

Features and Benefits

ANTRONIX®

1 GHz Horizontal & Vertical Digital Splitters CMC2000-A Series

Reliability, quality and performance define the Antronix CMC2000-A series digital splitter. Our horizontal and vertical digital splitters have been designed specifically for today's two-way broadband networks. Low intermodulation distortion and 40 dB port-to-port return band isolation prevent high power cable modem signals from distorting neighboring port signals. Capacitively coupled F-ports block AC surges and prevent hum modulation.

Additionally, our digital splitters are among the most robust in the industry. Every port on each CMC2000-A series splitter is 6 kV ring wave surge protected, while our proprietary ferrites remain ultra-linear following several surges. The splitter ports are SCTE compliant with 1 inch spacing. The CMC2000-A series digital splitters employ high "O" surface mount technology (SMT) components, guaranteeing consistent performance over time and temperature.

- **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 1002 MHz Bandwidth with Minimal Insertion Loss**
Supports present and future multimedia applications including video, data and telephony.
- **35 dB Return Path Output Return Loss and 40 dB Port-to-Port Return Band Isolation**
Excellent return path performance compatible with two-way digitally modulated networks.
- **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.
- **100% Soldered Back**
Ensures repeatable 120 dB RFI shielding.
- **SCTE Compliant F-Ports with 1 inch Port Spacing**
Prevents water migration in to the splitter and ensures an excellent ground connection.



Electrical Specifications CMC2000H-A Series Splitter

Model #		CMC2002H-A		CMC2003H-A		CMC2003BH-A		CMC2004H-A		CMC2008H-A	
Specification	Freq (MHz)	Max/Min	Typ	Max/Min	Typ	Max/Min	Typ	Max/Min	Typ	Max/Min	Typ
Insertion Loss											
Maximum (dB)	5-14	3.5	3.3	3.5 / 7.0	3.3 / 6.5	5.8	5.5	7.0	6.8	11.0	10.8
	15-40	3.5	3.3	3.5 / 7.0	3.3 / 6.5	5.8	5.5	7.2	6.8	11.0	10.8
	41-200	3.5	3.3	3.5 / 7.1	3.3 / 6.5	5.8	5.5	7.2	6.8	11.0	10.8
	201-550	3.7	3.5	3.7 / 7.3	3.5 / 6.8	6.0	5.8	7.4	7.0	11.2	11.0
	551-750	3.8	3.7	3.9 / 7.6	3.6 / 7.2	6.2	6.0	7.6	7.2	11.8	11.5
	751-1002	4.0	3.8	4.1 / 8.1	3.8 / 7.8	6.8	6.3	8.0	7.6	12.5	12.0
Isolation											
Minimum (dB)	5-14	24	30	24	30	24	30	24	30	20	25
	15-40	35	40	35	40	32	36	35	40	20	30
	41-200	30	38	30	35	30	33	28	35	20	26
	201-550	25	35	25	35	25	28	25	30	20	26
	551-750	25	30	25	30	25	28	25	30	20	26
	751-1002	23	28	23	28	23	25	23	28	20	23
Input Return Loss											
Minimum (dB)	5-14	22	25	22	25	22	28	20	22	22	25
	15-40	25	30	24	28	25	30	25	22	22	25
	41-200	25	30	23	26	23	30	23	25	20	25
	201-550	20	28	20	25	20	25	20	25	20	25
	551-750	20	25	20	25	20	25	20	24	20	25
	751-1002	20	25	20	25	20	25	20	24	20	24
Output Return Loss											
Minimum (dB)	5-14	22	28	20	25	20	25	20	25	20	23
	15-40	35	40	34	40	30	35	32	38	28	35
	41-200	25	38	24	30	24	33	24	30	24	30
	201-550	22	28	20	28	20	25	20	25	20	28
	551-750	20	25	20	25	20	25	20	24	20	24
	751-1002	20	25	20	25	20	25	20	24	20	24



Electrical Specifications CMC2000V-A Series Splitter

Model #		CMC2002V-A		CMC2003V-A		CMC2004V-A		CMC2006V-A		CMC2008V-A	
Specification	Freq (MHz)	Max/Min	Typ	Max/Min	Typ	Max/Min	Typ	Max/Min	Typ	Max/Min	Typ
Insertion Loss											
Maximum (dB)	5-14	3.5	3.3	3.5 / 7.0	3.3 / 6.8	7.0	6.8	9.2	9.0	11.0	10.8
	15-40	3.5	3.3	3.5 / 7.0	3.4 / 6.8	7.2	6.8	9.2	9.0	11.0	10.8
	41-200	3.6	3.5	3.6 / 7.2	3.4 / 7.0	7.4	7.0	9.4	9.2	11.0	10.8
	201-550	3.8	3.5	3.8 / 7.4	3.6 / 7.2	7.6	7.2	9.6	9.4	11.2	11.0
	551-750	3.9	3.6	4.0 / 7.8	3.8 / 7.4	7.8	7.4	9.8	9.6	11.8	11.2
	751-1002	4.2	3.8	4.3 / 8.3	4.0 / 8.0	8.2	7.8	10.5	10.0	12.5	12.0
Isolation											
Minimum (dB)	5-14	22	25	22	25	22	25	22	25	22	25
	15-40	35	40	35	40	35	40	28	35	35	40
	41-200	25	35	25	30	28	35	25	28	28	35
	201-550	25	28	25	28	25	28	25	28	25	28
	551-750	25	28	25	28	25	28	25	26	25	26
	751-1002	23	25	23	25	23	25	23	25	23	25
Input Return Loss											
Minimum (dB)	5-14	20	22	20	22	20	22	20	22	20	22
	15-40	22	25	22	25	22	25	22	25	22	25
	41-200	20	22	20	22	20	22	20	22	20	22
	201-550	20	22	20	22	20	22	20	22	20	22
	551-750	20	22	20	22	20	22	20	22	20	22
	751-1002	20	22	20	22	20	22	20	22	20	22
Output Return Loss											
Minimum (dB)	5-14	20	22	20	22	20	22	20	22	20	22
	15-40	30	38	30	38	30	38	25	30	28	35
	41-200	22	28	22	28	22	28	22	25	22	28
	201-550	20	25	20	25	20	25	20	22	20	25
	551-750	20	22	20	22	20	22	20	22	20	22
	751-1002	20	22	20	22	20	22	20	22	20	22



Specifications CMC2000-A Series

General	
Nominal Impedance	75 Ω
RFI Minimum	120 dB
Surge Protection	6 kV Ring Wave Surge, IEEE C62.41 Cat. A3
Second Harmonic	-45 dBmV after 6 kV Ring Wave Surge with a +55 dBmV Return Input Carrier
F-Connector Type	SCTE Compliant ECT F-Port
Environmental	
Pressure Seal	15 psi
Operating Temperature	-40 °C to 60 °C
Corrosion Resistance	Meets SCTE/ANSI Specification

Physical			
Dimensions (Tol. ±0.5mm)	Length (mm)	Width (mm)	Depth (mm)
Model			
CMC2002H-A	1.9 (48.0)	2.4 (61.0)	0.6 (16.2)
CMC2003H-A CMC2003BH-A CMC2004H-A	1.9 (48.0)	3.4 (86.0)	0.6 (16.5)
CMC2008H-A	2.1 (52.3)	4.0 (101.4)	1.2 (31.0)
CMC2002V-A	1.4 (36.5)	2.3 (57.5)	1.1 (30.0)
CMC2003V-A CMC2004V-A	1.6 (41.0)	3.3 (85.0)	1.2 (31.0)
CMC2006V-A CMC2008V-A	2.8 (70.0)	3.5 (89.0)	1.2 (31.0)

Ordering Information

CMC20XXXX-A

Style
 BH – Balance Horizontal (3-way only)
 H - Horizontal
 V - Vertical

Number of Ports
 02, 03, 04, 06, 08, or 16

Capacitively coupled
 1 GHz Splitter

(Ex.) CMC2003BH-A: 3-way horizontal splitter with balanced outputs

