

# Features and Benefits

# ANTRONIX®

## MGT2000-SDPE-G2 1.2 GHz Milenium Drop Power Multi-Tap

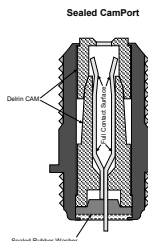
Optimized for next generation HFC architectures, the Antronix Milenium MGT2000-SDPE-G2 series 1.2 GHz multi-taps add 1218 MHz bandwidth performance to the Milenium Drop Power Line of Multi-Taps, and lead the CATV industry in performance and reliability. The Antronix Milenium MGT2000-SDPE-G2 series multi-tap is the preferred drop power multi-tap for WiFi access point powering applications. Each tap has an Easy Access Compartment (EAC) to individually activate power down each drop via an activation jumper or a current limiter. The MGT2000-SDPE-G2 series multi-tap provides low insertion loss and features Antronix's patented CamPort® and E-Option signal conditioning plug-in. All Milenium multi-taps mate to the Antronix USP baseplate for continuous video, data, telephony, and power during faceplate changes\*.

The unmatched flexibility of the Milenium series multi-taps allows system engineers to adapt existing designs to new requirements expediently and without a complete system redesign. The Milenium series multi-tap can quickly and easily be upgraded for WiFi powering or subscriber powering with a simple faceplate exchange.

The innovative E-Option signal-conditioning multi-tap solves many network problems through a creative plug-in. A single plug-in can help improve signal-to-noise while suppressing ingress. Never before has adapting a system to meet the needs of WiFi, 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 you money and time while adapting your system to today's broadband requirements.



- **Drop Powering for WiFi and NIU Power**  
High drop power current rating for power hungry applications
- **Extended Surge Protection**  
6 kV Combination Wave surge withstand on all ports
- **E-Option Drop Signal Conditioning Standard** Patent no. 6,570,465 B2  
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
- **Patented 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
- **Rotational Seizure Posts**  
One tap housing for either aerial or pedestal configuration
- **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



## Electrical Specifications

### MGT2200-SDPE-G2 1.2GHz Drop Power Taps

Tap Value (dB)	MGT (dB)	04	08	11	14	17	20	23	26	29	32
<b>Frequency (MHz)</b>											
<b>Tap Loss Tolerance (+/-dB)</b>	5-19	1.5	1.5	1.5	1.5	1.5	2.0	2.0	1.5	1.5	1.5
	20-899	2.0	2.0	2.0	1.5	1.5	1.5	1.5	2.0	2.0	2.0
	900-1000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	1001-1218	2.5	3.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
		Max Avg	Max Avg	Max Avg	Max Avg	Max Avg	Max Avg	Max Avg	Max Avg	Max Avg	Max Avg
<b>Insertion Loss Max/Avg (dB)</b>	5	— —	4.1 3.9	2.0 1.7	1.3 1.0	1.2 0.8	1.0 0.6	0.7 0.4	0.7 0.4	0.7 0.4	0.7 0.4
	10	— —	3.6 3.4	1.8 1.4	1.2 0.8	1.1 0.6	0.9 0.5	0.6 0.3	0.6 0.3	0.6 0.4	0.6 0.3
	30	— —	3.5 3.4	1.8 1.4	1.2 0.8	1.1 0.6	0.9 0.5	0.6 0.3	0.6 0.3	0.6 0.4	0.6 0.3
	50	— —	3.5 3.2	1.8 1.3	1.2 0.8	1.1 0.6	0.9 0.5	0.7 0.3	0.7 0.3	0.7 0.4	0.7 0.3
	100	— —	3.8 3.4	2.0 1.4	1.3 0.9	1.2 0.8	1.1 0.7	0.9 0.5	0.9 0.5	0.9 0.5	0.9 0.5
	330	— —	4.2 3.9	2.2 1.9	1.5 1.3	1.4 1.1	1.3 1.0	1.1 0.8	1.1 0.8	1.1 0.8	1.1 0.8
	450	— —	4.3 4.1	2.4 2.1	1.6 1.4	1.5 1.2	1.3 1.1	1.1 0.9	1.1 0.9	1.1 1.0	1.1 0.9
	600	— —	4.3 4.0	2.5 2.1	1.8 1.5	1.5 1.3	1.4 1.2	1.2 1.0	1.2 1.0	1.2 1.0	1.2 1.0
	750	— —	4.3 4.0	2.6 2.3	1.9 1.7	1.5 1.4	1.5 1.2	1.3 1.1	1.3 1.1	1.3 1.1	1.3 1.0
	860	— —	4.4 3.9	2.7 2.5	2.0 1.8	1.6 1.4	1.6 1.3	1.4 1.1	1.4 1.1	1.4 1.2	1.4 1.1
	1000	— —	4.5 3.7	3.0 2.6	2.3 1.9	1.6 1.4	1.7 1.3	1.6 1.2	1.6 1.2	1.6 1.3	1.6 1.2
1218	— —	5.2 4.2	3.6 2.9	2.7 2.1	2.2 1.6	2.1 1.5	2.0 1.4	2.0 1.5	2.0 1.6	2.0 1.5	
<b>Output to Tap Isolation Min (dB)</b>	5-9	—	20	20	22	26	29	32	35	38	40
	10-749	—	21	24	26	30	33	36	38	40	42
	750-899	—	20	22	23	28	31	34	36	38	40
	900-1218	—	20	21	22	26	29	31	33	35	37
<b>Tap to Tap Isolation Min (dB)</b>	5-9	20	20	20	20	20	20	20	20	20	20
	10-250	25	25	25	25	25	25	25	25	25	25
	251-749	23	23	23	23	23	23	23	23	23	23
	750-1218	20	20	20	20	20	20	20	20	20	20
<b>Input/Output Return Loss Min (dB)</b>	5-9	17	18	18	18	18	18	18	18	18	18
	10-749	18	17	18	18	18	18	18	18	18	18
	750-999	17	16	17	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16	16	16
<b>Tap Port Return Loss Min (dB)</b>	5-9	18	17	17	18	18	18	18	18	18	18
	10-749	18	18	18	18	18	18	18	18	18	18
	750-999	17	17	17	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16	16	16
<b>Hum Mod @ 10 Amps Max (dB)</b>	5-750	—	-65	-65	-65	-65	-65	-65	-65	-65	-65
	751-1218	—	-60	-60	-60	-60	-60	-60	-60	-60	-60

## Electrical Specifications

### MGT2400-SDPE-G2 1.2GHz Drop Power Tap

Tap Value	MGT (dB)	08	11	14	17	20	23	26	29	32	35										
<b>Frequency (MHz)</b>																					
<b>Tap Loss Tolerance (+/-dB)</b>	5-29	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5										
	30-899	1.5	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	2.0										
	1001-1218	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5										
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg										
<b>Insertion Loss Max/Avg (dB)</b>	5	—	—	4.0	3.8	2.0	1.6	1.3	1.1	1.3	1.0	1.2	0.7	0.9	0.4	0.9	0.4	0.8	0.4	0.8	0.4
	10	—	—	3.8	3.4	1.9	1.3	1.2	1.0	1.2	0.8	1.0	0.6	0.8	0.3	0.8	0.4	0.7	0.4	0.7	0.4
	30	—	—	3.8	3.2	1.5	1.3	1.2	0.9	1.2	0.8	1.0	0.5	0.8	0.3	0.8	0.3	0.8	0.3	0.8	0.3
	50	—	—	3.9	3.2	1.8	1.3	1.2	0.9	1.2	0.8	1.0	0.5	0.9	0.3	0.9	0.3	0.9	0.3	0.9	0.3
	100	—	—	4.0	3.3	2.0	1.4	1.3	1.0	1.2	0.9	1.1	0.6	1.0	0.4	1.0	0.4	1.0	0.4	1.0	0.4
	330	—	—	4.3	4.0	2.2	1.9	1.6	1.5	1.4	1.3	1.3	1.1	1.1	0.9	1.1	0.9	1.0	0.8	1.0	0.8
	450	—	—	4.3	4.0	2.4	2.1	1.7	1.5	1.6	1.4	1.3	1.1	1.1	0.9	1.1	0.9	1.1	0.9	1.1	0.9
	600	—	—	4.7	4.2	2.6	2.3	1.9	1.6	1.7	1.4	1.5	1.2	1.2	1.0	1.2	1.0	1.2	1.0	1.2	1.0
	750	—	—	4.8	4.1	2.8	2.5	2.0	1.7	1.8	1.5	1.6	1.3	1.4	1.1	1.4	1.1	1.4	1.0	1.4	1.0
	860	—	—	4.9	4.1	3.0	2.8	2.2	1.9	2.0	1.7	1.8	1.4	1.6	1.2	1.6	1.3	1.6	1.2	1.6	1.2
	1000	—	—	5.1	4.3	3.4	3.0	2.5	2.1	2.0	1.7	1.8	1.6	1.8	1.3	1.8	1.4	1.8	1.3	1.8	1.3
	1218	—	—	5.8	5.5	4.1	3.8	3.0	2.7	2.5	2.3	2.2	2.0	2.1	1.9	2.1	2.0	2.1	1.9	2.1	1.9
<b>Output to Tap Isolation Min (dB)</b>	5-9	—	—	20	—	22	—	26	—	30	—	30	—	32	—	34	—	36	—	38	—
	10-749	—	—	23	—	25	—	28	—	34	—	36	—	38	—	40	—	42	—	44	—
	750-899	—	—	22	—	25	—	28	—	32	—	34	—	36	—	38	—	40	—	42	—
	900-1218	—	—	22	—	25	—	28	—	30	—	32	—	34	—	36	—	38	—	40	—
<b>Tap to Tap Isolation Min (dB)</b>	5-9	20	—	20	—	20	—	20	—	20	—	20	—	20	—	20	—	20	—	20	—
	10-250	25	—	25	—	25	—	25	—	25	—	25	—	25	—	25	—	25	—	25	—
	251-749	23	—	23	—	23	—	23	—	23	—	23	—	23	—	23	—	23	—	23	—
	750-1218	20	—	20	—	20	—	20	—	20	—	20	—	20	—	20	—	20	—	20	—
<b>Input/Output Return Loss Min (dB)</b>	5-29	17	—	18	—	18	—	18	—	18	—	18	—	18	—	18	—	18	—	18	—
	30-599	16	—	16	—	16	—	17	—	17	—	17	—	17	—	17	—	17	—	17	—
	600-999	15	—	15	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—
	1000-1218	15	—	15	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—
<b>Tap Port Return Loss Min (dB)</b>	5-9	17	—	17	—	17	—	17	—	17	—	17	—	17	—	17	—	17	—	17	—
	10-749	17	—	17	—	17	—	17	—	17	—	17	—	17	—	17	—	17	—	17	—
	750-999	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—
	1000-1218	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—	16	—
<b>Hum Mod @ 10 Amps Max (dB)</b>	5-750	—	—	-65	—	-65	—	-65	—	-65	—	-65	—	-65	—	-65	—	-65	—	-65	—
	751-1218	—	—	-60	—	-60	—	-60	—	-60	—	-60	—	-60	—	-60	—	-60	—	-60	—

## Electrical Specifications

### MGT2800-SDPE-G2 1.2GHz Drop Power Tap

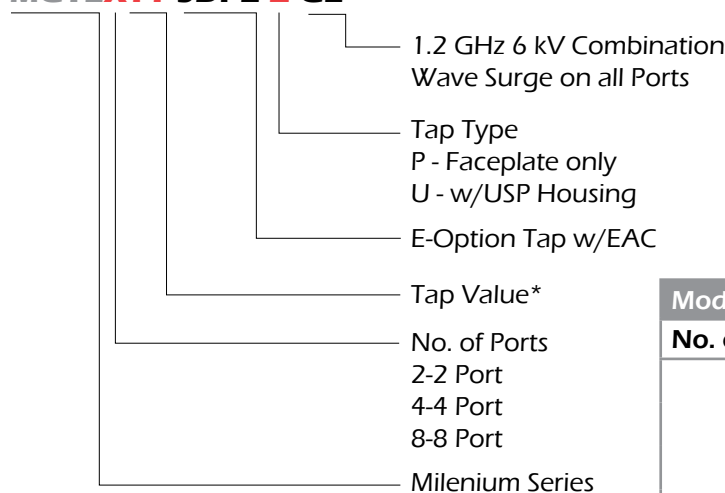
Tap Value	MGT (dB)	12	15	18	21	24	27	30							
<b>Frequency (MHz)</b>															
<b>Tap Loss Tolerance (+/-dB)</b>	5-19	2.0	2.5	2.0	2.0	2.0	2.0	2.0							
	20-899	2.0	2.5	2.0	2.0	2.0	2.0	2.2							
	900-1000	2.5	2.5	2.5	2.5	2.5	2.5	2.5							
	1001-1218	3.5	3.5	3.5	3.5	3.5	3.5	3.5							
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg
<b>Insertion Loss</b> Max/Avg (dB)	5	—	—	4.0	3.8	2.0	1.6	1.4	1.0	1.1	0.7	0.8	0.5	0.6	0.3
	10	—	—	3.8	3.4	1.8	1.3	1.3	0.8	1.0	0.6	0.7	0.4	0.5	0.3
	30	—	—	3.7	3.2	1.8	1.3	1.3	0.7	1.0	0.6	0.7	0.4	0.5	0.3
	50	—	—	3.8	3.2	1.8	1.3	1.3	0.7	1.0	0.6	0.7	0.4	0.5	0.3
	100	—	—	3.9	3.4	2.0	1.4	1.4	0.9	1.2	0.8	1.1	0.6	0.9	0.5
	330	—	—	4.4	4.0	2.2	1.9	1.6	1.3	1.3	1.1	1.3	1.0	1.2	0.8
	450	—	—	4.4	4.1	2.4	2.0	1.7	1.4	1.4	1.2	1.4	1.0	1.2	0.8
	600	—	—	4.6	4.3	2.6	2.2	1.9	1.5	1.5	1.3	1.4	1.1	1.2	1.0
	750	—	—	4.6	4.2	2.8	2.3	2.0	1.6	1.6	1.4	1.5	1.2	1.3	1.0
	860	—	—	4.6	4.0	2.9	2.5	2.2	1.8	1.8	1.5	1.6	1.3	1.4	1.1
	1000	—	—	4.6	3.9	3.1	2.8	2.4	2.0	2.0	1.6	1.7	1.4	1.6	1.3
1218	—	—	5.3	4.9	3.7	3.2	2.9	2.5	2.4	2.0	2.2	1.8	2.0	1.7	
<b>Output to Tap Isolation</b> Min (dB)	5-9	—	—	23	—	25	—	28	—	30	—	34	—	36	—
	10-749	—	—	25	—	30	—	32	—	34	—	36	—	38	—
	750-899	—	—	25	—	27	—	29	—	32	—	34	—	36	—
	900-1218	—	—	23	—	26	—	28	—	29	—	30	—	32	—
<b>Tap to Tap Isolation</b> Min (dB)	5-9	20	—	20	—	20	—	20	—	20	—	20	—	20	—
	10-250	25	—	25	—	25	—	25	—	25	—	25	—	25	—
	251-749	23	—	23	—	23	—	23	—	23	—	23	—	23	—
	750-1218	20	—	20	—	20	—	20	—	20	—	20	—	20	—
<b>Input/Output Return Loss</b> Min (dB)	5-9	18	—	18	—	18	—	18	—	18	—	18	—	18	—
	10-749	17	—	17	—	17	—	17	—	17	—	17	—	17	—
	750-999	17	—	17	—	17	—	17	—	17	—	17	—	17	—
	1000-1218	16	—	16	—	16	—	16	—	16	—	16	—	16	—
<b>Tap Port Return Loss</b> Min (dB)	5-9	18	—	18	—	18	—	18	—	18	—	18	—	18	—
	10-749	18	—	18	—	18	—	18	—	18	—	18	—	18	—
	750-999	17	—	17	—	17	—	17	—	17	—	17	—	17	—
	1000-1218	16	—	16	—	16	—	16	—	16	—	16	—	16	—
<b>Hum Mod @ 10 Amps</b> Max (dB)	5-750	—	—	-65	—	-65	—	-65	—	-65	—	-65	—	-65	—
	751-1218	—	—	-60	—	-60	—	-60	—	-60	—	-60	—	-60	—

## Specifications Milenium Drop Power Multi-Tap

General	
Nominal Impedance	75 Ω
F-connector Type	ANSI/SCTE-01 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 (In to Out), 1.5 Amps Continuous (In to Tap)
RFI	110 dB (min)
Environmental	
Pressure Seal	15 psi
Operating Temperature	-40 °C to 60 °C
Corrosion Resistance	Meets ANSI/SCTE Specification

### Ordering Information

#### MGT2XYZ-SDPE-Z-G2




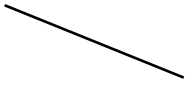
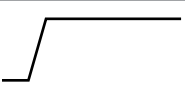
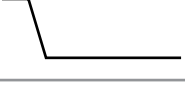

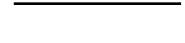
### Accessory Ordering Guide

<b>CL-JMP</b>	Activation Jumper
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Model Numbers (MGT2abb)*			Color Code		
No. of Ports (a)	2	4	8		
*Tap Value (bb)	04	-	-	Green	
	08	08	-	Black	
	11	11	12	Gold	
	14	14	15	Royal Blue	
	17	17	18	Dark Blue	
	20	20	21	Dark Orange	
	23	23	24	Light Orange	
	26	26	27	Red	
	29	29	30	Purple	
	32	32	33	Hot Pink Red	
	-	35	36	Green	
	-	-	39	Black	

Table 1. Tap Value Color Codes

## E-Option Plug-in Conditioner Ordering Matrix Milenium Drop Power Multi-Tap

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

\*\* Jumper (JP) is shipped with all E-Option taps unless requested. Patent no 6,570,465 B2

### Related Documents

Description	Document Number
E-Option Application Note	AN-1007

