

## MGPIH-C-G2/MGLSH-C-G2/MGDCH-C-G2 Power Inserter/Line Splitter/Directional Coupler Milenium 1.2 GHz Continuous RF and AC Line Passives

Antronix offers a complete main line passive product family to meet every design requirement. We offer 1.2 GHz power inserters, line splitters and directional couplers that can handle high current continuously on all ports. The main line passives can also withstand multiple 6 kV surges (per IEEE C62.41-1991 Cat. B3). Antronix main line passives have a four-stage corrosion protection process to withstand harsh environments.

To ensure our main line passives exceed industry performance standards, Antronix has developed a proprietary ferrite core material and circuit design. This design, when combined with the surge withstands capability and environmentally robust housing provides the user with unmatched performance and reliability.

- **1.2 GHz Bandwidth**
- **AC/RF Continuity When Faceplate is Removed**  
Electronics installed in the housing to prevent RPD reboots when faceplate is removed
- **Rotational Seizure Posts**  
Enable the user to easily accommodate all mounting configurations
- **6 kV Combination Surge Withstand on all Ports**  
Antronix line passives have the capacity to withstand a 6 kV combination wave surge (per IEEE C62.41 Cat. B3) on each port
- **Integrated Strip Gauge**  
Allows for quick and accurate connector pin length
- **Four-Stage Corrosion Protection**
  - A 360 aluminum alloy housing (the most corrosive-resistant alloy material on the market)
  - The housing is then impregnated with a sealer to eliminate porosity
  - Clear chromate coatings are then applied inside and out to protect the aluminum and prevent corrosion
  - Two polyurethane coatings are applied for superior protection
- **Field Replaceable Electronics**  
Printed circuit board assembly is field replaceable
- **High Current Capacity for Extreme Situations**  
The capacity to withstand 25 amperes for a short duration, if main line is short-circuited under extreme fault conditions
- **Available High-Current Electronic Crowbar Device**  
Engages when voltage exceeds 180 V
- **Fuse Holder for Each Leg**  
Provides the ability to direct and conserve power through on each output leg
- **Interlocking Tongue-and-Groove Housing and Faceplate**  
Also includes a wire mesh gasket to guarantee excellent RF Isolation



## Electrical Specifications

### Milenium 1.2 GHz Continuous RF and AC Line Passives

Model #		MGPIH-2000FC-G2* Power Inserter		MGLSH-2FC-G2 2 Way Splitter		MGLSH-3FC-G2 3 Way Splitter		MGLSH-3BFC-G2 3 Way Bal Splitter		MGDCH-2108FC-G2 8dB Coupler		MGDCH-2112FC-G2 12dB Coupler		MGDCH-2116FC-G2 16dB Coupler	
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg
<b>Tap Loss</b> (dB)	Freq. (MHz)														
	5	-	-	-	-	-	-	-	-	9.0	8.1	12.8	11.0	17.8	16.5
	450	-	-	-	-	-	-	-	-	9.0	8.3	12.5	11.1	16.8	15.7
	550	-	-	-	-	-	-	-	-	9.0	8.4	12.5	10.7	16.5	15.4
	750	-	-	-	-	-	-	-	-	9.3	8.5	12.8	10.7	16.8	15.4
	870	-	-	-	-	-	-	-	-	9.5	8.6	13.2	10.7	17.2	15.4
	1000	-	-	-	-	-	-	-	-	9.5	9.1	13.6	11.1	17.6	15.8
1218	-	-	-	-	-	-	-	-	10.5	10.1	14.2	12.0	18.0	16.0	
<b>Insertion Loss</b> Max/Avg (dB)	5	0.8	0.3	4.3	3.6	4.7/8.2	3.7/7.0	6.4	6.1	2.3	1.6	1.6	1.0	1.3	0.8
	10	1.0	0.3	4.3	3.5	4.7/8.3	3.7/7.0	7.1	6.3	2.4	1.6	1.9	1.0	1.5	0.8
	50	1.0	0.3	4.3	3.5	4.7/8.3	3.7/7.0	7.1	6.3	2.4	1.6	1.9	1.0	1.5	0.8
	100	1.0	0.4	4.3	3.6	4.7/8.3	3.7/7.0	7.1	6.3	2.4	1.7	1.9	1.1	1.5	0.9
	450	1.0	0.7	4.3	3.9	4.7/8.3	3.9/7.5	7.1	6.4	2.4	1.9	1.9	1.3	1.5	1.0
	550	1.1	0.7	4.5	4.0	5.2/8.5	4.0/7.5	7.3	6.5	2.6	2.0	2.0	1.4	1.6	1.1
	750	1.2	0.7	4.8	4.1	5.6/9.0	4.3/7.8	7.8	7.3	2.9	2.1	2.2	1.6	1.8	1.2
	870	1.3	0.7	5.2	4.2	5.6/9.0	4.5/8.1	7.8	7.4	3.3	2.2	2.4	1.7	2.0	1.4
	1000	1.6	0.7	5.5	4.5	6.2/9.7	4.7/8.3	8.0	7.7	3.5	2.3	2.7	1.8	2.3	1.5
1218	2.0	1.1	6.1	5.4	6.7/10.2	5.3/9.2	9.2	8.7	4.0	2.8	3.4	2.5	2.8	2.1	
<b>Isolation</b> Min (dB)	5-30	60		20		20		18		16		20		20	
	30-400	60		24		20		20		21		22		24	
	400-600	60		21		20		20		21		22		23	
	600-750	60		20		20		20		20		20		20	
	750-900	60		20		20		20		20		20		20	
	900-1000	57		20		18		18		20		20		20	
	1000-1218	55		18		18		18		20		20		20	
<b>Return Loss</b> Min (dB)	5-25	15		15		15		15		15		15		15	
	25-150	16		16		16		16		16		16		16	
	150-450	16		16		16		16		16		16		16	
	450-750	16		16		16		16		16		16		16	
	750-1000	16		16		16		16		16		16		16	
	1000-1218	15		15		15		15		15		15		15	
<b>Hum Mod @ 12 Amps</b> Min (dB)	5-10	55		55		55		55		55		55		55	
	10-1000	60		60		60		60		60		60		60	
	1000-1218	55		55		55		55		55		55		55	

\* MGPIH-2000FC/AC-G2 features crowbar surge protection.

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General	
Nominal Impedance	75 Ω
Surge Withstand	6 kV Combination Wave Surge per IEEE C62.41 Category B3
Power Rating	15 Amps Continuous, 60 to 90 VAC 18 Amps Continuous, 60 to 90 VAC, Power Inserter RF Ports 20 Amps Continuous, 60 to 90 VAC, Power Inserter AC Port
Screening Effectiveness	105 dB (min)
Environmental	
Pressure Seal	15 psi
Operating Temperature	-40 °C to 60 °C
Corrosion Resistance	Meets ANSI/SCTE Specification

