

10kHz to 1.5MHz, 32Way 2U High Performance Multicoupler “HPMC-LF231A “

The HPMC-LF231A, is a LF 32 way multi-coupler. Offering, high performance solution for coupling up to 32 VLF/MF receivers to a single antenna. The unit is provided in a 19" 2U high rack mounted case. Health monitoring is provided. Local LED indicates 'STATUS', an opto-coupler output allows remote indication of 'STATUS'. Lighting protection is incorporated.

Optional Filter may be fitted to reject above 2Mhz, (HF Broadcast services).



(Picture is of a similar product)

Specification:

Parameter	Limits
Freq:	10kHz to 1.5MHz
Gain:	0dB nominal (+/- 0.5dB)
Gain Variation:	+/- 1dB max (Typ +/-0.3dB)
Noise Figure:	@10kHz NF is <15dB @100kHz NF is <8dB @1.5MHz NF is <7dB
Number of inputs:	1
Number of outputs:	32
Output Intercept (OPIP):-	
Measured at 2 tones 0dBm	3rd Order @ 900kHz, >33dBm min . 2nd order @ 1200kHz, >+77dBm min.
VSWR input 50ohm:	2:1 max. (Return Loss >10dB)
VSWR output 50Ohm	1.7:1) max. (Return Loss >11.8dB)
Isolation - Output to output:)	>28dB min (typically 35-40dB)
Output to input	>25dB min
Max. input signal CW	30dBm cont.
Lightning Protection	2kV 1.6ns rise time, 50ns duration
Power:	115/240V AC (Internally adjustable), <10W

Specification (cont.):

Parameter	Limits
Mechanical	
Connectors:	RF BNC sockets Power/Alarm DC connector is Molex , Mini fit Jr.
Dimensions:	19", 2U rack mount,
Environmental	
Temp range:	operating: -10C to +55C storage: -20C to +70C

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' and 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.

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

Options: -

- 1 - The unit can be preceded by a LPF filter unit. This removes interference from HF Shortwave broadcasts.
- 2 – Fitment of a mains Power supply to operate of 240V 50Hz AC mains.

