

The HPMC001, is a HF 8 way multi-coupler. Offering a low cost, high performance solution for coupling up to 8 HF receivers to a single antenna. Using a transformer lossless feedback circuit, exceptional linearity performance is achieved. The unit is provided in a machined natural finish aluminum housing. Mounting behind a 1U panel is suggested alternatively it could be wall mounted. Health monitoring is provided. Local LED indicates 'STATUS', an opto-coupler output allows remote indication of 'STATUS'. Lighting protection is incorporated.



# Specification:

### **Parameter**

#### <u>Limits</u>

Freq:	1.8-30Mhz
Gain:	1.5dB nominal
Gain Variation:	+/- 0.5dB max
Noise Figure:	5dB max. (typ 4dB)
Number of inputs:	1
Number of outputs:	8
Output Intercept OPIP:-	
HF	
Measured at 2 tones 0dBm, 7Mhz and 11Mhz	
	3rd Order at 15Mhz, >35dBm min . (typ +37dBm)
	2nd order at 18Mhz, >+70dBm min. (typ +76dBm)
LF	
Measured at 2 tones 0dBm, 1.9Mhz and 2.3Mhz	
	3rd Order at 2.7Mhz, >35dBm min . (typ +37dBm)
	2nd order at 4.2Mhz, >+72dBm min. (typ +78dBm)
VSWR input 500hm:	1.5:1 max. (Return Loss >14dB)
VSWR output 500hm	1.3:1 max. (Return Loss >17.7dB)
Isolation - Output to output:	>30dB min (typically 35-40dB)
Output to input:	>22dB min
Max. input signal CW	20dBm cont.

## Specification (cont.):

### **Parameter**

Lightning Protection Power: Connectors:

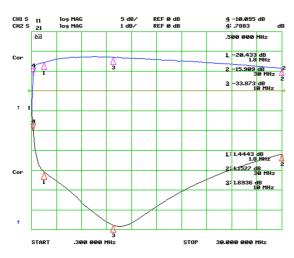
#### Dimensions: Temp range:

<u>Limits</u>

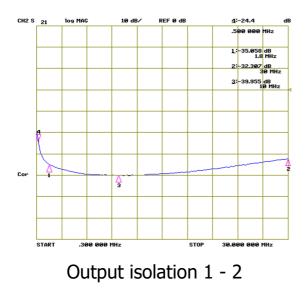
2kV 1.6ns risetime, 50ns duration
15-24V DC <0.1A. (Internally regulated)</li>
RF BNC sockets
power DC connector is Molex , Mini fit Jr.

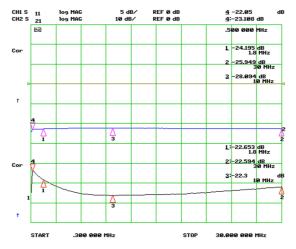
Approx 8" x 3" x 1" (excludes BNC) operating: -10C to +55C storage: -20C to +70C

## Plots (typical)

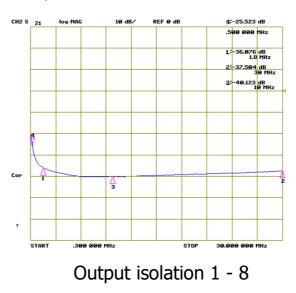


Input Ret Loss and Gain





Output Ret Loss and Rev. Isolation



**Options:** - The unit can be preceded by a HF band pass filter unit such as the FL003. This can help with strong out of band Broadcast signals.

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