

Features and Benefits

ANTRONIX®

MGT2000-SE/9SB2 1.2 GHz Milenium Series Multi-tap

The Antronix Milenium MGT2000-SE/9SB2-G2 series multitaps lead the industry in performance and reliability.

These multitaps provide low insertion loss over the entire 1.2 GHz passband and feature Antronix's CamPort® auto-seizing F-ports and E-Option signal conditioning plug-ins.

The 9SB2-G2 series features a dual compartment design that allows for two Milenium faceplates to be used in any configuration.

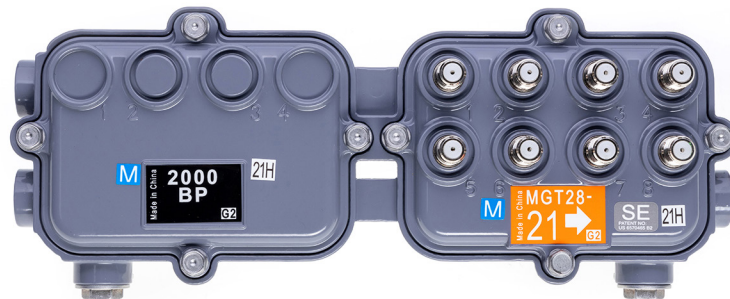
Dual faceplates can be used in any combination of 2, 4, 6, 8, 12 and 16 outputs.

In addition, each compartment contains the USP bypass switch for uninterrupted signal and power during faceplate removal. The 9SB2 housing reduces the need for extension connectors; an important consideration when undertaking full tap replacements for plant upgrades.

The 2000BP (bypass) plate can be used in one compartment to reserve space in the dual compartment design for future needs. The unmatched flexibility of the Milenium series multitaps allows system engineers to adapt existing designs to new requirements expediently and without a complete system re-design. This tap series can quickly and easily be upgraded for WiFi powering or subscriber NIU powering with a simple faceplate change.

The innovative E-Option signal conditioning solves many network problems through the installation of a creative plug-in. A single plug-in can help increase signal to noise while suppressing ingress. Never has adapting a system to meet the needs of VOD, VoIP, digital and data been so simple.

A variety of E-Option signal conditioning plug-ins are available to condition either or both the return path and forward path. The E-Options will save money and time while adapting existing systems to today's broadband requirements.



MGT2000-SE/9SB2 1.2 GHz Milenium Series Multi-tap

- **Wide 1.2 GHz Bandwidth**
Ultra low insertion loss with extended 1.2 GHz bandwidth for future services.
- **Extended Surge Protection**
6 kV Combination Wave surge withstand on all ports.
- **E-Option Drop Signal Conditioning Standard**
E-Option allows the signal conditioning at the tap to meet any network needs. Plug-in modules include:
 - CEG – Cable Equalizer
 - CSG – Cable Simulator
 - RAG – Return Path Attenuator
 - HP – High Pass Filter
 - HTG – High Tap Value Filter
- **USP Bypass Switch**
Provides uninterrupted signal and power during faceplate changes.
- **CamPort® Sealed, Auto-Seizing F-ports**
>2000 grams seizing force on the center pin of the F-connector.
- **Four Stage Corrosion Protection Process**
A 360 Aluminum alloy housing
Housing is impregnated with a sealer to prevent porosity
Clear chromate coating inside and out
Double baked-on coating of polyurethane for superior protection
- **Heat-Treated Stainless Steel Hardware with Proprietary Plating**
Reduces galvanic reactions and provides superb corrosion protection.
- **Integrated Drip Wells, Numbered Ports and Strip Gauge**
Provided to simplify installation and eliminate costly errors and additional truck rolls.
- **Ribbed Main Line Entry Ports**
Ensures proper adhesion of head shrink tubing for reliable mainline connections.
- **Backwards Compatible Faceplates***
Most faceplates are backwards compatible with all Milenium multi-tap housings.
- **USP bypass switch in each compartment**
- **Comes standard with 2000BP (Bypass Plate) in one compartment to reserve space in the dual housing for future needs.**

*Contact Antronix for full compatibility list



Electrical Specifications

MGT2200SE/9SB2-G2 1.2 GHz Taps

Model Tap Value	MGT (dB)	2204 4.0	2208 8.0	2211 11.0	2214 14.0	2217 17.0	2220 20.0	2223 23.0	2226 26.0	2229 29.0	2232 32.0				
Frequency (MHz)															
Tap Loss (dB) Tolerance (+/-dB)	5-20	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5				
	20-900	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0				
	900-1000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
	1000-1218	2.0	2.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg
Insertion Loss Max/Avg (dB)	5	—	3.9 3.8	2.0 1.8	1.3 0.8	1.2 0.8	1.0 0.6	0.7 0.3	0.7 0.3	0.7 0.3	0.7 0.3				
	10	—	3.6 3.4	1.8 1.4	1.2 0.7	1.1 0.7	0.9 0.5	0.6 0.3	0.6 0.3	0.6 0.3	0.6 0.3				
	30	—	3.5 3.2	1.8 1.3	1.2 0.6	1.1 0.6	0.9 0.5	0.6 0.3	0.6 0.3	0.6 0.3	0.6 0.3				
	50	—	3.5 3.2	1.8 1.3	1.2 0.6	1.1 0.6	0.9 0.5	0.7 0.3	0.7 0.3	0.7 0.3	0.7 0.3				
	100	—	3.8 3.3	2.0 1.5	1.5 0.7	1.3 0.8	1.1 0.6	1.0 0.4	1.0 0.4	1.0 0.4	1.0 0.4				
	330	—	4.2 3.8	2.2 1.9	1.6 1.1	1.4 1.2	1.3 0.9	1.1 0.7	1.1 0.7	1.1 0.7	1.1 0.7				
	450	—	4.3 4.0	2.4 2.1	1.7 1.1	1.5 1.2	1.5 0.9	1.1 0.7	1.1 0.7	1.1 0.7	1.1 0.7				
	600	—	4.4 4.3	2.5 2.4	1.8 1.3	1.6 1.4	1.6 1.1	1.3 0.9	1.3 0.9	1.3 0.9	1.3 0.9				
	750	—	4.5 4.3	2.6 2.5	2.0 1.5	1.7 1.6	1.7 1.2	1.4 1.0	1.4 1.0	1.4 1.0	1.4 1.0				
	860	—	4.6 4.1	2.8 2.7	2.2 1.7	1.8 1.7	1.8 1.3	1.5 1.1	1.5 1.1	1.5 1.1	1.5 1.1				
	1000	—	4.6 4.0	3.2 3.0	2.5 1.9	2.0 1.8	2.0 1.4	1.8 1.3	1.8 1.3	1.8 1.3	1.8 1.3				
1218	—	5.4 4.4	3.6 3.4	2.9 2.5	2.3 2.0	2.2 1.6	2.0 1.7	2.0 1.7	2.0 1.7	2.0 1.7					
Output to Tap Isolation Min (dB)	5-10	—	18	20	22	26	29	32	35	38	40				
	10-750	—	21	24	26	30	33	36	38	40	42				
	750-900	—	20	22	23	28	31	33	36	38	40				
	900-1218	—	20	22	23	27	30	31	34	36	38				
Tap to Tap Isolation Min (dB)	5-10	20	20	20	20	20	20	20	20	20	20				
	10-250	25	25	25	25	25	25	25	25	25	25				
	250-750	23	23	23	23	23	23	23	23	23	23				
	750-1218	20	20	20	20	20	20	20	20	20	20				
Input/Output Return Loss Min (dB)	5-10	17	18	18	18	18	18	18	18	18	18				
	10-750	16	16	16	16	16	16	16	16	16	16				
	750-1000	16	16	16	16	16	16	16	16	16	16				
	1000-1218	15	15	15	15	15	15	15	15	15	15				
Tap Port Return Loss Min (dB)	5-10	18	17	17	18	18	18	18	18	18	18				
	10-750	17	17	17	17	17	17	17	17	17	17				
	750-1000	17	17	17	17	17	17	17	17	17	17				
	1000-1218	16	16	16	16	16	16	16	16	16	16				
Hum Mod @ 10 Amps Min (dB)	5-50	—	65	65	65	65	65	65	65	65	65				
	50-600	—	65	65	65	65	65	65	65	65	65				
	600-750	—	65	65	65	65	65	65	65	65	65				
	750-1218	—	60	60	60	60	60	60	60	60	60				

Electrical Specifications

MGT2400SE/9SB2-G2 1.2 GHz Taps

Model Tap Value	MGT (dB)	2408 8.0	2411 11.5	2414 14.0	2417 17.0	2420 20.0	2423 23.0	2426 26.0	2429 29.0	2432 32.0	
Frequency (MHz)											
Tap Loss (dB) Tolerance (+/-dB)	5-20	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
	20-900	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
	900-1000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
	1000-1218	2.2	2.7	2.2	2.2	2.2	2.2	2.2	2.2	2.3	
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg
Insertion Loss Max/Avg (dB)	5	—	3.9 3.7	2.0 1.6	1.3 1.1	1.2 0.7	1.0 0.6	0.7 0.3	0.7 0.3	0.7 0.3	
	10	—	3.6 3.3	1.8 1.3	1.2 1.0	1.1 0.6	0.9 0.5	0.6 0.2	0.6 0.2	0.6 0.2	
	30	—	3.5 3.1	1.8 1.2	1.2 0.9	1.1 0.5	0.9 0.4	0.6 0.1	0.6 0.1	0.6 0.1	
	50	—	3.5 3.2	1.8 1.2	1.2 0.9	1.1 0.5	0.9 0.5	0.7 0.3	0.7 0.3	0.7 0.3	
	100	—	3.8 3.3	2.0 1.3	1.5 1.1	1.3 0.6	1.1 0.6	1.0 0.5	1.0 0.5	1.0 0.5	
	330	—	4.2 3.8	2.2 1.8	1.7 1.3	1.5 1.0	1.3 0.9	1.1 0.7	1.1 0.7	1.1 0.7	
	450	—	4.3 3.9	2.4 2.0	1.8 1.5	1.6 1.0	1.5 1.0	1.2 0.7	1.2 0.7	1.2 0.7	
	600	—	4.4 4.1	2.6 2.3	1.9 1.7	1.6 1.3	1.6 1.2	1.3 0.9	1.3 0.9	1.3 0.9	
	750	—	4.4 4.1	2.8 2.5	1.9 1.9	1.7 1.4	1.7 1.3	1.4 1.0	1.4 1.0	1.4 1.0	
	860	—	4.4 3.8	3.0 2.6	2.1 2.0	1.9 1.3	1.8 1.2	1.5 0.9	1.5 0.9	1.5 0.9	
	1000	—	4.6 3.8	3.2 2.7	2.4 2.2	2.1 1.4	1.8 1.3	1.7 1.2	1.7 1.2	1.7 1.2	
	1218	—	5.5 4.3	3.9 3.1	2.9 2.6	2.4 1.6	2.2 1.5	2.2 1.5	2.2 1.5	2.2 1.5	
Output to Tap Isolation Min (dB)	5-10	—	20	22	26	30	32	34	36	40	
	10-750	—	23	27	30	34	36	38	40	42	
	750-900	—	22	25	28	32	34	36	38	40	
	900-1218	—	22	25	28	30	32	34	36	38	
Tap to Tap Isolation Min (dB)	5-10	20	20	20	20	20	20	20	20	20	
	10-250	25	25	25	25	25	25	25	25	25	
	250-750	23	23	23	23	23	23	23	23	23	
	750-1218	20	20	20	20	20	20	20	20	20	
Input/Output Return Loss Min (dB)	5-10	17	18	18	18	18	18	18	18	18	
	10-750	16	16	16	16	16	16	16	16	16	
	750-1000	16	16	16	16	16	16	16	16	16	
	1000-1218	15	15	15	15	15	15	15	15	15	
Tap Port Return Loss Min (dB)	5-10	18	17	17	18	18	18	18	18	18	
	10-750	17	17	17	17	17	17	17	17	17	
	750-1000	17	17	17	17	17	17	17	17	17	
	1000-1218	16	16	16	16	16	16	16	16	16	
Hum Mod @ 10 Amps Min (dB)	5-50	—	65	65	65	65	65	65	65	65	
	50-600	—	65	65	65	65	65	65	65	65	
	600-750	—	65	65	65	65	65	65	65	65	
	750-1218	—	60	60	60	60	60	60	60	60	

Electrical Specifications

MGT2800SE/9SB2-G2 1.2 GHz Taps

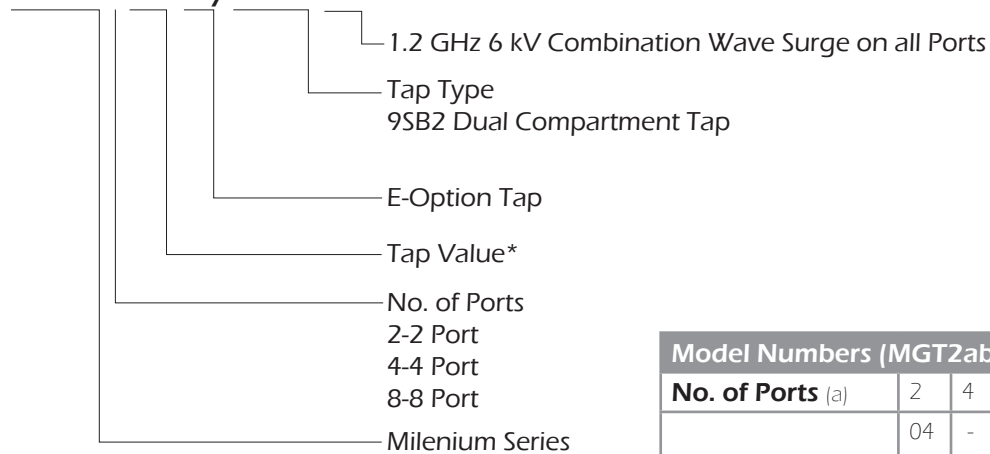
Model Tap Value	MGT (dB)	2812 12.0	2815 15.5	2818 18.0	2821 21.0	2824 24.0	2827 27.0	2830 30.0	2833 33.0						
Frequency (MHz)															
Tap Loss (dB) Tolerance (+/-dB)	5-20	2.0	2.5	2.0	2.0	2.0	2.0	2.0	2.0						
	20-900	2.0	2.5	2.0	2.0	2.0	2.0	2.2	2.2						
	900-1000	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5						
	1000-1218	3.5	3.5	3.5	3.5	3.2	3.2	3.2	3.2						
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg
Insertion Loss Max/Avg (dB)	5	—	3.9 3.7	2.0 1.5	1.3 1.0	1.1 0.8	0.8 0.6	0.6 0.4	0.6 0.4						
	10	—	3.6 3.3	1.8 1.3	1.2 0.8	0.9 0.7	0.7 0.4	0.5 0.3	0.5 0.3						
	30	—	3.5 3.2	1.8 1.2	1.2 0.8	0.9 0.6	0.7 0.4	0.5 0.3	0.5 0.3						
	50	—	3.8 3.2	1.8 1.2	1.3 0.8	0.9 0.6	0.9 0.5	0.5 0.3	0.5 0.3						
	100	—	3.9 3.3	2.0 1.3	1.5 0.9	1.2 0.7	1.1 0.6	0.8 0.4	0.8 0.4						
	330	—	4.3 4.0	2.2 1.8	1.6 1.3	1.5 1.1	1.3 1.0	1.1 0.8	1.1 0.8						
	450	—	4.5 4.0	2.4 1.9	1.7 1.3	1.5 1.1	1.4 1.0	1.2 0.8	1.2 0.8						
	600	—	4.7 4.2	2.6 2.2	1.9 1.6	1.7 1.3	1.6 1.1	1.3 1.0	1.3 1.0						
	750	—	4.8 4.2	2.8 2.4	2.0 1.8	1.8 1.4	1.6 1.2	1.4 1.1	1.4 1.1						
	860	—	4.8 4.3	2.9 2.4	2.3 2.1	2.0 1.6	1.7 1.4	1.5 1.3	1.5 1.3						
	1000	—	4.8 4.4	3.2 2.7	2.6 2.4	2.5 1.8	1.9 1.5	1.8 1.3	1.8 1.3						
1218	—	5.4 5.1	3.8 3.0	3.2 3.0	2.5 2.2	2.4 1.9	2.2 1.8	2.2 1.8							
Output to Tap Isolation Min (dB)	5-10	—	23	25	28	30	34	36	38						
	10-750	—	25	30	32	34	36	38	40						
	750-900	—	25	27	29	32	34	36	38						
	900-1218	—	23	26	27	29	30	32	34						
Tap to Tap Isolation Min (dB)	5-10	20	20	20	20	20	20	20	20						
	10-250	25	25	25	25	25	25	25	25						
	250-750	23	23	23	23	23	23	23	23						
	750-1218	20	20	20	20	20	20	20	20						
Input/Output Return Loss Min (dB)	5-10	18	18	18	18	18	18	18	18						
	10-750	16	16	16	16	16	16	16	16						
	750-1000	16	16	16	16	16	16	16	16						
	1000-1218	15	15	15	15	15	15	15	15						
Tap Port Return Loss Min (dB)	5-750	18	18	18	18	18	18	18	18						
	750-1000	17	17	17	17	17	17	17	17						
	1000-1218	16	16	16	16	16	16	16	16						
Hum Mod @ 10 Amps Min (dB)	5-50	—	65	65	65	65	65	65	65						
	50-600	—	65	65	65	65	65	65	65						
	600-750	—	65	65	65	65	65	65	65						
	750-1218	—	60	60	60	60	60	60	60						

Specifications Milenium Series Multi-tap

General	
Nominal Impedance	75 Ω
F-connector Type	ANSI/SCTE-01 (formerly SCTE IPS-SP-400) Compliant CamPort® F-port
Surge Withstand	6 kV Combination Wave Surge per IEEE C62.41 Category B3 on all Ports
Power Rating	12 Amps Continuous, 60 to 90 VAC
Screening Effectiveness	105 dB (min)
Environmental	
Pressure Seal	15 psi
Operating Temperature	-40 °C to 60 °C
Corrosion Resistance	Meets ANSI/SCTE Specification

Ordering Information



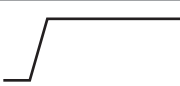
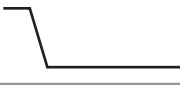

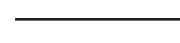
MGT2^{XY}SE/9SB2-G2



Model Numbers (MGT2abb)*				Color Code	
No. of Ports (a)	2	4	8		
*Tap Value (bb)	04	-	-	Green	
	08	08	10	Black	
	11	11	12	Gold	
	14	14	15	Royal Blue	
	17	17	18	Forest Green	
	20	20	21	Dark Orange	
	23	23	24	Light Orange	
	26	26	27	Red	
	29	29	30	Purple	
	32	32	33	Magenta	
	-	35	-	Green	

Table 1. Tap Value Color Codes

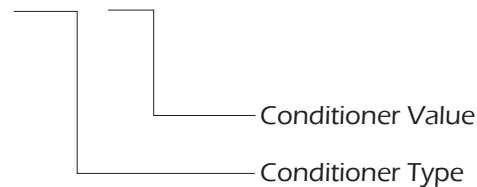
E-Option Plug-in Conditioner Milenium Series Multi-tap Ordering Matrix

Plug in Conditioner	Type(XXX)	Filter Shape	Conditioner Value (YY)
Cable Equalizer	CEG		02, 04, 06, 08, 10, 12, 14 or 16 (dB) (Equalization at 1002 MHz)
Cable Simulator	CSG		03, 06, 09 or 12 (dB) (Cable simulation at 1002 MHz)
Return Path Attenuator	RAG		02, 04, 06, 08, 10, 12, 14, 16 or 18 (dB)
High Tap Filter	HTG		03, 06, 09, 12 or 15 (dB)
High Pass Filter	HP		54 (MHz)
Jumper**	JP		—

** Jumper (JP) is shipped with all E-Option taps unless requested.

Related Documents	
Description	Document Number
E-Option Application Note	AN-1007

XXX - YY



(Ex. CSG-09 : cable simulator 09 DB)