

Features and Benefits

ANTRONIX®

1 GHz Flat Top Digital Splitters CMC2000F Series

The Antronix CMC2000F Series Flat Top Splitters are ideal for Network Interface Device (NID) box installations. Our Flat Top digital splitters have been designed specifically for today's two-way broadband networks. Capacitively coupled F-ports block AC surges and prevent hum modulation. Low intermodulation distortion and excellent return band isolation prevent high power cable modem signals from distorting neighboring port signals.

Reliability, quality and performance define the Antronix CMC2000F series flat top digital splitter. Every port on each CMC2000F series splitter is built to survive 6 kV ring wave surges, while our proprietary ferrites remain ultra-linear even after several surges. The flat top design reduces cable bends inside NID enclosures; making installation easier and more reliable.

To ensure years of reliable performance, Antronix's digital splitters are encased in a Zinc-Alloy diecast housing with Nickel Alloy plating. The splitter ports are sealed to 15 psi and SCTE compliant with 1 inch spacing. The CMC2000F series digital splitters employ high "Q" surface mount technology (SMT) components, guaranteeing consistent performance over time and temperature.



- **All Ports Facing Down - Ideal for Use in NID Enclosures**

The flat top design allows for easy NID box installation.

- **Increases Reliability**

Reduction in cable bends reduces stress on cables and connectors to increase reliability.

- **6 kV Ring Wave Surge Protected**

All ports are protected against multiple 6 kV ring wave surges per IEEE specification C62.41 Category A3.

- **-45 dBmV Spurious and Harmonics after 5 Surges of 6 kV Ring Wave with a +55 dBmV Return Signal**

Proprietary ferrite blend inhibits re-magnetization of the core due to voltage spikes from impulse noise or lightning. The ferrite remains ultra linear to prevent intermodulation where high level return carriers can affect forward path video signals.

- **Digital Broadcast and HDTV Ready**

Compatible with existing and future networks.

- **Flat 1 GHz Bandwidth with Minimal Insertion Loss**

Supports present and future multimedia applications including video, data and telephony.

- **Eclipse Contact Technology (ECT) F-Port**

Provides 400% more contact surface area for lower contact resistance and higher reliability.

- **Capacitively Coupled F-Ports**

Protects against core re-magnetization and saturation while blocking AC surges.

- **Zinc Alloy Diecast Housing and Backplate w/Proprietary Nickel Alloy Plating**

Superior corrosion resistant plating combined with a diecast backplate protects the back of the housing where corrosion is more prominent.

- **100% Soldered Back**

Ensures repeatable 120 dB RFI shielding.

- **1 inch Port-to-Port Spacing Flat 15 psi Sealed, SCTE Compliant F-Ports**

Prevents water migration into the splitter and ensures an excellent ground connection.

- **UV Resistant Label**

- **Integrated Mounting Tabs and Heavy Duty Ground Block for Years of Reliable Service**

Electrical Specifications

CMC2000F Series 1 GHz Flat Top Digital Splitters

Model #		CMC2002F	CMC2003F		CMC2004F
Specification	Freq (MHz)	Typ	Typ	Typ	Typ
Insertion Loss					
Maximum (dB)	5-14	3.3	3.2	6.5	6.4
	14-40	3.3	3.3	6.6	6.5
	40-200	3.3	3.3	6.5	6.5
	200-550	3.3	3.3	6.6	6.6
	550-750	3.4	3.6	6.9	6.9
	750-1002	3.7	3.8	7.3	7.3
Isolation					
Minimum (dB)	5-14	32	33		42
	14-40	41	39		46
	40-200	40	39		43
	200-550	29	35		38
	550-750	29	32		31
	750-1002	27	32		32
Input Return Loss					
Minimum (dB)	5-14	26	37		32
	14-40	28	25		23
	40-200	28	26		24
	200-550	28	30		23
	550-750	28	29		31
	750-1002	25	28		23
Output Return Loss					
Minimum (dB)	5-14	30	26		30
	14-40	38	34		31
	40-200	38	32		28
	200-550	38	26		26
	550-750	28	27		30
	750-1002	25	27		30
RFI Isolation					
dB (min)	5-1002	120			



Specifications

CMC2000F Series 1 GHz Flat Top Digital Splitters

General	
Nominal Impedance	75 Ω
F-Connector Type	ANSI/SCTE-01 (formerly SCTE IPS-SP-400) Compliant ECT F-Port
Surge Protection	6 kV Ring Wave Surge per IEEE C62.41 Category A3
Second Harmonic	-45 dBmV after Five 6 kV Ring Wave Surge with a +55 dBmV Return Input Carrier
Environmental	
Pressure Seal	15 psi
Operating Temperature	-40 °C to 60 °C
Corrosion Resistance	Meets SCTE/ANSI Specification

Physical			
Dimensions (Tol. \pm 0.5mm)	Height (mm)	Width (mm)	Depth (mm)
Model			
CMC2002F	1.4 (35.6)	3.4 (86.0)	0.6 (16.5)
CMC2003F CMC2003BF CMC2004F	1.4 (35.6)	5.1 (129.5)	0.6 (16.5)

Ordering Information

CMC20XXF

Style
F - Flat Top Splitter
BF - 3-way Balanced Splitter

Number of Ports
02, 03 or 04

Capacitively Coupled
1 GHz Splitter

