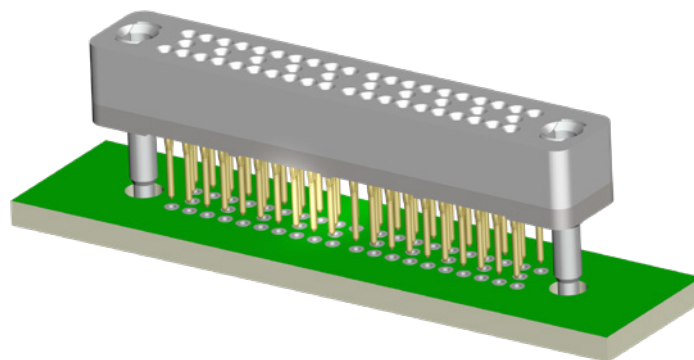


RCII™

The AirBorn stackable compliant connector family is one of AirBorn's solutions for high-density, board-to-board stacking applications. This connector family is available in 0.075" contact spacing and 100 Ω and 85 Ω differential serial buses.

- Wide variety of standard pin/tail lengths accommodate any board-to-board spacing
- 0.075" contact spacing
- Reliable "eye of the needle"-compliant section design eliminates soldering
- BeCu contacts (special high-conductivity, high-temperature alloy)
- Very robust socket contact (low-stress design)
- Individually repairable contacts





RCII™

RC324 - 3-Row Bottom-of-Stack Board Mount Connector with SI

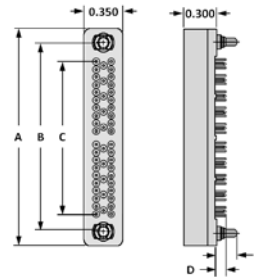
Contact spacing: 0.075" (1.91 mm)

A full bodied high-density press-fit connector with a 3-row aligned contact field for improved signal integrity. Use at the bottom of an RCII board stack application.

DIMENSIONS

SIZE	A	B	C
25	1.235	1.005	0.675
50	2.010	1.780	1.450
75	2.785	2.555	2.225
100	3.560	3.330	3.000

Tolerances: ± 0.010"



CONTACT SELECTION	CONTACT D	HARDWARE E
10	0.095	0.195

Sample Part Number Format: RC324-050-101-3000



SERIES
 Stackable
 Compliant
 Full-Profile
 3 Rows
 0.075" Spacing



CONFIGURATION
 025 – 3 Rows/1 Bay
 050 – 3 Rows/2 Bays
 075 – 3 Rows/3 Bays
 100 – 3 Rows/4 Bays



CONTACT
 10 – 0.095" Long



PLATING
 1 – 50 μ" Au



HARDWARE
 30 – 0.195" Long
 (use with #10 contact)



TYPE
 00 – None



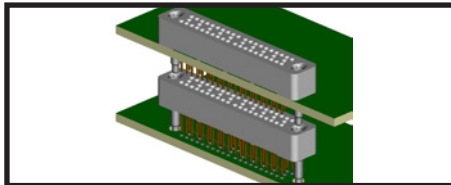
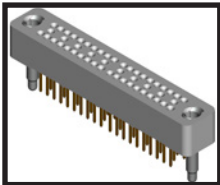
VARIATION
 Blank – None
 XXX – Consult factory



PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

MATED HEIGHT

The connector body height is 0.300" and, when used with the -20 or -30 (0.270") contact, the mounting is flush (board-bottom mounted to connector top). This board-bottom to connector top spacing can be modified based on the contact selected by approximately the difference in pin length. See Table 2.



MATERIALS and FINISHES

Contact: BeCu per ASTM-B768 (BeCu C17410 brush alloy 174)
 Contact Finish: Gold per MIL-G-45204 over nickel per IAW QQ-N-290
 Molded Insulator: Glass-filled polyphenylene sulfide (PPS) per MIL-M-24519
 Hardware: Stainless steel per ASTM-A582, passivated per ASTM-A967
 Guide Pin/Socket: BeCu per ASTM-B196/197, nickel-plated per QQ-N-290

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes
 Operating Temperature: -65° C to +125° C
 Insulation Resistance: 5,000 megaohms 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.) max. w/0.0246" dia. test pin
 Contact Separation Force: 0.5 oz. (14 g.) min. w/0.0226" dia. test pin
 Compliant Insertion Force: 22.5 lb. (10.21 Kg.) max. per contact
 Compliant Removal Force: 4.5 lb. (2.04 Kg.) min. per contact

NOTE: Performance values are estimates at this time. Actual values will be determined when final product testing is complete.

SI DATA – Differential 100 Ohm

1	Diff. Insertion Loss	6.0 GHz @ -3 dB
2	Diff. Return Loss	4.6 GHz @ -20 dB
3	NEXT	4.0 GHz @ -50 dB
4	FEXT	4.0 GHz @ -48 dB



RCII™

RC324 - 3-Row Mid/Top-of-Stack Connector with SI

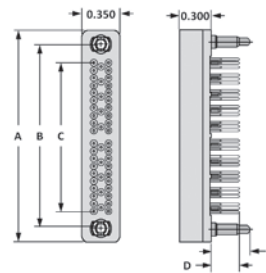
Contact spacing: 0.075" (1.91 mm)

A full bodied high-density press-fit connector with a 4-row aligned contact field for improved signal integrity. Use in RCII board-to-board stacking applications and/or at the top of the board stack.

DIMENSIONS

SIZE	A	B	C
25	1.235	1.005	0.675
50	2.010	1.780	1.450
75	2.785	2.555	2.225
100	3.560	3.330	3.000

Tolerances: ± 0.010"

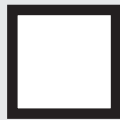


CONTACT SELECTION	CONTACT D	HARDWARE E
20	0.270	0.370
21	0.300	0.400
22	0.400	0.500
23	0.500	0.600
24	0.700	0.800
25	0.800	0.900
26	0.900	1.000
27	0.600	0.700
28	1.000	1.100

Sample Part Number Format: RC324-050-201-3900



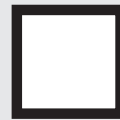
SERIES
 Stackable
 Compliant
 Full-Profile
 3 Rows
 0.075" Spacing



CONFIGURATION
 025 - 3 Rows/1 Bay
 050 - 3 Rows/2 Bays
 075 - 3 Rows/3 Bays
 100 - 3 Rows/4 Bays



PLATING
 1 - 50 μ" Au



TYPE
 00 - None



VARIATION
 Blank - None
 XXX - Consult factory

CONTACT
 20 - 0.270" Long
 21 - 0.300" Long
 22 - 0.400" Long
 23 - 0.500" Long
 24 - 0.700" Long
 25 - 0.800" Long
 26 - 0.900" Long
 27 - 0.600" Long
 28 - 1.000" Long

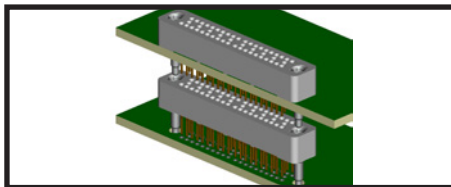
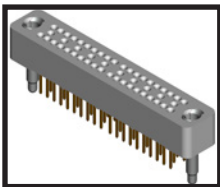
HARDWARE
 39 - 0.370" Long (use with #20 contact)
 40 - 0.400" Long (use with #21 contact)
 41 - 0.500" Long (use with #22 contact)
 42 - 0.600" Long (use with #23 contact)
 43 - 0.800" Long (use with #24 contact)
 44 - 0.900" Long (use with #25 contact)
 45 - 1.000" Long (use with #26 contact)
 46 - 0.700" Long (use with #27 contact)
 47 - 1.100" Long (use with #28 contact)



PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

MATED HEIGHT

The connector body height is 0.300" and, when used with the -20 or -30 (0.270") contact, the mounting is flush (board-bottom mounted to connector top). This board-bottom to connector top spacing can be modified based on the contact selected by approximately the difference in pin length. See Table 2.



MATERIALS and FINISHES

Contact:BeCu per ASTM-B768 (BeCu C17410 brush alloy 174)
 Contact Finish: Gold per MIL-G-45204 over nickel per IAW QQ-N-290
 Molded Insulator: Glass-filled polyphenylene sulfide (PPS) per MIL-M-24519
 Hardware: Stainless steel per ASTM-A582, passivated per ASTM-A967
 Guide Pin/Socket: BeCu per ASTM-B196/197, nickel-plated per QQ-N-290

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes
 Operating Temperature: -65° C to +125° C
 Insulation Resistance: 5,000 megaohms 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.) max. w/0.0246" dia. test pin
 Contact Separation Force: 0.5 oz. (14 g.) min. w/0.0226" dia. test pin
 Compliant Insertion Force: 22.5 lb. (10.21 Kg.) max. per contact
 Compliant Removal Force: 4.5 lb. (2.04 Kg.) min. per contact

NOTE: Performance values are estimates at this time. Actual values will be determined when final product testing is complete.

SI DATA - Differential 100 Ohm

1	Diff. Insertion Loss	6.0 GHz @ -3 dB
2	Diff. Return Loss	4.6 GHz @ -20 dB
3	NEXT	4.0 GHz @ -50 dB
4	FEXT	4.0 GHz @ -48 dB



RCII™

RC424 - 4-Row Bottom-of-Stack Board Mount Connector with SI

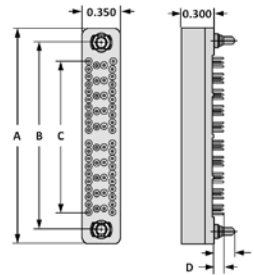
Contact spacing: 0.075" (1.91 mm)

A full bodied high-density press-fit connector with a 4-row aligned contact field for improved signal integrity. Use at the bottom of an RCII board stack application.

DIMENSIONS

SIZE	A	B	C
30	1.235	1.005	0.675
60	2.010	1.780	1.450
90	2.785	2.555	2.225
120	3.560	3.330	3.000

Tolerances: ± 0.010"



CONTACT SELECTION	CONTACT D	HARDWARE E
10	0.095	0.195

Sample Part Number Format: RC424-060-101-3000



SERIES
 Stackable
 Compliant
 Full-Profile
 4 Rows
 0.075" Spacing



CONFIGURATION
 030 – 4 Rows/1 Bay
 060 – 4 Rows/2 Bays
 090 – 4 Rows/3 Bays
 120 – 4 Rows/4 Bays



CONTACT
 10 – 0.095" Long



PLATING
 1 – 50 μ" Au



HARDWARE
 30 – 0.195" Long (use with #10 contact)



TYPE
 00 – None



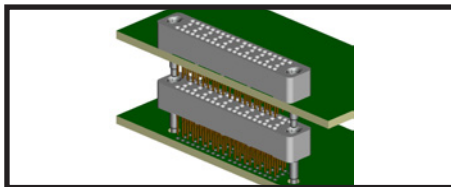
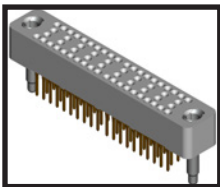
VARIATION
 Blank – None
 XXX – Consult factory



PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

MATED HEIGHT

The connector body height is 0.300" and, when used with the -20 or -30 (0.270") contact, the mounting is flush (board-bottom mounted to connector top). This board-bottom to connector top spacing can be modified based on the contact selected by approximately the difference in pin length. See Table 2.



MATERIALS and FINISHES

Contact:BeCu per ASTM-B768 (BeCu C17410 brush alloy 174)
 Contact Finish: Gold per MIL-G-45204 over nickel per IAW QQ-N-290
 Molded Insulator: Glass-filled polyphenylene sulfide (PPS) per MIL-M-24519
 Hardware: Stainless steel per ASTM-A582, passivated per ASTM-A967
 Guide Pin/Socket: BeCu per ASTM-B196/197, nickel-plated per QQ-N-290

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes
 Operating Temperature: -65° C to +125° C
 Insulation Resistance: 5,000 megaohms 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.) max. w/0.0246" dia. test pin
 Contact Separation Force: 0.5 oz. (14 g.) min. w/0.0226" dia. test pin
 Compliant Insertion Force: 22.5 lb. (10.21 Kg.) max. per contact
 Compliant Removal Force: 4.5 lb. (2.04 Kg.) min. per contact

NOTE: Performance values are estimates at this time. Actual values will be determined when final product testing is complete.

SI DATA

1	Diff. Insertion Loss	6.0 GHz @ -3 dB
2	Diff. Return Loss	4.6 GHz @ -20 dB
3	NEXT	4.0 GHz @ -50 dB
4	FEXT	4.0 GHz @ -48 dB



RCII™

RC424 - 4-Row Mid/Top-of-Stack Connector with SI

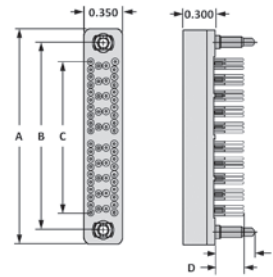
Contact spacing: 0.075" (1.91 mm)

A full bodied high-density press-fit connector with a 4-row aligned contact field for improved signal integrity. Use in RCII board-to-board stacking applications and/or at the top of the board stack.

DIMENSIONS

SIZE	A	B	C
30	1.235	1.005	0.675
60	2.010	1.780	1.450
90	2.785	2.555	2.225
120	3.560	3.330	3.000

Tolerances: ± 0.010"



CONTACT SELECTION	CONTACT D	HARDWARE E
20	0.270	0.370
21	0.300	0.400
22	0.400	0.500
23	0.500	0.600
24	0.700	0.800
25	0.800	0.900
26	0.900	1.000
27	0.600	0.700
28	1.000	1.100

Sample Part Number Format: RC424-060-201-3900



SERIES
 Stackable
 Compliant
 Full-Profile
 4 Rows
 0.075" Spacing



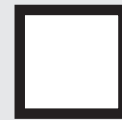
CONFIGURATION
 030 – 4 Rows/1 Bay
 060 – 4 Rows/2 Bays
 090 – 4 Rows/3 Bays
 120 – 4 Rows/4 Bays



PLATING
 1 – 50 μ" Au



CONTACT
 20 – 0.270" Long
 21 – 0.300" Long
 22 – 0.400" Long
 23 – 0.500" Long
 24 – 0.700" Long
 25 – 0.800" Long
 26 – 0.900" Long
 27 – 0.600" Long
 28 – 1.000" Long



TYPE
 00 – None

HARDWARE
 39 – 0.370" Long (use with #20 contact)
 40 – 0.400" Long (use with #21 contact)
 41 – 0.500" Long (use with #22 contact)
 42 – 0.600" Long (use with #23 contact)
 43 – 0.800" Long (use with #24 contact)
 44 – 0.900" Long (use with #25 contact)
 45 – 1.000" Long (use with #26 contact)
 46 – 0.700" Long (use with #27 contact)
 47 – 1.100" Long (use with #28 contact)



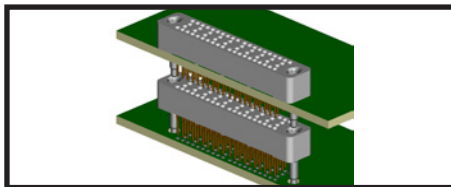
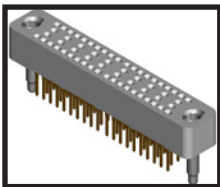
VARIATION
 Blank – None
 XXX – Consult factory



PLEASE CONSULT THE AIRBORNE WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

MATED HEIGHT

The connector body height is 0.300" and, when used with the -20 or -30 (0.270") contact, the mounting is flush (board-bottom mounted to connector top). This board-bottom to connector top spacing can be modified based on the contact selected by approximately the difference in pin length. See Table 2.



SI DATA

1	Diff. Insertion Loss	6.0 GHz @ -3 dB
2	Diff. Return Loss	4.6 GHz @ -20 dB
3	NEXT	4.0 GHz @ -50 dB
4	FEXT	4.0 GHz @ -48 dB

MATERIALS and FINISHES

Contact:BeCu per ASTM-B768 (BeCu C17410 brush alloy 174)
 Contact Finish: Gold per MIL-G-45204 over nickel per IAW QQ-N-290
 Molded Insulator: Glass-filled polyphenylene sulfide (PPS) per MIL-M-24519
 Hardware: Stainless steel per ASTM-A582, passivated per ASTM-A967
 Guide Pin/Socket: BeCu per ASTM-B196/197, nickel-plated per QQ-N-290

NOTE: AirBorn can manufacture special configurations to your exact specifications.

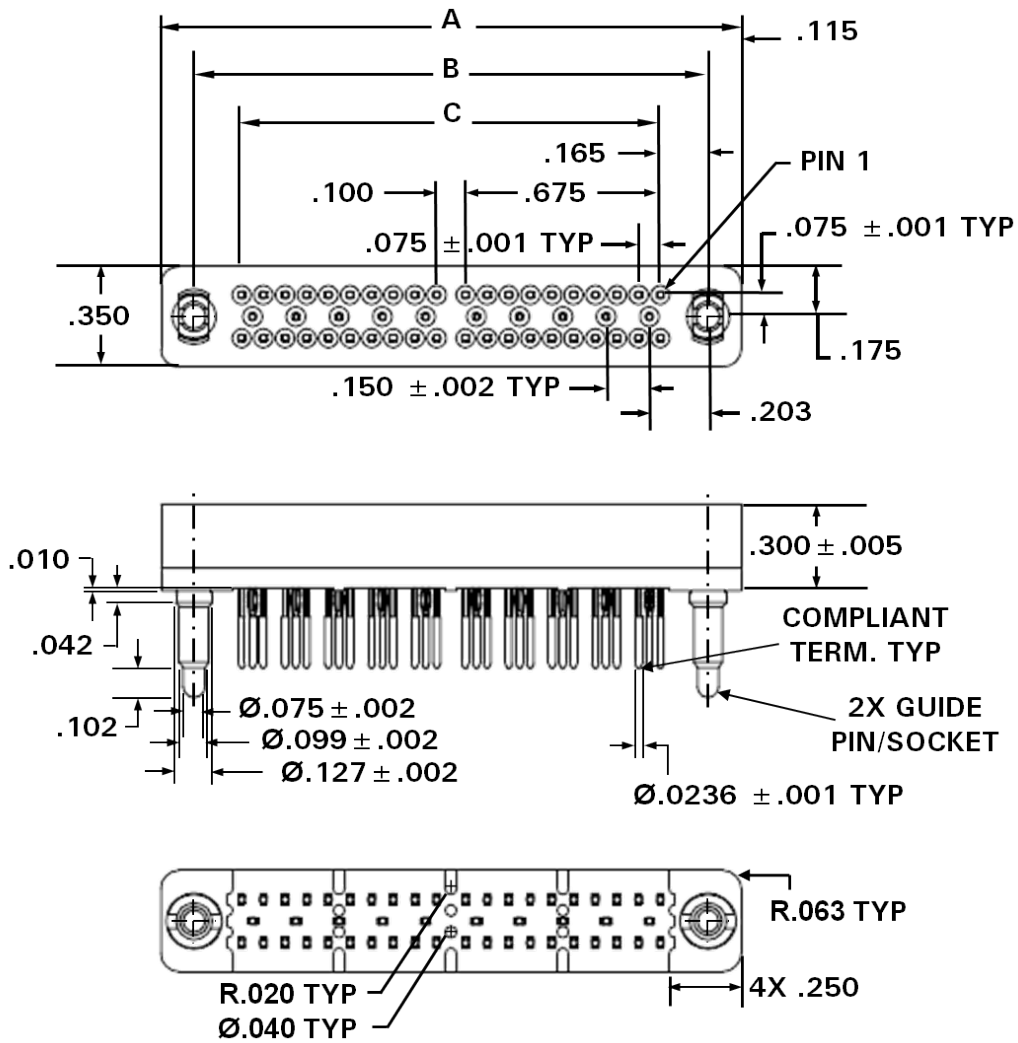
PERFORMANCE

Contact Rating: 3 amperes
 Operating Temperature: -65° C to +125° C
 Insulation Resistance: 5,000 megaohms 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.) max. w/0.0246" dia. test pin
 Contact Separation Force: 0.5 oz. (14 g.) min. w/0.0226" dia. test pin
 Compliant Insertion Force: 22.5 lb. (10.21 Kg.) max. per contact
 Compliant Removal Force: 4.5 lb. (2.04 Kg.) min. per contact

NOTE: Performance values are estimates at this time. Actual values will be determined when final product testing is complete.



RCII 3-ROW DIMENSIONS



DIMENSIONS			
SIZE/BANKS	A	B	C
25/1	1.235	1.005	0.675
50/2	2.010	1.780	1.450
75/3	2.785	2.555	2.225
100/4	3.560	3.330	3.000

PWB-PLATED THRU-HOLE RECOMMENDATIONS:

Board material: FR-4 (or equivalent) with 1.0 oz. copper

Board thickness: 0.058" minimum

Drilled hole: Ø 0.033"

Copper plating thickness: 0.0020"

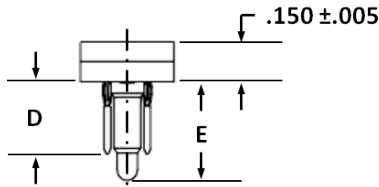
Tin-lead plating thickness: 0.0005"

Finished hold diameter: Ø 0.028" (Ø 0.028" ± 0.002" required)



RCII 3-ROW DIMENSIONS

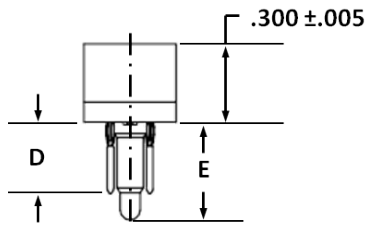
Hardware Options



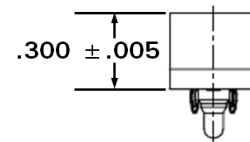
BODY STYLE 344

OPTIONAL INSULATOR FOR TOP CONNECTOR WITH TERMINATION
 OPTIONS 301, 311, 321, 331, 341, 351, 361, 371 AND 381 (w/CIRCUIT TEST POINT).

CONTACT TERMINATION	CONTACT D	HARDWARE E
201, 301	0.270	0.370
211, 311	0.300	0.400
221, 321	0.400	0.500
231, 331	0.500	0.600
241, 341	0.700	0.800
251, 351	0.800	0.900
261, 361	0.900	1.000
271, 371	0.600	0.700
281, 381	1.000	1.100
101	0.095	0.195



BODY STYLE 324



BODY STYLE 324

CONTACT/HARDWARE OPTION 101 (TERMINATES CIRCUIT)

PWB-PLATED THRU-HOLE RECOMMENDATIONS:

Board material: FR-4 (or equivalent) with 1.0 oz. copper

Board thickness: 0.058" minimum

Drilled hole: \varnothing 0.033"

Copper plating thickness: 0.0020"

Tin-lead plating thickness: 0.0005"

Finished hold diameter: \varnothing 0.028" (\varnothing 0.028" \pm 0.002" required)

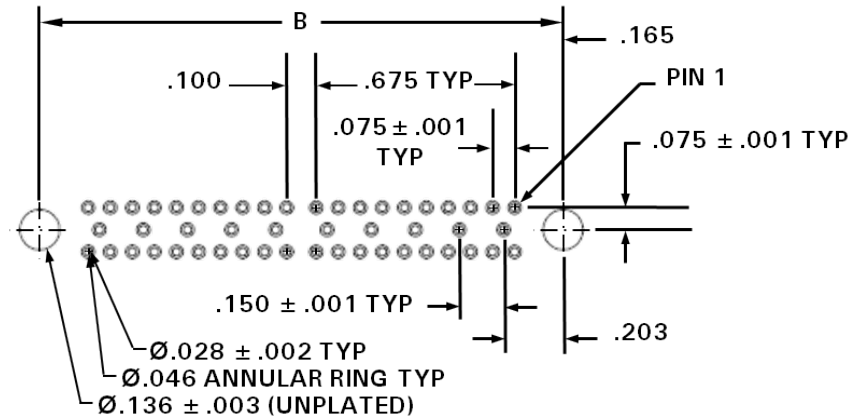


RCII 3-ROW DRAWINGS

Board Footprint and Dimensions

SIZE	CONTACT ID
25	
50	
75	
100	

DIMENSIONS			
SIZE/BANKS	A	B	C
30/1	1.235	1.005	0.675
60/2	2.010	1.780	1.450
90/3	2.785	2.555	2.225
120/4	3.560	3.330	3.000



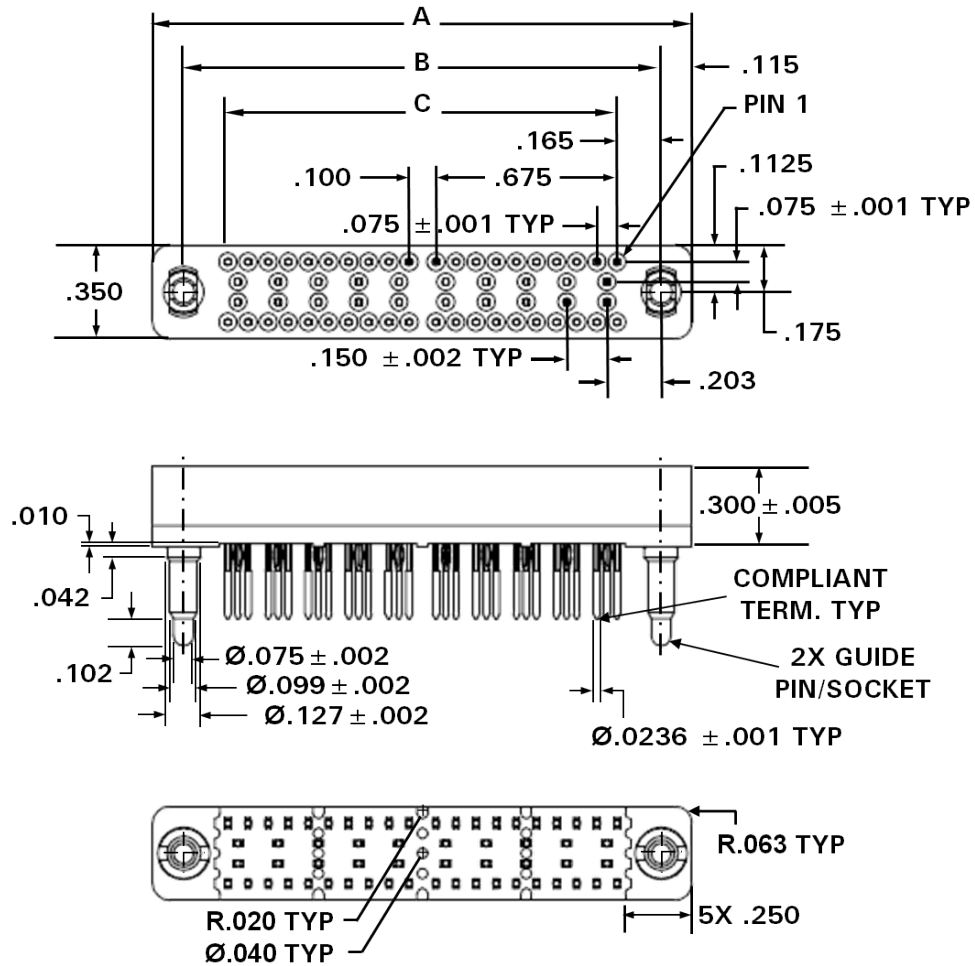
PWB-PLATED THRU-HOLE RECOMMENDATIONS:

Board material: FR-4 (or equivalent) with 1.0 oz. copper
 Board thickness: 0.058" minimum
 Drilled hole: Ø 0.033"

Copper plating thickness: 0.0020"
 Tin-lead plating thickness: 0.0005"
 Finished hold diameter: Ø 0.028" (Ø 0.028" ±0.002" required)



RCII 4-ROW DIMENSIONS



DIMENSIONS			
SIZE/BANKS	A	B	C
30/1	1.235	1.005	0.675
60/2	2.010	1.780	1.450
90/3	2.785	2.555	2.225
120/4	3.560	3.330	3.000

PWB-PLATED THRU-HOLE RECOMMENDATIONS:

Board material: FR-4 (or equivalent) with 1.0 oz. copper

Board thickness: 0.058" minimum

Drilled hole: Ø 0.033"

Copper plating thickness: 0.0020"

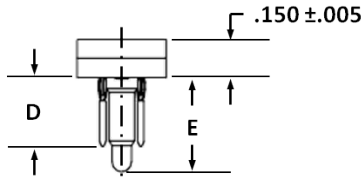
Tin-lead plating thickness: 0.0005"

Finished hold diameter: Ø 0.028" (Ø 0.028" ± 0.002" required)



RCII 4-ROW DIMENSIONS

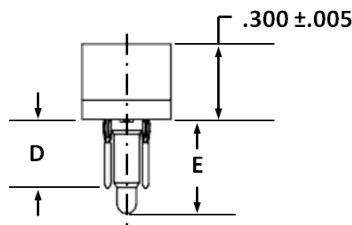
Hardware Options



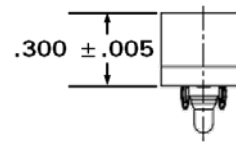
BODY STYLE 444

OPTIONAL INSULATOR FOR TOP
 CONNECTOR WITH TERMINATION
 OPTIONS 301, 311, 321, 331, 341,
 351, 361, 371 AND 381
 (w/CIRCUIT TEST POINT).

TABLE 1		
CONTACT TERMINATION	CONTACT D	HARDWARE E
201, 301	0.270	0.370
211, 311	0.300	0.400
221, 321	0.400	0.500
231, 331	0.500	0.600
241, 341	0.700	0.800
251, 351	0.800	0.900
261, 361	0.900	1.000
271, 371	0.600	0.700
281, 381	1.000	1.100
101	0.095	0.195



BODY STYLE 424



BODY STYLE 424

CONTACT/HARDWARE OPTION 101
 (TERMINATES CIRCUIT)

PWB-PLATED THRU-HOLE RECOMMENDATIONS:

Board material: FR-4 (or equivalent) with 1.0 oz. copper

Board thickness: 0.058" minimum

Drilled hole: \varnothing 0.033"

Copper plating thickness: 0.0020"

Tin-lead plating thickness: 0.0005"

Finished hold diameter: \varnothing 0.028" (\varnothing 0.028" \pm 0.002" required)

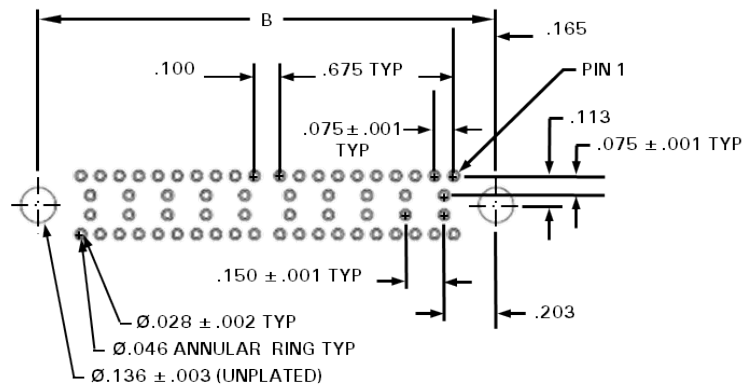


RCII 4-ROW DRAWINGS

Board Footprint and Dimensions

SIZE	CONTACT ID
30	
60	
70	
120	

DIMENSIONS			
SIZE/BANKS	A	B	C
30/1	1.235	1.005	0.675
60/2	2.010	1.780	1.450
90/3	2.785	2.555	2.225
120/4	3.560	3.330	3.000



PWB-PLATED THRU-HOLE RECOMMENDATIONS:

Board material: FR-4 (or equivalent) with 1.0 oz. copper
 Board thickness: 0.058" minimum
 Drilled hole: Ø 0.033"

Copper plating thickness: 0.0020"
 Tin-lead plating thickness: 0.0005"
 Finished hold diameter: Ø 0.028" (Ø 0.028" ±0.002" required)