

XE50

50W FM Exciter/Transmitter

The XE50 is an advanced, fully featured broadcast FM exciter that is also ideally suited for use as a low power stand alone transmitter.

Overview

The XE50 uses the updated highly linear modulator to give superb sound reproduction with freedom from overshoots and artefacts. The XE50 is fully compatible with N+1 systems, with remote frequency selection being achieved by either RS232/TCP/IP interface or rear panel logic selection of up to 6 preset frequencies.

Operation/Control

The XE50 will operate into any load without damage thanks to its VSWR cut back circuit that protects the power amplifier stage from adverse operating conditions. The XE50 front panel display shows forward and reflected power together with internal voltages and the modulation level. Quick view LED's show advanced status information, including system normal, Mute and Modulation alarm. The modulation alarm, gives broadcasters alarm status outputs and indications that will show loss of mod audio or over modulation. A front panel monitor point for RF output is provided as is a fully buffered baseband monitor for accurate monitoring of the modulator input. The rear panel includes a remote control/monitoring socket that allows carrier muting and status signalling to an external system, additionally data sockets are provided for use with systems that have the ability to control exciters via RS232 or TCP/IP, these sockets are also used for programming advanced features within the XE50. Very conservatively rated components and a switch mode DCDC converter are used to ensure extremely high reliability and to give good efficiency. A comprehensive range of input options are available.



Specifications

Frequency Range	87.5 to 108MHz in 50kHz steps
Frequency Stability	< ± 200Hz
Power Output	1 to 50W adjustable
Harmonic and spurious output	< -70dBc (30MHz to 1GHz)
Spurious outputs	< -100dBc (87.5MHz to 137MHz @ $f_c \pm 0.5\text{MHz}$)
AM Noise	0.5% @ ± 40kHz deviation
Input sensitivity	+ 8dBu (adjustable) for ± 75kHz deviation
MPX Response	< ± 0.5dB (5Hz - 100kHz)
AF THD (multiplex version)	< 0.15% @ ± 75kHz deviation
Power Supply (AC)	100/115/230V ± 10%, 50/60Hz
Dimensions	132mm high (3U) x 443mm wide x 315mm deep (inc. heatsink & connectors)
Specification subject to change	