

Innovative *Power* Products



RF and Microwave Components for Military, Medical, Industrial and Wireless Applications



- ▶ 90° Couplers
- ▶ 180° Baluns
- ▶ Impedance Transforming Couplers

- ▶ Directional Couplers
- ▶ Combiners / Dividers
- ▶ Custom Power Products

- ▶ Attenuators
- ▶ RF Resistors
- ▶ RF Terminations



**Contact us for the name of
our sales representative in
your region of the world.**

Innovative Power Products, Inc. has over 30 years of experience designing and manufacturing RF and Microwave Passive Components. Our high power, broadband couplers, combiners, resistors and terminations are fabricated using the latest materials and design tools available, resulting in unrivaled product performance. Our ISO 9001:2008 registered quality system assures our customers of a reliable product for their application.

Innovative Power Product's broadband products are used around the world in RF and Microwave applications in military, medical, industrial and consumer markets. Innovative Power Products is quickly becoming a market leader by offering our customers competitive prices, fast delivery worldwide and outstanding customer service.

This catalog contains a list of our most popular products. Visit our web site at www.innovativepp.com for a more comprehensive and current product listing. All of the products listed on our web site link to detailed mechanical drawings that contain electrical specifications. If you require performance data or "S" parameters, please contact us by phone, e-mail or by filling out the form on our web site.

We can design and manufacture custom products to suit your individual needs. If you can't find a product that meets your requirements in this catalog, or on our web site, please contact one of our design engineers with your specifications, and we will create a product for your application.

Thank you for considering Innovative Power Products as your supplier for RF and Microwave Passive components. Given the opportunity, we promise to impress you with our conscientious customer service. See for yourself why so many companies turn to us for superior passive components.

Call 631-563-0088 to speak to an experienced Design Engineer about your upcoming project.

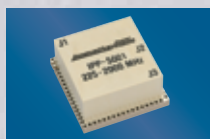


Innovative Power Products, Inc. is proud to announce that their Quality Management System has been successfully registered by Underwriters Laboratories for ISO 9001:2008.
Certificate Number: 10009425 QM08



Many of our products are available as RoHS compliant.

Table of Contents



180° Baluns 4

Frequency Ranges from 20 MHz to 2500 MHz in Power Levels up to 100 Watts CW.



90° Impedance Transforming Couplers 4

Frequency Ranges from 225 MHz to 3500 MHz in Power Levels up to 300 Watts CW.



90° Couplers: Surface Mount 4 & 5

Frequency Ranges from 30 MHz to 8500 MHz in Power Levels up to 300 Watts CW.



90° Couplers: Drop-In..... 6

Frequency Ranges from 20 MHz to 6000 MHz in Power Levels up to 1000 Watts CW.



90° Couplers: Connectorized..... 7

Frequency Ranges from 20 MHz to 8500 MHz in Power Levels up to 1500 Watts CW.



Directional Couplers: Surface Mount and Drop-In 8 & 9

Frequency Ranges from 1 MHz to 6000 MHz in Power Levels up to 1000 Watts CW.



Directional Couplers: Connectorized 9

Frequency Ranges from 2 MHz to 6000 MHz in Power Levels up to 2500 Watts CW.



Dividers/Combiners: Drop-in and Connectorized..... 10 & 11

Frequency Ranges from 2 MHz to 6000 MHz in Power Levels up to 1500 Watts CW.



RF Resistors: Flangeless/Flushed and Low Capacitance 12

Frequency Ranges from DC to 6000 MHz in Power Levels up to 800 Watts CW.



RF Terminations: Flangeless and Flanged 13

Frequency Ranges from DC to 8500 MHz in Power Levels up to 800 Watts CW.



RF Terminations: Coaxial 13

Frequency Ranges from DC to 6000 MHz in Power Levels up to 800 Watts CW.



RF Attenuators..... 14

Frequency Ranges from DC to 6000 MHz in Power Levels up to 100 Watts CW.



Custom Broadband Components 15

We can design and manufacture custom products to suit your individual needs.
Contact us with your specifications.

180° Baluns

PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	IMPEDANCE (OHMS)		PACKAGE SIZE (INCHES)
IPP-5002	20 - 520	100	0.45	1.30:1	0.45	5	50	25	1.10 x 1.15
IPP-5003	20 - 1000	100	0.50	1.30:1	0.45	6	50	25	1.10 x 1.15
IPP-5004	30 - 1500	100	0.60	1.35:1	0.60	7	50	25	1.10 x 1.15
IPP-5005	80 - 1000	100	0.45	1.30:1	0.45	5	50	25	1.10 x 1.15
IPP-5006	100 - 520	100	0.30	1.30:1	0.40	5	50	25	1.10 x 1.15
IPP-5001	225 - 2000	100	0.45	1.35:1	0.45	8	50	25	1.10 x 1.15
IPP-5007	500 - 2000	100	0.45	1.35:1	0.40	7	50	25	1.10 x 1.15
IPP-5008	800 - 2500	100	0.45	1.35:1	0.40	8	50	25	1.10 x 1.15



90° Couplers With Impedance Transformation

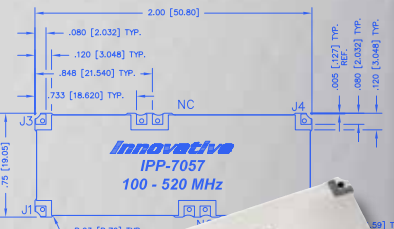
PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	IMPEDANCE (OHMS)		PACKAGE SIZE (INCHES)	PACKAGE STYLE
IPP-7102IT	225 - 450	100	0.45	1.25:1	15.0	0.60	5	50	25	0.75 x 2.00	SMD
IPP-7103IT	400 - 1000	200	0.50	1.30:1	15.0	0.65	5	50	25	0.50 x 1.80	SMD
IPP-2281IT	700 - 2700	200	0.75	1.30:1	14.0	0.80	5	50	25	1.30 x 2.20	Drop-In
IPP-7104IT	900 - 1300	200	0.45	1.25:1	16.0	0.50	5	50	25	0.50 x 1.00	SMD
IPP-7105IT	1000 - 2500	200	0.50	1.30:1	14.0	0.90	5	50	25	0.50 x 1.50	SMD
IPP-2282IT	1000 - 2500	300	0.50	1.30:1	14.0	0.90	5	50	25	0.80 x 2.20	Drop-In
IPP-7106IT	2700 - 3500	250	0.40	1.30:1	15.0	0.25	5	50	25	0.50 x 1.00	SMD

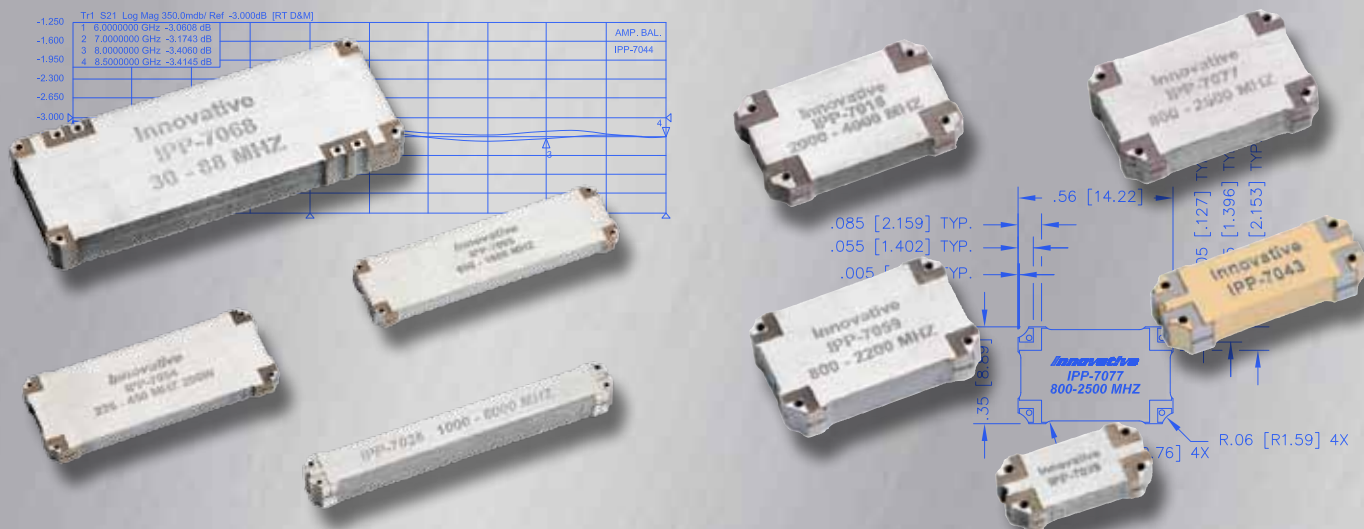
U.S. Patent Number 8174338

Other impedance values available

90° SMD Couplers

PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	PACKAGE SIZE (INCHES)
IPP-7068	30 - 88	150	0.45	1.35:1	15.5	1.00	6	0.75 x 2.00
IPP-7064	88 - 108	200	0.35	1.25:1	18.0	0.35	5	0.75 x 2.00
IPP-7057	100 - 520	150	0.60	1.30:1	16.0	0.80	7	0.75 x 2.00
IPP-7030	130 - 180	250	0.25	1.25:1	20.0	0.25	5	1.00 x 1.00
IPP-7084	176 - 220	200	0.45	1.30:1	17.0	0.40	5	0.75 x 2.00
IPP-7012	200 - 1000	150	0.60	1.30:1	16.0	0.80	5	0.75 x 2.00
IPP-7094	225 - 450	150	0.25	1.25:1	18.0	0.45	5	0.50 x 1.00
IPP-7054	225 - 450	200	0.25	1.25:1	20.0	0.50	5	0.50 x 1.26
IPP-7116	225 - 2000	200	0.80	1.30:1	17.0	1.00	5	1.13 x 1.47
IPP-7061	280 - 330	200	0.25	1.27:1	18.0	0.25	5	0.50 x 1.00
IPP-7022	295 - 605	200	0.25	1.27:1	18.0	0.65	5	0.50 x 1.00
IPP-7056	400 - 1000	150	0.25	1.25:1	18.0	0.65	5	0.50 x 1.00
IPP-7046	500 - 1000	150	0.25	1.25:1	18.0	0.55	5	0.48 x 0.65
IPP-7017	500 - 2500	100	0.50	1.30:1	18.0	0.65	5	0.50 x 1.80
IPP-7032	500 - 3000	100	0.60	1.30:1	18.0	0.80	5	0.50 x 1.80
IPP-7025	595 - 1300	100	0.28	1.30:1	17.0	0.65	5	0.35 x 0.56
IPP-7040	595 - 1300	200	0.25	1.25:1	18.0	0.65	5	0.50 x 1.00

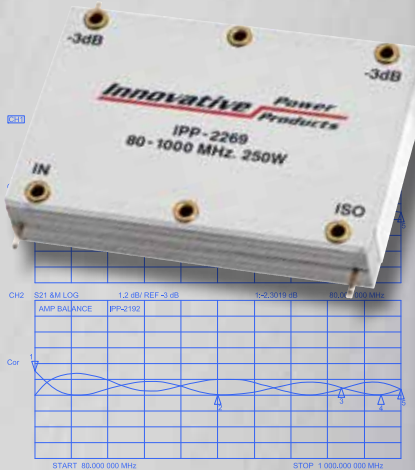




90° SMD Couplers (Continued)

PART NUMBER	FREQUENCY (MHZ)	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	PACKAGE SIZE (INCHES)
IPP-7095	600 - 1600	150	0.25	1.25:1	19.0	0.85	5	0.38 x 1.40
IPP-7052	800 - 1000	225	0.20	1.25:1	20.0	0.30	5	0.48 x 0.65
IPP-7053	800 - 1000	300	0.15	1.25:1	20.0	0.30	5	0.50 x 1.00
IPP-7048	800 - 1600	200	0.25	1.25:1	19.0	0.55	5	0.25 x 0.85
IPP-7059	800 - 2200	150	0.25	1.25:1	19.0	0.80	5	0.35 x 0.56
IPP-7010	800 - 2500	200	0.50	1.30:1	18.0	0.60	5	0.40 x 1.80
IPP-7077	800 - 2500	150	0.25	1.25:1	20.0	1.10	5	0.35 x 0.56
IPP-7013	800 - 2700	200	0.50	1.35:1	17.5	0.65	5	0.40 x 1.80
IPP-7016	960 - 1220	200	0.25	1.25:1	20.0	0.15	5	0.35 x 0.56
IPP-7063	800 - 3800	100	0.5	1.30:1	18.0	0.65	5	0.40 x 1.80
IPP-7066	800 - 4500	125	0.65	1.35:1	15.0	0.80	5	0.20 x 1.80
IPP-7047	1000 - 2000	150	0.25	1.25:1	20.0	0.55	5	0.35 x 0.56
IPP-7055	1000 - 2500	150	0.25	1.25:1	19.0	0.70	5	0.35 x 0.56
IPP-7015	1000 - 4200	80	0.50	1.30:1	18.0	0.60	5	0.40 x 1.80
IPP-7041	1100 - 4500	100	0.5	1.35:1	16.0	0.70	5	0.50 x 0.77
IPP-7026	1000 - 6000	50	0.75	1.40:1	15.0	0.80	5	0.20 x 1.65
IPP-7009	1400 - 1700	200	0.20	1.25:1	20.0	0.35	5	0.48 x 0.65
IPP-7045	1500 - 2750	150	0.25	1.25:1	20.0	0.45	5	0.25 x 0.85
IPP-7007	1700 - 2700	200	0.25	1.30:1	15.0	0.60	5	0.35 x 0.56
IPP-7036	1700 - 2200	150	0.25	1.25:1	20.0	0.40	5	0.35 x 0.56
IPP-7050	1930 - 1990	150	0.20	1.20:1	20.0	0.20	5	0.35 x 0.56
IPP-7051	1930 - 1990	300	0.15	1.25:1	20.0	0.25	5	0.50 x 1.00
IPP-7018	2000 - 4000	100	0.35	1.31:1	18.0	0.50	5	0.35 x 0.56
IPP-7006	2000 - 6000	100	0.30	1.30:1	18.0	1.00	5	0.20 x 0.56
IPP-7043	2000 - 6800	100	0.30	1.30:1	17.0	1.25	5	0.20 x 0.56
IPP-7004	2500 - 6000	100	0.30	1.30:1	18.0	0.75	5	0.20 x 0.56
IPP-7031	2600 - 6100	100	0.30	1.30:1	18.0	0.75	5	0.20 x 0.56
IPP-7019	2700 - 3100	300	0.30	1.30:1	18.0	0.30	5	0.50 x 1.00
IPP-7075	2700 - 3500	200	0.25	1.25:1	20.0	0.20	5	0.35 x 0.56
IPP-7074	2700 - 3500	300	0.20	1.30:1	18.0	0.25	5	0.50 x 1.00
IPP-7039	4000 - 8000	75	0.30	1.30:1	17.0	0.60	6	0.20 x 0.40
IPP-7044	6000 - 8500	100	0.40	1.30:1	17.0	0.35	6	0.20 x 0.40
IPP-7020	7000 - 8000	125	0.30	1.30:1	17.0	0.35	5	0.20 x 0.40

90° Drop-In Couplers



PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	PACKAGE SIZE (INCHES)
IPP-2255	20 - 520	200	0.80	1.30:1	16.0	0.30	10	2.20 x 3.00
IPP-2247	20 - 1000	150	0.90	1.30:1	16.0	0.25	12	2.20 x 3.00
IPP-2052	30 - 88	400	0.25	1.30:1	18.0	0.95	5	2.65 x 2.65
IPP-2140	80 - 500	200	0.60	1.30:1	16.0	0.75	6	1.51 x 2.40
IPP-2133	80 - 500	800	0.35	1.30:1	16.0	0.95	5	2.50 x 6.00
IPP-2269	80 - 1000	250	0.75	1.35:1	16.0	1.30	8	2.00 x 3.00
IPP-2010	88 - 108	800	0.20	1.25:1	20.0	0.40	5	2.50 x 5.00
IPP-2069	100 - 500	150	0.50	1.30:1	16.0	0.75	6	1.50 x 3.30
IPP-2092	100 - 520	200	0.60	1.30:1	16.0	0.75	6	1.51 x 2.07
IPP-2011	100 - 500	400	0.40	1.25:1	18.0	0.70	5	2.50 x 5.00
IPP-2012	100 - 500	800	0.35	1.30:1	16.0	0.80	5	2.50 x 5.00
IPP-2001	120 - 230	200	0.30	1.25:1	20.0	0.50	5	0.80 x 2.20
IPP-2087	130 - 180	800	0.20	1.25:1	18.0	0.30	5	2.65 x 2.65
IPP-2019	130 - 180	200	0.25	1.25:1	20.0	0.40	5	0.80 x 2.20
IPP-2057	200 - 1000	150	0.50	1.30:1	16.0	0.75	5	0.90 x 3.20
IPP-2136	200 - 2000	100	0.80	1.40:1	16.0	0.90	8	1.00 x 3.30
IPP-2058	225 - 400	200	0.25	1.20:1	20.0	0.50	5	0.56 x 1.62
IPP-2031	225 - 450	400	0.25	1.25:1	20.0	0.50	5	0.80 x 2.20
IPP-2038	225 - 450	800	0.20	1.25:1	20.0	0.50	5	2.65 x 2.65
IPP-2037	225 - 520	200	0.25	1.25:1	20.0	0.70	5	0.50 x 2.00
IPP-2002	400 - 1000	200	0.25	1.25:1	18.5	0.65	5	0.50 x 1.35
IPP-2060	400 - 1000	400	0.25	1.25:1	20.0	0.70	5	0.50 x 2.00
IPP-2102	400 - 1000	800	0.20	1.25:1	20.0	0.70	5	2.65 x 2.65
IPP-2187	400 - 2500	200	0.50	1.30:1	17.0	0.80	5	1.30 x 2.20
IPP-2006	500 - 1000	200	0.25	1.20:1	20.0	0.50	5	0.50 x 1.35
IPP-2061	500 - 1000	400	0.25	1.25:1	20.0	0.55	5	0.50 x 2.00
IPP-2013	500 - 2500	150	0.50	1.30:1	18.0	0.65	5	0.80 x 2.20
IPP-2072	500 - 2500	200	0.50	1.32:1	17.0	0.70	6	0.80 x 2.20
IPP-2018	500 - 3000	125	0.60	1.30:1	18.0	0.80	5	0.80 x 2.20
IPP-2148	500 - 3000	200	0.50	1.32:1	17.0	0.70	5	0.80 x 2.20
IPP-2024	800 - 1600	200	0.25	1.25:1	20.0	0.50	5	0.50 x 1.35
IPP-2167	800 - 1650	400	0.20	1.30:1	18.0	0.60	5	0.50 x 1.35
IPP-2139	800 - 2000	300	0.25	1.25:1	19.0	0.65	5	0.50 x 1.35
IPP-2014	800 - 2500	200	0.50	1.30:1	18.0	0.60	5	0.80 x 2.20
IPP-2093	800 - 2700	400	0.40	1.30:1	17.0	0.60	5	0.90 x 3.20
IPP-2079	800 - 3000	200	0.50	1.30:1	16.0	0.65	5	0.80 x 2.20
IPP-2029	900 - 1300	400	0.20	1.25:1	19.0	0.40	5	0.50 x 1.35
IPP-2025	960 - 1220	125	0.25	1.20:1	20.0	0.40	5	0.50 x 1.35
IPP-2007	1000 - 2000	200	0.25	1.20:1	20.0	0.50	5	0.50 x 1.35
IPP-2041	1000 - 2000	400	0.20	1.25:1	20.0	0.40	5	0.50 x 1.35
IPP-2042	1000 - 2000	1000	0.20	1.25:1	18.0	0.50	5	1.00 x 2.40
IPP-2267	1000 - 2500	200	0.25	1.25:1	19.0	0.65	5	0.50 x 1.35
IPP-2067	1000 - 3000	150	0.30	1.30:1	18.0	1.10	5	0.50 x 1.35
IPP-2004	1000 - 4200	80	0.50	1.30:1	18.0	0.50	5	0.80 x 2.20
IPP-2062	1300 - 3000	150	0.25	1.25:1	18.0	0.60	5	0.50 x 1.35
IPP-2015	2000 - 4000	100	0.40	1.25:1	18.0	0.50	5	0.50 x 1.35
IPP-2277	2000 - 6000	100	0.30	1.30:1	18.0	1.00	5	0.25 x 1.30

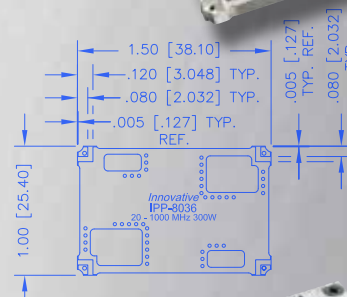


90° Couplers With Connectors

PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	PACKAGE SIZE (INCHES)	CONNECTOR TYPE (FEMALE)
IPP-2218	20 - 520	200	0.80	1.30:1	16.0	0.30	10	3.00 x 3.00	SMA
IPP-2181	30 - 88	400	0.35	1.30:1	18.0	0.95	5	3.70 x 4.10	SMA
IPP-2104	30 - 88	400	0.35	1.30:1	18.0	0.95	5	3.70 x 4.10	N
IPP-2125	66 - 108	200	0.45	1.25:1	20.0	0.40	5	3.70 x 4.10	SMA
IPP-2222	80 - 500	200	0.75	1.30:1	16.0	0.75	6	2.94 x 3.35	SMA
IPP-2226	80 - 500	800	0.50	1.30:1	16.0	0.95	5	3.93 x 8.15	N
IPP-2223	80 - 1000	250	0.80	1.35:1	16.0	1.30	8	3.44 x 4.39	N
IPP-2193	100 - 250	1000	0.30	1.25:1	18.0	0.85	5	3.70 x 4.10	N
IPP-2066	100 - 500	400	0.60	1.25:1	18.0	0.70	5	4.00 x 7.00	N
IPP-2116	100 - 500	800	0.50	1.30:1	16.0	0.80	5	3.93 x 7.15	N
IPP-2111	130 - 180	200	0.30	1.25:1	20.0	0.40	5	2.23 x 3.90	N
IPP-2220	130 - 180	800	0.40	1.25:1	18.0	0.30	5	4.09 x 4.72	N
IPP-2206	200 - 1000	150	0.80	1.30:1	16.0	0.80	5	2.00 x 3.23	SMA
IPP-2179	200 - 2000	100	0.90	1.40:1	16.0	0.90	5	2.50 x 5.00	SMA
IPP-2180	225 - 400	200	0.45	1.25:1	20.0	0.50	5	2.00 x 3.25	SMA
IPP-2207	300 - 600	200	0.50	1.27:1	18.0	0.65	5	1.71 x 1.94	SMA
IPP-2117	400 - 1000	800	0.40	1.25:1	20.0	0.70	5	3.95 x 4.08	N
IPP-2227	400 - 2500	200	0.75	1.30:1	17.0	0.80	5	2.74 x 3.29	SMA
IPP-2200	500 - 1000	200	0.40	1.25:1	20.0	0.55	5	1.54 x 1.80	SMA
IPP-2208	500 - 2500	100	0.75	1.30:1	18.0	0.65	5	1.65 x 3.23	SMA
IPP-2123	500 - 2500	150	0.60	1.30:1	18.0	0.65	5	2.23 x 3.90	SMA
IPP-2160	500 - 3000	125	0.70	1.30:1	18.0	0.80	5	2.23 x 3.90	SMA
IPP-2204	600 - 1300	100	0.50	1.30:1	17.0	0.65	5	1.41 x 1.53	SMA
IPP-2228	800 - 1600	200	0.65	1.25:1	19.0	0.55	5	1.41 x 1.74	SMA
IPP-2209	800 - 2500	200	0.75	1.30:1	18.0	0.60	5	1.65 x 3.23	SMA
IPP-2157	800 - 2500	400	0.50	1.30:1	17.0	0.50	5	2.33 x 4.94	N
IPP-2210	800 - 2700	200	0.75	1.35:1	17.5	0.65	5	1.65 x 3.23	SMA
IPP-2134	800 - 2700	1500	0.50	1.35:1	16.0	0.70	5	2.67 x 4.98	7/16
IPP-2229	1000 - 2000	150	0.50	1.25:1	20.0	0.55	5	1.41 x 1.53	SMA
IPP-2155	1000 - 2000	400	0.60	1.25:1	20.0	0.40	5	1.94 x 2.95	N
IPP-2230	1000 - 3000	150	0.50	1.30:1	18.0	1.10	5	1.50 x 2.10	SMA
IPP-2122	1000 - 4200	80	0.60	1.30:1	18.0	0.50	5	2.23 x 3.90	SMA
IPP-2231	1000 - 6000	50	0.90	1.40:1	15.0	0.80	5	1.81 x 2.93	SMA
IPP-2127	2000 - 4000	400	0.50	1.30:1	18.0	0.50	5	1.94 x 3.40	N
IPP-2212	2000 - 6000	100	0.60	1.30:1	18.0	1.00	5	1.41 x 1.53	SMA
IPP-2213	2500 - 6000	100	0.60	1.30:1	18.0	0.75	5	1.41 x 1.53	SMA
IPP-2217	2700 - 3100	200	0.45	1.30:1	18.0	0.30	5	1.41 x 1.53	SMA
IPP-2214	4000 - 8000	75	0.60	1.30:1	17.0	0.60	6	1.26 x 1.53	SMA
IPP-2216	6000 - 8500	100	0.40	1.30:1	17.0	0.35	6	1.41 x 1.53	SMA
IPP-2215	7000 - 8000	125	0.60	1.30:1	17.0	0.35	5	1.41 x 1.53	SMA

Dual Directional Drop-In Couplers

PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	NOMINAL COUPLING (dB)	COUPLING FLATNESS (+/- dB)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	DIRECTIVITY (dB, MIN)	PACKAGE SIZE (INCHES)
IPP-3025	20 - 500	200	50	0.50	0.25	1.25:1	20.0	1.50 x 2.50
IPP-3105	20 - 500	500	50	0.50	0.30	1.25:1	20.0	1.50 x 2.50
IPP-3121	20 - 1000	200	50	0.60	0.35	1.25:1	20.0	1.50 x 2.50
IPP-3060	100 - 250	1000	40	0.50	0.25	1.25:1	20.0	3.73 x 3.64
IPP-3057	100 - 500	100	40	0.50	0.25	1.25:1	20.0	1.50 x 2.50
IPP-3150	100 - 500	500	40	0.50	0.30	1.25:1	20.0	1.50 x 2.50
IPP-3091	100 - 850	200	50	0.50	0.25	1.25:1	20.0	1.50 x 1.50
IPP-3064	100 - 1000	200	50	0.50	0.25	1.25:1	20.0	1.50 x 2.50
IPP-3088	200 - 1000	200	40	0.50	0.25	1.25:1	20.0	1.50 x 1.50
IPP-3019	500 - 1000	400	40	0.50	0.25	1.25:1	20.0	1.25 x 1.50
IPP-3026	500 - 2500	200	40	0.50	0.25	1.25:1	18.0	1.50 x 2.50
IPP-3078	500 - 3000	200	40	0.75	0.35	1.25:1	16.0	1.46 x 2.50
IPP-3048	800 - 2200	200	25	0.60	0.25	1.25:1	20.0	1.30 x 3.20
IPP-3037	800 - 2500	300	40	0.50	0.25	1.25:1	18.0	1.50 x 2.50
IPP-3009	1000 - 2000	200	20	1.00	0.30	1.20:1	18.0	1.30 x 3.20



Directional SMD Couplers

PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	NOMINAL COUPLING (dB)	COUPLING FLATNESS (+/- dB)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	DIRECTIVITY (dB, MIN)	COUPLER TYPE	PACKAGE SIZE (INCHES)
IPP-8047	1 - 200	30	20	0.50	0.20	1.25:1	20.0	BDC	0.66 x 0.66
IPP-8071	2 - 100	120	20	0.50	0.25	1.25:1	20.0	BDC	1.10 x 1.15
IPP-8044	20 - 520	300	50	0.60	0.25	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8070	20 - 1000	150	50	0.65	0.30	1.30:1	18.0	DDC	0.75 x 1.25
IPP-8036	20 - 1000	300	50	0.60	0.35	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8027	30 - 520	200	50	0.50	0.25	1.25:1	20.0	SDC	1.00 x 1.50
IPP-8045	30 - 520	300	50	0.50	0.25	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8046	100 - 500	300	40	0.60	0.25	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8054	100 - 2500	100	50	0.70	0.37	1.35:1	20.0	DDC	0.75 x 1.25
IPP-8025	200 - 1000	300	40	0.60	0.35	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8061	225 - 450	150	30	1.25	0.25	1.25:1	16.0	SDC	0.50 x 1.00
IPP-8002	225 - 450	200	30	1.25	0.25	1.25:1	16.0	BDC	1.00 x 1.00
IPP-8059	225 - 1850	100	35	1.00	0.40	1.25:1	18.0	DDC	0.75 x 1.50
IPP-8042	225 - 2500	100	35	1.00	0.30	1.25:1	18.0	DDC	1.00 x 1.00
IPP-8063	225 - 2500	200	45	0.75	0.25	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8057	500 - 2500	50	40	0.60	0.25	1.25:1	20.0	DDC	0.50 x 1.00
IPP-8026	500 - 2500	200	36	0.75	0.25	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8013	595 - 1300	150	34	0.75	0.25	1.25:1	18.0	SDC	0.50 x 1.00
IPP-8005	800 - 1200	150	10	0.70	0.25	1.25:1	16.0	BDC	0.35 x 0.56
IPP-8069	800 - 2500	150	15	0.75	0.40	1.25:1	20.0	BDC	0.50 x 1.00
IPP-8029	800 - 2500	150	20	0.75	0.25	1.25:1	20.0	BDC	0.50 x 1.00
IPP-8032	800 - 1000	100	20	0.30	0.25	1.25:1	20.0	BDC	0.35 x 0.56
IPP-8033	800 - 1000	300	20	0.30	0.20	1.25:1	20.0	BDC	0.50 x 1.00
IPP-8051	800 - 2500	150	20	0.75	0.35	1.25:1	20.0	DDC	1.00 x 1.50
IPP-8004	1000 - 2000	200	20	1.20	0.20	1.28:1	20.0	BDC	0.35 x 0.56



Directional SMD Couplers (Continued)

PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	NOMINAL COUPLING (dB)	COUPLING FLATNESS (+/- dB)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	DIRECTIVITY (dB, MIN)	COUPLER TYPE	PACKAGE SIZE (INCHES)
IPP-8015	1150 - 2750	150	34	0.75	0.25	1.25:1	18.0	SDC	0.50 x 1.00
IPP-8028	1675 - 2550	150	20	0.50	0.30	1.25:1	20.0	BDC	0.50 x 1.00
IPP-8034	1930 - 1990	300	20	0.20	0.20	1.25:1	20.0	BDC	0.50 x 1.00
IPP-8038	2000 - 4000	100	20	0.90	0.25	1.30:1	20.0	SDC	0.35 x 0.56
IPP-8000	2000 - 6000	100	10	1.60	0.25	1.30:1	18.0	BDC	0.20 x 0.56
IPP-8039	2000 - 6000	100	20	1.90	0.25	1.30:1	16.0	SDC	0.20 x 0.56
IPP-8001	2500 - 6000	100	20	1.20	0.25	1.30:1	20.0	BDC	0.35 x 0.56
IPP-8007	2500 - 6000	100	20	0.50	0.40	1.35:1	18.0	BDC	0.35 x 1.00
IPP-8012	4000 - 6000	130	20	0.75	0.25	1.30:1	20.0	BDC	0.35 x 0.56

Directional Couplers With Connectors

PART NUMBER	FREQUENCY (MHz)	AVERAGE POWER (WATTS)	NOMINAL COUPLING (dB)	COUPLING FLATNESS (+/- dB)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	DIRECTIVITY (dB, MIN)	PACKAGE SIZE (INCHES)	CONNECTORS	
									MAIN	COUPLED
IPP-3151	2 - 30	2500	50	0.30	0.15	1.25:1	22.0	2.00 x 4.00	N	SMA
IPP-3005	20 - 520	200	50	0.50	0.30	1.25:1	20.0	1.50 x 2.50	SMA	SMA
IPP-3011	20 - 500	500	50	0.50	0.20	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3001	20 - 500	1000	50	0.50	0.30	1.20:1	20.0	3.00 x 6.00	N	N
IPP-3175	20 - 520	1000	50	0.50	0.20	1.25:1	20.0	1.75 x 4.33	N	SMA
IPP-3131	20 - 1000	200	50	0.60	0.35	1.25:1	20.0	1.50 x 2.50	SMA	SMA
IPP-3132	20 - 1000	500	50	0.60	0.35	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3130	20 - 1000	1000	50	0.60	0.35	1.25:1	20.0	1.75 x 4.33	SC	SMA
IPP-3111	80 - 1000	500	50	0.50	0.25	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3112	80 - 1000	1000	50	0.50	0.25	1.30:1	20.0	3.00 x 3.00	N	N
IPP-3113	80 - 1000	2000	50	0.50	0.15	1.25:1	20.0	3.50 x 3.50	SC	SMA
IPP-3076	100 - 500	200	40	0.30	0.25	1.20:1	20.0	1.50 x 2.50	SMA	SMA
IPP-3116	100 - 500	600	40	0.50	0.30	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3020	100 - 600	200	40	0.50	0.30	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3013	100 - 1000	200	50	0.50	0.25	1.25:1	20.0	1.50 x 2.50	SMA	SMA
IPP-3109	200 - 1000	200	40	0.50	0.25	1.25:1	20.0	1.50 x 2.50	N	N
IPP-3021	400 - 1000	200	40	0.50	0.30	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3006	400 - 1000	200	40	0.50	0.25	1.25:1	20.0	1.50 x 2.50	SMA	SMA
IPP-3004	400 - 1000	500	50	0.50	0.25	1.20:1	20.0	3.00 x 3.00	N	N
IPP-3068	500 - 2500	200	40	0.50	0.30	1.25:1	18.0	1.50 x 2.50	N	SMA
IPP-3146	500 - 2500	500	40	0.60	0.30	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3070	500 - 3000	200	40	0.50	0.35	1.25:1	18.0	1.50 x 2.50	N	SMA
IPP-3155	700 - 2000	750	40	0.50	0.15	1.25:1	20.0	3.50 x 3.50	N	SMA
IPP-3045	700 - 3200	400	40	0.50	0.30	1.30:1	20.0	3.00 x 3.00	N	N
IPP-3008	700 - 4200	200	20	1.00	0.35	1.25:1	18.0	0.92 x 2.85	SMA	SMA
IPP-3007	800 - 2500	200	40	0.50	0.25	1.25:1	20.0	1.50 x 2.50	SMA	SMA
IPP-3069	800 - 2500	500	40	0.50	0.30	1.25:1	20.0	1.50 x 2.50	N	SMA
IPP-3031	800 - 4200	200	40	0.50	0.30	1.30:1	20.0	3.00 x 3.00	N	N
IPP-3003	1000 - 3000	200	40	0.50	0.30	1.30:1	20.0	3.00 x 3.00	N	N
IPP-3032	1000 - 3000	1000	50	0.50	0.15	1.25:1	20.0	3.50 x 3.50	SC	SMA
IPP-3072	2000 - 6000	100	20	0.70	0.35	1.30:1	16.0	1.18 x 1.70	SMA	SMA
IPP-3085	2000 - 6000	200	20	0.70	0.50	1.30:1	15.0	1.18 x 1.70	N	SMA

Dividers/Combiners With Connectors

PART NUMBER	FREQUENCY (MHz)	N-WAY	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	PACKAGE SIZE (INCHES)	CONNECTORS	
										INPUT	SUM
IPP-1154	2 - 30	2-WAY	1000	0.30	1.30:1	10	0.15	5	4.35 x 5.00	N	N
IPP-1025	20 - 1000	2-WAY	100	0.60	1.30:1	15	0.30	5	2.00 x 3.25	N	N
IPP-1020	20 - 1000	4-WAY	200	0.75	1.30:1	12	0.25	5	3.00 x 4.00	SMA	SMA
IPP-1022	20 - 1000	4-WAY	300	0.75	1.25:1	12	0.25	5	4.72 x 5.10	SMA	N
IPP-1021	20 - 1000	4-WAY	300	0.75	1.25:1	12	0.25	5	4.72 x 5.10	N	N
IPP-1164	20 - 1000	2-WAY	400	0.80	1.30:1	10	0.20	5	4.35 x 5.00	SMA	N
IPP-1141	20 - 1000	2-WAY	500	0.80	1.30:1	10	0.20	5	4.35 x 5.00	N	N
IPP-1193	20 - 1000	8-WAY	150	1.10	1.25:1	10	0.20	5	3.44 x 6.28	SMA	SMA
IPP-1205	80 - 1000	2-WAY	100	0.55	1.25:1	15	0.20	5	2.00 x 3.25	SMA	SMA
IPP-1206	80 - 1000	8-WAY	150	1.00	1.25:1	10	0.20	5	3.44 x 6.28	SMA	SMA
IPP-1207	80 - 1000	2-WAY	200	0.55	1.25:1	15	0.20	5	2.00 x 3.25	SMA	N
IPP-1014	80 - 1000	4-WAY	200	0.75	1.30:1	12	0.25	5	3.00 x 4.00	SMA	SMA
IPP-1208	80 - 1000	2-WAY	500	0.70	1.25:1	10	0.20	5	4.35 x 5.00	N	N
IPP-1015	80 - 1000	4-WAY	500	0.75	1.30:1	12	0.25	5	4.72 x 5.10	N	N
IPP-1176	80 - 1000	2-WAY	1500	0.40	1.30:1	N/A	0.25	5	5.00 X 5.50	SC	7/16
IPP-1177	80 - 1000	4-WAY	1500	0.90	1.25:1	5	0.25	5	4.40 x 4.83	N	SC
IPP-1145	100 - 500	8-WAY	50	0.75	1.30:1	10	0.20	5	3.34 x 9.37	N	N
IPP-1209	100 - 500	2-WAY	100	0.45	1.25:1	18	0.10	5	2.00 x 3.25	SMA	SMA
IPP-1146	100 - 500	3-WAY	150	0.50	1.30:1	8	0.20	5	4.00 x 6.00	N	N
IPP-1210	100 - 500	2-WAY	200	0.45	1.25:1	18	0.20	5	2.00 x 3.25	SMA	SMA
IPP-1211	100 - 500	4-WAY	200	0.60	1.25:1	15	0.20	5	3.00 x 4.00	SMA	SMA
IPP-1212	100 - 500	4-WAY	500	0.50	1.25:1	15	0.20	5	4.72 x 5.10	N	N
IPP-1132	100 - 500	2-WAY	500	0.60	1.40:1	8	0.20	5	4.36 x 5.36	N	N
IPP-1044	100 - 500	2-WAY	1000	0.60	1.40:1	8	0.20	5	4.36 x 5.36	N	SC
IPP-1213	100 - 500	2-WAY	1500	0.60	1.40:1	8	0.20	5	4.73 x 5.36	N	SC
IPP-1199	100 - 500	4-WAY	1500	0.60	1.25:1	11	0.25	5	4.40 x 4.96	N	SC
IPP-1092	250 - 1000	2-WAY	750	0.50	1.30:1	10	0.20	5	4.35 x 6.75	N	N
IPP-1091	250 - 1000	4-WAY	750	0.80	1.30:1	10	0.25	5	4.72 x 5.10	N	N
IPP-1070	400 - 1000	2-WAY	200	0.50	1.25:1	15	0.20	5	2.40 x 2.40	SMA	SMA
IPP-1068	400 - 1000	4-WAY	200	0.60	1.30:1	10	0.25	5	3.00 x 4.00	SMA	SMA
IPP-1000	400 - 1000	4-WAY	750	0.40	1.30:1	10	0.20	5	3.27 x 8.52	TNC	SC
IPP-1077	400 - 1000	4-WAY	1000	0.40	1.30:1	10	0.20	5	5.25 x 5.60	N	SC
IPP-1100	500 - 2500	2-WAY	200	0.40	1.30:1	13	0.20	5	2.00 x 4.70	SMA	N
IPP-1101	500 - 2500	4-WAY	200	0.80	1.30:1	8	0.25	5	3.00 x 4.00	SMA	SMA
IPP-1157	700 - 2000	4-WAY	750	0.75	1.30:1	6	0.30	5	5.00 x 5.25	N	N
IPP-1191	800 - 2500	2-WAY	175	0.50	1.25:1	13	0.20	5	2.40 x 2.40	SMA	SMA
IPP-1035	800 - 2500	4-WAY	200	0.60	1.30:1	12	0.25	5	3.00 x 4.00	SMA	SMA



Dividers/Combiners With Connectors (Continued)

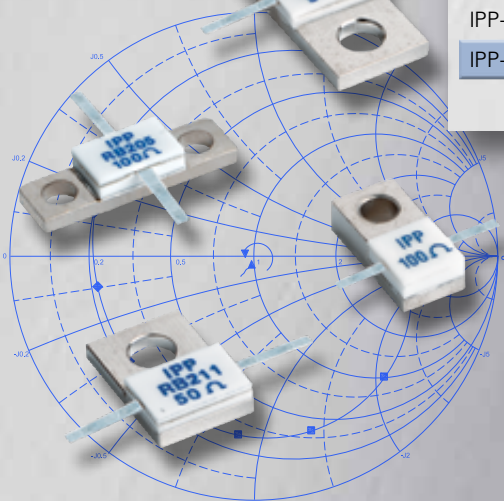
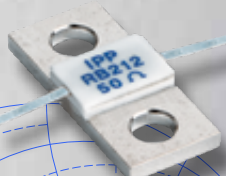
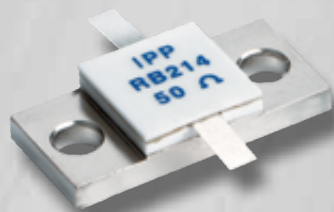
PART NUMBER	FREQUENCY (MHz)	N-WAY	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	PACKAGE SIZE (INCHES)	CONNECTORS INPUT	SUM
IPP-1036	800 - 2500	4-WAY	600	0.60	1.30:1	6	0.20	5	4.35 x 4.50	N	N
IPP-1054	800 - 2500	2-WAY	800	0.60	1.30:1	7.5	0.20	5	3.00 x 4.50	N	SC
IPP-1171	800 - 3000	4-WAY	600	0.60	1.30:1	N/A	0.30	5	4.35 x 5.00	N	N
IPP-1088	800 - 4200	2-WAY	200	1.00	1.30:1	10	0.25	5	3.00 x 5.20	N	N
IPP-1089	800 - 4200	4-WAY	200	1.00	1.30:1	10	0.25	5	3.90 x 5.20	N	N
IPP-1174	800 - 4200	8-WAY	200	1.20	1.30:1	6	0.25	6	5.70 x 6.13	SMA	N
IPP-1027	850 - 2650	4-WAY	1000	0.60	1.25:1	10	0.25	5	4.25 x 4.25	TNC	SC
IPP-1110	1000 - 2000	4-WAY	400	0.60	1.30:1	13	0.50	5	3.00 x 5.00	SMA	N
IPP-1049	1000 - 3000	2-WAY	1000	0.40	1.30:1	N/A	0.20	5	4.18 x 4.35	SC	SC
IPP-1214	1000 - 3000	2-WAY	100	0.50	1.25:1	13	0.20	5	2.40 x 2.40	SMA	SMA
IPP-1215	1000 - 3000	2-WAY	200	0.45	1.30:1	13	0.20	5	2.00 x 4.70	SMA	N
IPP-1216	1000 - 3000	4-WAY	200	0.60	1.30:1	12	0.25	5	3.00 x 4.00	N	N
IPP-1217	1000 - 3000	2-WAY	500	0.50	1.30:1	7.5	0.20	5	3.00 x 4.50	N	N
IPP-1218	1000 - 3000	4-WAY	500	0.60	1.30:1	8	0.25	5	4.35 x 5.00	N	N
IPP-1219	1000 - 3000	4-WAY	1000	0.50	1.30:1	N/A	0.25	5	5.00 x 5.25	N	SC
IPP-1046	1000 - 4000	2-WAY	100	0.60	1.30:1	14	0.25	5	2.00 x 4.50	SMA	SMA
IPP-1158	1000 - 6000	4-WAY	100	0.85	1.50:1	6	0.30	6	3.90 x 5.20	SMA	SMA
IPP-1078	3100 - 3500	4-WAY	100	0.60	1.25:1	10	0.25	5	2.50 x 5.00	SMA	N
IPP-1016	2000 - 6000	2-WAY	100	0.35	1.30:1	12	0.25	5	1.40 x 2.00	SMA	SMA
IPP-1013	2000 - 6000	4-WAY	100	0.80	1.30:1	10	0.25	5	2.50 x 5.00	SMA	SMA



Drop-In Dividers/Combiners

PART NUMBER	FREQUENCY (MHz)	N-WAY	AVERAGE POWER (WATTS)	INSERTION LOSS (dB, MAX)	VSWR (MAX)	ISOLATION (dB, MIN)	AMPLITUDE BALANCE (+/- dB)	PHASE BALANCE (+/- DEG)	PACKAGE (INCHES)
IPP-1102	20 - 1000	2-WAY	100	0.75	1.30:1	12	0.30	5	2.00 x 3.25
IPP-1103	20 - 1000	4-WAY	200	0.75	1.30:1	12	0.25	5	3.00 x 4.00
IPP-1106	80 - 1000	4-WAY	200	0.75	1.30:1	12	0.25	5	3.00 x 4.00
IPP-1107	400 - 1000	2-WAY	200	0.50	1.25:1	15	0.20	5	2.40 x 2.40
IPP-1108	400 - 1000	4-WAY	200	0.60	1.30:1	10	0.25	5	2.61 x 3.63
IPP-1104	500 - 2500	2-WAY	200	0.40	1.30:1	15	0.20	5	2.00 x 4.70
IPP-1105	500 - 2500	4-WAY	200	0.80	1.30:1	8	0.25	5	3.00 x 4.00
IPP-1109	1000 - 4000	2-WAY	100	0.60	1.30:1	14	0.25	5	2.00 x 4.50

Flangeless / Flanged Resistors

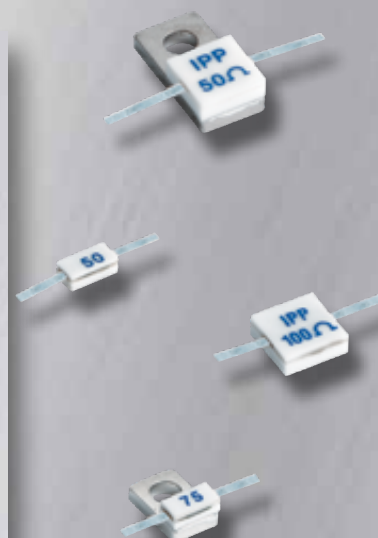


PART NUMBER	POWER (WATTS)	FREQUENCY (GHz)	CAPACITANCE (Pf)	LEAD WIDTH (INCHES)	CHIP SIZE (INCHES)	FLANGE SIZE (INCHES)
IPP-RB101-XXX	30	DC - 3.0	0.75	0.040	.100 x .200	No Flange
IPP-RB103-XXX	100	DC - 4.0	1.20	0.040	.250 x .250	No Flange
IPP-RB105-XXX	125	DC - 3.0	1.50	0.050	.225 x .350	No Flange
IPP-RB111-XXX	150	DC - 2.0	3.50	0.050	.250 x .375	No Flange
IPP-RB106-XXX	200	DC - 2.0	2.60	0.050	.225 x .350	No Flange
IPP-RB113-XXX	300	DC - 2.0	3.10	0.050	.375 x .375	No Flange
IPP-RB114-XXX	400	DC - 1.0	6.00	0.120	.500 x .500	No Flange
IPP-RB201-XXX	30	DC - 3.0	0.75	0.040	.100 x .200	.200 x .300 x .062
IPP-RB203-XXX	50	DC - 4.2	1.20	0.040	.250 x .250	.250 x .515 x .062
IPP-RB211-XXX	100	DC - 2.0	3.50	0.050	.250 x .375	.375 x .560 x .062
IPP-RB221-XXX	100	DC - 4.0	1.20	0.040	.250 x .250	.250 x .515 x .140
IPP-RB205-XXX	125	DC - 3.0	1.50	0.050	.225 x .350	.225 x .800 x .070
IPP-RB206-XXX	150	DC - 2.0	2.60	0.050	.225 x .350	.225 x .800 x .070
IPP-RB208-XXX	150	DC - 2.0	2.60	0.050	.225 x .350	.225 x .975 x .085
IPP-RB212-XXX	150	DC - 2.0	3.50	0.050	.250 x .375	.375 x .870 x .062
IPP-RB213-XXX	300	DC - 2.0	3.10	0.050	.375 x .375	.375 x .975 x .110
IPP-RB214-XXX	400	DC - 1.0	6.00	0.120	.500 x .500	.500 x 1.10 x .110
IPP-RB215-XXX	400	DC - 1.0	6.00	0.120	.500 x .500	.500 x 1.25 x .110
IPP-RB216-XXX	800	DC - 1.0	18.0	0.250	1.00 x 1.04	1.04 x 1.90 x .125

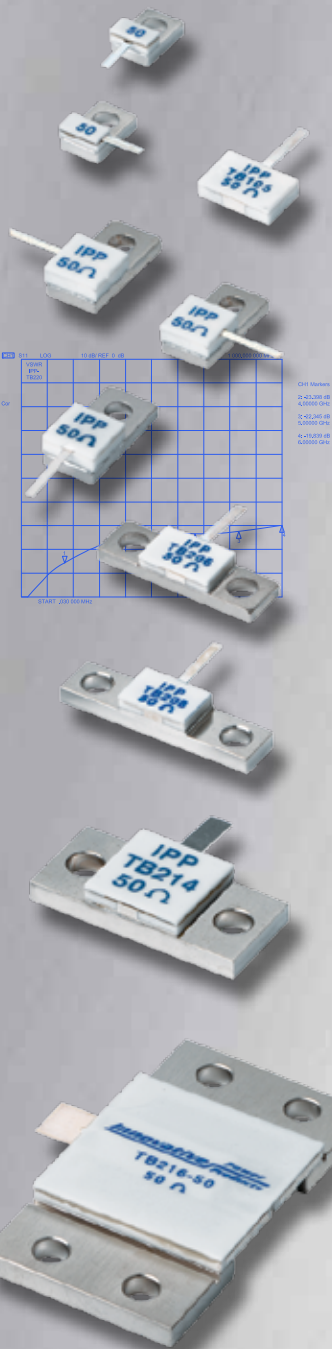
Note: All parts listed have a lead thickness of 0.005.

Low Capacitance Resistors

PART NUMBER	POWER (WATTS)	FREQUENCY (GHz)	CAPACITANCE (Pf)	LEAD WIDTH (INCHES)	CHIP SIZE (INCHES)	FLANGE SIZE (INCHES)
IPP-RB101LC-XXX	30	DC - 6.0	0.30	0.040	.100 x .200	No Flange
IPP-RB103LC-XXX	75	DC - 4.2	0.60	0.040	.250 x .250	No Flange
IPP-RB105LC-XXX	100	DC - 4.0	0.75	0.050	.225 x .350	No Flange
IPP-RB113LC-XXX	225	DC - 2.5	1.60	0.050	.375 x .375	No Flange
IPP-RB114LC-XXX	300	DC - 2.0	3.00	0.120	.500 x .500	No Flange
IPP-RB201LC-XXX	30	DC - 6.0	0.30	0.040	.100 x .200	.200 x .300 x .062
IPP-RB203LC-XXX	75	DC - 4.2	0.60	0.040	.250 x .250	.250 x .515 x .062
IPP-RB205LC-XXX	100	DC - 4.0	0.75	0.050	.225 x .350	.225 x .800 x .070
IPP-RB206LC-XXX	125	DC - 3.0	1.10	0.050	.225 x .350	.225 x .800 x .070
IPP-RB213LC-XXX	225	DC - 2.5	1.60	0.050	.375 x .375	.375 x .975 x .110
IPP-RB214LC-XXX	300	DC - 2.0	3.00	0.120	.500 x .500	.500 x 1.100 x .110



Flangeless / Flanged Terminations



PART NUMBER	POWER (WATTS)	FREQUENCY (GHz)	VSWR (GHz)	VSWR (GHz)	LEAD WIDTH (INCHES)	CHIP SIZE (INCHES)	FLANGE SIZE (INCHES)
IPP-TB101-50	30	DC - 6.0	1.20:1 @ 4.0	1.50:1 @ 6.0	0.040	.100 x .200	No Flange
IPP-TB101C-50	30	DC - 4.2	1.20:1 @ 3.0	1.30:1 @ 4.2	0.040	.100 x .200	No Flange
IPP-TB103-50	100	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 5.0	0.040	.250 x .250	No Flange
IPP-TB105-50	125	DC - 5.0	1.25:1 @ 4.0	1.35:1 @ 5.0	0.050	.225 x .350	No Flange
IPP-TB111-50	150	DC - 3.0	1.25:1 @ 2.0	1.30:1 @ 3.0	0.050	.250 x .375	No Flange
IPP-TB106-50	200	DC - 2.0	1.17:1 @ 1.0	1.30:1 @ 2.0	0.050	.225 x .350	No Flange
IPP-TB113-50	300	DC - 3.0	1.25:1 @ 2.0	1.30:1 @ 3.0	0.050	.375 x .375	No Flange
IPP-TB114-50	400	DC - 1.6	1.20:1 @ 1.0	1.25:1 @ 1.6	0.120	.500 x .500	No Flange
IPP-TB201-50	30	DC - 6.0	1.20:1 @ 4.0	1.50:1 @ 6.0	0.040	.100 x .200	.200 x .300 x .062
IPP-TB201R-50	30	DC - 6.0	1.20:1 @ 4.0	1.50:1 @ 6.0	0.040	.100 x .200	.200 x .300 x .062
IPP-TB201C-50	30	DC - 4.2	1.20:1 @ 3.0	1.30:1 @ 4.2	0.040	.100 x .200	.200 x .300 x .062
IPP-TB203-50	50	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 5.0	0.040	.250 x .250	.250 x .515 x .062
IPP-TB203R-50	50	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 5.0	0.040	.250 x .250	.250 x .515 x .062
IPP-TB203C-50	50	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 5.0	0.040	.250 x .250	.250 x .515 x .062
IPP-TB218-50	50	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 6.0	0.040	.250 x .250	.250 x .515 x .062
IPP-TB218R-50	50	DC - 6.0	1.10:1 @ 4.2	1.25:1 @ 6.0	0.040	.250 x .250	.250 x .515 x .062
IPP-TB218C-50	50	DC - 6.0	1.10:1 @ 4.2	1.25:1 @ 6.0	0.040	.250 x .250	.250 x .515 x .062
IPP-TB222-50	50	DC - 8.5	1.25:1 @ 5.0	1.30:1 @ 8.5	0.040	.250 x .250	.250 x .515 x .062
IPP-TB222R-50	50	DC - 8.5	1.25:1 @ 5.0	1.30:1 @ 8.5	0.040	.250 x .250	.250 x .515 x .062
IPP-TB222C-50	50	DC - 8.5	1.25:1 @ 5.0	1.30:1 @ 8.5	0.040	.250 x .250	.250 x .515 x .062
IPP-TB211-50	100	DC - 3.0	1.25:1 @ 2.0	1.30:1 @ 3.0	0.050	.250 x .375	.375 x .560 x .062
IPP-TB211R-50	100	DC - 3.0	1.25:1 @ 2.0	1.30:1 @ 3.0	0.050	.250 x .375	.375 x .560 x .062
IPP-TB221-50	100	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 5.0	0.040	.250 x .250	.250 x .515 x .140
IPP-TB221R-50	100	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 5.0	0.040	.250 x .250	.250 x .515 x .140
IPP-TB221C-50	100	DC - 5.0	1.10:1 @ 4.2	1.25:1 @ 5.0	0.040	.250 x .250	.250 x .515 x .140
IPP-TB220-50	100	DC - 6.0	1.10:1 @ 4.2	1.25:1 @ 6.0	0.040	.250 x .250	.250 x .515 x .140
IPP-TB220R-50	100	DC - 6.0	1.10:1 @ 4.2	1.25:1 @ 6.0	0.040	.250 x .250	.250 x .515 x .140
IPP-TB220C-50	100	DC - 6.0	1.10:1 @ 4.2	1.25:1 @ 6.0	0.040	.250 x .250	.250 x .515 x .140
IPP-TB205-50	125	DC - 5.0	1.25:1 @ 4.0	1.35:1 @ 5.0	0.050	.225 x .350	.225 x .800 x .070
IPP-TB206-50	200	DC - 2.0	1.17:1 @ 1.0	1.30:1 @ 2.0	0.050	.225 x .350	.225 x .800 x .070
IPP-TB208-50	150	DC - 2.0	1.17:1 @ 1.0	1.30:1 @ 2.0	0.050	.225 x .350	.225 x .975 x .085
IPP-TB212-50	150	DC - 3.0	1.25:1 @ 2.0	1.30:1 @ 3.0	0.050	.250 x .375	.375 x .870 x .070
IPP-TB213-50	300	DC - 3.0	1.25:1 @ 2.0	1.30:1 @ 3.0	0.050	.375 x .375	.375 x .975 x .110
IPP-TB214-50	400	DC - 1.6	1.20:1 @ 1.0	1.25:1 @ 1.6	0.120	.500 x .500	.500 x 1.10 x .110
IPP-TB215-50	400	DC - 1.6	1.20:1 @ 1.0	1.25:1 @ 1.6	0.120	.500 x .500	.500 x 1.25 x .110
IPP-TB216-50	800	DC - 0.5	1.50:1 @ 0.5	-----	0.250	1.00 x 1.04	1.04 x 1.90 x .125

Note: All parts listed above have a lead thickness of 0.005.

Coaxial Terminations

PART NUMBER	POWER (WATTS)	FREQUENCY (GHz)	VSWR	CONNECTOR TYPE	PACKAGE (INCHES)
IPP-TB301-50	30	DC - 4.2	1.25:1	SMA	.50 x 1.00
IPP-TB302-50	50	DC - 6.0	1.25:1	SMA	.96 x 1.38
IPP-TB303-50	100	DC - 6.0	1.25:1	SMA	.96 x 1.38
IPP-TB304-50	150	DC - 3.0	1.30:1	SMA	1.63 x 2.00
IPP-TB305-50	300	DC - 3.0	1.30:1	N	1.63 x 2.00
IPP-TB306-50	500	DC - 1.2	1.25:1	N	1.63 x 2.00
IPP-TB307-50	800	DC - 0.5	1.50:1	N	1.97 x 3.66





Flanged Attenuators

PART NUMBER	POWER (WATTS)	FREQUENCY (GHz)	ATTENUATION (dB)	ATTENUATION TOLERANCE (dB)	VSWR (GHz)	LEAD WIDTH (INCHES)	CHIP SIZE (INCHES)	FLANGE SIZE (INCHES)
IPP-AB201-2	10	DC - 6.0	2	+ / - 0.50	1.30:1	0.04	.100 x .200	.200 x .300 x .062
IPP-AB201-4	10	DC - 6.0	4	+ / - 0.50	1.30:1	0.04	.100 x .200	.200 x .300 x .062
IPP-AB201-6	10	DC - 6.0	6	+ 0.75 / - 0.50	1.30:1	0.04	.100 x .200	.200 x .300 x .062
IPP-AB201-8	10	DC - 6.0	8	+ 0.75 / - 0.50	1.30:1	0.04	.100 x .200	.200 x .300 x .062
IPP-AB201-10	10	DC - 6.0	10	+ 1.00 / - 0.50	1.30:1	0.04	.100 x .200	.200 x .300 x .062
IPP-AB201-20	10	DC - 6.0	20	+ 1.50 / - 0.50	1.30:1	0.04	.100 x .200	.200 x .300 x .062
IPP-AB203-2	30	DC - 4.0	2	+ / - 0.50	1.35:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB203-4	30	DC - 4.0	4	+ / - 0.50	1.35:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB203-6	30	DC - 4.0	6	+ / - 0.50	1.35:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB203-8	30	DC - 4.0	8	+ / - 0.75	1.35:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB203-10	30	DC - 4.0	10	+ / - 1.00	1.35:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB203-20	30	DC - 4.0	20	+ / - 1.50	1.35:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB204-2	75	DC - 2.5	2	+ / - 0.50	1.25:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB204-4	75	DC - 2.5	4	+ / - 0.50	1.25:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB204-6	75	DC - 2.5	6	+ / - 0.50	1.25:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB204-8	75	DC - 2.5	8	+ / - 0.75	1.25:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB204-10	75	DC - 2.5	10	+ / - 1.00	1.25:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB204-20	75	DC - 2.5	20	+ / - 1.50	1.25:1	0.05	.250 x .250	.250 x .515 x .062
IPP-AB206-2	100	DC - 2.5	2	+ / - 0.50	1.25:1	0.05	.225 x .350	.225 x .800 x .070
IPP-AB206-4	100	DC - 2.5	4	+ / - 0.50	1.25:1	0.05	.225 x .350	.225 x .800 x .070
IPP-AB206-6	100	DC - 2.5	6	+ / - 0.50	1.25:1	0.05	.225 x .350	.225 x .800 x .070
IPP-AB206-8	100	DC - 2.5	8	+ / - 0.75	1.25:1	0.05	.225 x .350	.225 x .800 x .070
IPP-AB206-10	100	DC - 2.5	10	+ / - 1.00	1.25:1	0.05	.225 x .350	.225 x .800 x .070
IPP-AB206-20	100	DC - 2.5	20	+ / - 1.50	1.25:1	0.05	.225 x .350	.225 x .800 x .070
IPP-AB213-2	100	DC - 2.0	2	+ / - 0.35	1.30:1	0.05	.375 x .375	.375 x .975 x .110
IPP-AB213-4	100	DC - 2.0	4	+ / - 0.75	1.30:1	0.05	.375 x .375	.375 x .975 x .110
IPP-AB213-6	100	DC - 2.0	6	+ / - 0.75	1.30:1	0.05	.375 x .375	.375 x .975 x .110
IPP-AB213-8	100	DC - 2.0	8	+ / - 0.75	1.30:1	0.05	.375 x .375	.375 x .975 x .110
IPP-AB213-10	100	DC - 2.0	10	+ / - 1.00	1.30:1	0.05	.375 x .375	.375 x .975 x .110
IPP-AB213-20	100	DC - 2.0	20	+ / - 1.50	1.30:1	0.05	.375 x .375	.375 x .975 x .110

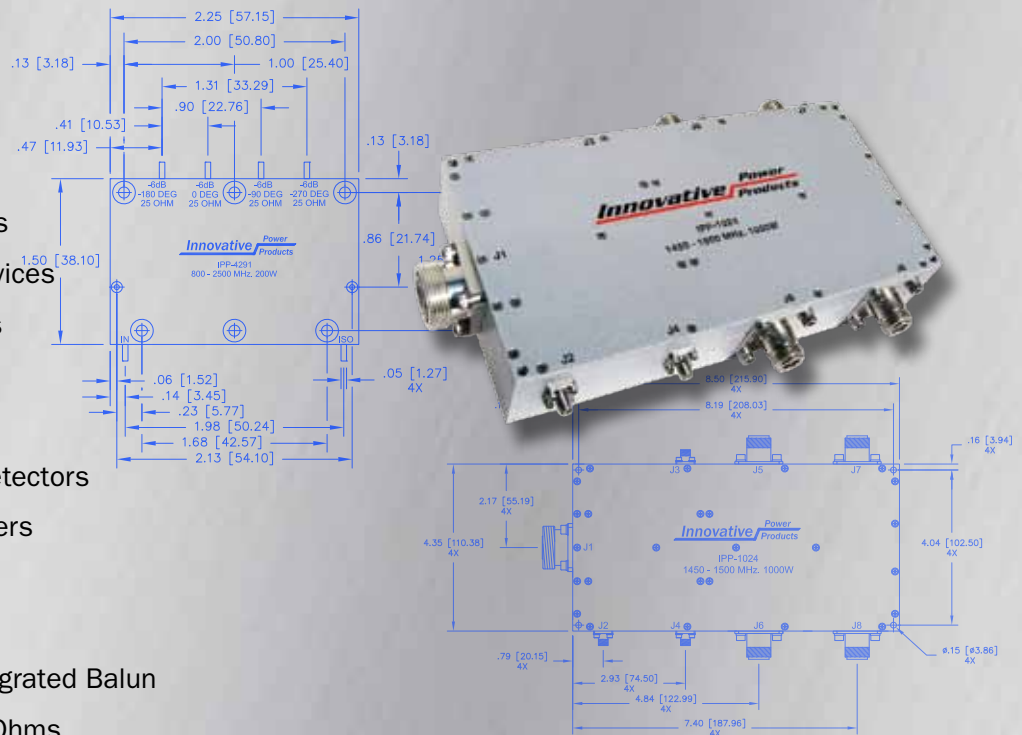
Note: All parts listed have a lead thickness of 0.005.

Custom Products

At Innovative Power Products we realize that not every project can use one of our standard products, therefore a major portion of our business is designing and manufacturing custom solutions to fit your exact specifications. Our experience in amplifier design, assembly and testing enables us to fully understand your system requirements. Discover the benefits of integrating your design team with our engineers to assist with the initial architecture and optimize your design.

Our Custom Services Include:

- Product Integration
- Custom Configurations
- Custom Resistor Assemblies
- Contract Manufacturing Services
- Engineering Design Services
- Low PIM Products
- 180° Products
- Directional Couplers with Detectors
- 2-Way up to 32-Way Combiners
- Serial Combiners
- Radial Combiners
- 4-way: 90° Coupler with Integrated Balun
- Impedances other than 50 Ohms



All of our products are designed for military and commercial applications.
Our reliable products support the following markets:

Satcom / Radar



Broadcast



Electronic Warfare



Medical Imaging



Emergency Communications



Aviation



Our Customer Service and Engineering staff is readily available to discuss your particular application. Contact us about your upcoming project.



**Over 30 Years of
Broadband RF Passive Component
Design and Manufacturing Experience**

At Innovative Power Products (IPP) we build more than radio frequency products, we build business relationships. We become an extension of your company, an essential part of your team, and provide products and cost-effective solutions that meet or exceed your requirements.

IPP's innovative and reliable products are backed by exceptional customer service. We are committed to our customers' success, and we prove it in everything we do.



631-563-0088

Web: www.innovativepp.com

Email: info@innovativepp.com

Innovative Power Products, Inc., 1170-8 Lincoln Avenue, Holbrook, NY 11741



RoHS Compliant
Products Available



Innovative Power Products, Inc.
Registered To ISO 9001:2008
Certificate Number: 10009425 QM08