



BEXT

XT Series
 100 W, 150W,
 300W, 500W,
 & 1000 W
 Frequency Agile
 FM Transmitters
 / Exciters

XT 500 shown

- Includes low pass/harmonic filter & can be used as a stand-alone transmitter
- Instant front panel programmability in 10 KHz increments
- Soft-start from RF mute status and adjustable power output
- Automatic power control maintaining stable output at any preset level
- Main parameters available also on rear terminal board for remote control
- Available with optional built-in stereo generator
- Optional compatibility with external references for custom phase locking in synchronous applications
- High reliability provided by conservatively rated components
- LCD Display for all functions and parameters on front panel (XT 500 & XT 1000)
- Meets or exceeds all FCC and CCIR requirements

General

Rated Output Power:	100 W (XT 100), 150 W (XT 150), 300 W (XT 300), 500 W (XT 500), 1000 W (XT 1000), all continuously adjustable
RF Output Connector / Impedance:	"N" type Female (XT 100 through 500); 7/8" EIA Flange (XT 1000) / 50 Ohm (all models)
RF Monitor Port / Impedance:	BNC / 50 Ohm
Frequency Range:	87.5 MHz to 108 MHz
Frequency Programmability:	direct from front panel in 10 KHz increments
Frequency Stability:	better than ±500 Hz
Modulation Type:	direct carrier frequency modulation
Spurious & Harmonic Suppression:	meets or exceeds all FCC and CCIR requirements
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:	55 dB or better below reference carrier with 100% amplitude modulation at 400 Hz, without de-emphasis, FM modulation = ±75 KHz at 400 Hz
Transient Intermodulation Distortion:	less than 0.1% measured with a 3.18 KHz square wave and a 15 KHz sine wave at 100% modulation (typical 0.05%)
AC Power Requirement:	Single Phase 120 / 220 V on XT 100, 150 & 300; Auto-sensing 90-260 V on XT 500 & 1000; 50-60 Hz
Power Consumption (approx.) at full Pwr:	230 W (XT 100), 300 W (XT 150), 500 W (XT 300), 900 W (XT 500), 1.7 kVA (XT 1000)
Front Panel Size:	483 mm (19") W x 132 mm (5 1/4") H (3 standard rack spaces high)
Overall Depth (approx.):	XT 100 & 150: 340 mm (13 1/2"); XT 300: 550 mm (21 3/4"); XT 500: 580 mm (22 3/4"); XT 1000: 655 mm (25 3/4")
Weight (approx.):	XT 100: 19 Kg (41.8 Lbs); XT 150: 19.5 Kg (42.9 Lbs); XT 300: 25 Kg (55 Lbs); XT 500: 27.5 Kg (60 Lbs); XT 1000: 33 Kg (72 Lbs)
Ambient Temperature Range:	0° C to 45° C (32° F to 113° F)
Pre-emphasis:	75 microseconds for FCC; 50 microseconds for CCIR; or flat (selectable)
Interlock Connector:	BNC, mutes RF when grounding center pin
RS 232 Serial Interface:	DB 9 Female Connector (XT 500 & XT 1000 only)
Telemetry & Remote Control	DB 15 Female (XT 500 & XT 1000); Terminal Board (XT 100, XT 150 & XT 300)

Composite Operation

Composite Input:	XT 500 & 1000: BNC Unbal 10 kOhm or XLR Bal 50 Ohm; XT 100, 150 & 300: XLR Bal 50 Ohm
Stereo L / R Input:	XLR, Balanced / 600 Ohm or Unbalanced / 10 kOhm (models w/ built-in Stereo Generator only)
MPX Input Level:	-20 dBm to +13 dBm range, continuously adj., normally set for 3.5 V P-P (1.237V RMS/4.1 dBm)
Composite FM S/N ratio:	>75 dB below ±75 KHz deviation meas. in a 20 Hz to 100 KHz b.width with 75 μS de-emphasis (RMS)
Composite Amplitude Response:	±0.8 dB, 20 Hz to 53 KHz, ±0.3 dB, 53 KHz to 100 KHz
Composite Total Harmonic Distortion:	<0.05%
Composite Intermodulation Distortion:	0.05% or less, measured with a 1 KHz and a 1.3 KHz tones, 1:1 ratio, at 100% modulation
Stereo Separation:	> 55 dB (typical 60 dB)
Crosstalk:	Main to Stereo Subchannel and Stereo Subchannel to Main, >55 dB (60 dB typical)
SCA Inputs / Impedance:	2 BNC connectors / Unbalanced 10 Kohm
SCA Input Levels:	-20 dBm to +13 dBm range, normally set for 3.5 V P-P (1.237V RMS/4.1 dBm) for ±7.5 KHz deviation
SCA Amplitude Response:	±0.8 dB, 40 KHz to 100 KHz

Monaural Operation

Audio Input:	XLR, Balanced/600 Ohm or Unbalanced / 10 kOhm
Audio Input Level:	-20 dBm to +13 dBm range, continuously adj., normally set for 3.5 V P-P (1.237V RMS/4.1 dBm)
FM S/N Ratio:	>75 dB below ±75 KHz deviation meas. in a 20 Hz to 20 KHz b.width with 75 μS de-emphasis (RMS)
Audio Frequency Response:	±0.3 dB, 20 Hz to 15 KHz
Total Harmonic Distortion:	< 0.08% (0.05% typical)
Intermodulation Distortion:	0.05% or less, measured with 1 KHz & 1.3 KHz tones, 1:1 ratio, at 100% modulation