

BROADBAND AMPLIFIER AND 4 WAY SPLITTER

RECEIVING ANTENNA AMP/SPLITTER

The Receiving Antenna Splitter allows for up to four receivers to be fed from a single antenna with no loss in signal. The Splitter is a passive transformer Splitter that has a frequency range from 100kHz to 30MHz and is fed by an 17dB gain broadband amplifier. This amplifier and Splitter combination provides an overall gain of 8dB from 100kHz to 30MHz .

The Splitter has a single antenna input with four outputs to allow up to four receivers to be used with up to 25dB isolation between the receivers.

The Splitter is built into an die-cast box (110mm x 80mm x44mm) and fitted with BNC connectors.

FEATURES

- Low Intermod. Amplifier
- Provides 6dB gain
- Works with passive and active antennas
- Splits a single antenna to feed 4 receivers
- Frequency range 100kHz to 30MHz
- High receiver isolation
- Very high antenna to receiver isolation
- Input/output impedance 50 ohms nominal

SPLITTER DESIGN

The signal from the Antenna Input is fed to a 17dB Broadband Push-Pull amplifier. The Amplifier uses 4 medium power RF transistors with transformer negative feedback. The output impedance from the amplifier is 12 ohms to ensure the correct match to the 4 way Splitter. The 4 way split is provided by cascading two passive transformer 2 WAY-0° Splitters.

INSTALLATION

The Splitter requires a 12volt stabilised power supply at 300mA. A 12volt **regulated** mains plug adapter is recommended. A 315 mA fuse is fitted to the Splitter to protect the power supply from overload.

To ensure optimum receiver isolation, fit a 50 ohm terminator to the unused outputs.

The antenna should have an output impedance of 50 ohms to ensure minimum signal loss.

WARNING: The Splitter must not be used with a transmitter or transceiver.

Under no conditions must any supply voltage be connected to the BNC Connectors.

TECHNICAL INFORMATION

Power consumption:	12 volts at 140mA
Power connector:	Standard 2.1mm
Frequency coverage:	100kHz to 30MHz
Isolation:	Typically 20dB.
Output impedance:	4 off at 50 ohms, BNC
Gain: Typically	8dB 100kHz to 30MHz

Amplifier:

Intermod typically: 2 signals of 32mV	2nd order -124dB 3rd order -137dB
IP2:	Typically >+90dBm
IP3:	Typically +43dBm