

EX2-500LD

500W FM TRANSMITTER

(Featuring LDMOS Technology)

The EX2-500LD solid state VHF FM Exciter/transmitter is a compact, versatile and economical unit. The unit provides exceptional stereo audio performance with an R.F. output in excess of 500, using 'state-of-the-art' LDMOS Technology.

The EX2-500LD includes a digital display for metered parameters and unique VU meters for modulation monitoring. This is achieved by an integrated "stereo decoder".
(This eliminates the need for program interface metering).

The EX2-500LD includes an agile PLL synthesizer with local and remote frequency control making it suitable for N+1 operation.

The EX2-500LD has an optional digital "stereo encoder" which includes an integrated audio limiter. The audio inputs utilize professional balanced line XLR's.

The EX2-500LD includes a wideband composite input and an auxiliary input for RDS/SCA.



EX2-500LD 500W Stereo Exciter

Features

Rf amplifier utilizing 'state-of-the-art' LDMOS Technology

Stereo decoded audio signal VU meter (L & R)

Integrated Stereo Encoder and audio limiter (option 1)

Wideband (MPX), SCA / RDS auxiliary I/P (standard)

Compact 2U lightweight, rack mount, Forced air cooled

A.C. 90-264V operation

Wideband operation (100kHz baseband)

Digital display for Metered Parameters

TECHNICAL SPECIFICATIONS

PARAMETER

RF SPECIFICATION

Frequency range	87.5 to 108 MHz
Modulation type	F3E and F8E (direct carrier)
Frequency synthesizer	PLL with Local/Remote control
Frequency increments	100 kHz
Frequency stability	2ppm
RF output power	> 500W
RF spurious/harmonics	< -70dBc
Asynchronous AM	< -60dB
Synchronous AM	< -50dB
RF output connector	N-Type (female) 50 Ohm
RF monitor connector	BNC (female) 50 ohm
Max VSWR	2:1 (adjustable)

POWER SUPPLY

AC power input	90V to 264V
AC Frequency	47Hz to 63Hz
Power Factor	>0.98
Consumption	750VA Nominal

ENVIRONMENTAL

Operating temperature	-10 to +45 °C
Operating altitude	<2800 metres
Humidity	<90% (non condensing)

PHYSICAL

Dimensions (mm)	485W x 490D x 88.5H (2U)
Weight	8kg

TELEMETRY

Alarms (voltage free)	Forward, Reflected, Temp, PSU
Command inputs	Mono/Stereo, RF enable
DC Outputs	Forward, Reflected, +12V (jig)

PARAMETER

COMPOSITE SPECIFICATION

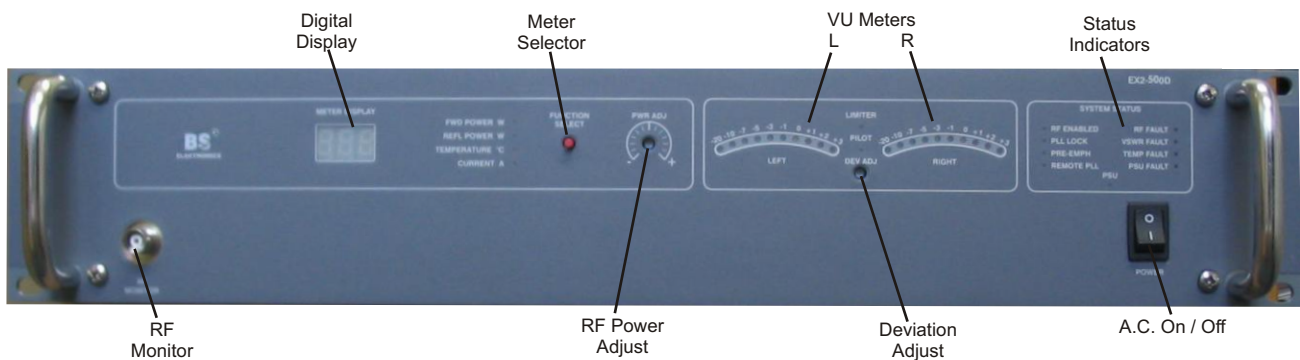
W/B amplitude response	+/- 0.2dB (30Hz to 100kHz)
W/B stereo separation	>60dB (typical 67dB) 30Hz to 15kHz (decoded)
W/B stereo crosstalk	>50dB (30Hz to 15kHz) L+R into L-R
Total harmonic distortion	<0.1% (Typical 0.035%) 30Hz to 15kHz (decoded)
FM S/N ratio (stereo)	>75dB (30Hz to 15kHz)
I/P impedance	10k ohm unbalanced
Deviation sensitivity	3.5V p-p (adjustable)

STEREO OPERATION (with 50uS de-emphasis)

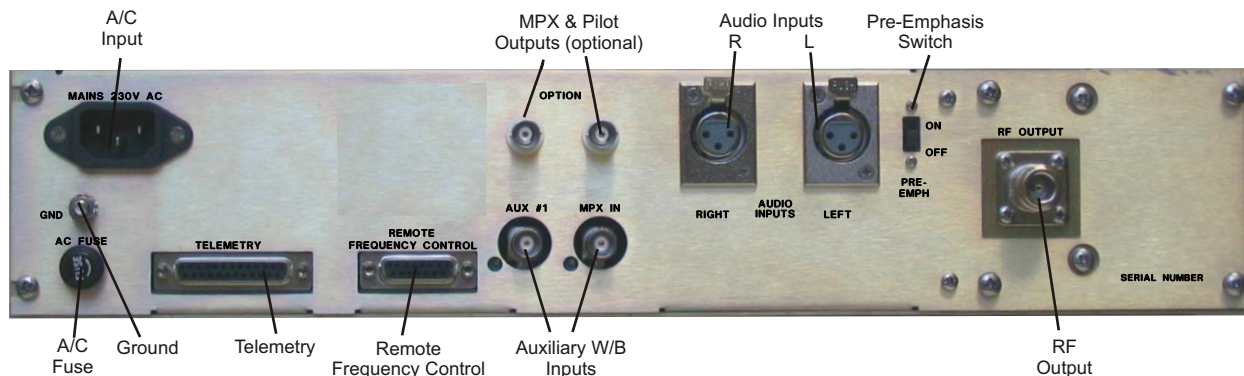
AF amplitude response	+/- 0.2dB (30Hz to 15kHz)
Stereo separation	>60dB 30Hz to 15kHz (decoded)
Mono/Stereo crosstalk	>50dB (30Hz to 15kHz)
Stereo distortion	<0.1% (30Hz to 15kHz)
Stereo S/N ratio	>75dB (30Hz to 20kHz)
Input impedance	600 ohm balanced (XLR)
Deviation sensitivity	+6dBm for +/-40kHz deviation (adj)
Pre-emphasis	50 or 75uS (internal link)

STEREO LIMITER (Option 1)

Audio limiter sensitivity	10dBm nom. for 68kHz deviation
Attack time	< 2mS for increased 10dB I/P step
Decay time	>80mS for decreased 10dB I/P step
Limiter distortion	< 0.25% (10dB into limiting)
Limiter threshold	Internally adjustable



EX2-500LD FRONT PANEL CONTROLS AND INDICATORS



EX2-500LD REAR PANEL CONNECTIONS