

**Phase Locked Loop Programmable  
FM Exciter/Transmitter 87.5 - 108 MHz Range**


- Includes low pass/harmonic filter and can be used as a stand-alone transmitter
- Instant front panel programmability in 10 kHz increments
- All functions via LCD password protected
- Adjustable power output from 10 to 700 W with automatic power control
- Remote control features (optional) include: power on/off, fwd & ref power metering, ability to change frequency and
- Internal temperature metering
- Telemetry Output and FSK-ID Keyer (optional)
- Meets or exceeds all FCC and CCIR requirements.

**TECHNICAL SPECIFICATIONS**

Rated Output Power:	10-700 W continuously variable (ALC)
RF Output Connector:	"N" type female
RF Output Impedance:	50 ohm
Frequency Range:	87.5 MHz to 108 MHz
Frequency Programmability:	direct from front panel in 10 kHz increments
Frequency Stability:	better than 5 ppm ( $\pm 500$ Hz)
Modulation Type:	direct carrier frequency modulation
Spurious & Harmonic Suppression:	< - 80 dB or better
Stereo Separation	55 dB @ 1 KHz
Distortion	< 0.1 % (typ. 0.06 %) @ 1 KHz
Asynchronous AM S/N Ratio:	65 dB below reference carrier with 100% amplitude modulation at 400 Hz without de-emphasis, no FM modulation present
Synchronous AM S/N Ratio:	60 dB or better below reference carrier with 100% amplitude modulation at 400 Hz, without de-emphasis, FM modulation = $\pm 75$ kHz at 400 Hz 117 or 230 V, $\pm 10\%$ , 50-60 Hz, single phase approx. 700 W from AC
AC Power Requirement:	
Power Consumption:	
Panel Size:	483 mm (19") W x 88 mm (3") H (2 standard rack spaces high)
Overall Depth:	540 mm (21")
Weight:	17 Kg (35 lbs)
Ambient Temperature Range:	0° to 50° C (32° to 122° F)
Pre-emphasis:	for FCC 75 $\mu$ sec; for CCIR 50 $\mu$ sec internally selectable
<b>Composite Operation</b>	
Composite Inputs:	four total, 1 for MPX and 3 for SCA
MPX Input:	1 unbalanced BNC connector
MPX Input Impedance:	2k ohm
MPX Input Level:	3.5 Vp-p (1.237 Vrms/3.64 dBm)
Composite FM unweighed S/N ratio:	>68 dB below $\pm 75$ kHz deviation at 400 Hz measured in a 30 Hz to 100 kHz bandwidth with 75 $\mu$ sec de-emphasis (RMS) 0.05% typical
Composite Total Harmonic Distortion:	
Composite Intermodulation Distortion:	0.05%, measured with a 1 kHz and a 1.3 kHz tone, 1:1 ratio, at 100% modulation
Baseband:	30 Hz – 60 KHz within 0.15 dB
Crosstalk:	main to stereo subchannel and stereo subchannel to main >55 dB (60 dB typical)
SCA Inputs:	3 unbalanced BNC connectors
SCA Input Impedance:	10k ohm
SCA Input Levels:	0 dBm (775 mVrms/2.2 Vp-p) nominal for $\pm 7.5$ kHz deviation, adjustable $\pm 0.8$ dB, 40 kHz to 100 kHz
SCA Amplitude Response:	
Crosstalk:	67 kHz SCA to main or to stereo subchannel >65 dB
Crosstalk:	92 kHz SCA to main or to stereo subchannel >70 dB
<b>Monaural Operation</b>	
Audio Input Impedance:	600 ohm balanced or unbalanced; 50 dB common mode suppression
Audio Input Level:	0 dBm (775 mVrms/2.2 Vp-p) for $\pm 75$ kHz, adjustable >70 dB below $\pm 75$ kHz, deviation at 400 Hz measured in a 30 Hz to 20 kHz bandwidth with 75 $\mu$ sec de-emphasis (RMS) $\pm 0.8$ dB, 30 Hz to 15 kHz
FM S/N Ratio:	
Audio Frequency Response:	
Intermodulation Distortion:	0.05% or less, measured with a 1 kHz and a 1.3 kHz tone, 1:1 ratio, at 100% modulation