

HPMC-009A

1.5-30MHz Dual Input, 16-Way 1U Medium Isolation

Features:-

- **Low noise < 7dB / < 4dB**
- **Output To Output Isolation >30dB, Typ >35dB.**
- **Very high linearity, o/p TOIP >+35dBm.**
- **Linear PSU to maintain low electrical noise.**
- **Low Power, no fans required**



Figure 1 – HPMC-009A

Option include:-

- **Additional Broadcast Filter dc-1.5MHz, <- 50dB.**
- **Input protection up to 30V RMS**
- **Remote alarm indication**
- **External 24V dc input with auto switch over.**

Specification:

<u>Parameter</u>	<u>Limits</u>
Freq:	1.5-30MHz
Gain:	1.5dB nominal
Gain Variation:	+/- 0.5dB max
Noise Figure:	7dB Max Uncoherent, 4dB Max Coherent
Number of inputs:	2, (Input 'A' and Input 'B')
Number of outputs:	16
Output Intercept (OPIP):- Measured at 2 tones +5dBm, 7MHz and 11MHz	3rd Order at 15MHz, >+35dBm min. (typ +38dBm) 2nd order at 18MHz, >+70dBm min. (typ +75dBm)
P1dB	i/p >+10dBm.
VSWR input 50Ohm (Unbalanced)	1.5:1 max. (Return Loss >14dB)
VSWR output 50Ohm (Unbalanced)	1.3:1 max. (Return Loss >17.7dB)
Isolation - Output to output:	< -30dB min. (Typ -35dB)
Output to input:	< -35dB min. (Typ -36dB)
Max. Input signal CW	20dBm cont.
LF Filter Option FL008	-50dBc, DC to 1.5MHz
Lightning Protection	2kV 1.6us rise time, 50us duration
Power:	Std. Mains 115 or 230V, 50Hz +/-5%. Set on rear panel. Max power 10W

Alarms/Protection 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'.

With the remote alarm option an opto-coupler (transistor) is activated to provide remote alarm operation. The remote alarm pins are available on an optional rear panel connector.

The unique design of the amplifier ensures that levels on the RF output are always <+20dBm ensuring that the following RX's are not damaged by high level RF.

Mechanical

Connector i/p	N-Type Female. (If needed BNC can be fitted instead)
Connectors o/p	BNC Female
Dimensions:	Power/Alarm DC connector is Molex 4Way, Mini fit Jr. 19", 1U rack mount, 320mm Deep

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

Environmental

Temp range:	Operating: -10C to +55C Storage: -20C to +70C
Humidity	0% to 95% (Non condensing)
MTBF	>75,000hrs (25Deg C, Ground Benign, MIL-HDBK-217F)
<u>Cooling</u>	Case is vented top and bottom

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

HPMC-009A/(PSU)/(DC)/(Fx)/(ALRM)/(HV)

HPMC-009A – The core specified Multicoupler

PSU - Mains PSU – Linear Low noise type.

DC – Allows external powering via a DC source, eg DC24 = 24 DC external power.

Fx – Specifies a filter type, eg. FL008 is Stancom FL008 type Recommended.

ALRM – Remote Alarm Fitted.

HV – Hi Voltage input protection cct, 30V RMS at input.

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.