

The HPMC-007A, is a 20MHz -1000MHz, Dual Diversity 8 way multi-coupler. It is a solution for coupling up to 8 wideband diversity 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'.



Figure 1 – Similar Unit Shown ( Non Diversity )

### Specification:

(Diversity A and B)

#### Parameter

#### Limits

Freq:	20 – 1000MHz
Gain:	1 +/- 1dB nominal
Gain Variation:	+/- 2dBmax
Noise Figure:	7dB max.
Number of inputs:	1
Number of outputs:	8
Output Intercept (OPIP):-	3rd order > +18dBm 2nd order > +32dBm min
VSWR input 50 Ohm:	2.0:1 max. (Return Loss >10dB)
VSWR output 50 Ohm:	2.0:1 max. (Return Loss >10dB)
Isolation - Output to output:	>18dB min
Output to input:	>20dB min
Max. input signal CW	+20dBm cont.
Power:	OPT1. Mains 115/230V, set internally, max power 10W OPT2. DC 24V.

## 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'.

## 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.

## Cooling

Case is vented top and bottom

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

## HPMC-007A/(PSU)/(DC)/1U

HPMC-003A – The core specified Multicoupler

PSU - Mains PSU – uses a low noise switch mode type, 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.