

The FM50 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 by internally set, direct reading dial switches - no further tuning is required.

The FM50 uses the updated highly acclaimed sbs ultra 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 FM50 front panel metering shows forward and reflected power together with internal voltages and the modulation level.

Quick view LED's show advanced status information, including CPU ok, PLL Lock, External standard presence, Mute, Forward power alarm, Receive carrier alarm (when used with rebroadcast option), Modulation alarm and temperature.

The addition of the unique 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 FM50.

The FM50 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 FM50 has a multiplex/composite input, mono input and 3 SCA/RDS inputs. The FM50/S includes a stereo limiter and stereo encoder, the AES/EBU input version allows for a stereo digital input and the FM50/RBRX includes a rebroadcast receiver for translator/rebroadcast applications.

Specifications

Frequency range	87.5 to 108MHz in 50kHz steps
Frequency stability	< \pm 200Hz
Power output	1 - 50W
Harmonic & spurious output	< -70dBc (30MHz to 1GHz)
Spurious outputs	< -100dBc (87.5MHz to 137MHz @ $f_c \pm 0.5$ MHz)
AM noise	< 0.5% @ \pm 40kHz deviation
Input sensitivity	+ 8dBu (adjustable) for \pm 75kHz deviation
MPX response	< \pm 0.5dB (5Hz - 100kHz)
AF THD (multiplex version)	< 0.15% @ \pm 75kHz 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.

