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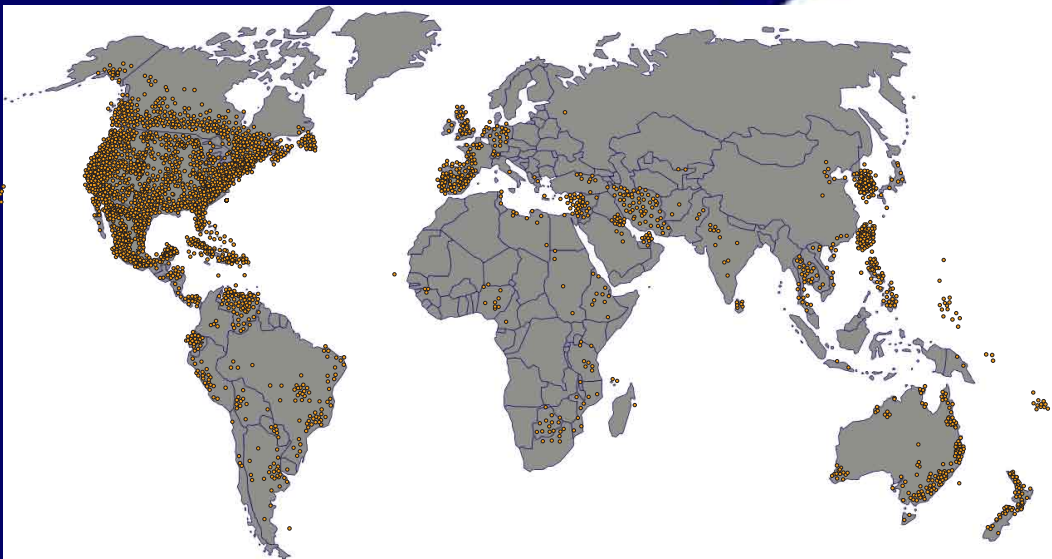
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## • Nautel installed transmitters



## QUICK SPECS

- Direct-to-Channel modulation gives superior signal reproduction and eliminates analog up conversion
- Frequency agile and requires no tuning for operation between 87.5 MHz and 108 MHz, making it ideal for N+1 applications
- Built-in programmable time delay on all inputs is ideal for synchronous applications and HD Radio™ blend synchronization.
- Built-in DSP stereo generator interpolates AES/EBU digital data or L&R analog audio to produce digital stereo composite signal
- Built-in SCA generators (2) and RBDS/RDS coder means no external generation is needed
- Universal AC supply with power factor correction accommodates supply voltages from 90 V to 264 V
- 240 x 64 LCD graphical user interface, advanced alarm system, 128-event log and on-board real-time clock make operation, troubleshooting and system monitoring easy
- Six programmable presets for audio source, power and frequency configurations selectable via local or remote control
- Fully compatible with HD Radio™ digital radio broadcasting
- Standard 19" EIA rack mountable
- Dimensions: 5.25" H x 19" W x 20" D
- Weight: 24.5 lbs

# Making Digital Radio Work.

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# M50



50 W Direct-to-Channel FM Exciter

# M50

## 50 W Digital Exciter

M50 FM Digital Exciter



### READY FOR DIGITAL. READY FOR ANYTHING.

The M50 is the most advanced FM exciter available with features to meet the needs of any application. The digital adaptive pre-correction capabilities and included Exgine card make the transition to HD Radio™ a worry-free experience. With a simple LAN connection, the M50's user-defined presets select the mode of operation for the host transmitter.

Direct-to-channel conversion of the audio ensures the highest fidelity FM signal free from any microphonics or spurious emissions. In addition to standard features like SCA generators and a RBDS/RDS coder, the M50 includes adjustments with the required resolution to facilitate single frequency network and N+1 applications.

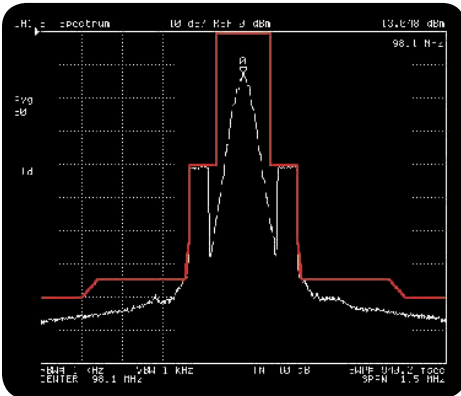
The M50 is complete with a 240 x 64 LCD display that provides comprehensive system monitoring capabilities. A time-stamped 128-event log complements the diagnostic flow diagram to provide all the information necessary to make long-term maintenance an easy task.

# Making Digital Radio Work.



## ADAPTIVE PRE-CORRECTION

The M50 links with a Nautel Virtuoso series transmitter to provide adaptive pre-correction by continuously sampling the final RF output and dynamically applying digital pre-correction. This optimizes performance independent of environmental changes and ensures the HD Radio signal is transmitted within spectral limits without requiring an external bandpass filter.



AdaptivePre-correctionGraph

## ADVANCED DIGITAL SIGNAL

Advanced digital signal processing and field programmable gate array technologies provide superior signal reproduction, eliminating analog up conversion. This Direct-to-Channel conversion of audio eliminates problems related to aging, microphonics, and filtering.

## OPERATING CONVENIENCE

An intuitive graphic user interface with soft key menu access provides comprehensive control and monitoring capabilities. In-depth diagnostics are facilitated via the 128-event time-stamped log and the "at-a-glance" diagnostic flow diagram. An on-board clock further simplifies operation, troubleshooting and system monitoring.

Six programmable presets for audio source, power and frequency configurations are selectable via local or remote control.

## SEAMLESS INTEGRATION

The M50 integrates seamlessly with a Nautel Exporter for HD Radio transmission in either fully Digital or Hybrid modes. The high precision delay adjustment capability of the M50 gives the broadcaster the ability to ensure an undetectable blend between digital and analog transmission modes in any HD Radio combining configuration.

## DIGITAL COMPOSITE SIGNAL

The M50's built-in DSP stereo generator interpolates AES/EBU digital data or L&R analog audio to produce a digital stereo composite signal. With the two built-in SCA Generators and an RBDS/RDS Coder, no external generators are required.

The exciter is frequency agile and requires no tuning for operation between 87.9 MHz and 108 MHz, making it suitable for N+1 applications.