



VS SERIES

Digital/Analog FM



300W – 2.5kW Rack-Mount FM Transmitters
Upgradable to **HD Radio®** Broadcasting

VS Series



VS1 1kW Analog

VS SERIES: IDEAL FOR LOW POWER DIGITAL FM

Nautel's VS Series transmitters are engineered to meet today's most challenging broadcast requirements with an exceptional combination of robustness and reliability in a cost effective design. But the VS Series goes even further with pioneering innovations such as IP audio I/O, Advanced User Interface (AUI) and a easy upgrade path to HD Radio® transmission. Each VS transmitter has been optimized for its specific power output to maximize functionality and quality resulting in outstanding value. .

Outstanding FM Performance: The Nautel Sound

Experience Nautel's crystal clear sound: With VS Series transmitters, you simply get audio in and RF out without audio coloration, achieved by using an advanced FM exciter. Direct to-channel digital modulation at more than 600 MSPS eliminates microphonics and spurious outputs and results in a composite signal-to-noise ratio of -90dB or better.

Simple Serviceable Design

VS Series transmitters are ruggedly engineered to ensure maximum on-air continuity. The simplicity and reliability of the VS Series' proven RF design is further enhanced with redundant fans and RF power amplifiers in the VS1 and VS2.5. Service friendly design considerations include washable air filters that are easily accessed from the VS front panel. Even the VS Series power transistors are field replaceable with common tools and absolutely no biasing or tuning is required. The integrated digital exciter approach also means there are no pots or switches to worry about. All exciter adjustments are done easily using the Advanced User Interface in a web browser either locally or remotely. In addition there is no warm-up or lock time. Power up and you're on the air in a fraction of a second.

Nautel Reliability

With 55 years of worldwide transmitter experience and one of the industry's most recognized reliability track records, your Nautel VS Series transmitter, joining over 7000 units in service, can be counted on for years to come.

Award-Winning Advanced User Interface (AUI)

In addition to a front-panel LCD, which offers quick control of key functions, Nautel's VS transmitters place enhanced control in your hands so you can do more with your time. The AUI streamlines detecting and resolving radio transmitter issues by offering critical information and controls necessary for swift resolutions. This enables remote management of transmitters, significantly minimizing the need for on-site visits. The AUI integrates RF and audio spectrum analyzers, customizable email alerts, SNMP support, a scheduler, detailed event logging, and RDS/PSD configurations to enhance listener engagement.

ADVANCED APPLICATIONS

VSHD Digital Exciter

Make your VS Transmitters ready for HD Radio broadcasting by adding the VSHD Digital Exciter. The VSHD employs 'direct-to-channel' audio conversion for superior signal fidelity, eliminating issues such as aging, microphonics, and filtering. Designed for seamless integration with VS series transmitters, the VSHD supports IBOC transmission in both all-digital and hybrid modes. Audio source options include AES/EBU, analog UR, modulated and unmodulated SCA inputs, RBDS/RDS generator, and composite inputs. Controlled either locally or remotely via the associated VS transmitter's front panel display or remote AUI, the VSHD exciter provides advanced functionality with ease of operation.

Single Frequency Networks

The VS Series is ideal for use in a single frequency network. Whether you are looking to expand your coverage area, create a long unbroken coverage chain (along a highway), or fix holes in your coverage area due to terrain shielding, the VS Series is the ideal transmitter for the job. SFN functionality is built in to all VS Series transmitters and the built-in remote capability of the AUI, combined with GPS synchronization and time delay adjustment in millisecond increments, helps simplify the complex task of setting up a single frequency network.

N+1 Cost Effective Automated Transmitter Backup

For facilities that broadcast multiple programs from a single site, N+ 1 capability can provide even higher levels of redundancy that is both automated and cost effective. Nautel N+ 1 configurations can support up to six identical main transmitters plus a backup.

**MORE
DIGITAL**



Easy Upgrade To Digital Broadcasting

Crystal clear programming, four channels on one frequency, song tagging, and the delivery of advanced Program Associated Data. These exciting new capabilities are available using digital broadcasting. When you are ready to implement digital transmission your VS Series transmitter will be ready too with HD Radio broadcasting standards. The optional VS HD add-on unit and Nautel's integrated digital solutions make your move to digital broadcasting easy and economical.

**ORBAN
INSIDE**



Optional Card For Orban™ Audio Processing

Orban's premier audio processing can be integrated directly into a VS transmitter via an optional affordable plug-in DSP card. Nautel's Orban Inside offers features of the Optimod 5500 Series digital processor with 5 band processor and dual band window-gated AGC. Utilizing the Nautel AUI, users have full control over processing functions.

NAUTEL INNOVATIONS

- Easy upgrade to HD Radio
- Compact: from 2 to 5 RU (300W to 2.5kW)
- Integrated digital exciter
- Advanced user interface (via web)
- Front panel LCD control
- Advanced instrumentation and management



QUICK SPECS		VS300	VS1	VS2.5
Analog Power FM Only	Max Power	330 W	1400 W	2800 W
	Typical Efficiency	62%	59%	66%
Analog Power -20dB Hybrid	Max Power*	314 W	1131 W	2518 W
	Typical Efficiency	47%	48%	60%
Analog Power -14dB Hybrid	Max Power*	233 W	855 W	2081 W
	Typical Efficiency	38%	42%	55%
Analog Power -10dB Hybrid	Max Power*	133 W	651 W	1511 W
	Typical Efficiency	30%	37%	50%
AC Input		180 V ac to 264 V ac, 1 phase, 50/60 Hz		
Rack Units		2 RU	3 RU	5 RU
Height (in/cm)		3.5 (7.7)	5.25 (13.3)	8.75 (17.8)
Width (in/cm)		19 (48.3)		
Depth (in/cm)		23.8 (60.5)	25.5 (64.8)	
Weight (kg/lbs)		9.1 (20)	18.1 (40)	30.8 (68)



QUICK SPECS	VSHD
AC Input	Universal HD
Rack Units	2 RU
Height (in/cm)	3.5 (7.7)
Width (in/cm)	19 (48.3)
Depth (in/cm)	22 (55.9)
Weight (kg/lbs)	8.6 (19)