

CMC3000 Series

1 GHz Horizontal & Vertical Digital Splitters with CamPort[®]



Overview

Performance, reliability and quality define the Antronix CMC3000 series digital splitter. Our digital splitters have been designed specifically for today's two-way broadband networks. Antronix's patented CamPort[®] auto-seizing F-port connector enhances reliability with zero insertion force and >2000 grams pull force. Low intermodulation characteristics and 40 dB port-to-port return band isolation prevent high power cable modem signals from distorting neighboring port signals. Signal distortion is kept to a minimum with superior hum modulation performance and excellent return loss characteristics across the full 5 – 1000 MHz bandwidth.

Additionally, our digital splitters are among the most robust in the industry. All CMC3000 series splitters are 6 kV ring wave surge protected on all ports. For additional reliability Antronix engineers have designed our ferrites to remain ultra-linear even after several surges. All splitter ports are SCTE compliant with 1 inch spacing, sealed to 15 psi and flat end faces. To survive years of environmentally severe conditions Antronix uses a Zinc Alloy diecast housing and backplate with Nickel Alloy plating for maximum corrosion protection. Use of high "Q" surface mount technology (SMT) components, guarantees consistent performance over time and temperature.

Features/Benefits:

- **Patented Auto-seizing CamPort[®]**
 - Provides full contact pressure along the entire connector center pin for the most reliable F-port on the market today
 - Zero insertion force and >2000 grams pull force
- **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.
- **Zinc Alloy diecast housing and backplate with proprietary Nickel Alloy plating**
Superior corrosion resistant plating combined with a diecast backplate protects the back of the housing where corrosion is more prominent
- **Capacitively coupled F-ports**
Protects against core re-magnetization and saturation while blocking AC surges, enhancing hum-modulation performance
- **35 dB return path output return Loss**
Reduced inter-symbol interference for excellent return path performance compatible with two-way digitally modulated networks
- **40 dB port-to-port return band isolation**
Prevents high level cable modem signal on one port from overdriving a TV tuner or converter on the other port
- **Flat 15 psi sealed, SCTE compliant F-ports**
Prevents water migration in to the splitter and ensures an excellent ground connection
- **Flat 1 GHz bandwidth with minimal insertion loss**
Supports present and future multimedia applications including video, data and VOIP
- **Digital broadcast and HDTV ready**
Compatible with existing and future networks
- **100 % soldered back**
Ensures repeatable 120 dB RFI shielding
- **1 inch port-to-port spacing**
- **Integrated mounting tabs and heavy duty ground block**
- **UV resistant label**
- **Approved with most major cable operators**

Electrical Specifications – Horizontal Splitters

Model Number	CMC3002H	CM3003H	CMC3003BH	CMC3004H	CMC3008H	CMC3016H	
Specification	Freq (MHz)	Typ	Typ	Typ	Typ	Typ	
Insertion Loss							
Maximum (dB)	5 - 14	3.3	3.3 / 6.8	5.5	6.8	10.8	13.5
	14 - 40	3.3	3.3 / 6.8	5.5	6.8	10.8	14.0
	40 - 200	3.6	3.3 / 7.0	5.5	6.8	10.8	14.0
	200 - 550	3.6	3.6 / 7.2	5.6	7.2	11.0	14.0
	550 - 750	3.7	3.6 / 7.4	5.8	7.4	11.2	14.0
	750 - 1000	3.8	4.0 / 8.0	6.5	7.8	12.0	15.0
	Isolation						
Minimum (dB)	5 - 14	25	25	25	25	25	23
	14 - 40	40	40	38	40	38	26
	40 - 200	30	30	28	30	30	26
	200 - 550	28	28	28	28	28	26
	550 - 750	28	28	26	28	28	26
	750 - 1000	25	25	25	25	25	25
	Input Return Loss						
Minimum (dB)	5 - 14	22	22	22	22	22	20
	14 - 40	25	25	25	25	25	20
	40 - 200	22	22	22	22	22	20
	200 - 550	22	22	22	22	22	20
	550 - 750	22	22	22	22	22	20
	750 - 1000	22	22	22	22	22	20
	Output Return Loss						
Minimum (dB)	5 - 14	22	22	22	22	22	21
	14 - 40	38	38	35	38	35	22
	40 - 200	28	28	25	28	28	22
	200 - 550	25	25	22	25	25	22
	550 - 750	22	22	22	22	22	22
	750 - 1000	22	22	22	22	22	22
	RFI Isolation						
dB (min)	5 - 1000		120				

Specifications Subject to change without notice

Electrical Specifications – Vertical Splitters

Model Number		CMC3002V	CMC3003V	CMC3003BV	CMC3004V	CMC3006V	CMC3008V
Specification	Freq(MHz)	Typ	Typ	Typ	Typ	Typ	Typ
Insertion Loss							
Maximum	5 - 14	3.3	3.3 / 6.8	5.5	6.8	9.0	10.8
(dB)	14 - 40	3.3	3.4 / 6.8	5.5	6.8	9.0	10.8
	40 - 200	3.5	3.4 / 7.0	5.5	7.0	9.2	10.8
	200 - 550	3.5	3.6 / 7.2	5.8	7.2	9.4	11.0
	550 - 750	3.6	3.8 / 7.4	6.0	7.4	9.6	11.2
	750 - 1000	3.9	4.0 / 8.0	6.5	7.8	10.0	12.0

Isolation

Minimum	5 - 14	25	25	25	25	25	25
(dB)	14 - 40	40	40	38	40	35	40
	40 - 200	35	30	35	35	28	35
	200 - 550	28	28	28	28	26	28
	550 - 750	28	28	26	26	26	26
	750 - 1000	24	24	24	24	24	24

Input Return Loss

Minimum	5 - 14	22	22	22	22	22	22
(dB)	14 - 40	25	25	25	25	25	25
	41 - 200	22	22	22	22	22	22
	200 - 550	22	22	22	22	22	22
	550 - 750	22	22	22	22	22	22
	750 - 1000	22	22	22	22	22	22

Output Return Loss

Minimum	5 - 14	22	22	22	22	22	22
(dB)	14 - 40	38	38	35	38	30	35
	40 - 200	28	28	25	28	25	28
	200 - 550	25	25	22	25	22	25
	550 - 750	22	22	22	22	22	22
	750 - 1000	22	22	22	22	22	22

RFI Isolation

dB (min)	5 - 1000	120
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General Specifications

Nominal Impedance	75Ω
F-Connector Type	ANSI/SCTE (formerly SCTE IPS-SP-400) Compliant Sealed Brass CamPort [®]
F-Connector Torque Specs	30 in. lbs.
Surge Protection	6 kV Ring Wave Surge per IEEE C62.41 Category A3 Compliant
Second Harmonic	-45 dBmV after 6 kV ring wave surge with a +55 dBmV return input carrier

Environmental Specifications

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

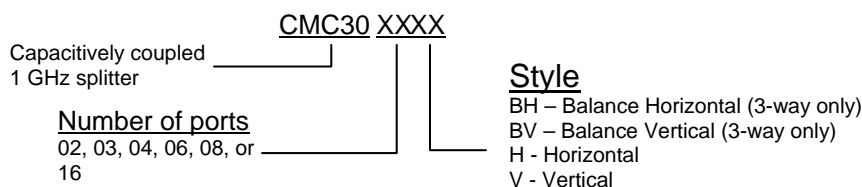
Specifications Subject to change without notice

Physical Specifications

Dimensions (Tol. ±0.04in/1.0mm)	Length (mm)	Width (mm)	Depth (mm)
Model			
CMC3002H	2.1 (53.0)	2.4 (59.8)	0.6 (16.5)
CMC3003H, CMC3003BH, CMC3004H	2.1 (53.5)	3.4 (86.1)	0.6 (16.5)
CMC3008H	2.1 (52.3)	4.0 (101.3)	1.2 (31.0)
CMC3016H	9.4 (238.5)	2.7 (68.2)	1.5 (38.0)
CMC3002V	1.5 (39.0)	2.3 (59.0)	1.2 (30.7)
CMC3003V, CMC3003BV, CMC3004V	1.7 (42.4)	3.3 (83.9)	1.3 (32.0)
CMC3006V, CMC3008V	2.8 (70.5)	3.5 (89.9)	1.2 (31.0)

Specifications Subject to change without notice

Ordering Information



(Ex.) CMC3003BH: 3-way horizontal splitter with balanced outputs

Contact Information

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