

Communication Receiving Multicoupler CA3035B



CommsAudit strives to offer the highest dynamic range for its signal distribution systems. We use a variety of in house designs employing advanced techniques. Outstanding third order intercept points greater than +50 dBm with current consumption of 150 to 450 mA, and second order intercepts well in excess of +90 dBm are achievable in amplifiers embedded in unique multicoupler and switch matrix applications. Our high performance multicouplers incorporate a low noise figure with outstanding linearity and have established CommsAudit as a European leader in the field.

The CommsAudit CA3035B receiving antenna multicoupler is one of a series of HF / VHF / UHF Units
Features: -

- Frequency Range 1.8 – 32 MHz
(1 – 100 MHz with reduced performance)
- Very High Dynamic Range
- 4, 8, 12, 16, 24 or 32 Outputs
- Low Noise Figure (typically 5 dB)
- Excellent output isolation (typically 42 dB)

The CA3035B uses highly balanced push-pull amplifiers in its design to provide excellent 2nd and 3rd order intercept points in the presence of high level interference signals. The antenna input has lightning and static protection as standard with a combination N-type and EMP protection device. The CA3035B consists of a standard 483 mm (19") rack-mounted unit having a panel height of (1, 2 or 3U). Each output has a buffer amplifier to assist with isolation and RX matching. The external 90 - 240-volt supply enters via a separate IEC 3 pin connector and is transient protected and RFI filtered before being regulated to a 'raw' 28 volts. This supply is then fed both to the optional Phantom power through coax, (for an active antenna / masthead amplifier) and the local amplifiers, each of which has an associated 24-volt regulator circuit. All dc voltages have an externally mounted led indicator for maintenance purposes. A BITE option may be ordered to continuously monitor the bias conditions and temperature of its amplifier stages. Any errors are indicated by the amplifier fault LED on the front panel and an optional alarm contact on the rear panel.

TECHNICAL INFORMATION

RF input / output impedance:	50 ohms nominal
Noise figure:	typically 5 dB at 25°C
Nominal Gain:	0 to 1.5 dB
Frequency response (3 dB)	1.8 to 32 MHz
VSWR (50 ohms) Input	2.0: 1 max.
VSWR (50 ohms) Output	1.5: 1 max.
Intermodulation:	
Input 3rd order intercept point:	min. +39dBm at 25°C
2nd order intercept point:	min. +80dBm at 25°C
Max RF input without damage:	+20 dBm
Internally generated spurious:	Below -130 dBm
Output isolation port to port:	min. 40 dB at 25°C
Output to Input isolation:	min. 60 dB at 25°C
Connectors:	
Signal input:	N Type
Signal output:	BNC, N Type or SMA
Power Connector:	IEC 3 pin
Antenna feed:	Standard 50-ohm coax
Options:	
Output port no. :	8, 12, 16, 24 or 32
EMP protection devices:	Gas-discharge
BITE:	DC & bias errors LEDs
Filters:	Band /high /low pass
Phantom Power output (option):	24V 12V 5V 3V
Special options:	Contact CommsAudit
Power supplies:	
Power source:	90 to 240 vac 50 Hz
Power Consumption:	<150 Watts for 8 ports
Protection:	fuse
Environmental:	
Operating Temperature range:	-15° to +50°C
Storage Temperature range:	-20° to +70°C
All specifications measured at:	at 25°C
Part Numbers:	CA3035B
Order information: please quote part numbers, filter options, output port options, connector type, EMP option & BITE option.	

Designed and Manufactured in the U.K. by
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