

Features

- ❖ 200-5250 MHz (6 selectable bands)
- ❖ 2 Input Ports and 8 Output Ports
- ❖ >70 dB isolation between ports
- ❖ +/- 5 dB Programmable Gain per Output
- ❖ <7 dB Noise Figure
- ❖ +/- 1 dB linearity
- ❖ 0 dBm Compression Point (P1)
- ❖ Local and Remote Control
- ❖ Incoming Spectrum Monitoring Ports
- ❖ Programmable Input Port Switching and Output Port Assignment Options



Software Remote Control Panel

Description

The MC108A-2 RF Multi-Coupler provides the frequency range and versatility for managing the RF input signals of any telemetry ground station. Setup and programming is accomplished both locally (front panel) and remotely via Ethernet. Signal integrity is maintained through excellent port isolation (>70 dB) as well as overall noise figure. The user adds or subtracts signal gain to balance RF output signal levels and mitigates insertion loss in each selected frequency band.

The 2U rack-mount MC108A-2 has 2 RF input ports, 8 RF output ports and 2 RF Spectrum Monitoring ports. In addition, an optional feature provides the ability to program either Input 1 or Input 2 to all 8 outputs. Additional I/O is available as an option. Please consult the factory to discuss the specific option applicable to your requirements.

The MC108A-2 provides excellent linearity across each selected frequency band, as well as an upper limit P1 Compression Point of 0 dBm. This level of input power without compression, as well as the 200 MHz to 5250 MHz frequency range, programmable channel gain controls and linearity across each frequency band provides for overall multi-coupler performance that is unique in the telemetry industry.

MC108A-2 Specifications

Electrical Performance

Input Ports	2 (“N” connectors)
Output Ports	8 (“N” connectors); 2 “SMA” Spectrum
Input-to-Output Port Switching Option	Monitoring Ports This option provides the ability to program either Input 1 or Input 2 to all 8 outputs
Frequency Range	200 MHz to 5250 MHz in 6 selectable bands P = 200-500 MHz CIF = 300-1150 MHz L1 = 1415 to 1585 MHz L2 = 1650 to 1850 MHz E = 2185 to 2485 MHz C = 4400 to 5250 MHz
VSWR	<1.5:1
Noise Figure	<7 dB
Gain Controls	+/-5 dB per output channel in 0.2 dB steps
Linearity	+/- 1 dB across each selected channel
P1 Compression Point	Begins compressing at 0 dBm input power
Isolation	>70 dB between RF output ports

Communications

Local Control	Front Panel
Remote Control	Ethernet (RJ45) and SEMCO Network SW

Power Requirements

Input Power	90 to 265 VAC; 50-60 Hz; Auto Ranging
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Physical and Environmental

Size and Weight	1U RM; 17”W x 1.75”H x 20”D; <15 pounds (Additional Custom I/O available (consult Factory))
Operating Temperature	0 to +50 degrees C
Storage Temperature	-20 to +70 degrees C
Humidity	Up to 95% non-condensing
Altitude	Up to 30,000 feet
EMI	Designed to meet MIL-STD 461

Specifications Subject to Change Without Notice