



125 Watt Stereo FM Transmitter with RDS

FM100TX Series



Features

- 125W RF output power
- DSP stereo audio processor
- 16x oversampled RDS encoder
- High quality linear PLL modulator
- Latest enhancement mode FET RF amplifier

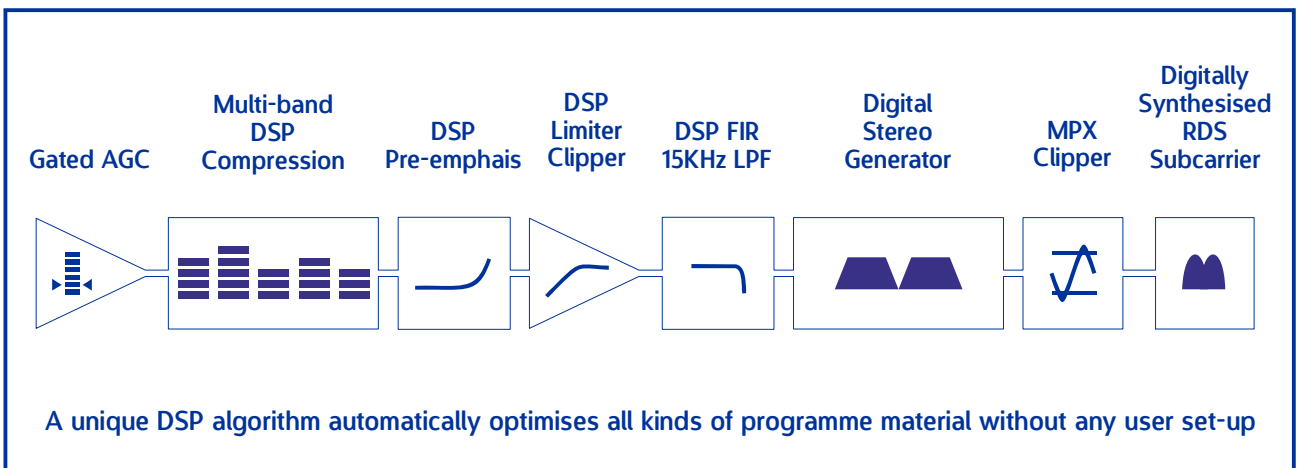
Applications

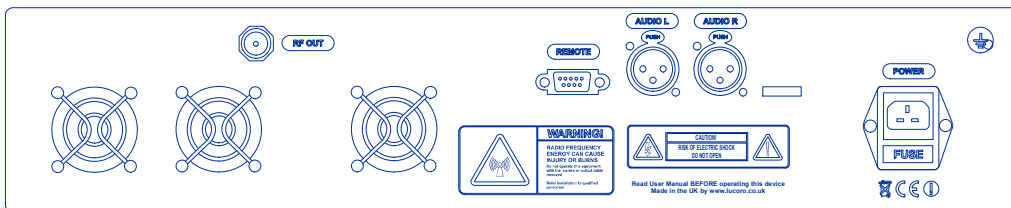
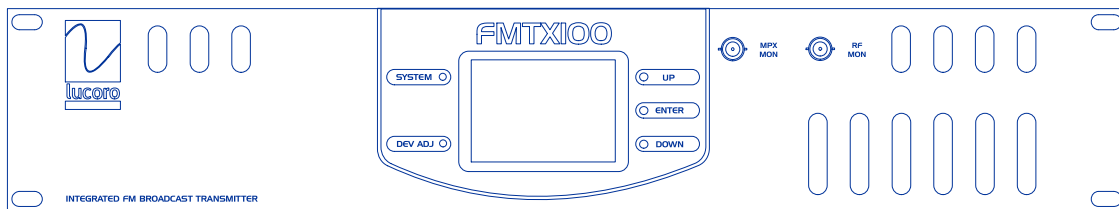
- Complete FM stereo service with RDS
- Full chain back-up
- Independent radio service
- Community radio service
- Special event and emergency stations

The FMTX100 is a fully integrated 125W Stereo FM broadcast system with full DSP audio processing, digital stereo encoder and 16 times oversampling RDS generator in a single, highly compact product. The result is a truly first class transmission system for cost conscious radio stations who demand uncompromising performance.

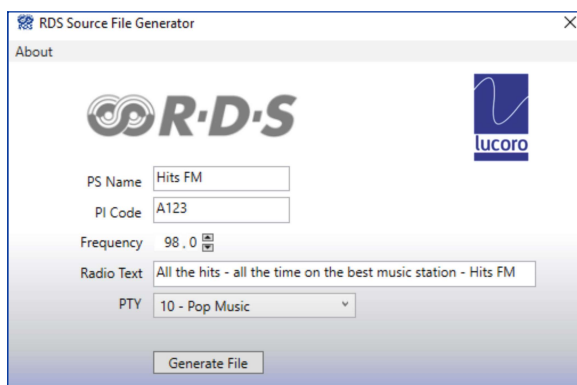
The DSP audio processor provides intelligent Automatic Gain Control, multi-band compressor/limiter, plus distortion controlled clipping and filtering. Slow 'gain riding' optimises long-term audio level variations, but prevents undesirable changes during silence. The multi-band limiter perfectly controls the sonic signature of all types of program material, making any format type - from talk shows to hit music formats - as loud and clear as stations using the most expensive processors. A digital 15kHz FIR filter protects subcarrier integrity, without compromising passband audio quality.

The FMTX100's unique ability to transparently adapt to all audio source material means an end to the expensive frills usually associated with audio processors, and makes lengthy user set-up a thing of the past. The latest DSP algorithms have been created in our Lab using specialist modulation power analysis, by broadcast engineers with over 20 years of FM processing experience. The end result is a 'plug and go' FM broadcast solution with deep bass, crisp treble and powerful clarity, which will stand out on every listeners' tuning dial, and extend the useable coverage area.





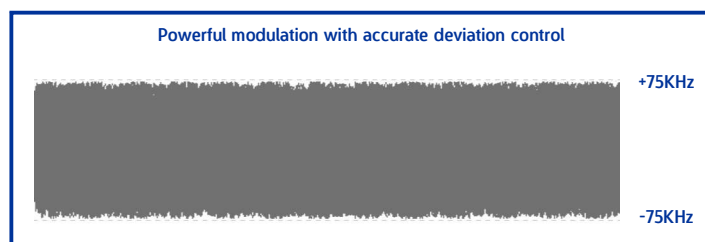
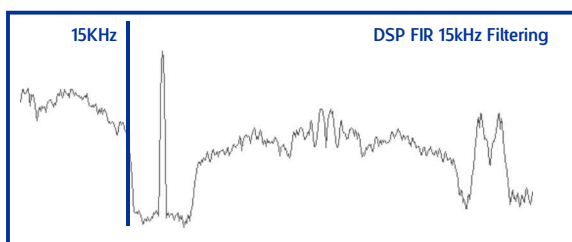
The FMTX100 also boasts an entirely digital 16-times oversampled Stereo Encoder section, for perfect audio separation and detail. Furthermore, the RDS encoder uses direct digital waveform synthesis for clean, perfect generation of the 57kHz subcarrier. As well as PS (station name) information, extended features - including RadioTEXT, Alternative Frequency and Traffic Announcement content - are also broadcast. Being standalone, the integrated RDS generator doesn't require a dedicated computer or data feed. If desired, the user can change the content at any time, using a programming device and Windows(TM) Laptop or PC, plugged into a port located on the back panel.



Professional audio grade components and the very latest surface mount technology are used throughout. At the heart

of the FMTX100 is a high quality PLL modulator, and the RF Power Amplifier uses the latest high-gain Enhancement Mode MOSFET device, achieving new levels of efficiency and reliability.

TTL remote monitoring and switching allows the FMTX100 to be used easily integrated into automated back-up applications. An audio silence alarm, plus remote RDS TA control are also provided.



Specifications

Dimensions:	2U 88 H x 482 W x 290 D (mm)	Frequency:	87.5 - 108MHz (76MHz to order)
Weight:	2.8kg	Output Power:	10 - 125W
Audio input:	XLR 600ohm +8dBu	Power stability:	Better than 0.25dB
RF output:	N female 50ohm	Spurious (76-137MHz):	<-100dBc (Fc > 500kHz)
RF monitor:	BNC female 50ohm (nominal -40dB)	Harmonics & Spuri:	<-70dBc (30-1000MHz)
I/O Control:	9-way D-sub female	RDS Groups:	0A, 2A (others to order)
Temperature:	+0° to +50°C (-20° to +60°C extreme)	Voltage:	100 - 250Vac 50-60Hz

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