

50W FM Exciter

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

Use of wideband design techniques means that frequency setting is easily achieved from soft keys on the front panel with no further tuning required. This facility may be password protected. The frequency can also be remotely controlled if needed via the RS232 or TCP/IP ports on the rear of the unit.

The XE50 uses the updated highly linear modulator to give superb sound reproduction with freedom from overshoots and artefacts.

It 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 excitors via RS232 or TCP/IP, these sockets are also used for programming advanced features within the XE50.

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.

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 is available. The XE50 has a multiplex/composite input, mono input and 3 SCA/RDS inputs. The XE50/S includes a stereo limiter and stereo encoder, the AES/EBU input version allows for a stereo digital input and the XE50/RBRX includes a rebroadcast receiver for translator/rebroadcast applications.

Specifications

Frequency range	87.5 to 108MHz in 50kHz steps
Frequency stability	< $\pm 200\text{Hz}$
Power output	1 - 50W
Harmonic & spurious output	< -70dBc (30MHz to 1GHz)
Spurious outputs	< -100dBc (87.5MHz to 137MHz @ $f_c \pm 0.5\text{MHz}$)
AM noise	< 0.5% @ $\pm 40\text{kHz}$ deviation
Input sensitivity	+ 8dBu (adjustable) for $\pm 75\text{kHz}$ deviation
MPX response	< $\pm 0.5\text{dB}$ (5Hz - 100kHz)
AF THD (multiplex version)	< 0.15% @ $\pm 75\text{kHz}$ deviation
Power supply (AC)	100/115/230V $\pm 10\%$, 50/60Hz
Power consumption	< 150VA
Temperature (operating)	-20C to 55C
Humidity (operating)	< 95% RH, non condensing
Dimensions	132mm high (3U) x 443mm wide x 315mm deep (inc. heatsink & connectors)
Weight	6kg
Warranty	5 Years

In line with our policy of continual development, we reserve the right to alter specifications without notice.

