

Features and Benefits

ANTRONIX®

MGPIH/MGLSH/MGDCH Power Inserter/ Line Splitter/Directional Coupler Milenium 1 GHz Line Passives

Antronix offers a complete main line passive product family to meet every design requirement. We offer 1GHz power inserters, line splitters and directional couplers that can handle 15 amperes continuously on all ports. As an additional reliability measure, all units can withstand 25 amperes for two hours. 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.

Antronix also offers the high-current main line passive with the C-series. This unique feature allows the PCB to be mounted in the housing for troubleshooting without interrupting upstream and downstream signal or power when the baseplate is removed (C-series) or mounted in the baseplate (standard) for quick exchanges.



- **1 GHz Bandwidth**
- **Rotational Seizure Posts**
Enables 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
- **High Current Capacity for Extreme Situations**
The capacity to withstand 25 amperes for two hours, 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.
- **A High Current Power Inserter that is Capable of 30 Amperes of AC Input**
- **Interlocking Tongue-and-Groove Housing and Faceplate**
Also includes a wire mesh gasket to guarantee excellent RF Isolation.

Electrical Specifications Milenium 1 GHz Line Passives

Model #	Freq (MHz)	MGPIH-2000F Power Inserter		MGLSH-2F 2 Way Splitter		MGLSH-3F 3 Way Splitter		MGLSH-3BF 3 Way Bal Splitter		MGDCH-2108F 8dB Coupler		MGDCH-2112F 12dB Coupler		MGDCH-2116F 16dB Coupler	
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg
Tap Loss (dB)	5-1002									8.3 ± 0.7		12.0 ± 0.7		16.0 ± 0.7	
Insertion Loss Max/Avg (dB)	5	0.5	0.3	4.2	4.0	4.4/7.5	4.1/7.0	6.5	6.1	2.1	2.0	1.3	1.4	1.1	0.9
	30	0.5	0.2	3.9	3.5	4.0/7.3	3.6/7.0	6.1	6.1	1.8	1.6	1.1	1.0	0.9	0.6
	50	0.5	0.2	4.1	3.5	4.1/7.3	3.6/7.0	6.1	6.1	1.8	1.6	1.2	1.1	1.0	0.6
	100	0.6	0.3	4.1	3.6	4.1/7.5	3.7/7.1	6.4	6.1	1.9	1.7	1.3	1.2	1.0	0.7
	450	0.7	0.4	4.3	3.9	4.3/7.7	4.1/7.4	6.6	6.4	2.2	1.9	1.5	1.4	1.2	1.0
	550	0.8	0.5	4.4	4.0	4.6/7.9	4.2/7.5	6.8	6.6	2.4	2.0	1.6	1.5	1.3	1.1
	750	1.0	0.5	4.8	4.2	5.2/8.5	4.4/7.9	7.5	7.3	2.7	2.2	2.1	1.6	1.7	1.2
	860	1.2	0.7	5.2	4.5	5.5/8.9	4.6/8.3	7.9	7.6	3.1	2.5	2.4	1.9	2.0	1.5
	1002	1.3	0.9	5.5	4.9	5.8/9.2	5.2/8.8	8.6	8.3	3.5	3.0	2.7	2.4	2.3	2.0
Isolation Min (dB)	5-30	60		19		20		20		19		20		20	
	30-400	60		26		26		21		21		24		26	
	400-600	60		26		26		21		21		23		25	
	600-750	55		24		24		20		20		22		23	
	750-900	50		20		20		18		18		19		20	
	900-1002	48		20		20		18		18		18		20	
Return Loss Min (dB)	5-25	16		16		16		16		16		16		16	
	25-200	17		17		17		17		17		17		17	
	200-900	17		17		17		17		17		17		17	
	900-1002	16		16		16		16		16		16		16	
Output Return Loss Max (dB)	5-20	60		60		60		60		60		60		60	
	20-450	70		70		70		70		70		70		70	
	450-750	64		64		64		64		64		64		64	
	750-1002	60		60		60		60		60		60		60	

General

Nominal Impedance	75Ω
Surge Withstand	6 kV Combination Wave Surge per IEEE C62.41 Category B3
Power Rating	15 Amps Continuous, 60 to 90 VAC
Screening Effectiveness	115 dB (min)

Environmental

Pressure Seal	15 psi
Operating Temperature	-40 °C to 60 °C
Corrosion Resistance	Meets SCTE/ANSI Specification