

HPMC-002A 30-500MHz 8Way 1U High Performance Multicoupler

The HPMC-002A, is a 30MHz - 500MHz, 8 way multi-coupler. It is a solution for coupling up to 8 wideband receivers to a single antenna. Using current state of the art components, exceptional linearity and low noise performance is achieved, resulting in a high dynamic range unit. The unit is provided in a 19" 1U high rack mounted case. Health monitoring is provided. Local LED indicates 'STATUS', an opto-coupler output allows remote indication of 'STATUS'.

Specification:

Parameter

Freq: Gain: Gain Variation: Noise Figure: Number of inputs: Number of outputs: Output Intercept (OPIP):-

P1dB

VSWR input 50 Ohm: VSWR output 50 Ohm Isolation - Output to output: Output to input: Max. input signal CW

Power:



30 - 500MHz 1dB nominal +/- 1dBmax 6.5dB max. 1 8 3rd order > +22dBm 2nd order > +35dBm min > +3dBm 2.0:1 max. (Return Loss >10dB) 2.0:1 max. (Return Loss >10dB) >20dB min >25dB min +20dBm cont.

OPT1. Mains 115/230V, set internally, max power 10W OPT2. DC 24V.



Figure 1 HPMC002A-1U (N-type input option)

Alarms CCT

Alarms – The multicoupler has a 'on board' health monitoring circuit which monitors the operation of the active amplifier. Should a fault occur the 'Status' LED on the front panel will change from 'Green' to 'Red'.

In addition an opto-coupler (transistor) is activated to provide remote alarm operation. The remote alarm pins are available on the rear panel (mini fit jnr) connector.

Mechanical

Connectors i/p and o/p	RF BNC female sockets. (N-type/SMA available on request)
	Power/Alarm DC connector is Molex 4Way, Mini fit Jr.
Dimensions:	19", 1U rack mount.

Colour – Front panel is Black and the rest of the case is Natural Aluminium.

Environmental

Temp range:	Operating: -10°C to +55°C Storage: -20°C to +70°C
Humidity	5% to 95% (Non condensing)
MTBF	>75,000hrs (25°C, Ground Benign, MIL-HDBK-217F)
EMC – Conducted and Radiated	EN55011/EN55022-B, FCC-B.
<u>Cooling</u>	Case is vented to allow cooling

Options: - The complete part number is made as follows:-

HPMC-002A/(PSU)/(DC)/1U

HPMC-002A – The core specified Multicoupler PSU - Mains PSU – uses a low noise linear type switched, 115-230VAC (Option) DC – Allows external powering via a DC source. Eg DC24 = 24 DC external power (Option). 1U – The whole package is in a 1U chassis.

Note when AC and DC are both specified AC is the master supply and the DC is the secondary supply. An internal relay switches between the two should the AC supply fail.

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