

Specialists in Attenuation and RF Switching
2000 Catalog



The JFW Profile...

“JFW is committed to anticipating and exceeding customer's requirements and expectations through cost-competitive, quality products and services that are delivered on time.”

Now entering our 4th decade, JFW Industries is a leading designer and manufacturer of innovative RF solutions that include Attenuators, Terminations, Switches, Power Dividers, Matrix Switches, and specialized Test Systems. Located in Indianapolis, Indiana, JFW has over 140 team members working in an ISO 9001 certified environment to exceed the Quality and Service expectations of every single customer.

Our dedicated Engineering team, with over 70 years of combined experience in the RF and Microwave industry, works together with our unsurpassed Customer Service department to provide application specific solutions at a price you can afford. The ability to respond to the specific needs of the customer has JFW devices being used in applications from Broadcast and Cable TV to Cellular/PCS signal verification and site installations.

New Innovations...

In response to a rapidly changing market, JFW is constantly introducing new products that include:

- Broadband Solid State Programmable Attenuators (800-3000 MHz)
- Complete Line of Low Cost Programmable Attenuators (DC-2500 MHz)
- Broadband Solid State Switches (20-4300 MHz)
- High Isolation, Narrow Band Power Dividers (40 dB minimum)
- Low Cost Fixed Attenuators (DC-3000 MHz)
- Complete Line of Fixed Attenuators and Terminations with 7/16 connectors
- New Miniature Rotary Attenuators (DC-2500 MHz)
- Surface Mount Voltage Variable Attenuator
- Multifunction Programmable Test Systems and Matrix Switches
- Improved Local Control Options on Test Systems via a Keypad/Display/Microcontroller

As part of an effort to stay ahead of engineering and buying trends, JFW has also redesigned our Home Page on the World Wide Web. Now easier to use, it features New Product Information, down-loadable specifications and outline drawings from all of JFW's published literature, as well as a direct Email link to our Customer Service department.

For more information on JFW and our products, please contact us or visit our web site at www.jfwindustries.com.

QUALITY POLICY

“JFW is committed to anticipating and exceeding customer’s requirements and expectations through cost-competitive quality products and services that are delivered on time.”

Standard Terms and Conditions

JFW Industries, Inc. has standard terms of Net 30 days with approved credit. Alternate methods of payment include MASTERCARD and VISA. COD or ADVANCE PAYMENT.

International Payment Terms are ADVANCE PAYMENT, IRREVOCABLE LETTER OF CREDIT* or MASTERCARD and VISA.
Any other payment terms must be negotiated in advance.

*Letter of credit orders are subject to a processing fee.

FOB POINT is INDIANAPOLIS, INDIANA USA unless agreed to otherwise at time of order placement. ALL SHIPPING CHARGES will be PREPAID and ADDED TO THE INVOICE or SHIPPED COLLECT VIA YOUR DESIGNATED FREIGHT CARRIER.

JFW INDUSTRIES WARRANTY

JFW PRODUCTS ARE WARRANTED AGAINST DEFECTS IN WORKMANSHIP AND MATERIAL UNDER NORMAL USE AND SERVICE AS FOLLOWS: (2) TWO YEARS FROM DATE OF SHIPMENT FOR ALL FIXED AND SOLID-STATE PRODUCTS. (1) ONE YEAR FROM DATE OF SHIPMENT FOR ALL MECHANICAL AND ELECTROMECHANICAL PRODUCTS. JFW INDUSTRIES' ONLY OBLIGATION UNDER THIS WARRANTY IS TO REPAIR OR REPLACE, AT ITS FACTORY, ANY JFW PRODUCT OR PART THEREOF THAT IS RETURNED TO JFW INDUSTRIES BY THE ORIGINAL PURCHASER WITHIN THE WARRANTY PERIOD.

THE WARRANTY STATED ABOVE IS YOUR SOLE AND EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR FITNESS FOR ANY PARTICULAR PURPOSE. JFW INDUSTRIES SHALL NOT BE LIABLE FOR ANY DIRECT OR CONSEQUENTIAL INJURY, LOSS OR DAMAGE INCURRED THROUGH THE USE, OR INABILITY TO USE, ANY JFW INDUSTRIES PRODUCT.

Factory Location

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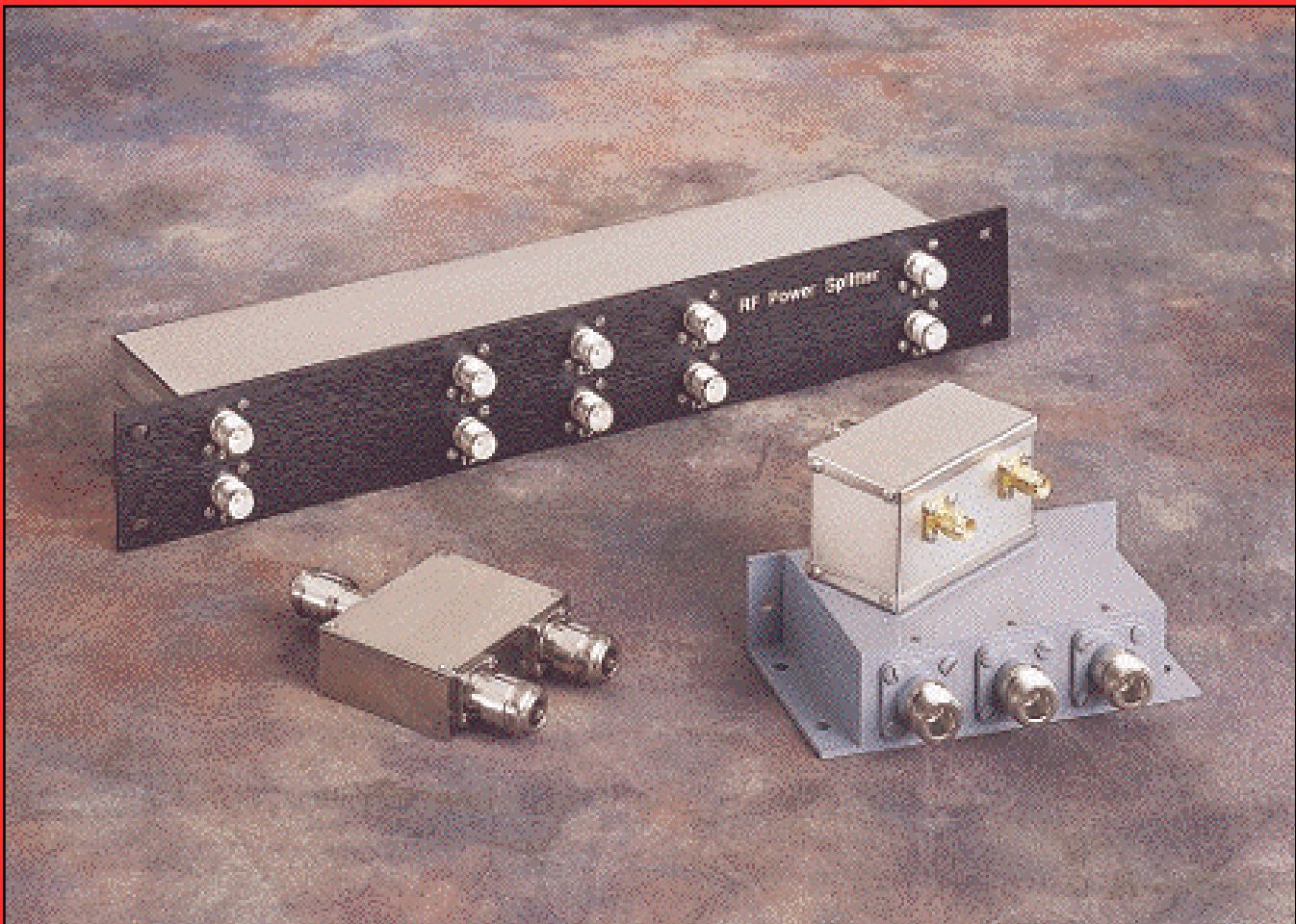
Email: sales@jfwindustries.com



Power Dividers/Combiners

Resistive

Reactive

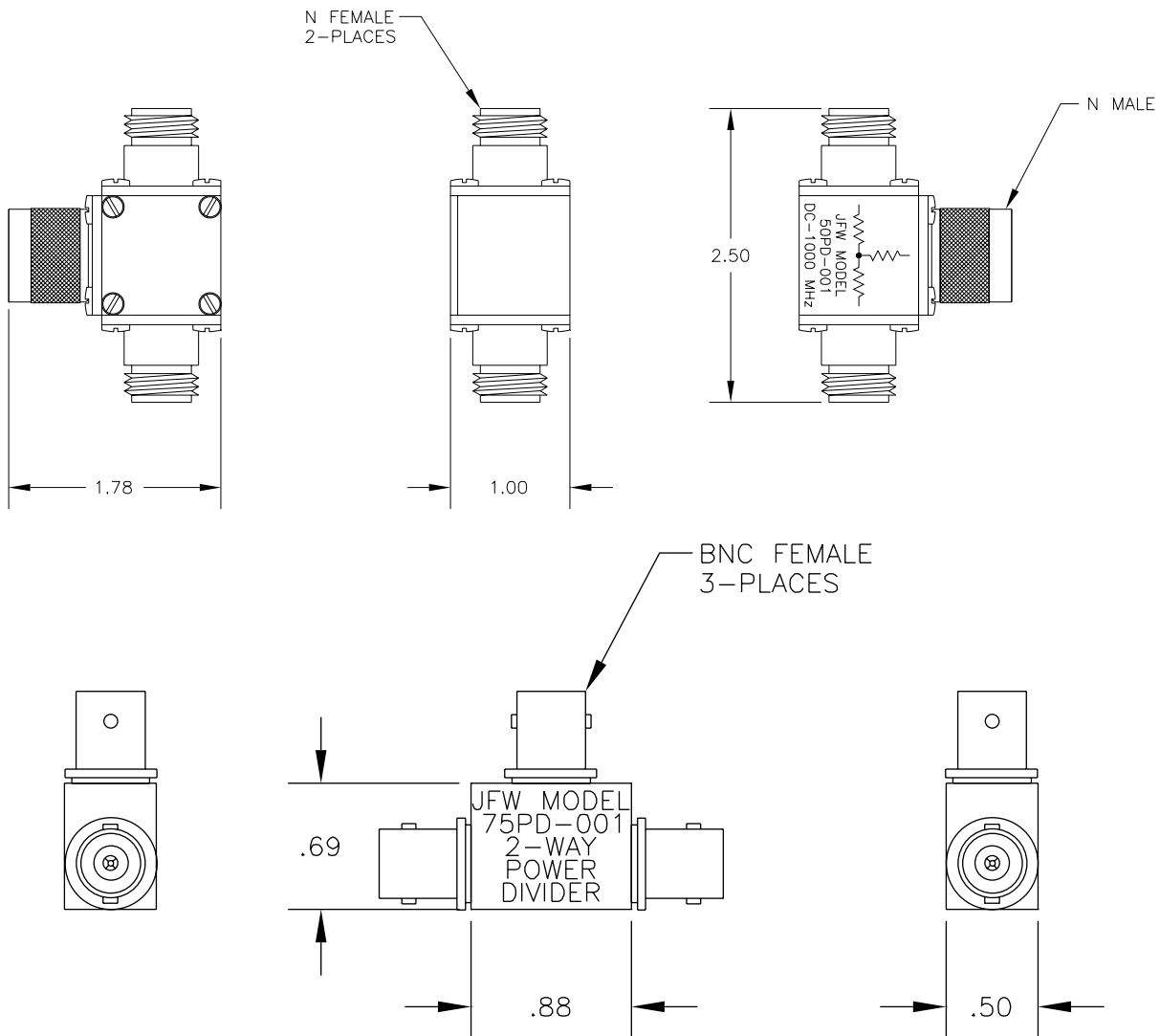


Resistive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
50PD-001	50 Ohms	2-Way	DC-1000 MHz	+/- .1 dB DC-500 MHz +/- .2 dB 500-1000 MHz	6 dB +/- .3 dB	1.1:1 DC-500 MHz 1.2:1 500-1000 MHz	N male N female
75PD-001	75 Ohms	2-Way	DC-1000 MHz	+/- .2 dB DC-500 MHz +/- .4 dB 500-1000 MHz	6 dB +/- .3 dB	1.2:1 DC-500 MHz 1.3:1 500-1000 MHz	BNC or TNC female
50PD-015	50 Ohms	2-Way	DC-2550 MHz	+/- .1 dB DC-500 MHz +/- .2 dB 500-1000 MHz +/- .3 dB 1000-2550 MHz	6 dB +/- .3 dB DC-1000 MHz 6 dB +/- .5 dB 1000-2550 MHz	1.1:1 DC-500 MHz 1.2:1 500-1000 MHz 1.3:1 1000-2550 MHz	N male N female

Common Specifications

Input Power	Peak Power	Operating Temperature
1 Watt average @ 25° C	1000 Watts (1 microsecond)	-40° C to +85° C



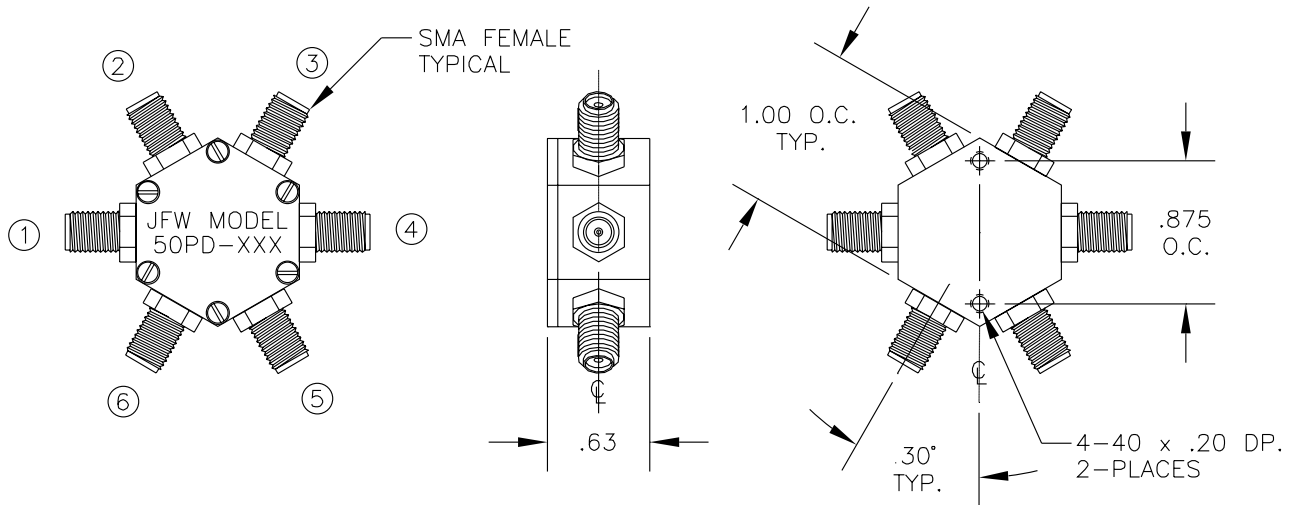
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Resistive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
50PD-016	50 Ohms	2-Way	DC-4000 MHz	+/- .1 dB DC-1000 MHz +/- .2 dB 1000-2000 MHz +/- .3 dB 2000-4000 MHz	6 dB +/- .3 dB DC-2000 MHz 6 dB +/- .5 dB 2000-4000 MHz	1.1:1 DC-1000 MHz 1.2:1 1000-2000 MHz 1.3:1 2000-4000 MHz	SMA female
50PD-017	50 Ohms	3-Way	DC-2000 MHz	+/- .1 dB DC-500 MHz +/- .2 dB 500-1000 MHz +/- .3 dB 1000-2000 MHz	9.5 dB +/- .5 dB	1.1:1 DC-500 MHz 1.2:1 500-2000 MHz	SMA female
50PD-018	50 Ohms	4-Way	DC-2000 MHz	+/- .2 dB DC-1000 MHz +/- .3 dB 1000-2000 MHz	12 dB +/- .3 dB DC-1000 MHz 12 dB +/- .5 dB 1000-2000 MHz	1.2:1	SMA female
50PD-028	50 Ohms	5-Way	DC-1500 MHz	+/- .2 dB DC-1000 MHz +/- .3 dB 1000-1500 MHz	14 dB +/- .3 dB DC-1000 MHz 14 dB +/- .5 dB 1000-1500 MHz	1.2:1	SMA female

Common Specifications

Input Power	Peak Power	Operating Temperature
2 Watts average @ 25° C	100 Watts (1 microsecond)	-40° C to +85° C



MODEL	CONFIG.	CONN. USED
50PD-016	2 WAY	1,3,5
50PD-017	3 WAY	1,3,4,5
50PD-018	4 WAY	1,2,3,5,6
50PD-028	5 WAY	1,2,3,4,5,6

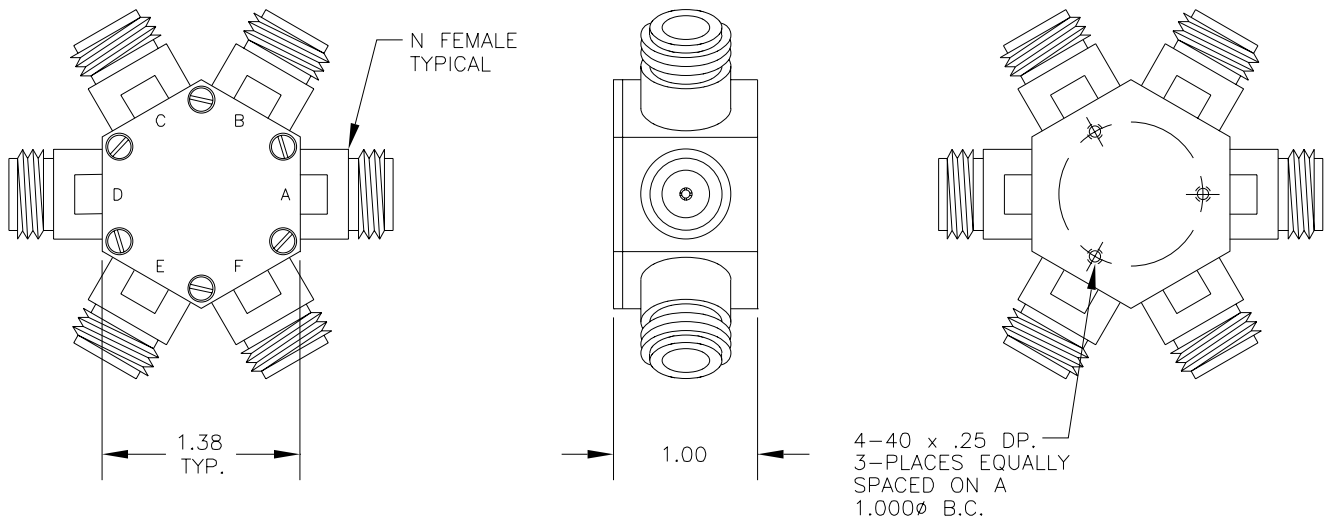
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Resistive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
50PD-133	50 Ohms	2-Way	DC-2000 MHz	+/- .3 dB	6 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N female
50PD-134	50 Ohms	3-Way	DC-2000 MHz	+/- .4 dB	9.5 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N female
50PD-135	50 Ohms	4-Way	DC-2000 MHz	+/- .4 dB	12 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N female
50PD-136	50 Ohms	5-Way	DC-2000 MHz	+/- .4 dB	14 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N female

Common Specifications

Input Power	Peak Power	Operating Temperature
2 Watts average @ 25° C	100 Watts (1 microsecond)	-40° C to +85° C



MODEL	CONFIG.	A	B	C	D	E	F
50PD-133	2 WAY	J1	-	J2	-	J3	-
50PD-134	3 WAY	J1	-	J2	J3	J4	-
50PD-135	4 WAY	J1	J2	J3	-	J4	J5
50PD-136	5 WAY	J1	J2	J3	J4	J5	J6

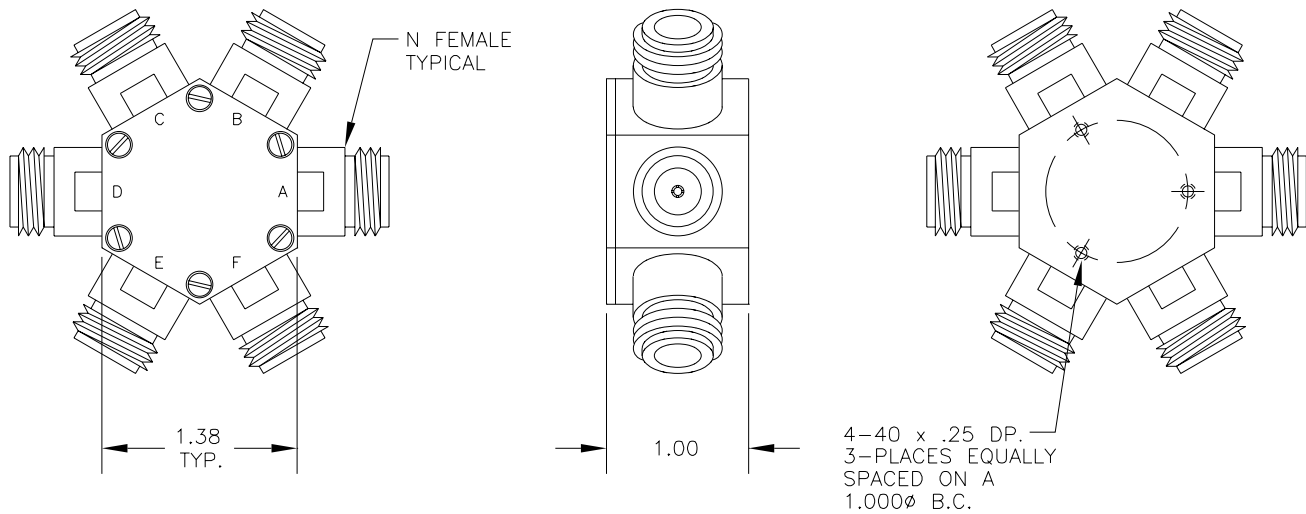
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Resistive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
75PD-045	75 Ohms	2-Way	DC-2000 MHz	+/- .3 dB	6 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N, BNC female
75PD-046	75 Ohms	3-Way	DC-2000 MHz	+/- .4 dB	9.5 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N, BNC female
75PD-047	75 Ohms	4-Way	DC-2000 MHz	+/- .4 dB	12 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N, BNC female
75PD-048	75 Ohms	5-Way	DC-2000 MHz	+/- .4 dB	14 dB +/- .5 dB	1.2:1 @ 500 MHz 1.3:1 @ 1000 MHz 1.4:1 @ 2000 MHz	N, BNC female

Common Specifications

Input Power	Peak Power	Operating Temperature
2 Watts average @ 25° C	100 Watts (1 microsecond)	-40° C to +85° C



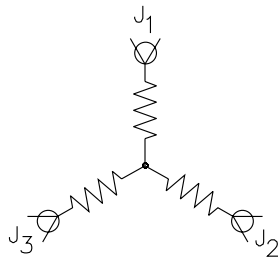
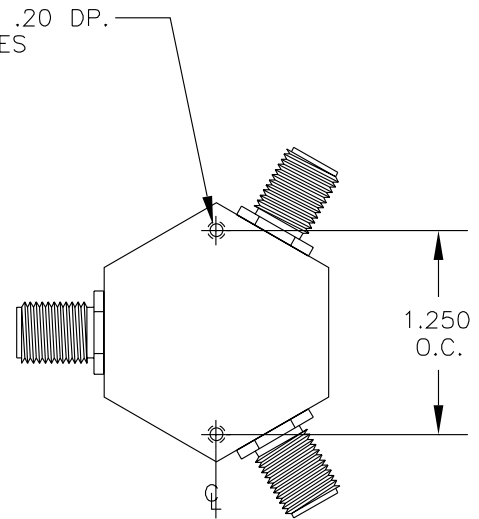
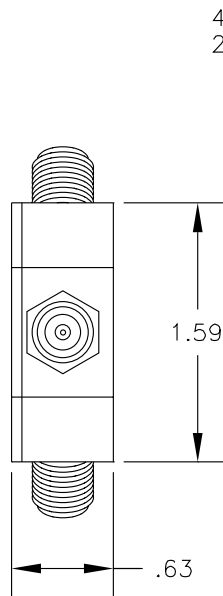
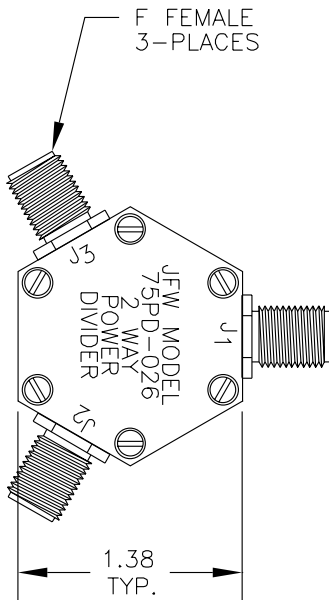
MODEL	CONFIG.	A	B	C	D	E	F
75PD-045	2 WAY	J1	-	J2	-	J3	-
75PD-046	3 WAY	J1	-	J2	J3	J4	-
75PD-047	4 WAY	J1	J2	J3	-	J4	J5
75PD-048	5 WAY	J1	J2	J3	J4	J5	J6

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Resistive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
75PD-026	75 Ohms	2-Way	DC-1000 MHz	+/- .3 dB	6 dB +/- .5 dB	1.1:1 @ 300 MHz 1.3:1 @ 1000 MHz	F female

Input Power	Peak Power	Operating Temperature
.5 Watt average @ 25° C	100 Watts (1 microsecond)	-40° C to +85° C



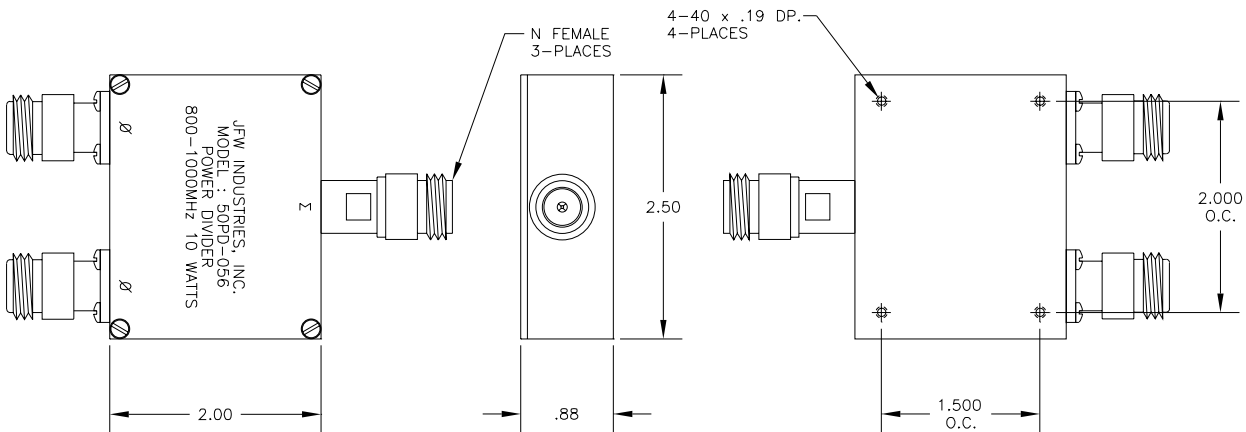
FUNCTIONAL SCHEMATIC

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Reactive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
50PD-056	50 Ohms	2-Way	800-1000 MHz	+/- .2 dB	.6 dB maximum (above 3 dB split)	1.3:1	N female (N male available on sum port)
50PD-075	50 Ohms	2-Way	800-1000 MHz	+/- .2 dB	.6 dB maximum (above 3 dB split)	1.3:1	N female (N male available on sum port)
50PD-058	50 Ohms	3-Way	800-1000 MHz	+/- .2 dB	.7 dB maximum (above 6 dB split)	1.3:1	N female
50PD-059	50 Ohms	4-Way	800-1000 MHz	+/- .2 dB	.7 dB maximum (above 6 dB split)	1.3:1	N female

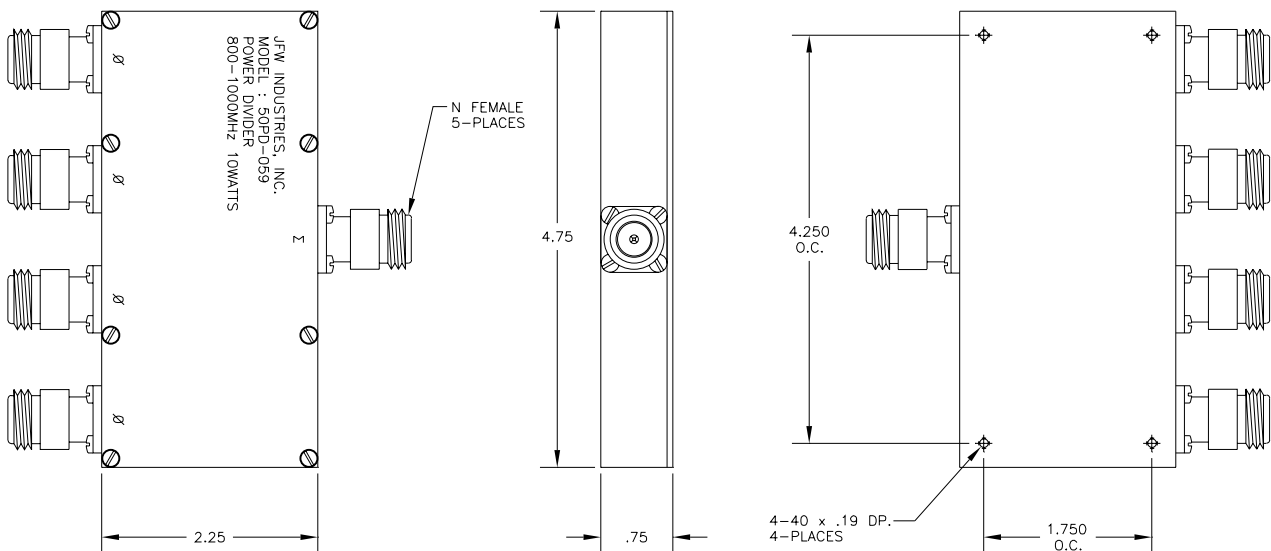
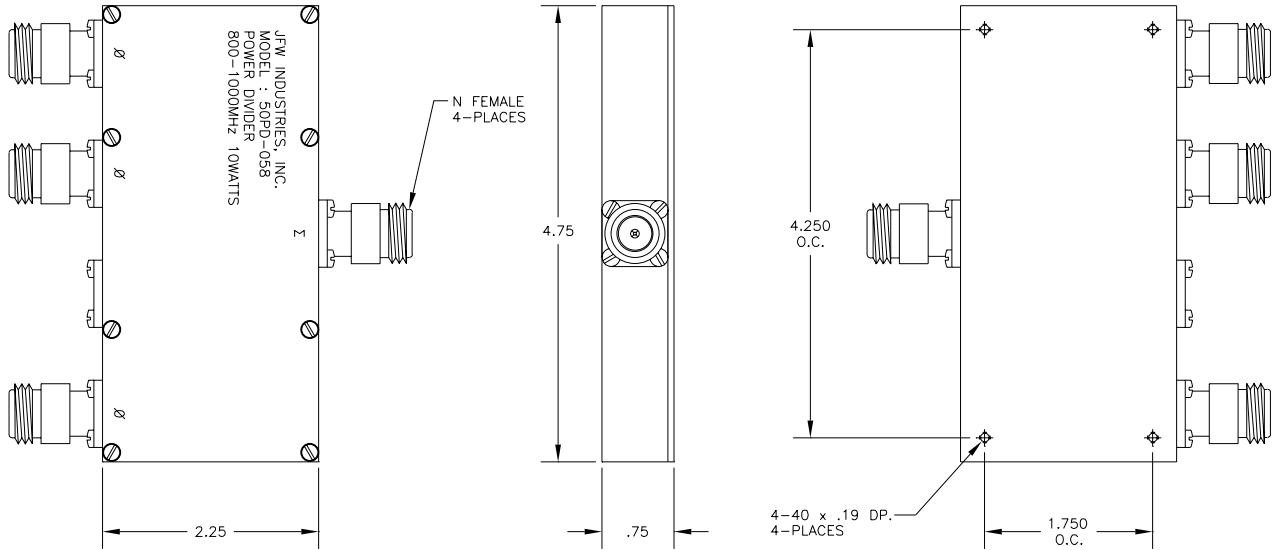
Model	Isolation (minimum)	Phase Balance	Matched Input Power	Peak Power	Operating Temperature
50PD-056	20 dB	+/-3°	10 Watts average @ 25° C	1000 Watts (1 microsecond)	-40° C to +85° C
50PD-075	20 dB	+/-3°	40 Watts average @ 25° C	1000 Watts (1 microsecond)	-40° C to +85° C
50PD-058	20 dB	+/-3°	10 Watts average @ 25° C	1000 Watts (1 microsecond)	-40° C to +85° C
50PD-059	20 dB	+/-3°	10 Watts average @ 25° C	1000 Watts (1 microsecond)	-40° C to +85° C



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Additional Drawings

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Reactive Power Dividers/Combiners



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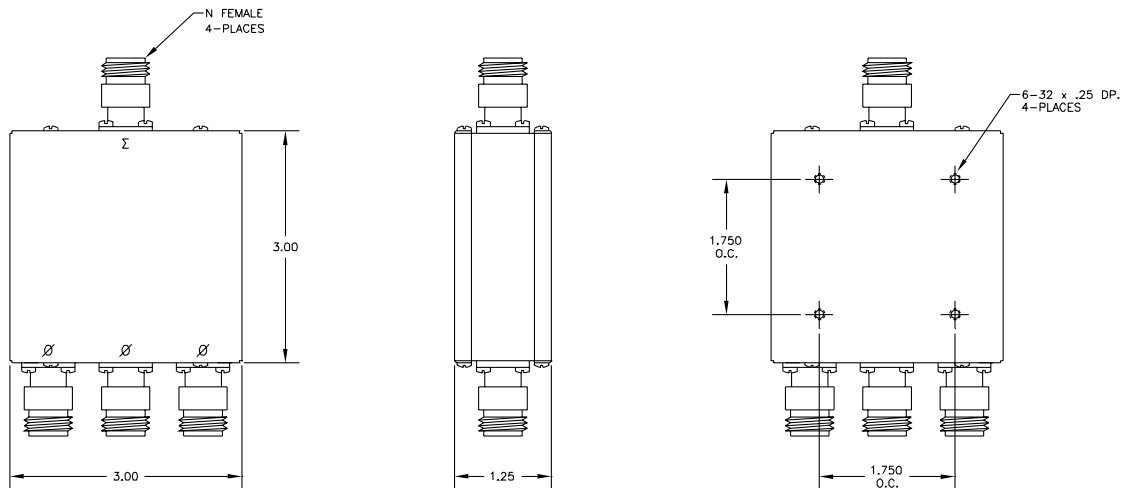
Reactive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
50PD-224	50 Ohms	3-Way	800-2200 MHz	+/- .5 dB	.6 dB maximum (above 4.8 dB split)	1.5:1	N or SMA female
50PD-243	50 Ohms	2-way	800-2200 MHz	+/- .25 dB	.4 dB (above 3 dB split)	1.3:1 maximum	SMA female
50PD-244	50 Ohms	4-way	800-2200 MHz	+/- .4 dB	.7 dB (above 6 dB split)	1.4:1 maximum	SMA female
50PD-316	50 Ohms	8-way	800-2200 MHz	+/- .5 dB	.3 dB nominal @ 800 MHz 1.2 dB nominal @ 2200 MHz (above 9 dB split)	1.5:1 maximum	SMA female

Model	Isolation (minimum)	Phase Balance	Input Power Matched	Peak Power	Operating Temperature
50PD-224	20 dB	+/- 3°	Divider 5 Watts Average @ 25° C 100 Watts Peak (1 uSec) Combiner 2.5 Watts Average @ 25° C 100 Watts Peak (1 uSec)	Divider 100 Watts Peak (1 uSec) Combiner 100 Watts Peak (1 uSec)	-40° C to +85° C
50PD-243	20 dB	+/- 3°	Divider 5 Watts Average @ 25° C 100 Watts Peak (1 uSec) Combiner 2.5 Watts Average @ 25° C 100 Watts Peak (1 uSec)	Divider 100 Watts Peak (1 uSec) Combiner 100 Watts Peak (1 uSec)	-40° C to +85° C
50PD-244	20 dB	+/- 5°	Divider 5 Watts Average @ 25° C 100 Watts Peak (1 uSec) Combiner 2.5 Watts Average @ 25° C 100 Watts Peak (1 uSec)	Divider 100 Watts Peak (1 uSec) Combiner 100 Watts Peak (1 uSec)	-40° C to +85° C
50PD-316	20 dB	+/- 10°	Divider 5 Watts Average @ 25° C 100 Watts Peak (1 uSec) Combiner 2.5 Watts Average @ 25° C 100 Watts Peak (1 uSec)	Divider 100 Watts Peak (1 uSec) Combiner 100 Watts Peak (1 uSec)	-40° C to +85° C

See Next Page For Additional Drawings

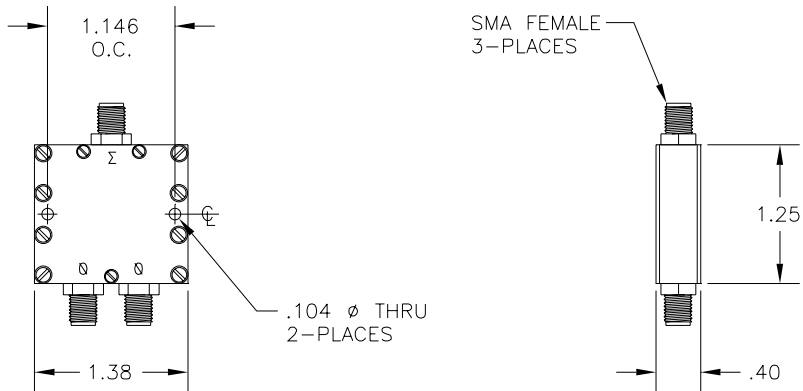
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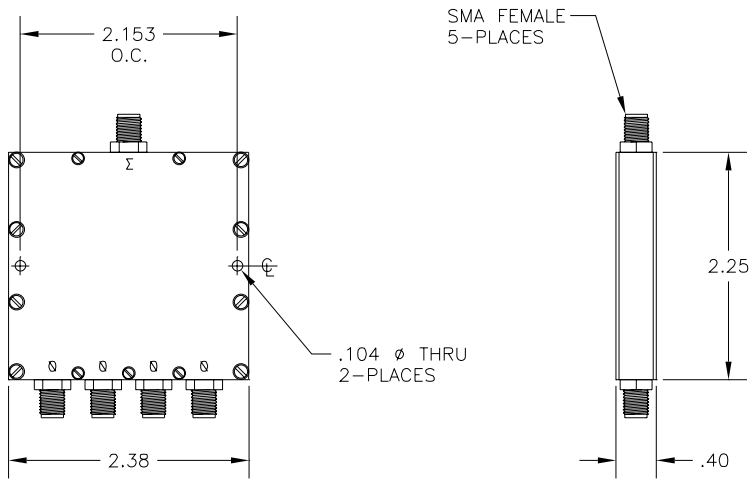
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Reactive Power Dividers/Combiners

50PD-243

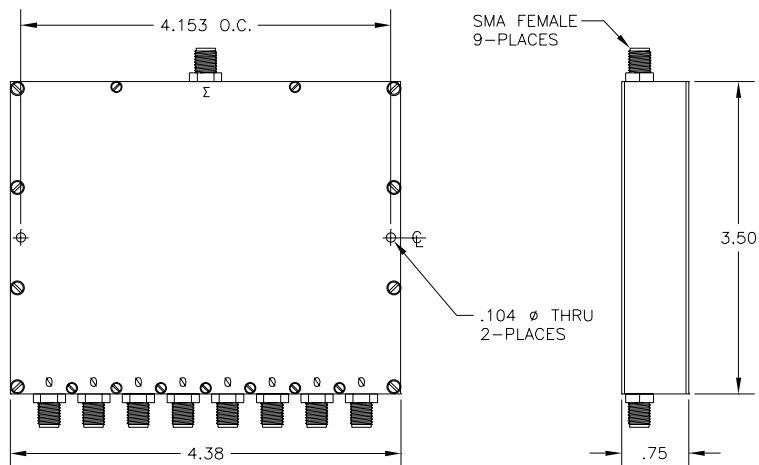


50PD-244



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50PD-316



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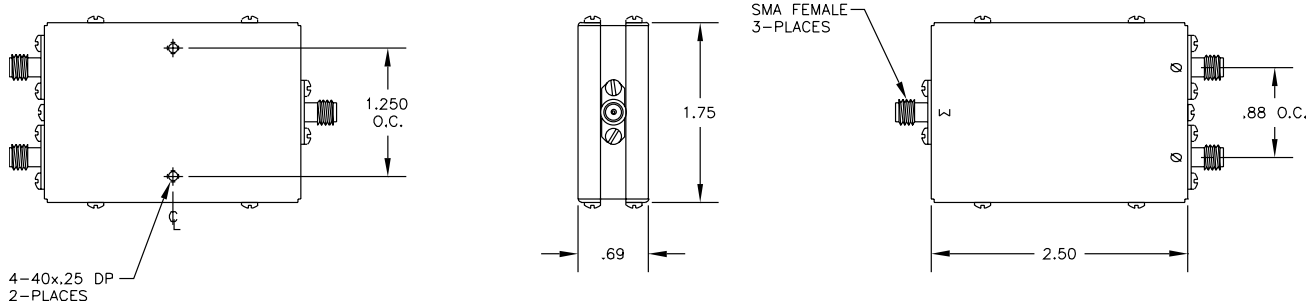
Reactive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
50PD-254	50 Ohms	2-Way	800-3000 MHz	+/- .3 dB	.6 dB (above 3 dB split)	1.4:1 maximum	SMA female
50PD-255	50 Ohms	4-Way	800-3000 MHz	+/- .4 dB	1 dB (above 6 dB split)	1.5:1 maximum	SMA female
50PD-282	50 Ohms	8-Way	800-3000 MHz	+/- .4 dB	1.2 dB (above 9 dB split)	1.5:1 maximum	SMA female

Model	Isolation (minimum)	Phase Balance	Input Power Matched	Peak Power	Operating Temperature
50PD-254	20 dB	+/- 5°	5 Watts Average @ 25° C	100 Watts Peak (1 microsecond)	-40° C to +85° C
50PD-255	20 dB	+/- 5°	5 Watts Average @ 25° C	100 Watts Peak (1 microsecond)	-40° C to +85° C
50PD-282	20 dB	+/- 5°	5 Watts Average @ 25° C	100 Watts Peak (1 microsecond)	-40° C to +85° C

See Next Page For Additional Drawings

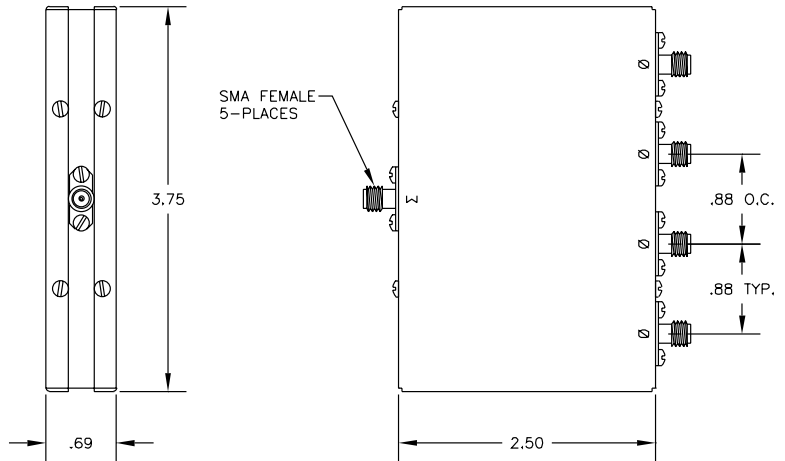
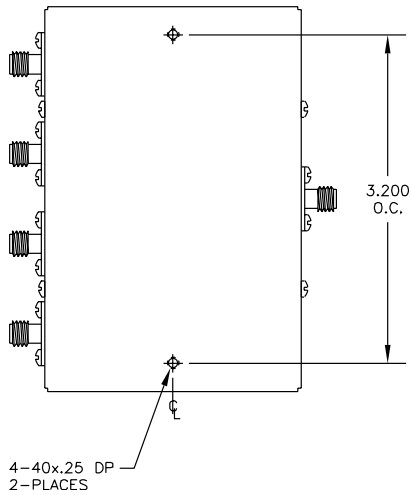
50PD-254



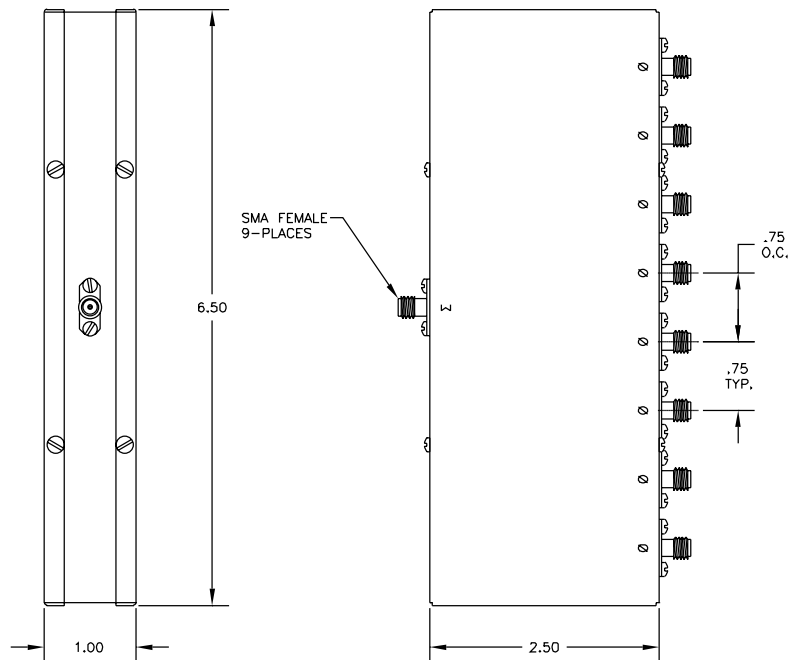
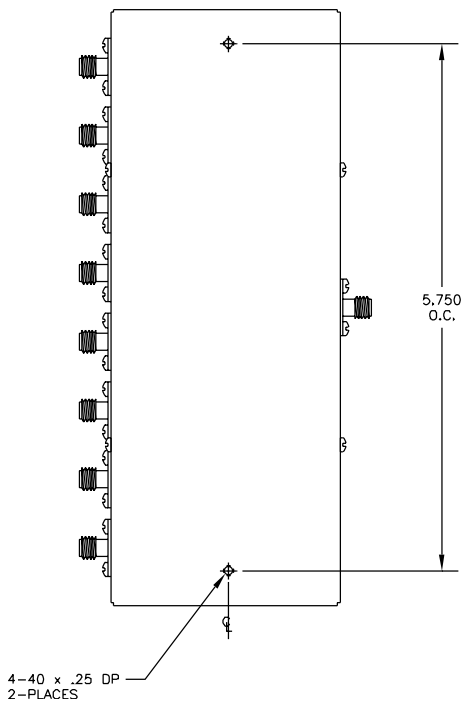
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Reactive Power Dividers/Combiners

50PD-255



50PD-282



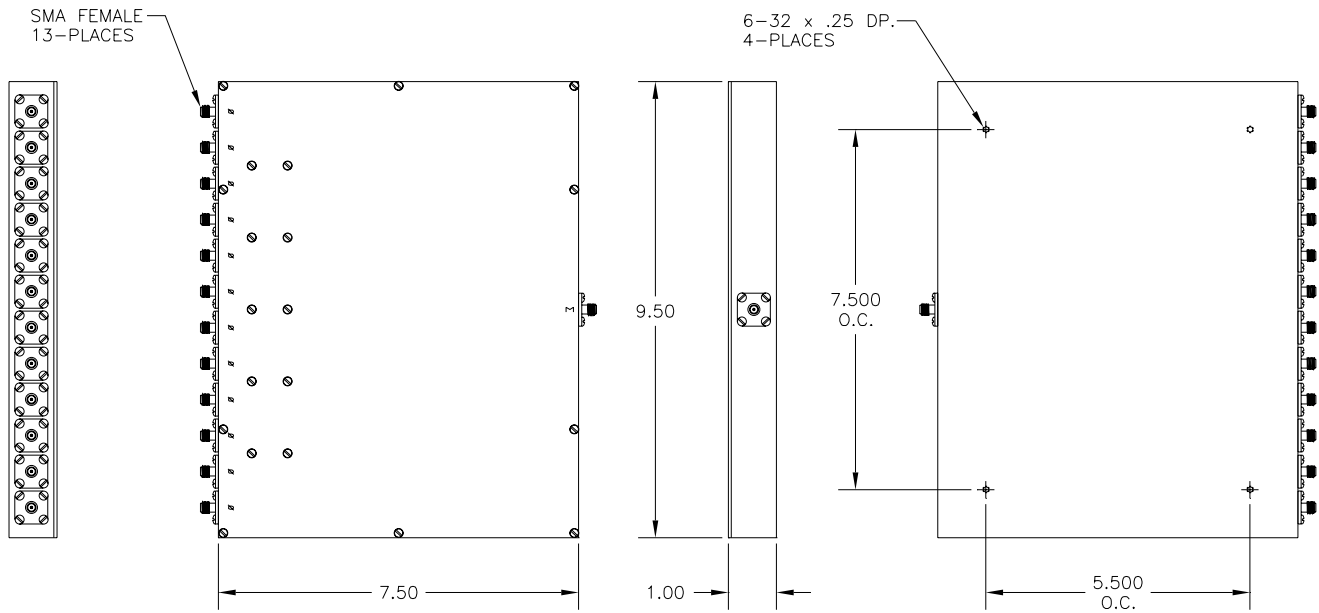
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Reactive Power Dividers/Combiners

Model	Impedance	Configuration	Frequency Range	Power Division Asymmetry	Insertion Loss	VSWR Maximum	RF Connectors
50PD-155	50 Ohms	12-Way	800-2100 MHz	+/- 1 dB	2 dB maximum (above 12 dB split)	1.5:1	N or SMA female

Model	Isolation (minimum)	Phase Balance	Input Power Matched	Peak Power	Operating Temperature
50PD-155	18 dB	+/-5°	5 Watts average @ 25° C	100 Watts (1 microsecond)	-40° C to +85° C



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Sales Representatives and additional Literature available from JFW

JFW products and services are available on a global basis. Sales Representatives provide support across the United States. A combination of Representatives / Distributors provide worldwide sales and support in the International markets. Please contact JFW customer service or visit our WEB Site for the JFW Representative or Distributor in your area.

<http://www.jfwindustries.com>

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Fax: 01992-576139

This publication offers 144 pages of RF components including attenuators, RF switches, power dividers and test accessories. In addition to this comprehensive component catalog, other product brochures addressing a specific industry or application are available. Please complete the reply card provided, email the completed literature request form available on our WEB Site or call the JFW customer service department for a prompt response. **317-887-1340**

Also available on CD-Rom.

Literature Available:

Quarterly New Product Brochure

4 pages highlighting the newest innovations designed at JFW Industries.

Distribution Systems and Programmable Assemblies

A short-form catalog describing JFW's test systems capabilities. Features and specifications are detailed on Solid-State and ElectroMechanical Matrix Switches. Programmable assemblies, a major part of all cellular / PCS hand-off simulation test systems are also outlined in detail.

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