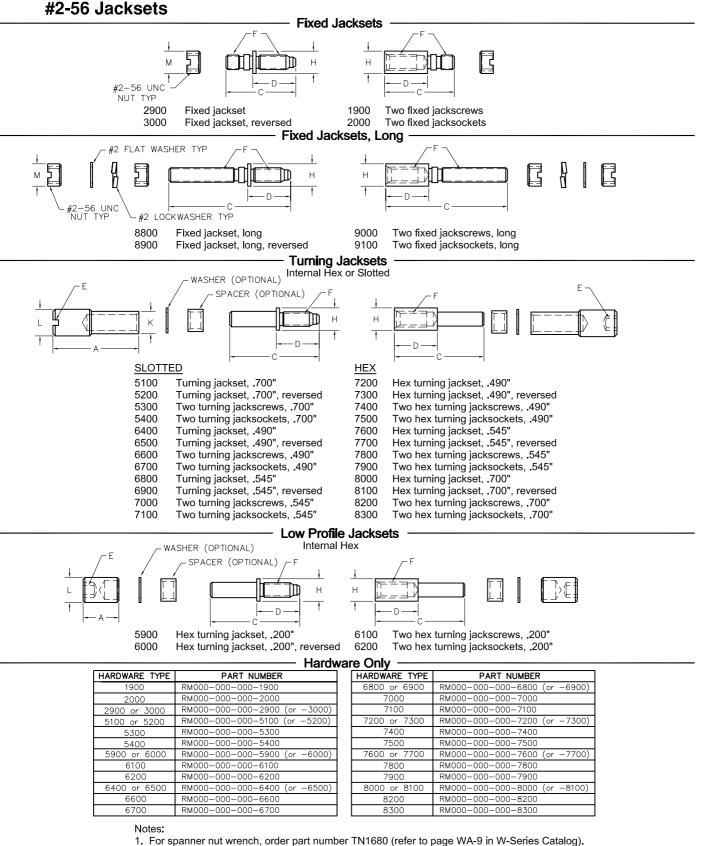
# Refer 191, 193

A = Dip terminal, .109" long B = Dip terminal, .140" long C = Dip terminal, .172" long

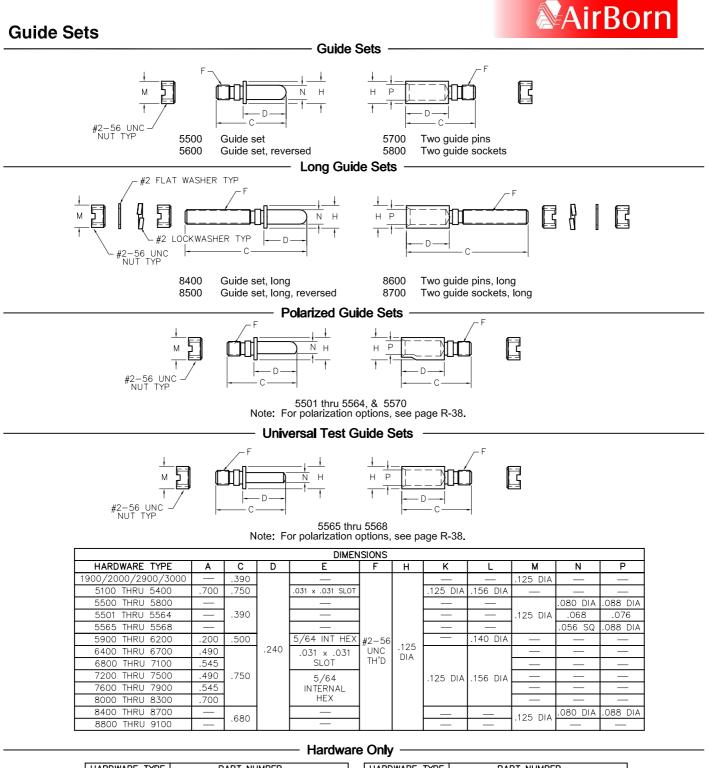
# **Examples: Mating Pair**

Military AirBorn	M55302/190LC100X RM222-100-211-5500	Two row receptacle, .100 socket contacts with dip terminal, .140" long in a straight thru housing with mounting ears and full round guide set.
Military AirBorn	M55302/191A100X RM252-100-311-5500	Two row plug, 100 pin contacts with dip terminals, .109" long in a right angle housing with mounting ears and full round guide set.

AirBorn



- 2. When installing fixed jacksets, apply Loctite<sup>®</sup> to threads.

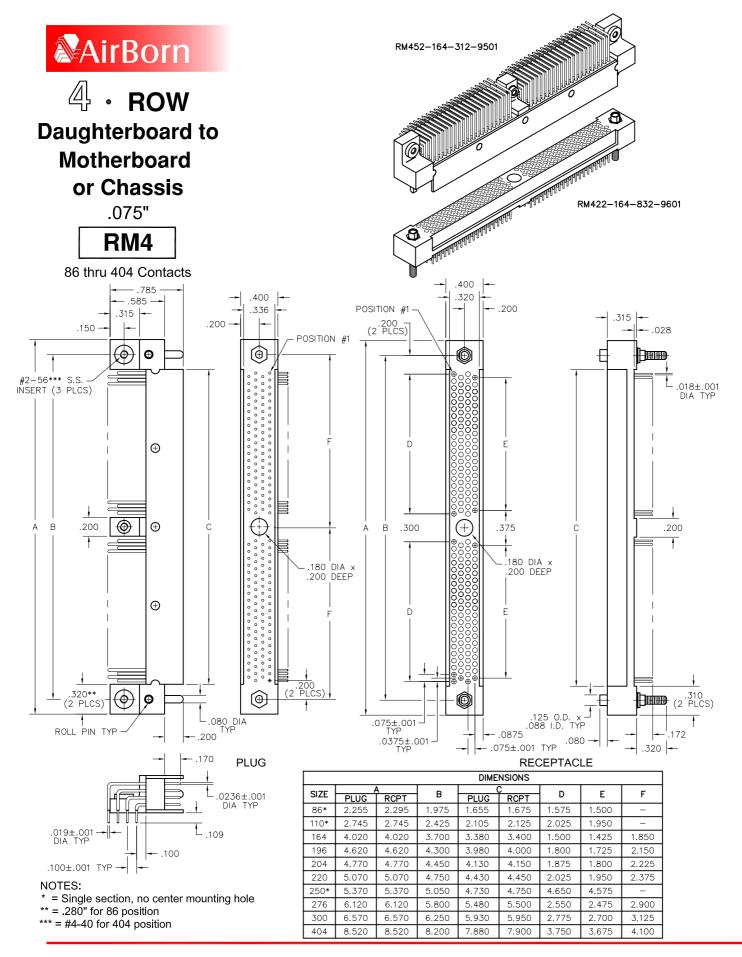


HARDWARE TYPE	PART NUMBER	HARDWARE TYPE	PART NUMBER
5500 or 5600	RM000-000-000-5500 (or -5600)	5570	RM000-000-000-5570
5501 - 5532	RM000-000-000-5501 (thru -5532)	5700	RM000-000-000-5700
5533 - 5548	RM000-000-000-5533 (thru -5548)	5800	RM000-000-000-5800
5549 - 5564	RM000-000-000-5549 (thru -5564)	8400 or 8500	RM000-000-000-8400 (or -8500)
5565 or 5566	RM000-000-000-5565 (or -5566)	8600	RM000-000-000-8600
5568	RM000-000-000-5568	8700	RM000-000-000-8700
5567	RM000-000-000-5567		

To order connector without hardware, place "-0256" in hardware designation area of catalog number

Example: RM322-152-221-0256

Ask About AirBorn's Accelerated Delivery Service





#### PLUG: RM452-164-312-9501 RECEPTACLE: RM422-164-832-9601 XXXXX-XXX-XXX-XXXX PLUG RECEPTACLE SERIES RM .075" Screw Machine PC Connector | RM .075" Screw Machine PC Connector BODY 4-Row 4 4-Row BODY STYLE: BODY STYLE: 2 Receptacle, straight, without mounting ears Plug, right angle, with mounting ears BODY MATERIAL: BODY MATERIAL: Polyphenylene sulfide (PPS) 2 Polyphenylene sulfide (PPS) SIZE 086, 110, 164, 196, 204, 220, 250, 276, 300, 404 086, 110, 164, 196, 204, 220, 250, 276, 300, 404 CONTACTS TYPE CONTACTS/TERMINATIONS: TYPE CONTACTS/TERMINATIONS: 31 Pin, right angle, dip solder, 109" x .019" dia 75 Socket, straight, dip solder, .250" x .018" dia Pin, right angle, dip solder, 140" x .019" dia 76 Socket, straight, solder cup 32 Pin, right angle, dip solder, .172" x .019" dia 77 Socket, straight, flex, .093" x .017" dia 33 Pin, right angle, dip solder, .250" x .019" dia 78 Socket, straight, wire wrap<sup>®</sup>, .500" x .018" sq 34 79 Socket, straight, wire wrap<sup>®</sup>, 375" x 018" sq 81 Socket, straight, dip solder, 109" x 018" dia 82 Socket, straight, dip solder, 140" x 018" dia 83 Socket, straight, dip solder, .172" x .018" dia Socket, straight, press-fit, .188" (Board: .093" - .125" thk) 87 88 Socket, straight, press-fit, .308" (Board: .156" - .200" thk) 89 Socket, straight, press-fit, .388" (Board: .250"+ thk) PLATING OPTIONS: PLATING OPTIONS: Gold plated termination 1 Gold plated termination Pre-tinned termination, SnPb alloy Pre-tinned termination, SnPb alloy (dip solder options only) 2 Pre-tinned termination, SAC305 alloy 3 Pre-tinned termination, SAC305 alloy (dip solder options only) HARDWARE STYLE OF HARDWARE: STYLE OF HARDWARE: 0256 None 0256 None Fixed jackset, reversed, installed Hex turning jackset, reversed, installed, 200 knob 83 82 90 Guide pins, full round, installed Fixed jackset, reversed, installed, #2-56 x .247" thd ext 83 93 Fixed jackset, installed 84 Fixed jackset, reversed, installed, #2-56 x .320" thd ext 95 Guide pins, polarized, unassembled 91 Guide sockets, full round, installed, #2-56 x .247" thd ext Hex turning jackset, installed, 200 knob 9501 - 9536 Guide pins, polarized, installed 92 Guide pins, universal, installed Fixed jackset, installed, #2-56 x .247" thd ext 99 93 94 Fixed jackset, installed, #2-56 x .320" thd ext 96 Guide sockets, polarized, unassembled, #2-56 x .320" thd ext 9601 - 9636 Guide sockets, polarized, installed, #2-56 x .320" thd ext Guide sockets, polarized, unassembled, #2-56 x .247" thd ext 97 9701 - 9736 Guide sockets, polarized, installed, #2-56 x .247" thd ext 98 Guide sockets, universal, installed, #2-56 x .247" thd ext POLARIZATION: POLARIZATION

☑ = Option not RoHS compliant

thru 36 are special identifiers, see page R-57

REV J CTR040

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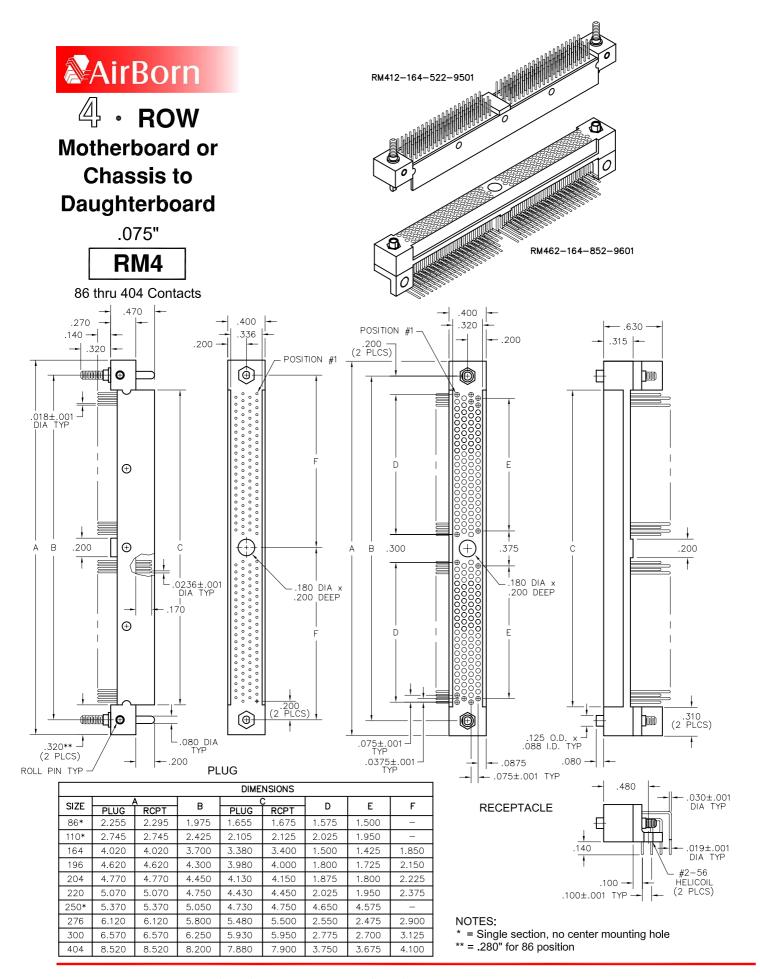
None

None

thru 36 are special identifiers, see page R-57

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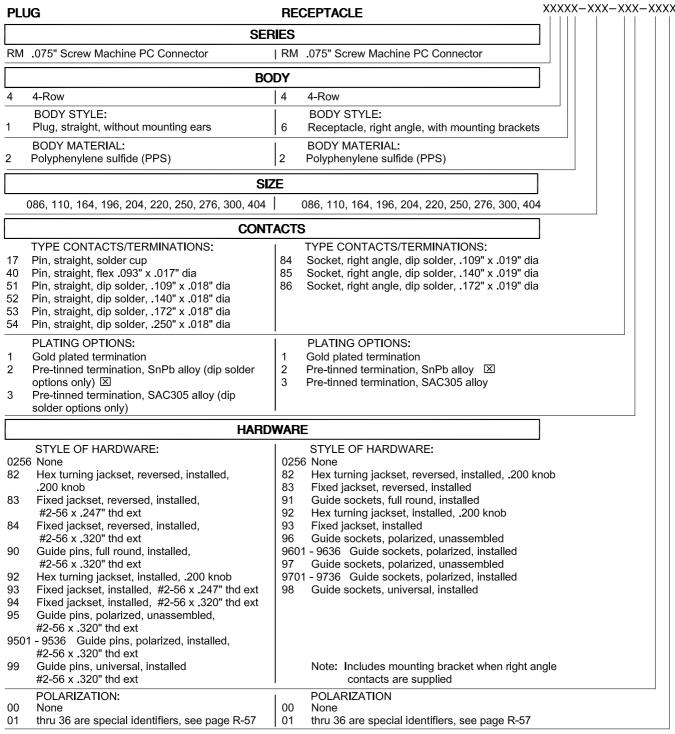


"R" Series Connectors R-45

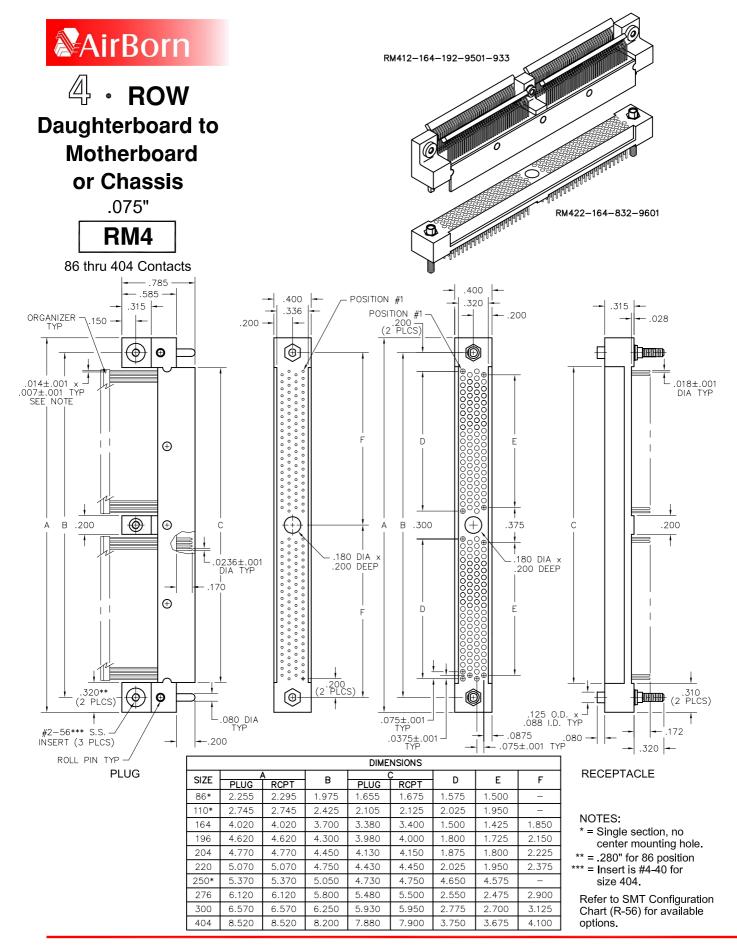


PLUG: RM412-164 RECEPTACLE: RM462-164

RM412-164-522-9501 RM462-164-852-9601 XXXXX-XXX-XXX-XXXX



 $\boxtimes$  = Option not RoHS compliant

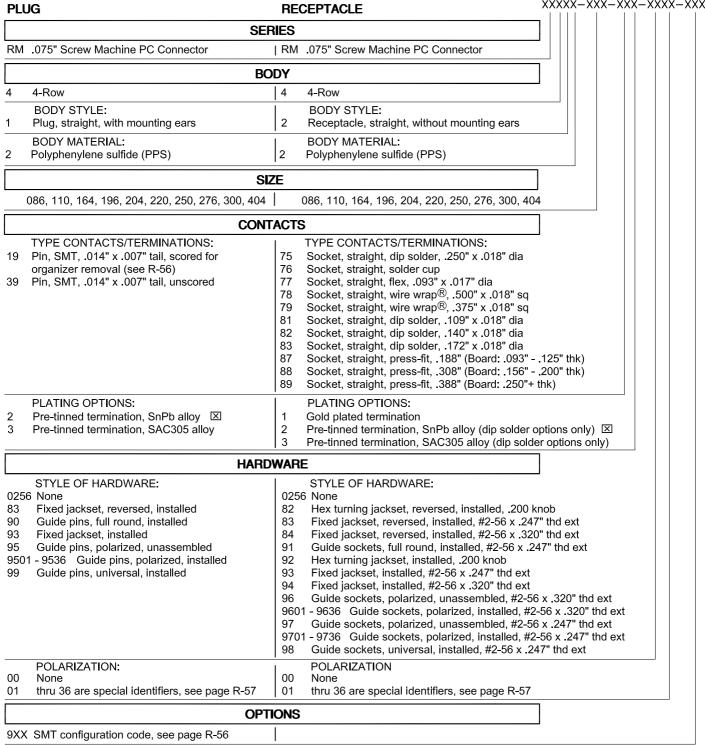


"R" Series Connectors R-47

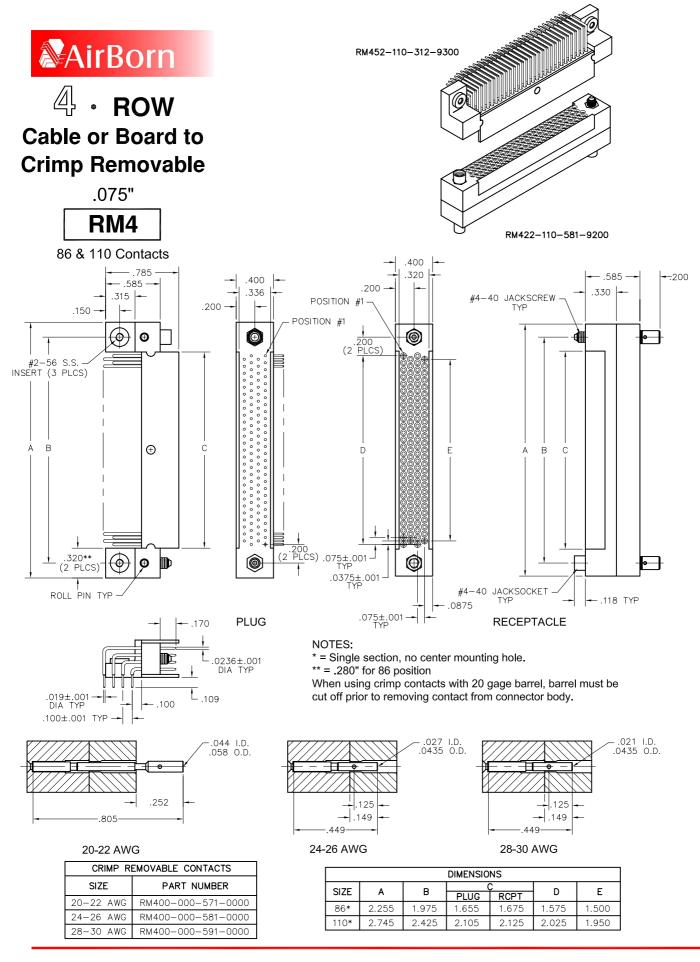


#### PLUG: RM412-164-192-9501-933 RECEPTACLE:

RM422-164-832-9601 XXXXX-XXX-XXX-XXXX-XXX



☑ = Option not RoHS compliant





PLUG: RM452-110-312-9300 **RECEPTACLE:** RM422-110-581-9200

PLU	IG	RECEPTACLE	XXXXX-XXX-XXX-XXX
	SE	IES	$\neg                          $
RM	.075" Screw Machine PC Connector	RM .075" Screw Machine PC Connector	
	B	DY	
4	4-Row	4 4-Row	
5	BODY STYLE: Plug, right angle, with mounting ears	BODY STYLE: 2 Receptacle, straight, without mounting ears	
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	BODY MATERIAL: 2 Polyphenylene sulfide (PPS)	
	S	Æ	
	086, 110	086, 110	
	CON	ACTS	
31 32 33 34	TYPE CONTACTS/TERMINATIONS: Pin, right angle, dip solder, .109" x .019" dia Pin, right angle, dip solder, .140" x .019" dia Pin, right angle, dip solder, .172" x .019" dia Pin, right angle, dip solder, .250" x .019" dia	TYPE CONTACTS/TERMINATIONS: 00 Contacts not supplied 57 Socket, straight, crimp removable (20-22 AWC 58 Socket, straight, crimp removable (24-26 AWC 59 Socket, straight, crimp removable (28-30 AWC	G)*
1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy IX Pre-tinned termination, SAC305 alloy	PLATING OPTIONS: 0 No plating (use with Contact Option "00" only) 1 Gold plated termination	
	HARI	WARE	
83 90 93 95	STYLE OF HARDWARE: 5 None Fixed jackset, reversed, installed Guide pins, full round, installed Fixed jackset, installed Guide pins, polarized, unassembled 1 - 9536 Guide pins, polarized, installed Guide pins, universal, installed	STYLE OF HARDWARE: 0256 None 82 Hex turning jackset, reversed, installed, .200 91 Guide sockets, full round, installed 92 Hex turning jackset, installed, .200" knob 96 Guide sockets, polarized, unassembled 9601 - 9636 Guide sockets, polarized, installed 98 Guide sockets, universal, installed	knob
00	POLARIZATION: None thru 36 are special identifiers, see page R-57	POLARIZATION 00 None 01 thru 36 are special identifiers, see page R-57	,

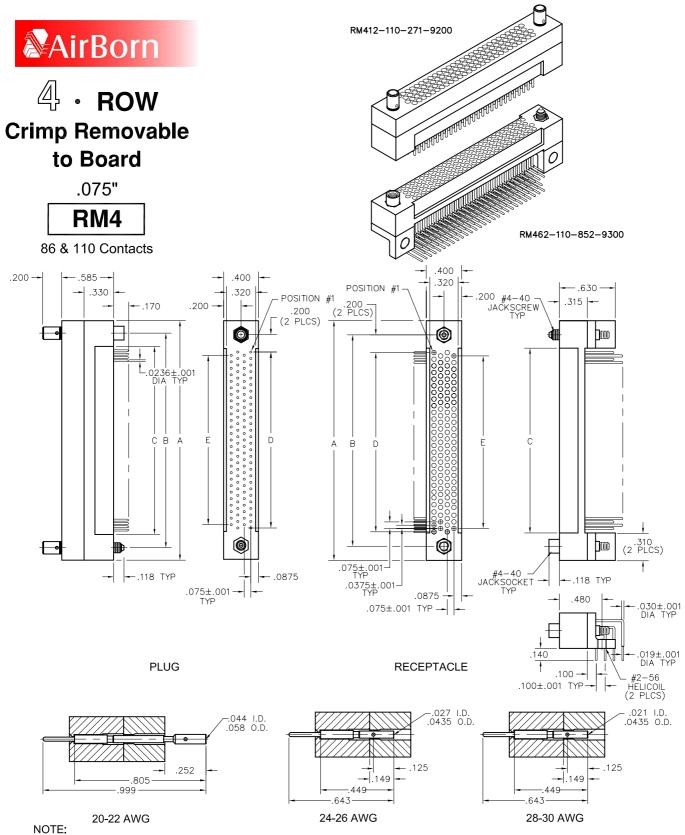
\* Full compliment of crimp removable sockets packaged with connectors
 1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number M22520/2-01

2. Crimp positioner - AirBorn part number: CDG4602 (24-26 AWG and 28-30 AWG) CDG4603 (20-22 AWG)

3. Crimp removal tool - AirBorn part number: CDG8161 (All AWGs)

4. Crimp contact part number on previous page.

⊠ = Option not RoHS compliant



When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

CRIMP R	EMOVABLE CONTACTS	DIMENSIONS						
SIZE	PART NUMBER	SIZE	A	в			D	
20-22 AWG	DM400 000 061 0000			-	PLUG	RCPT	-	
ZU-ZZ AWG	RM400-000-261-0000	86	2.255	1.975	1.655	1.675	1.575	1.
24-26 AWG	RM400-000-271-0000	110	2.745	2.425	2.105	2.125	2.025	1.
28-30 AWG	RM400-000-281-0000							

**E** .500 .950



PLUG: RM412-110-271-9200 RECEPTACLE: RM462-110-852-9300 XXXXX-XXX-XXX-XXXX PLUG RECEPTACLE SERIES | RM .075" Screw Machine PC Connector RM .075" Screw Machine PC Connector BODY 4-Row 4 4-Row 4 BODY STYLE: BODY STYLE: Plug, straight, without mounting ears 6 Receptacle, right angle, with mounting ears 1 BODY MATERIAL: BODY MATERIAL: 2 Polyphenylene sulfide (PPS) 2 Polyphenylene sulfide (PPS) SIZE 086, 110 086, 110 CONTACTS TYPE CONTACTS/TERMINATIONS: TYPE CONTACTS/TERMINATIONS: 00 Contacts not supplied 84 Socket, right angle, dip solder, 109" x .019" dia Pin, straight, crimp removable (20-22 AWG)\* 85 Socket, right angle, dip solder, 140" x 019" dia 26 Pin, straight, crimp removable (24-26 AWG)\* Socket, right angle, dip solder, .172" x .019" dia 27 86 Pin, straight, crimp removable (28-30 AWG)\* 28 PLATING OPTIONS: PLATING OPTIONS: No plating (use with Contact Option "00" only) Gold plated termination 0 1 Gold plated termination Pre-tinned termination, SnPb alloy 1 2 3 Pre-tinned termination, SAC305 alloy HARDWARE STYLE OF HARDWARE: STYLE OF HARDWARE: 0256 None 0256 None Hex turning jackset, reversed, installed, .200 knob Hex turning jackset, reversed, installed, 82 82 .200" knob 83 Fixed jackset, reversed, installed, #2-56 x .247 thd ext Fixed jackset, reversed, installed, 83 84 Fixed jackset, reversed, installed, #2-56 x .320 thd ext Guide pins, full round, installed 91 Guide sockets, full round, installed, #2-56 x .247" thd ext 90 Hex turning jackset, installed, 200" knob Hex turning jackset, installed, 200 knob 92 92 Fixed jackset, installed Fixed jackset, installed, #2-56 x .247" thd ext 93 93 95 Guide pins, polarized, unassembled 94 Fixed jackset, installed, #2-56 x .320" thd ext 9501 - 9536 Guide pins, polarized, installed 96 Guide sockets, polarized, unassembled, #2-56 x .320" thd ext Guide pins, universal, installed 9601 - 9636 Guide sockets, polarized, installed, #2-56 x .320" thd ext 99 97 Guide sockets, polarized, unassembled, #2-56 x .247" thd ext 9701 - 9736 Guide sockets, polarized, installed, #2-56 x .247" thd ext Guide sockets, universal, installed, #2-56 x .247" thd ext 98 Note: Includes mounting bracket when right angle contacts are supplied POLARIZATION: POLARIZATION 00 00 None None

01 thru 36 are special identifiers, see page R-57 01 thru 36 are special identifiers, see page R-57

\* Full compliment of crimp removable sockets packaged with connectors

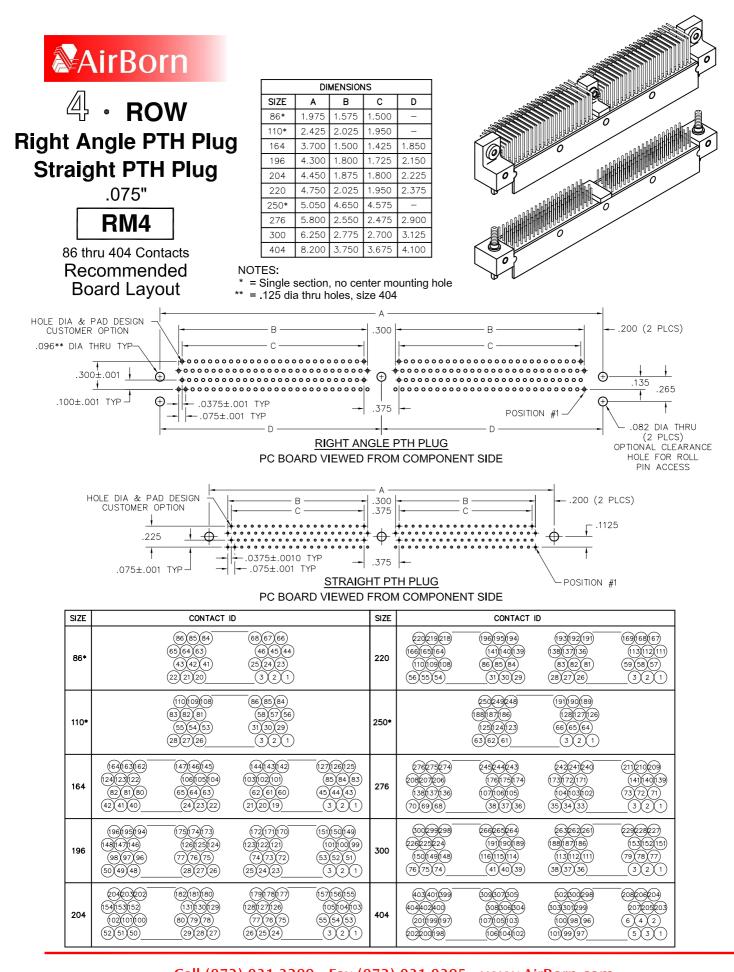
1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number M22520/2-01

2. Crimp positioner - AirBorn part number: CDG4602 (24-26 AWG and 28-30 AWG)

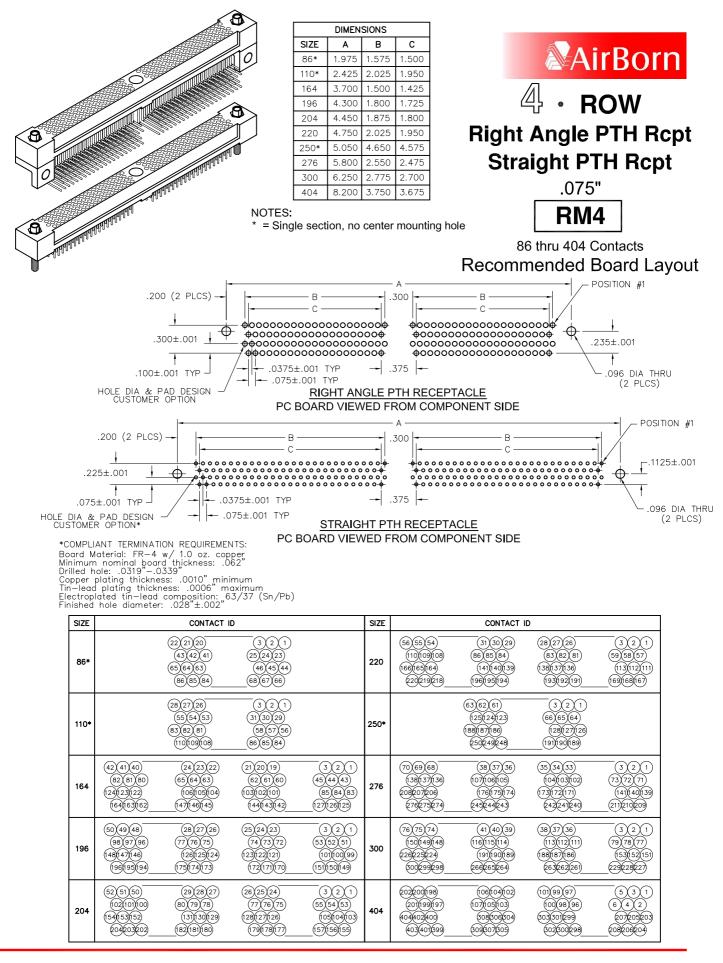
CDG4603 (20-22 AWG) 3. Crimp removal tool - AirBorn part number: CDG8161 (All AWGs)

Crimp removal tool - AirBorn part number. CDG8161 (Ai
 Crimp contact part number on previous page.

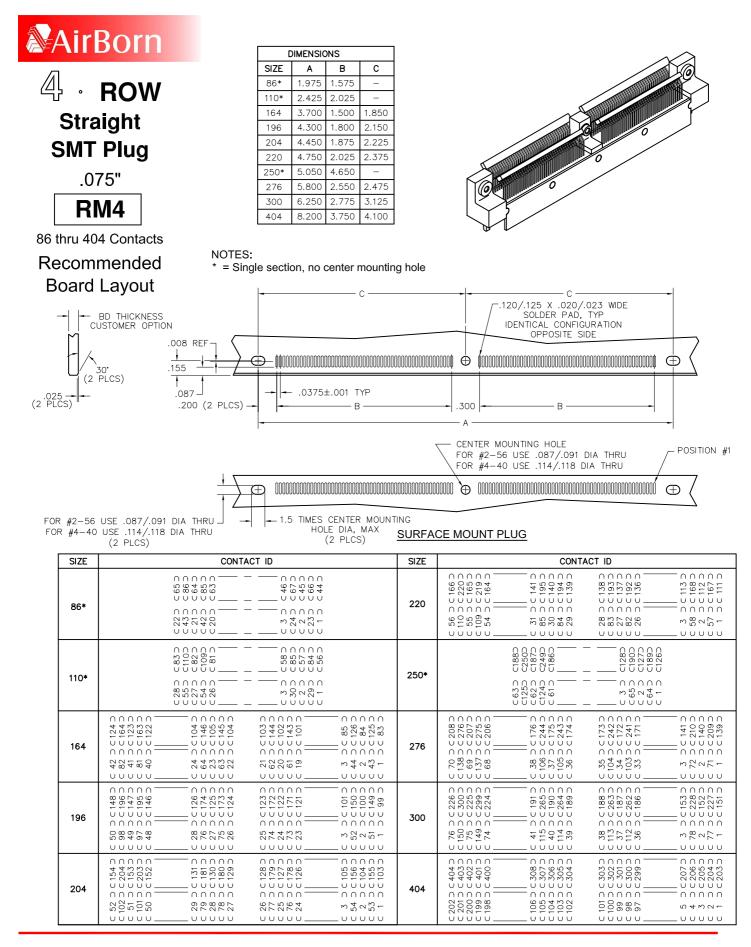
⊠ = Option not RoHS compliant

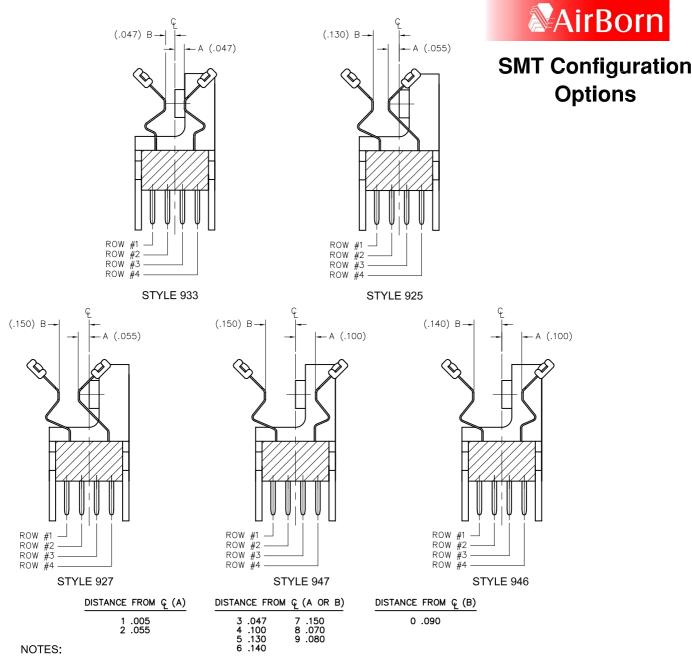


"R" Series Connectors R-53



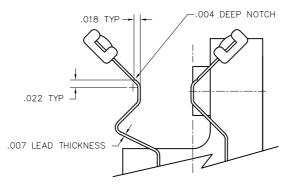
Ask About AirBorn's Accelerated Delivery Service





1. Various board thicknesses can be accommodated by specifying A and B designators. For example: 9 (A)(B)

2. Consult factory for other available options.



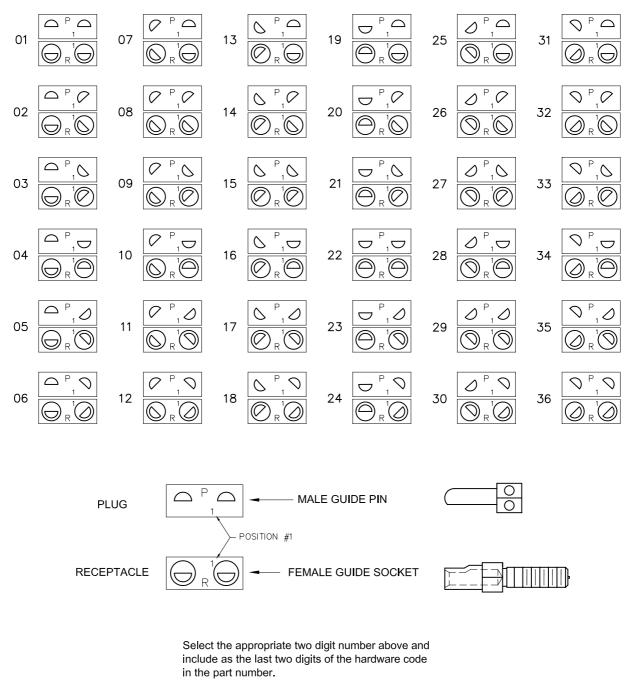
CONTACT NOTCH DETAIL

Ask About AirBorn's Accelerated Delivery Service



# Polarization 4 Row and 6 Row

D-Shaped Guide Hardware



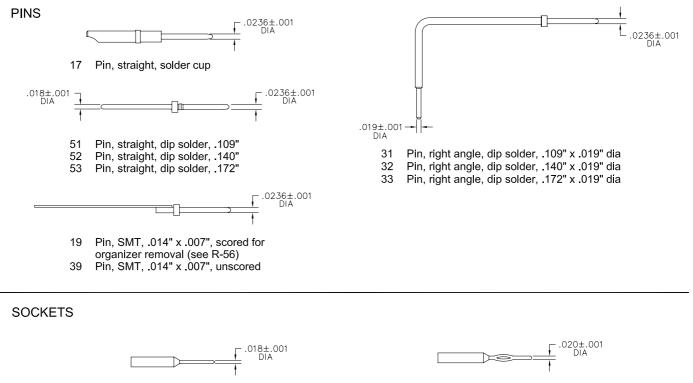
Example: Plug Receptacle

RM452-220-311-95<u>01</u> RM462-220-811-96<u>01</u>



# **Contacts** 4 Row

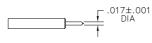
Pins and Sockets



- 75 Socket, straight, dip solder, 250"
- 81 Socket, straight, dip solder, 109"
- 82 Socket, straight, dip solder, 140"
- 83 Socket, straight, dip solder, .172"



76 Socket, straight, solder cup



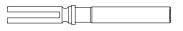
77 Socket, straight, flex circuit, .093"



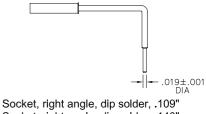
- Socket, straight, wire-wrap  $^{I\!\!R}$  , .500" Socket, straight, wire-wrap  $^{I\!\!R}$  , .375" 78 79



- 87 Socket, straight, press-fit, 188" (Board: 093"- 125")
- Socket, straight, press-fit, .308" (Board: .156"-.200") 88
- 89 Socket, straight, press-fit, .388" (Board: .250 or <)

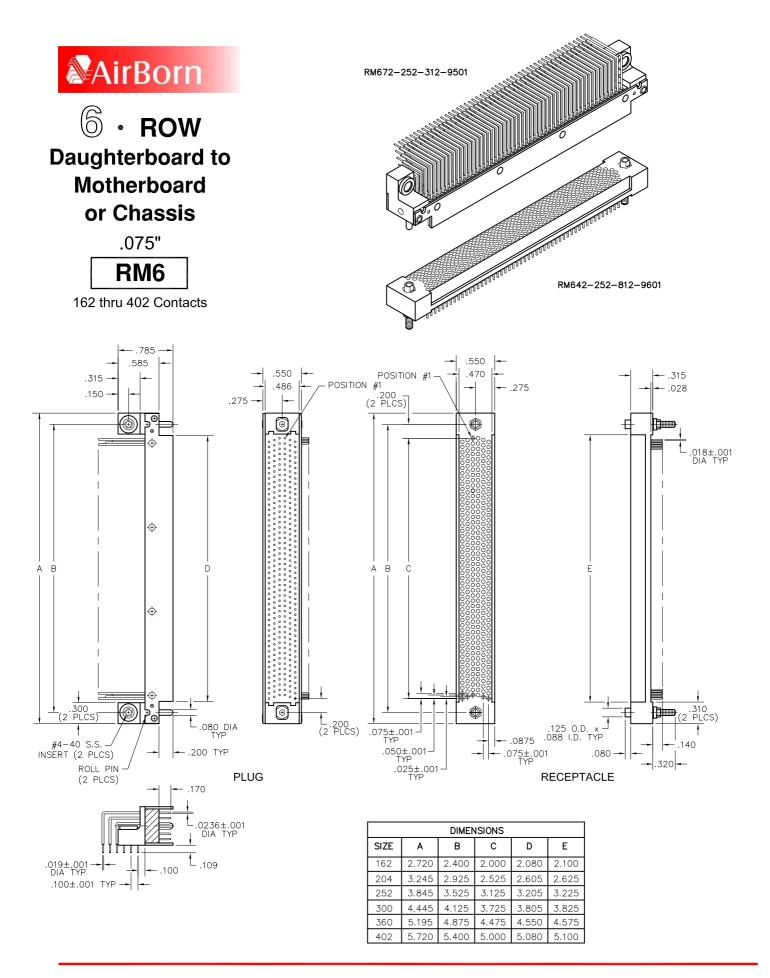


- Socket, straight, crimp removable (20-22 awg) 57
- 58 Socket, straight, crimp removable (24-26 awg)
- 59 Socket, straight, crimp removable (28-30 awg)



- 85 Socket, right angle, dip solder, .140"
- 86 Socket, right angle, dip solder, .172"

84

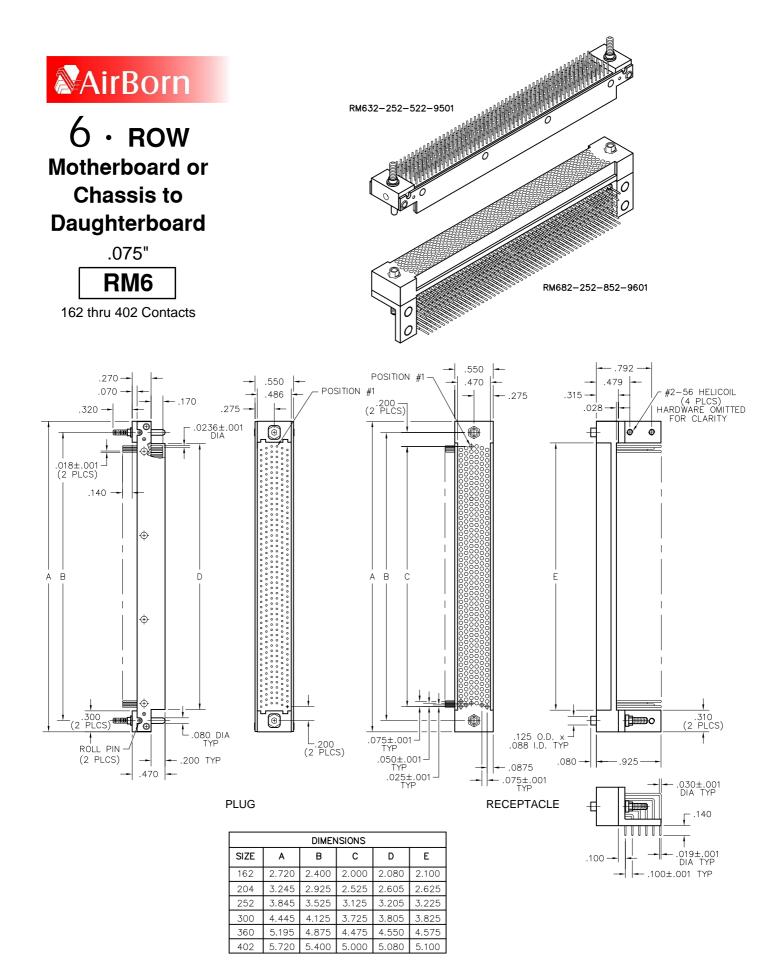




PLUG: RM672-252-312-9501

			RECEPTACLE:	RM642-252-812-	
PLL	IG	BE	CEPTACLE	XXXXX-XXX-XXX-	
				<b>-</b>	
		RIES			
RM	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector		
	BC	DY			
6	6-Row	6	6-Row		
7	BODY STYLE: Plug, right angle, with mounting ears	4	BODY STYLE: Receptacle, straight, with mounting ears		
	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)		
	Si	ZE		]	
	162, 204, 252, 300, 360, 402		162, 204, 252, 300, 360, 402		
	CONT	ACTS	<u> </u>	7	
31 32 33 34	TYPE CONTACTS/TERMINATIONS: Pin, right angle, dip solder, .109" x .019" dia Pin, right angle, dip solder, .140" x .019" dia Pin, right angle, dip solder, .172" x .019" dia Pin, right angle, dip solder, .250" x .019" dia	75 76 77 81 82 83 87 88 89	TYPE CONTACTS/TERMINATIONS: Socket, straight, dip solder, .250" x .018" dia Socket, straight, solder cup Socket, straight, flex, .093" x .017" dia Socket, straight, dip solder, .109" x .018" dia Socket, straight, dip solder, .140" x .018" dia Socket, straight, dip solder, .172" x .018" dia Socket, straight, press-fit, .188" (Board: .093" - Socket, straight, press-fit, .308" (Board: .156" - Socket, straight, press-fit, .388" (Board: .250"+	200" thk)	
1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy ⊠ Pre-tinned termination, SAC305 alloy	   1   2   3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy (dip solder of Pre-tinned termination, SAC305 alloy (dip sold		
	HARD	WAR	E		
83 90 93 95	STYLE OF HARDWARE: None Fixed jackset, reversed, installed Guide pins, full round, installed Fixed jackset, installed Guide pins, polarized, unassembled I - 9536 Guide pins, polarized, installed Guide pins, universal, installed	82 83 84 91 92 93 94 96 960 97	STYLE OF HARDWARE: 6 None Hex turning jackset, reversed, installed, .200 H Fixed jackset, reversed, installed, #2-56 x .24 Fixed jackset, reversed, installed, #2-56 x .32 Guide sockets, full round, installed, #2-56 x .32 Hex turning jackset, installed, .200 knob Fixed jackset, installed, #2-56 x .247" thd ext Fixed jackset, installed, #2-56 x .320" thd ext Guide sockets, polarized, unassembled, #2-51 1 - 9636 Guide sockets, polarized, installed, #2 Guide sockets, polarized, unassembled, #2-51 1 - 9736 Guide sockets, polarized, installed, #2 Guide sockets, universal, installed, #2-56 x .2	7" thd ext 0" thd ext 247" thd ext 6 x .320" thd ext 2-56 x .320" thd ext 6 x .247" thd ext 2-56 x .247" thd ext	
00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57	00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57		1

⊠ = Option not RoHS compliant

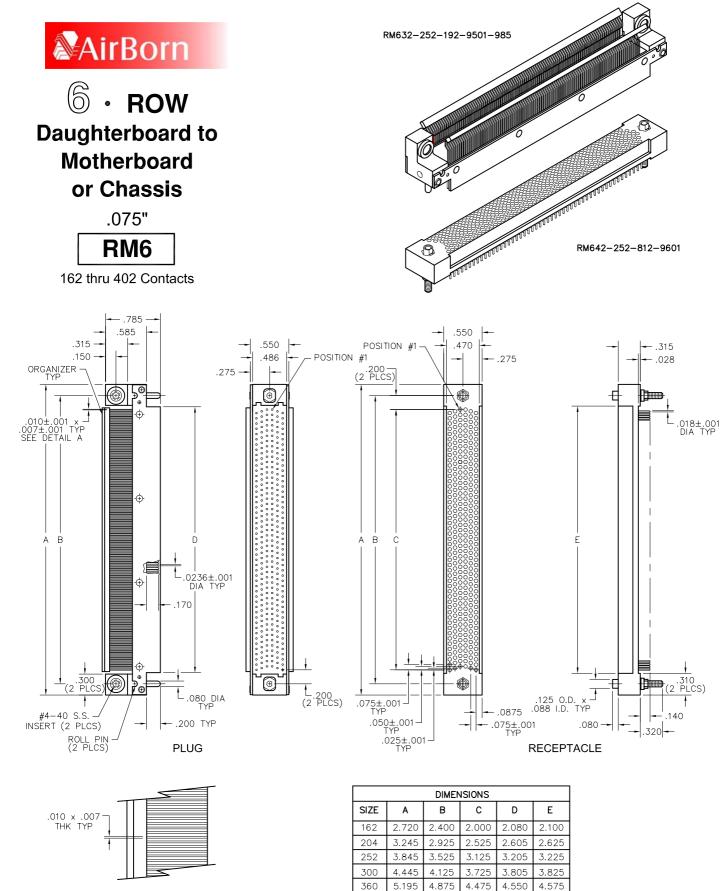


Call (972) 931-3200 Fax (972) 931-9305 www.AirBorn.com "R" Series Connectors R-61



			PLUG: RECEPTACLE:	RM632-252-522-9501 RM682-252-852-9601
PLU	IG	REC	CEPTACLE	_ XXXXX—XXX—XXX—XXXX _
	SER	IES		
RM	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector	
	BO	DY		
6	6-Row	6	6-Row	
3	BODY STYLE: Plug, straight, without mounting ears	8	BODY STYLE: Receptacle, right angle, with mounting brackets	5
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)	
	SIZ	Έ		
	162, 204, 252, 300, 360, 402		162, 204, 252, 300, 360, 402	
	CONT	ACTS		ון ון ייד ד
17 40 51 52 53 54	TYPE CONTACTS/TERMINATIONS: Pin, straight, solder cup Pin, straight, flex .093" x .017" dia Pin, straight, dip solder, .109" x .018" dia Pin, straight, dip solder, .140" x .018" dia Pin, straight, dip solder, .172" x .018" dia Pin, straight, dip solder, .250" x .018" dia	84 85 86	TYPE CONTACTS/TERMINATIONS: Socket, right angle, dip solder, .109" x .019" dia Socket, right angle, dip solder, .140" x .019" dia Socket, right angle, dip solder, .172" x .019" dia	a
1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy (dip solder options only) ⊠ Pre-tinned termination, SAC305 alloy (dip solder options only)	1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy IX Pre-tinned termination, SAC305 alloy	
	HARD	WARI	E	
82 83 84 90 92 93 94 95	STYLE OF HARDWARE: None Hex turning jackset, reversed, installed, .200 knob Fixed jackset, reversed, installed #2-56 x .247" thd ext Fixed jackset, reversed, installed #2-56 x .320" thd ext Guide pins, full round, installed #2-56 x .320" thd ext Hex turning jackset, installed, .200 knob Fixed jackset, installed, #2-56 x .320" thd ext Fixed jackset, installed, #2-56 x .320" thd ext Guide pins, polarized, unassembled, #2-56 x .320" thd ext - 9536 Guide pins, polarized, installed, #2-56 x .000" thd ext	82 83 91 92 93 96 960 97	STYLE OF HARDWARE: 6 None Hex turning jackset, reversed, installed, .200 k Fixed jackset, reversed, installed Guide sockets, full round, installed Hex turning jackset, installed, .200 knob Fixed jackset, installed Guide sockets, polarized, unassembled 1 - 9636 Guide sockets, polarized, installed Guide sockets, polarized, unassembled 1 - 9736 Guide sockets, polarized, installed Guide sockets, universal, installed	nob
99	#2-56 x .320" thd ext Guide pins, universal, installed #2-56 x .320" thd ext		Note: Includes mounting bracket when right a contacts are supplied	ngle
00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57	00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57	

 $\boxtimes$  = Option not RoHS compliant



DETAIL A

Call (972) 931-3200 · Fax (972) 931-9305 · www.AirBorn.com

5.720

5.400

5.000

5.080

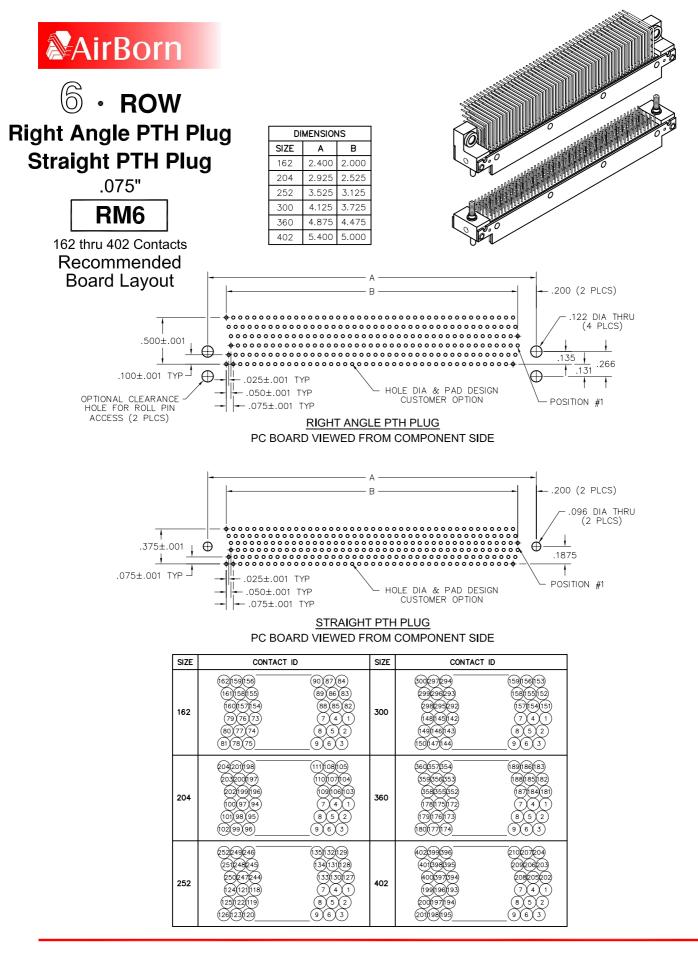
5.100

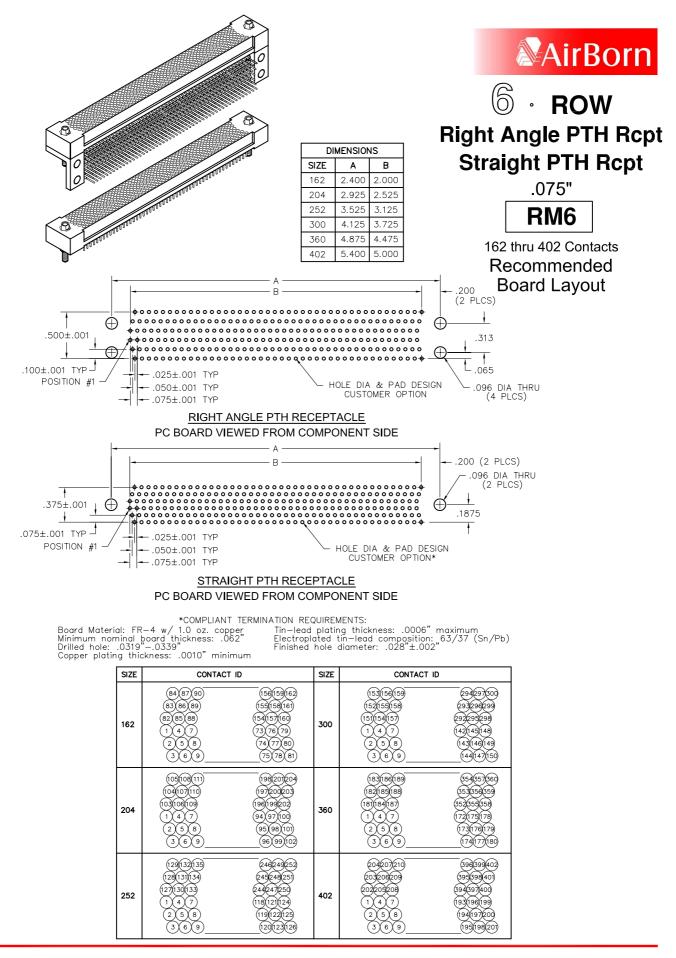
402



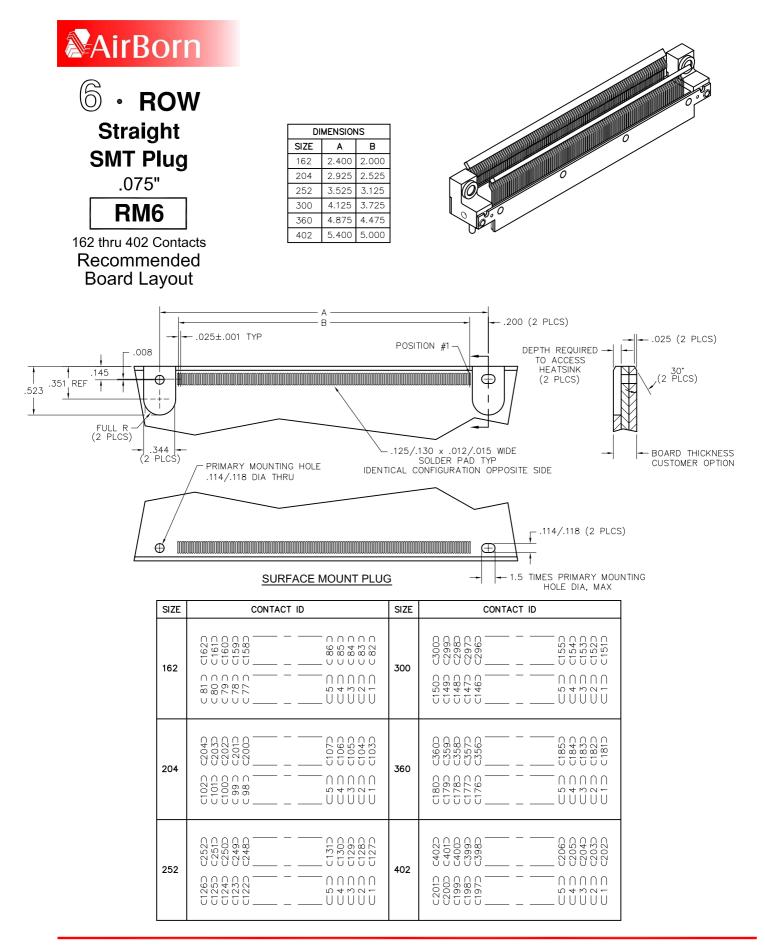
			PLUG: RECEPTACLE:	RM632-252-192-9501-985 RM642-252-812-9601
PLU	G	RE	CEPTACLE	xxxxx-xxx-xxxx-xxxx-xxx
	SEF			
RM	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector	
	BC	DY		$\overline{1}$
6	6-Row	6	6-Row	
3	BODY STYLE: Plug, straight, with mounting ears	4	BODY STYLE: Receptacle, straight, with mounting ears	
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)	
	Si	ZE		7
	162, 204, 252, 300, 360, 402		162, 204, 252, 300, 360, 402	
	CONT	ACT	S	<u> </u>
	TYPE CONTACTS/TERMINATIONS: Pin, SMT, .014" x .007" tail, scored for organizer removal (see R-56) Pin, SMT, .014" x .007" tail, unscored	75 76 77 81 82 83 83 87 88 88	TYPE CONTACTS/TERMINATIONS: Socket, straight, dip solder, .250" x .018" dia Socket, straight, solder cup Socket, straight, flex, .093" x .017" dia Socket, straight, dip solder, .109" x .018" dia Socket, straight, dip solder, .140" x .018" dia Socket, straight, dip solder, .172" x .018" dia Socket, straight, press-fit, .188" (Board: .093" Socket, straight, press-fit, .308" (Board: .156" Socket, straight, press-fit, .388" (Board: .250"+	200" thk)
2 3	PLATING OPTIONS: Pre-tinned termination, SnPb alloy ⊠ Pre-tinned termination, SAC305 alloy	1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy (dip solder Pre-tinned termination, SAC305 alloy (dip sold	
	HARD	WAR	E	
83 90 93 95	STYLE OF HARDWARE: None Fixed jackset, reversed, installed Guide pins, full round, installed Fixed jackset, installed Guide pins, polarized, unassembled I - 9536 Guide pins, polarized, installed Guide pins, universal, installed	82 83 84 91 92 93 94 96 960 97	STYLE OF HARDWARE: 6 None Hex turning jackset, reversed, installed, .200 Fixed jackset, reversed, installed, #2-56 x .24 Fixed jackset, reversed, installed, #2-56 x .32 Guide sockets, full round, installed, #2-56 x .32 Hex turning jackset, installed, .200 knob Fixed jackset, installed, #2-56 x .247" thd ext Fixed jackset, installed, #2-56 x .320" thd ext Guide sockets, polarized, unassembled, #2-51 1 - 9636 Guide sockets, polarized, installed, #2-51 1 - 9736 Guide sockets, polarized, unassembled, #2-51 1 - 9736 Guide sockets, polarized, installed, #2-56 Guide sockets, universal, installed, #2-56 x .22	17" thd ext         20" thd ext         247" thd ext         56 x .320" thd ext         2-56 x .320" thd ext         56 x .247" thd ext         2-56 x .247" thd ext
00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57	00	POLARIZATION: None thru 36 are special identifiers, see page R-57	
<u> </u>	OPT			
377	SMT configuration code, see page R-56	1		

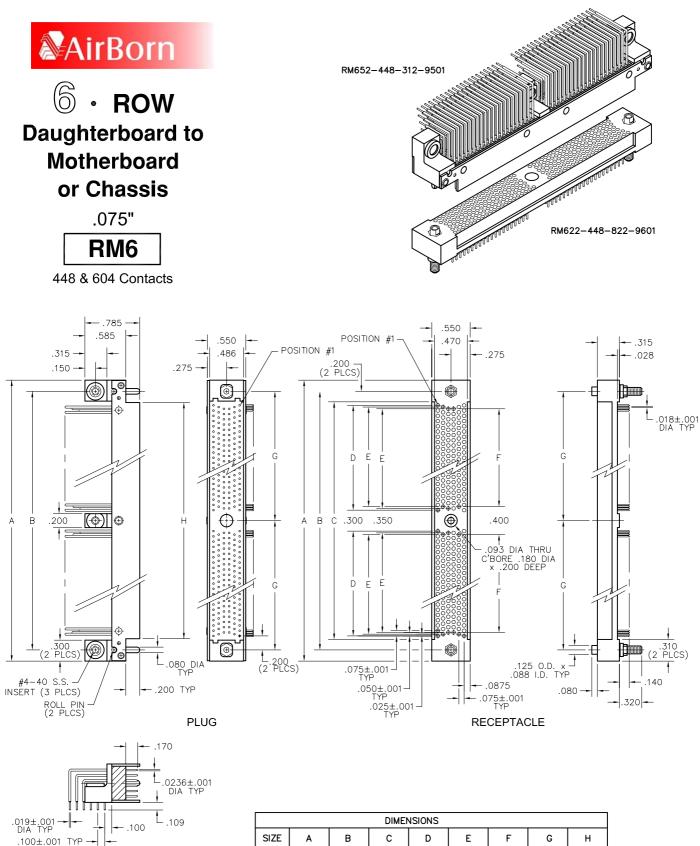
⊠ = Option not RoHS compliant





Ask About AirBorn's Accelerated Delivery Service



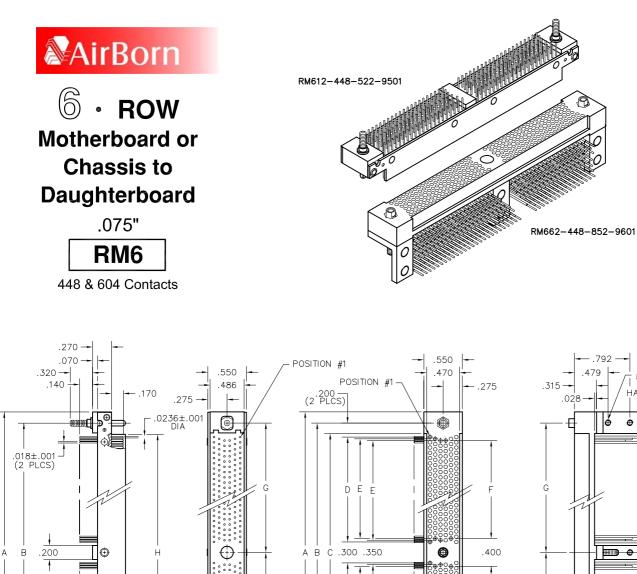


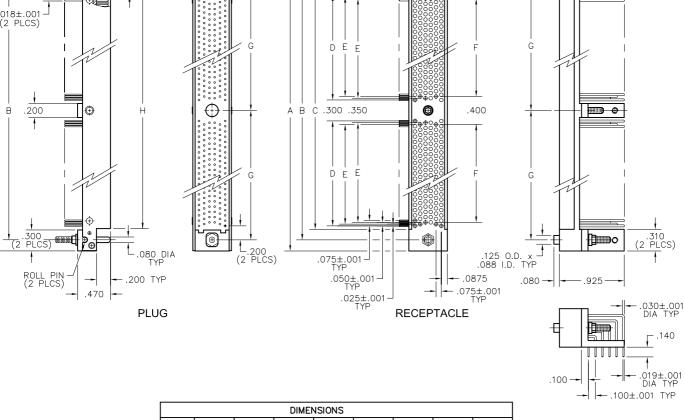
	DIMENSIONS										
SIZE	A	В	С	D	Е	F	G	н			
448	6.570	6.250	5.950	2.775	2.700	2.675	3.125	5.930			
604	8.520	8.200	7.900	3.750	3.675	3.650	4.100	7.880			



PLU	G	PLUG: RM652-448-312-9501 RECEPTACLE: RM622-448-822-9601 XXXXX-XXX-XXX-XXX
	SER	RIES
RM	.075" Screw Machine PC Connector	RM .075" Screw Machine PC Connector
	BO	
6	6-Row	6 6-Row
5	BODY STYLE: Plug, right angle, with mounting ears	BODY STYLE: 2 Receptacle, straight, with mounting ears
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	BODY MATERIAL: 2 Polyphenylene sulfide (PPS)
	SIZ	ZE
	148, 604	448, 604
	CONT	TACTS
31 32 33	TYPE CONTACTS/TERMINATIONS: Pin, right angle, dip solder, .109" x .019" dia Pin, right angle, dip solder, .140" x .019" dia Pin, right angle, dip solder, .172" x .019" dia Pin, right angle, dip solder, .250" x .019" dia	TYPE CONTACTS/TERMINATIONS:75Socket, straight, dip solder, .250" x .018" dia76Socket, straight, solder cup77Socket, straight, flex, .093" x .017" dia81Socket, straight, dip solder, .109" x .018" dia82Socket, straight, dip solder, .140" x .018" dia83Socket, straight, dip solder, .172" x .018" dia86Socket, straight, press-fit, .188" (Board: .093"125" thk)88Socket, straight, press-fit, .308" (Board: .156"200" thk)89Socket, straight, press-fit, .388" (Board: .250"+ thk)
1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy Pre-tinned termination, SAC305 alloy	PLATING OPTIONS:         1       Gold plated termination         2       Pre-tinned termination, SnPb alloy (dip solder options only)         3       Pre-tinned termination, SAC305 alloy (dip solder options only)
	HARD	DWARE
83 90 93 95	STYLE OF HARDWARE: 5 None Fixed jackset, reversed, installed Guide pins, full round, installed Fixed jackset, installed Guide pins, polarized, unassembled - 9536 Guide pins, polarized, installed Guide pins, universal, installed	STYLE OF HARDWARE: 0256 None 82 Hex turning jackset, reversed, installed, .200 knob 83 Fixed jackset, reversed, installed, #4-40 x .247" thd ext 84 Fixed jackset, reversed, installed, #4-40 x .320" thd ext 91 Guide sockets, full round, installed, #4-40 x .247" thd ext 92 Hex turning jackset, installed, .200 knob 93 Fixed jackset, installed, #4-40 x .247" thd ext 94 Fixed jackset, installed, #4-40 x .320" thd ext 95 Guide sockets, polarized, unassembled, #4-40 x .320" thd ext 96 Guide sockets, polarized, unassembled, #4-40 x .320" thd ext 97 Guide sockets, polarized, unassembled, #4-40 x .320" thd ext 9701 - 9736 Guide sockets, polarized, installed, #4-40 x .247" thd ext 98 Guide sockets, universal, installed, #4-40 x .247" thd ext
00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57	POLARIZATION: 00 None 01 thru 36 are special identifiers, see page R-57

⊠ = Option not RoHS compliant





	DIMENSIONS										
	SIZE	A	В	С	D	Е	F	G	Н		
	448	6.570	6.250	5.950	2.775	2.700	2.675	3.125	5.930		
	604	8.520	8.200	7.900	3.750	3.675	3.650	4.100	7.880		
1	004	0.520	0.200	7.300	5.750	5.075	5.050	4.100	7.00		

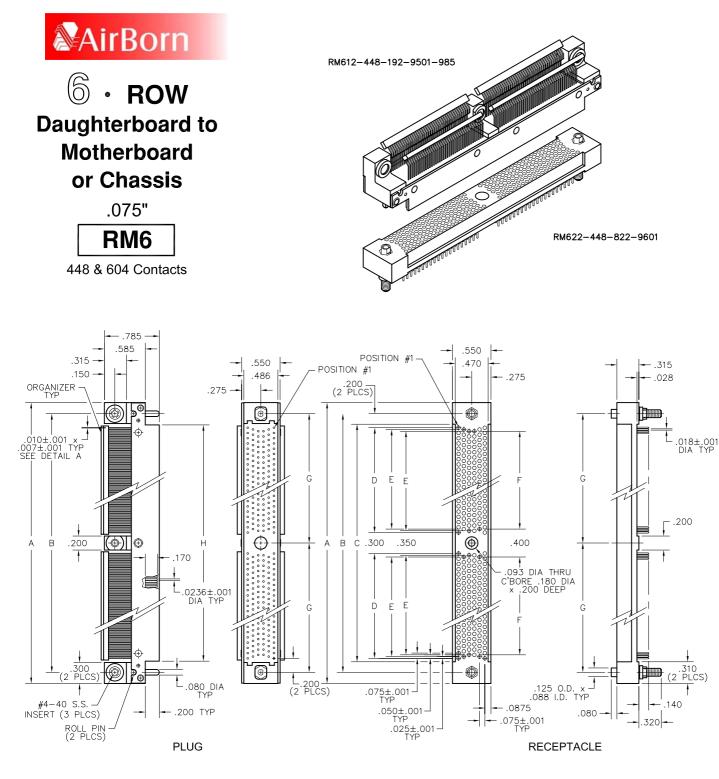
| #2-56 HELICOIL | (6 PLCS) HARDWARE OMITTED | FOR CLARITY

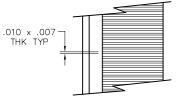
÷



			PLUG: RECEPTACLE:	RM612-448-522-9501 RM662-448-852-9601
PLU	G	REC	CEPTACLE	XXXXX-XXX-XXX-XXXX
	SER	IES		
RM	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector	
	BO	DY		
6	6-Row	6	6-Row	
_	BODY STYLE:		BODY STYLE:	
1	Plug, straight, without mounting ears	6	Receptacle, right angle, with mounting brackets	
2	BODY MATERIAL: Polyphenylene sulfide (PPS)	2	BODY MATERIAL: Polyphenylene sulfide (PPS)	
	SIZ	Έ		
4	448, 604	4	448, 604	
	CONT	ACTS		
	TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
17	Pin, straight, solder cup		Socket, right angle, dip solder, 109" x .019" dia	
40 51	Pin, straight, flex .093" x .017" dia Pin, straight, dip solder, .109" x .018" dia		Socket, right angle, dip solder, .140" x .019" dia Socket, right angle, dip solder, .172" x .019" dia	
52	Pin, straight, dip solder, .140" x .018" dia			
53	Pin, straight, dip solder, .172" x .018" dia			
54	Pin, straight, dip solder, .250" x .018" dia	<u> </u>		
4	PLATING OPTIONS:	4	PLATING OPTIONS:	
1 2	Gold plated termination Pre-tinned termination, SnPb alloy (dip solder	12	Gold plated termination Pre-tinned termination, SnPb alloy 🗵	
2	options only)		Pre-tinned termination, SAC305 alloy	
3	Pre-tinned termination, SAC305 alloy (dip			
	solder options only)			
	HARD	WARE		
0050	STYLE OF HARDWARE:	0050	STYLE OF HARDWARE:	
0250 82	S None Hex turning jackset, reversed, installed,	82	None Hex turning jackset, reversed, installed, .200 ki	noh
02	.200 knob	83	Fixed jackset, reversed, installed	
83	Fixed jackset, reversed, installed	91	Guide sockets, full round, installed	
04	#4-40 x .247" thd ext	92	Hex turning jackset, installed, .200 knob	
84	Fixed jackset, reversed, installed #4-40 x .320" thd ext	93 96	Fixed jackset, installed Guide sockets, polarized, unassembled	
90	Guide pins, full round, installed		- 9636 Guide sockets, polarized, installed	
00	#4-40 x .320" thd ext	97	Guide sockets, polarized, unassembled	
92 93	Hex turning jackset, installed, .200 knob Fixed jackset, installed, #4-40 x .247" thd ext	9701	- 9736 Guide sockets, polarized, installed Guide sockets, universal, installed	
94	Fixed jackset, installed, #4-40 x .320" thd ext			
95	Guide pins, polarized, unassembled,			
950´	#4-40 x .320" thd ext I - 9536 Guide pins, polarized, installed,			
	#4-40 x .320" thd ext			
99	Guide pins, universal, installed #4-40 x .320" thd ext		Note: Includes mounting bracket when right ar contacts are supplied	ngle
	POLARIZATION:	I	POLARIZATION:	
00	None	00	None	
01	thru 36 are special identifiers, see page R-57	01	thru 36 are special identifiers, see page R-57	

 $\boxtimes$  = Option not RoHS compliant





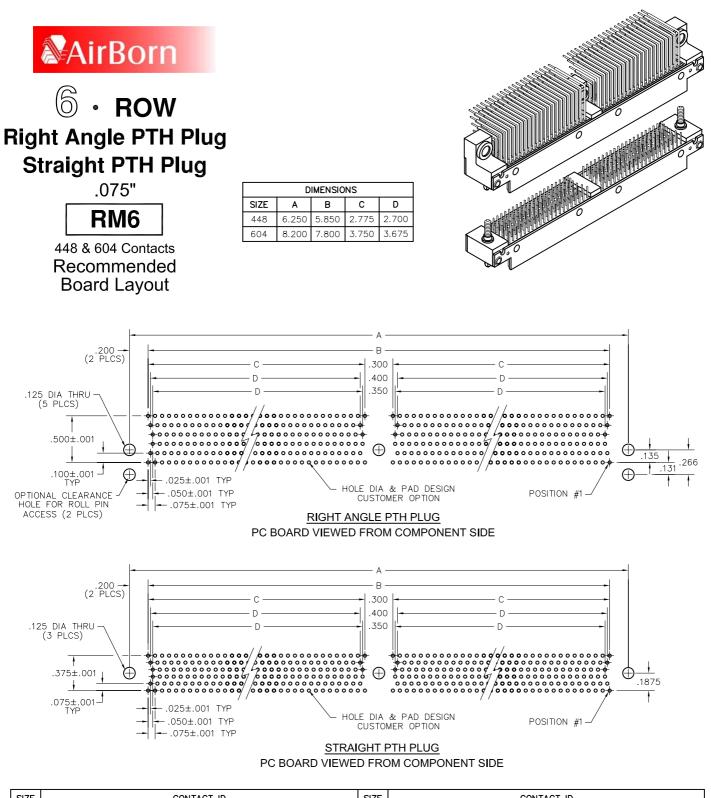
DIMENSIONS										
SIZE	А	В	С	D	E	F	G	Η		
448	6.570	6.250	5.950	2.775	2.700	2.675	3.125	5.930		
604	8.520	8.200	7.900	3.750	3.675	3.650	4.100	7.880		

DETAIL A

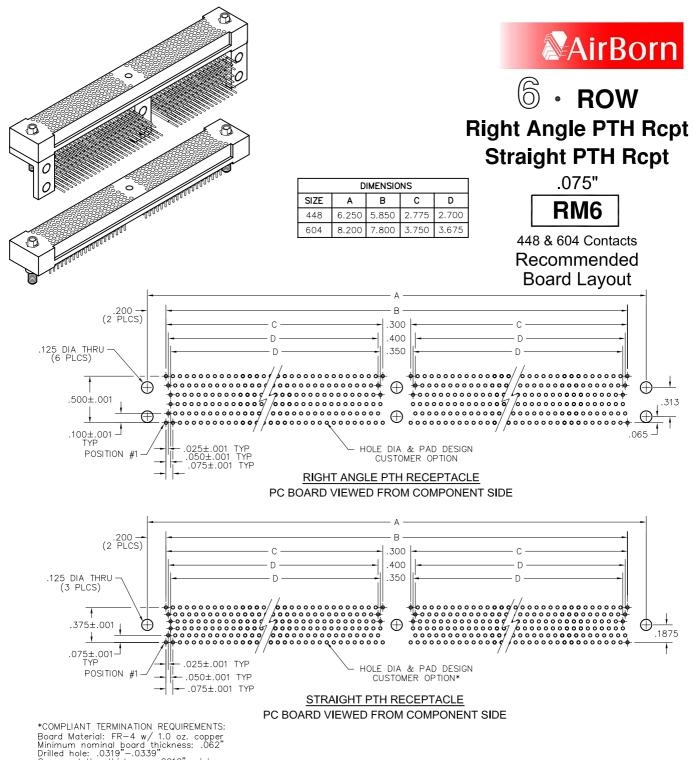


			PLUG: RECEPTACLE:		612-448-1 622-448-8	92 – 9501 – 985 22 – 9601
PLU	G	RE	CEPTACLE			XX-XXXX-XXX
	SER	IES		ו		
RM	.075" Screw Machine PC Connector	RM	.075" Screw Machine PC Connector			
	BO	DY		T		
6	6-Row	6	6-Row			
1	BODY STYLE: Plug, straight, with mounting ears	2	BODY STYLE: Receptacle, straight, with mounting ears			
	BODY MATERIAL: Black annodized side shield (PPS) Nickel plated side shield (PPS)	2 5	BODY MATERIAL: Black annodized side shield (PPS) Nickel plated side shield (PPS)			
	SIZ	Έ				
	448, 604		448, 604			
	CONT	ACTS	3	7		
	TYPE CONTACTS/TERMINATIONS: Pin, SMT, .014" x .007" tail, scored for organizer removal (see R-56) Pin, SMT, .014" x .007" tail, unscored	75 76 77	TYPE CONTACTS/TERMINATIONS: Socket, straight, dip solder, .250" x .018" dia Socket, straight, solder cup Socket, straight, flex, .093" x .017" dia	_		
		81 82 83 87 88 89	Socket, straight, dip solder, .109" x .018" dia Socket, straight, dip solder, .140" x .018" dia Socket, straight, dip solder, .172" x .018" dia Socket, straight, press-fit, .188" (Board: .093" Socket, straight, press-fit, .308" (Board: .156" Socket, straight, press-fit, .388" (Board: .250"+	200		
2 3	PLATING OPTIONS: Pre-tinned termination, SnPb alloy Pre-tinned termination, SAC305 alloy	1 2 3	PLATING OPTIONS: Gold plated termination Pre-tinned termination, SnPb alloy (dip solder Pre-tinned termination, SAC305 alloy (dip sold			
	HARD	WAR	E			
83 90 93 95	STYLE OF HARDWARE: None Fixed jackset, reversed, installed Guide pins, full round, installed Fixed jackset, installed Guide pins, polarized, unassembled I - 9536 Guide pins, polarized, installed Guide pins, universal, installed	82 83 84 91 92 93 94 96 960 97	STYLE OF HARDWARE: 6 None Hex turning jackset, reversed, installed, .200 Fixed jackset, reversed, installed, #4-40 x .24 Fixed jackset, reversed, installed, #4-40 x .32 Guide sockets, full round, installed, #4-40 x .2 Hex turning jackset, installed, .200 knob Fixed jackset, installed, #4-40 x .247 thd ext Fixed jackset, installed, #4-40 x .320 thd ext Guide sockets, polarized, unassembled, #4-4 1 - 9636 Guide sockets, polarized, installed, #4-4 1 - 9736 Guide sockets, polarized, installed, #4-4 Guide sockets, universal, installed, #4-40 x .2	7 thd 0 thd 247" th 0 x .3 4-40 x 0 x .2 4-40 x	ext hd ext 20" thd ext 320" thd ext 47" thd ext 47" thd ext 47" thd ext	
00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57	00 01	POLARIZATION: None thru 36 are special identifiers, see page R-57			
	OPTI	ONS				
9XX	SMT configuration code, see page R-56					

 $\boxtimes$  = Option not RoHS compliant



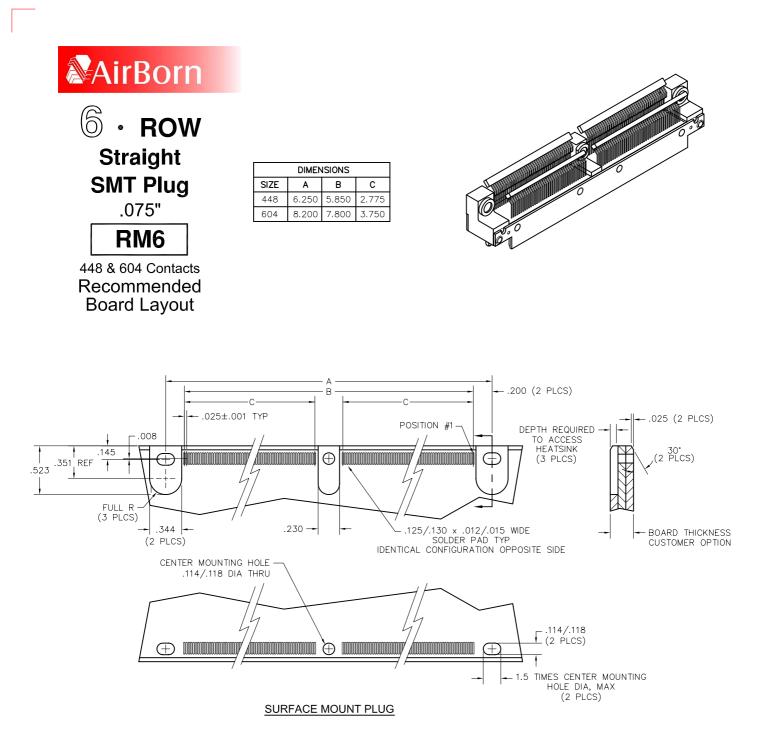
SIZE	CONTACT ID	SIZE	CONTACT ID
448	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	604	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$



\*COMPLIANT TERMINATION REQUIREMENTS: Board Material: FR-4 w/ 1.0 oz. copper Minimum nominal board thickness: .062" Drilled hole: .0319"-.0339" Copper plating thickness: .0010" minimum Tin-lead plating thickness: .0006" maximum Electroplated tin-lead composition: 63/37 (Sn/Pb) Finished hole diameter: .028"±.002"

SIZE	CONTACT ID	SIZE	CONTACT ID
448	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	604	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

### Ask About AirBorn's Accelerated Delivery Service

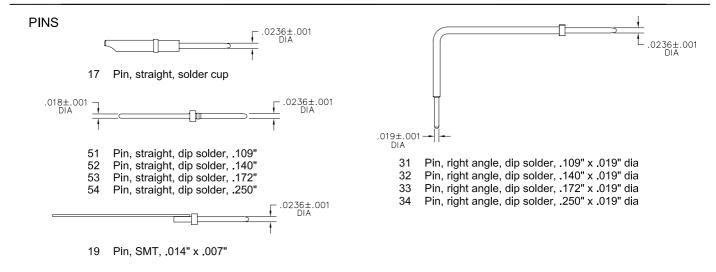


SIZE	CONTA	SCT ID	SIZE	CONTACT ID				
448	C2245 C4485 C2235 C4465 C2215 C4465 C2215 C4465 C2215 C4455 C2215 C4455 C2215 C4455 C1152 C4445 C1152 C3415 C1165 C3405 C1153 C33385 C1153 C33385 C1153 C33385 C1153 C33385	C1120 C3360 C1110 C3350 C1110 C3350 C1100 C3340 C1080 C3333 C1080 C3333 C1080 C3333 C1080 C3333 C1080 C3320 C100 C2280 C100 C2260 C100 C2260 C100 C2260	604	C302) C6045 C3015 C6035 C3005 C6035 C2995 C6015 C2985 C6015 C2985 C6015 C2985 C6015 C1565 C4585 C1555 C4575 C1555 C4565 C1555 C4555 C1555 C4555 C1555 C4555 C1555 C4555	C151) C453) C150) C452) C150) C452) C148) C451) C148) C450) C148) C450) C148) C450) C148) C450) C148) C450) C149) C307) C150 C306) C10 C305) C10 C305) C10 C305)			

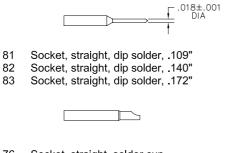


## **Contacts** 6 Row

Pins and Sockets



SOCKETS



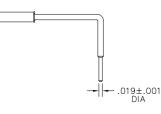
76 Socket, straight, solder cup



Socket, straight, flex circuit, .093" 77



- Socket, straight, press-fit, .203" (Board: .093"-.125") Socket, straight, press-fit, .308" (Board: .156"-.200") 87
- 88
- 89 Socket, straight, press-fit, 403" (Board: 250 or <)



- Socket, right angle, dip solder, .109" 84
- 85 Socket, right angle, dip solder, 140"
- 86 Socket, right angle, dip solder, .172"



# Specifications - Stackable Compliant Pin Connectors (075) Materials and Finishes \*

Contacts:	BeCu, per ASTM-B768 (BeCu C17410 Brush Alloy 174).					
Contact Finish:	Gold plate per MIL-G-45204 over Nickel plating per IAW QQ-N-290.					
Molded Insulators:	Glass filled polyphenylene sulfide (PPS) per MIL-M-24519.					
Screws:	Stainless steel per ASTM-A-582, passivated per ASTM-A-967.					
Guide Pins, Guide Sockets:	BeCu per ASTM-B-196, ASTM-B-197, Nickel plated per QQ-N-290.					
Connector Markings:	Per MIL-C-55302. Additionally, end row contact numbers are identified on the mating face of the connector and the pin #1 locator identified on the side of the connector base.					
Tolerances:	Unless otherwise specified: Fractions = $\pm 1/64$ " Decimals = $\pm .010$ " Angles = $\pm 5^{\circ}$					

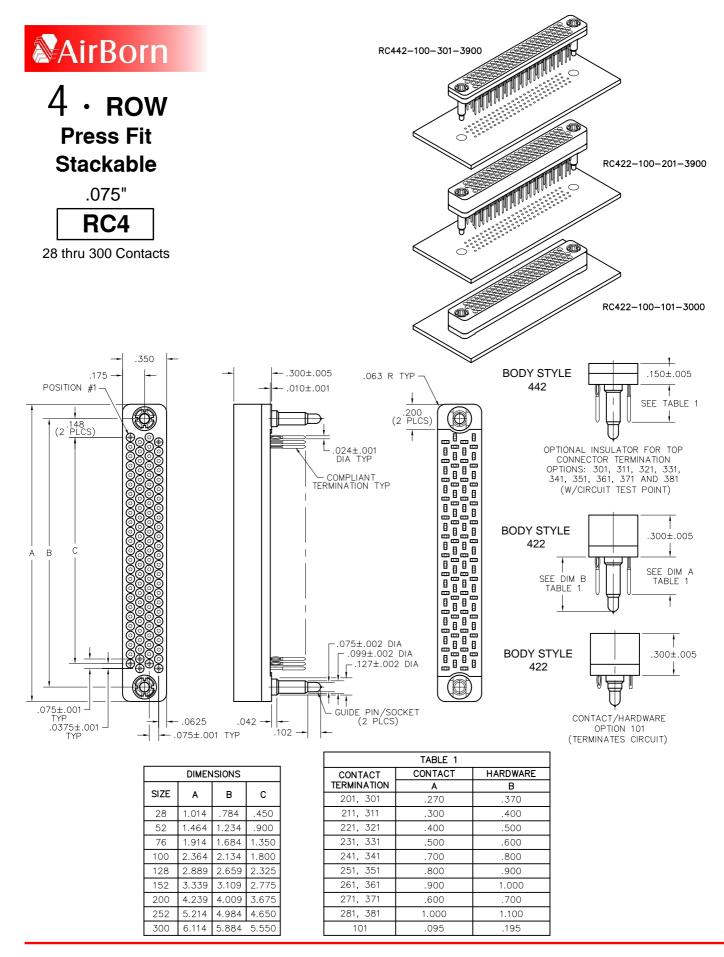
Note: AirBorn can manufacture special configurations for your exact specifications.

\* = Reference the above listed specifications or an equivalent industry standard when applicable



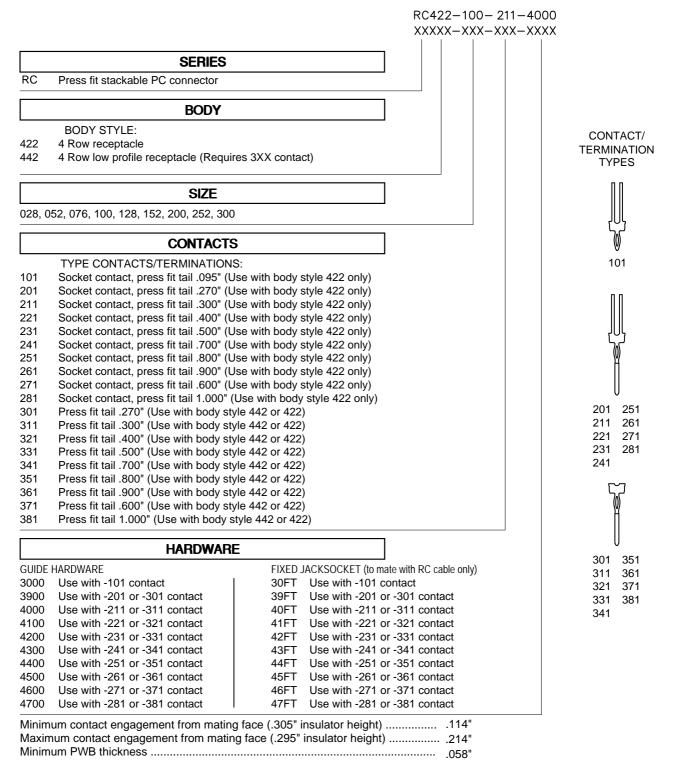
## Performance - Stackable Compliant Pin Connectors (075) Reference Modified MIL-C-55302, MIL-C-28859, MIL-STD-2166 and ANSI/EIA-616.

Contact Current Rating:	3 Amperes
Operating Temperature:	-65° to +125° C or -85° to +257° F
DWV Test Voltage:	750 V, RMS, 60 Hz @ sea level
Insulation Resistance:	5,000 megohms minimum @ 500 VDC
Durability:	500 connector mating cycles
Contact Resistance:	3 to 5 milliohms (contact length dependent)
Contact Engagement Force:	4.0 oz. (113 g.) maximum w/.0246" dia. test pin
Contact Separation Force:	0.5 oz. (14 g.) minimum w/.0226" dia. test pin.
Total Mating Force:	Maximum, 4.0 oz. (113 g.) X number of contacts Average 2.5 oz. (70 g.) X number of contacts
Compliant Insertion and Removal Forces:	Maximum insertion force 22.5 pounds (10.22 Kg.) Minimum retention force after conditioning 4.5 pounds (2.04 Kg.)
Suggested Board and Plated Through Hole Requirements:	Board material FR-4 with 1.0 oz. copper. Minimum board thickness058". Drilled Hole0319"0339". Copper plating thickness0010" minimum Tin-lead plating thickness0003" minimum. Electroplated tin-lead composition 63/37 (Sn/Pb) Finished hole diameter028" ±.002



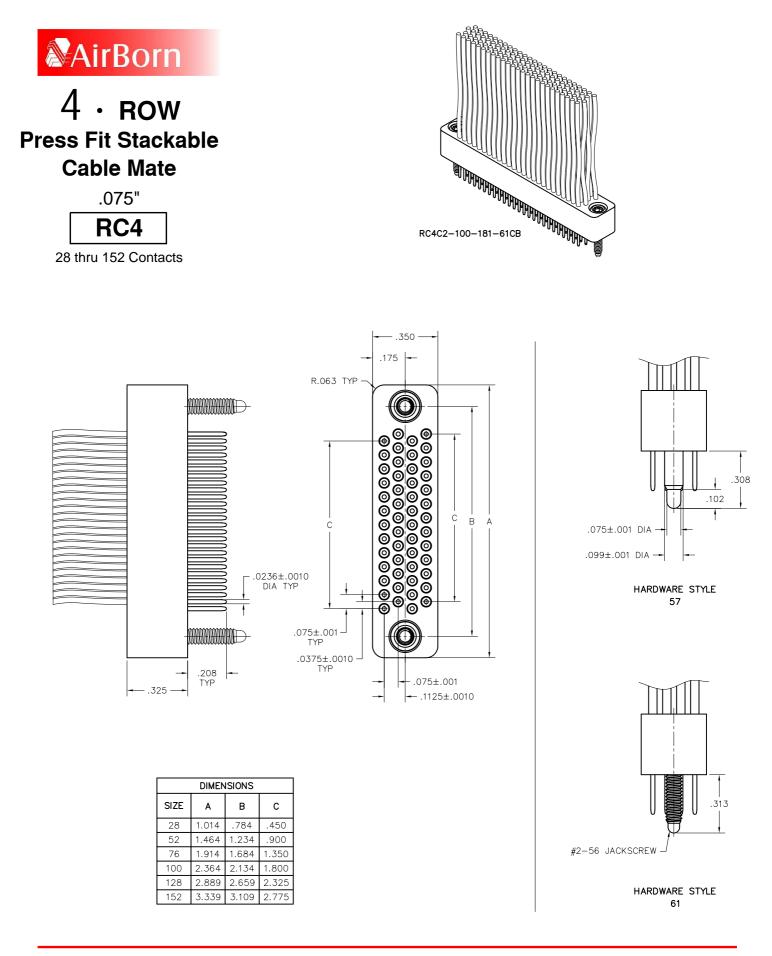
"R" Series Connectors R-81





4 Row Press Fit Stackable Tools Available:

Cap Removal Tool - AirBorn part number CDG10056 Contact Removal Tool - AirBorn part number CDG10057

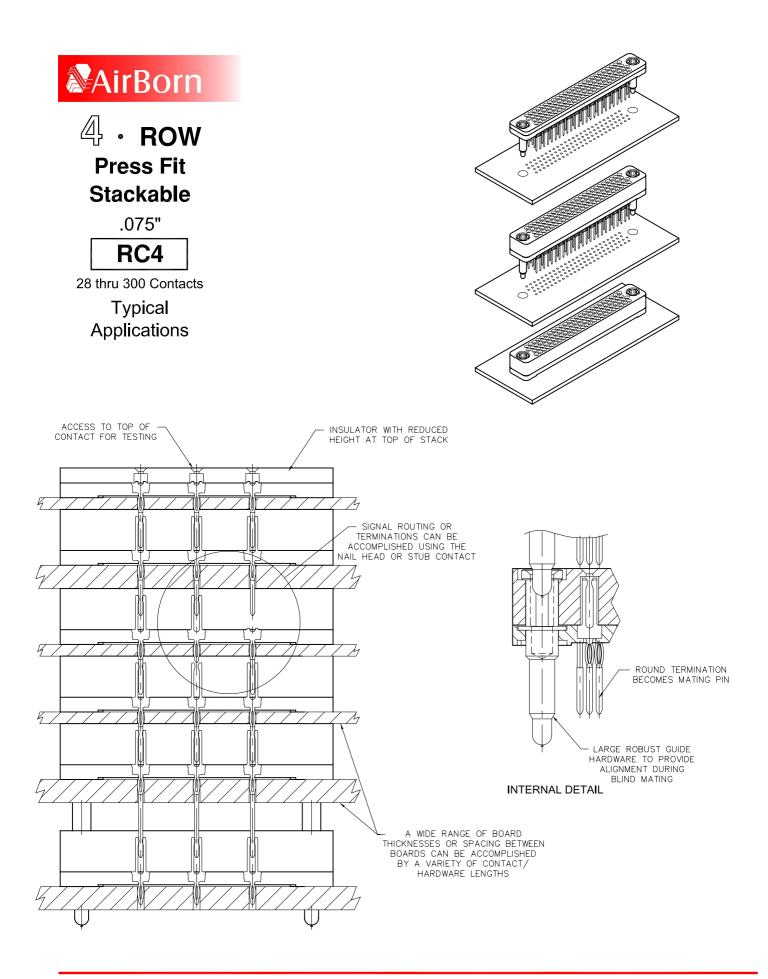


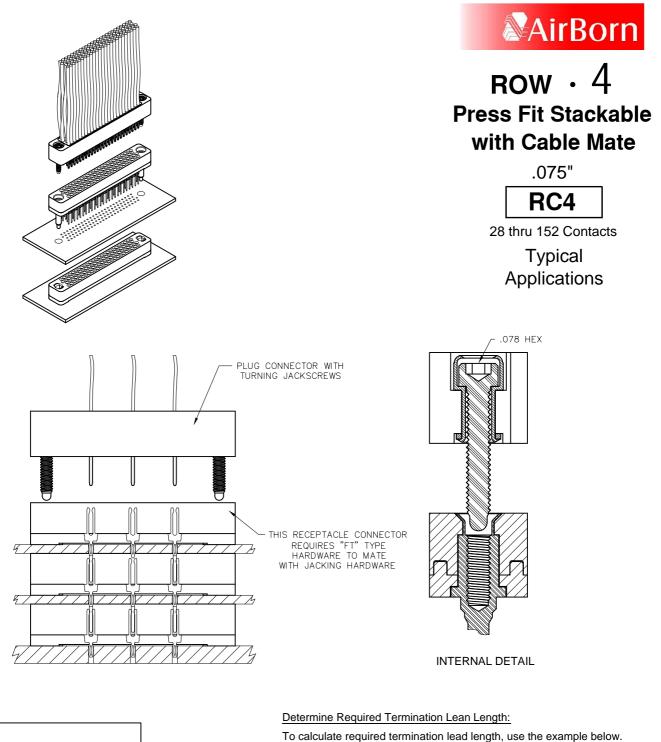


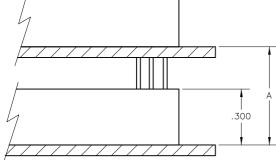
### RC4C2-100-181-61CB XXXXX-XXX-XXX-XXXX

### WIRE CODES-SERIES RC Press fit stackable PC connector LENGTH TYPE and COLOR Code Size Code Length Color BODY (+1"/-0") Mil-W-16878/4 BODY STYLE: С 24 awg Ten repeating А 6" 4 Row plug with potting well 4C2 24 awg 12" D White В С 18" Е 26 awg Ten repeating SIZE D 24" F White 26 awg Ten repeating E F G 30" 28 awg 028, 052, 076, 100, 128, 152 н 28 awg White 36" G 42" J 30 awg Ten repeating CONTACTS Κ 30 awg White Н 48" 54" TYPE CONTACTS/TERMINATIONS: J Mil-W-22759/33 Κ 60" Pin, straight, solder cup 111 Ν 24 awg Ten repeating 66" L 151 Pin, straight, flex circuit Ρ 24 awg White Μ 72" 181 Pin, straight, stranded wire (24-26 awg) R 26 awg Ten repeating Ν 84" 191 Pin, straight, stranded wire (28-30 awg) S 26 awg White Ρ 96" Т 28 awg Ten repeating R 108" U 28 awg White HARDWARE S 120" V 30 awg Ten repeating STYLE OF HARDWARE: W White 30 awg 00 None 57 Guide pins, non-polarized 61 Hex turning jackscrews (must have Part number example: fixed jacksocket hardware on board connector) RC4C2-100-181-61CB Type and Color -WIRE Length 00 None (solder cup or flex) ΧХ See Wire Codes at right Ten repeating colors:

Black Brown Red Orange Yellow Green Blue Violet Grey White







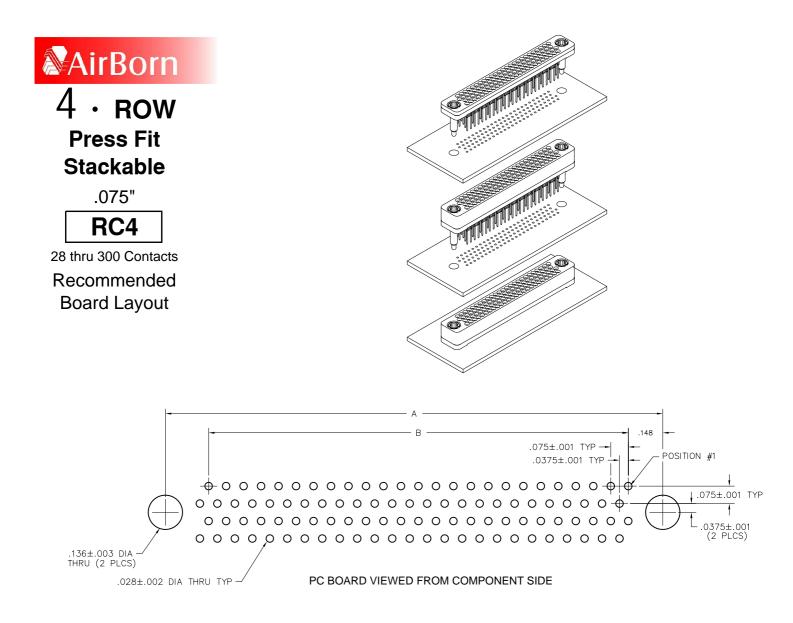
To calculate required termination lead length, use the example below. Measurements listed are in inches.

Dimension A = .720

- <u>.720</u> <u>.300</u> (insulator height) = <u>.420</u>
- .420 + .114 (minimum pin engagement) = .534
- .420 + .214 (maximum pin engagement) = .634

In this example, the termination option to choose is .600 lead length.

The contact termination option will be a length between the minimum and maximum pin engagement measurement. Contact lengths can be found on page R-82.



SIZE	CONTACT ID	SIZE	CONTACT ID	SIZE	CONTACT ID	
28	$\begin{array}{c} \hline 7 & 6 & 5 & 4 & 3 & 2 & 1 \\ \hline 14 & 13 & 12 & 11 & 10 & 9 & 8 \\ \hline 21 & 20 & 19 & 18 & 17 & 16 & 15 \\ \hline 28 & 27 & 26 & 25 & 24 & 23 & 22 \\ \hline \end{array}$	100	25         24         23         3         2         1           50         49         48         28         27         26           75         74         73         53         52         51           100         99         98         78         77         76	200	50         49         48         3         2         1           100         99         98         53         52         51           (175)         (174)         (173)         (103)         (102)         101           200         199         198         (78)         177)         (76)	DI SIZE 28 52
52	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	128	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	252	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	76 100 128 152 200
76	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	152	38         37         36         3         2         1           76         75         74         41         40         39           114         113         112         79         78         77           152         151         150         117         116         115	300	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	252 300

DIMENSIONS		
SIZE	A	в
28	.784	.450
52	1.234	.900
76	1.684	1.350
100	2.134	1.800
128	2.859	2.325
152	3.109	2.775
200	4.009	3.675
252	4.984	4.650
300	5.884	5.550

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