



CHURCHILL CONTROLS

Data_Link 2000

POWER METER



It is some times necessary when implementing deregulated low power radio systems to increase the power output of the radio transmitter to compensate for long download cables or to reduce the power output when Yagi antennas are used. The *Radio Power Meter* has been designed to make this an easy operation. The unit has 9 LED's which are used to indicate the transmitter power in increments of 2 dBm. This enables the power to be set accurately for any given configuration of antenna cable length and antenna type. The table below gives examples of the power output required from the transmitter into the antenna cable to achieve the maximum radiated power of 500mW permitted under ETSI 300 220-1

ANTENNA	CABLE LENGTH	POWER TO ANTENNA
ENF450 end fed dipole	10 METRES RG213	800 mW
ENF450 end fed dipole	20 METRES RG213	1250 mW
UHF4 4 element yagi	10 METRES RG213	125 mW
UHF4 4 element yagi	20 METRES RG213	200 mW
UHF8 8 element yagi	20 METRES RG213	125 mW

In use the unit is connected between the antenna connector of the transmitter and the antenna. The LED's indicate the power that is being fed to the antenna cable. Problems in the antenna or download cable can be detected if the antenna is removed and substituted by a 50 ohm dummy load, indicating problems by showing a variation in the power measured. The meter has an insertion loss of less than 1dB so can be ignored when in use.

Specification:

Calibrated 15 dBm to 31 dBm in 2 dBm increments corresponding to 25 to 1250 mW into 50 Ohms
Antenna connectors TNC female.
Size 110 X 60 X 30 mm

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