

Introducing
nautel TV



NT Series

Low Power UHF
Digital TV Transmitters



NT Series

DVB-T[®]
DVB-T2[®]



FEATURES

- ATSC, DVB-T2
- Highly compact
- Various standby systems available
- LDMOS technology power amplifiers
- Remote control & monitoring via Ethernet
- Seamless Input Switching
- Rebroadcasting (Demodulator option - ATSC)
- 4 Mode Adaptive-Auto Correction
(① Auto Run ② Run Target ③ Continuous ④ Idle)

NAUTEL:

A FRESH TRANSMITTER ALTERNATIVE

Nautel brings broadcasters a fresh alternative when it comes to choosing transmitters. During Nautel's four decades of manufacturing transmitters, its customers have come to rely on Nautel for equipment that is known for its on-air dependability and exceptionally long life. Now the control, innovation and support that customers have come to expect from Nautel is available in a new line of low power digital TV transmitters.

NAUTEL'S FRESH APPROACH



Our new TV transmitters draw on Nautel's history of technology innovation and position as one of the world's largest transmitter manufacturers. We promise to deliver solutions that combine reliability, support and product quality. You can expect highly-integrated platforms which can be managed remotely to help broadcasters save time, trips and money.

We invite you to look at some of technologies and value we bring to our TV transmitters. If you haven't considered Nautel in the past, maybe it's time to start watching this new channel.

MORE CONTROL



Main Screen Menu



Modulator View



NT500 Spectrum View*

AWARD WINNING ADVANCED USER INTERFACE (AUI)

In addition to a front panel LCD that offers quick control of key functions, NT transmitters support Nautel's renowned Advanced User Interface (AUI). An extensive array of parameters is available in real time at your fingertips. Imagine knowing in advance what parts and tools you'll need at the transmitter site. Having that much control remotely can help you avoid trips, save time and save money. Advanced control features include:

- RF and audio spectrum analyzers
- Comprehensive monitoring and control
- Extensive logging of all events
- Email notifications

* Spectrum views are optional on the NT150

REAL TIME BUILT-IN INSTRUMENTATION

NT Series transmitters include built-in instrumentation that would cost tens of thousands of dollars if purchased separately. Spectrum views are standard on the NT500 and optional on the NT150.

100% REMOTE ACCESS

No matter where you are, you're only moments away from ensuring your NT Series transmitter is operating optimally. Open a web browser, enter your transmitter's IP address and password and you're connected. 100% of the local NT Series display functionality is available on any web-enabled device.

SNMP SUPPORT

NT Series transmitters also support Simple Network Management Protocol (SNMP), a network protocol that allows network management systems or a network operations center (NOC) to monitor network-attached NT Series transmitters.

ADVANCED DESIGN

HIGH PERFORMANCE MODULATOR

The NT Series transmitters utilize one of the most advanced modulators available today. This software defined modulator provides options to upgrade the exciter to meet changing standards without replacing hardware.

OUTSTANDING PERFORMANCE/ ADAPTIVE PRE-CORRECTION

Sophisticated linear and non-linear adaptive pre-correction ensures outstanding spectral compliance and the highest standard of digital transmission performance.



NT Modulator

EASY DEPLOYMENT

FLEXIBILITY

The NT150 is designed for quick and easy deployment. Simple air-cooling and an efficient 185-264 Vac switching power supply make it a suitable match for all facilities.

Optional rebroadcasting and main/alternate standby configurations can be selected to address your specific transmission needs.

BROAD TV STANDARDS SUPPORT

Designed to meet the needs of broadcasters worldwide, the NT Series supports major digital transmission standards including DVB-T, DVB-T2, and ATSC, and ISDB-T*.

CLEAN/COMPACT DESIGN

Nautel's NT Series packs a lot in a small package with its built-in modulator and even a mask filter in the NT150. Equally important is its clean design that permits easy access to all components for simplified maintenance.

SEAMLESS INPUT SWITCHING

The NT Series allow the widest possible range of inputs. In addition the AUI provides the ability to monitor and switch these inputs remotely. Inputs offered include:

- ASI
- SMPTE-310M
- TSoIP (Gigabit Ethernet)
- Optional Receiver Input (ATSC)

RELIABILITY

Nautel has built its reputation on rock-solid, on-air reliability. The NT series shares that heritage by way of a conservative design and the ability to produce as much as 50% more than its rated power.

*ISDB-T support is planned for later this year.

NT150

150 W UHF Digital



COMPACT, RELIABLE, ALL-IN-ONE

Nautel's new low power UHF transmitter combines an advanced modulator, amplifier, remote control, adaptive pre-correction and even a mask filter all in a compact enclosure. The NT150 is an ideal platform for low power TV broadcasting, retransmission or gap-filler applications.

BUILT-IN FILTER

To achieve optimum performance the NT150 not only incorporates the digital modulator but also the mask filter. That helps you get on the air faster with a cost-effective solution and one source for support.



NT150 integrated filter

NT500

500 W UHF Digital



EFFICIENT

The NT500 uses OPTIPOWER®, a market leading enhanced adaptive precorrection technology for maximum optimization of transmitter power efficiency and/or transmitter MER performance. Optipower is available as an option on the NT150.

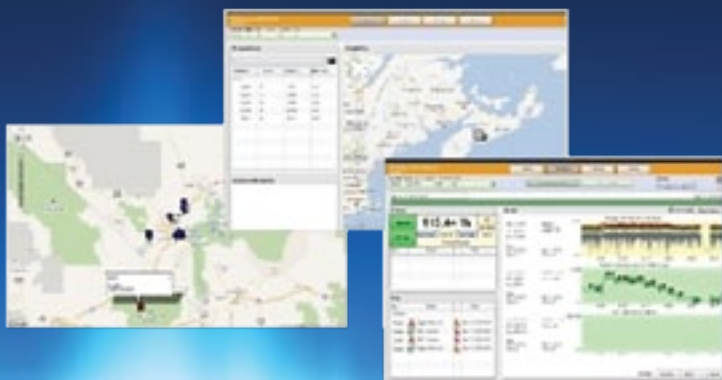


NT500

SERVICEABILITY

You'll appreciate the elegant design of the NT500. Easy access to all submodules ensures serviceability and fast repair time.

Nautel PhoneHome



more

INNOVATION

Nautel's award-winning diagnostic tool Phone Home is more than just a remote alarm system; it is a virtual watch dog that continuously monitors and logs all parameters of your transmitter, diagnosing problems sometimes before they can affect transmitter performance.

Nautel Phone Home means faster evaluation and recognition of problems at the transmitter site, fewer site visits and less off-air time. All of this results in real savings for the broadcaster.

4-Year WARRANTY

more SUPPORT

Nautel equipment is known for its on-air dependability and exceptionally long life. Nautel has never discontinued support on any product it has introduced, underlining our commitment to broadcasters. Our seasoned 24/365 support team and extensive parts inventories will be ready to serve customers worldwide. Underlining the confidence Nautel has in its products, we provide one of the industry's longest warranties at four years.

Nautel has **NEVER**
discontinued support
on any product, **EVER.**

even more SUPPORT

Nautel has never discontinued support on any product, ever.

Our unique approach to customer service lets you know you are working with a trusted partner. Whether it's tomorrow or 20 years from now, we will be there with the support you need when you need it most.

Making Digital Broadcasting Work.

Nautel has emerged as one of the world's largest manufacturers of broadcast transmitters and has established a reputation for quality, reliability, technological innovation and outstanding product support. During Nautel's four decades of manufacturing transmitters, customers have come to rely on Nautel for equipment that is known for its on-air dependability and exceptionally long life. In fact, in its history Nautel has never

discontinued support on any product it has introduced, underlining our commitment to broadcasters worldwide. Over 12,000 customers in 177 countries rely on Nautel's unique combination of support, product quality, and highly-integrated platforms that can be managed remotely to help broadcasters save time, trips and money.

QUICK SPECS

Item	NT150		NT500	
	ATSC	DVB-T2	ATSC	DTVB-T2
Frequency Range	UHF 470~810MHz		UHF 470~810MHz	
Power Source	185 to 305 V ac, 1 phase, 50/60 Hz		185 to 305 V ac, 1 phase, 50/60 Hz	
Efficiency (with Filter)	17%	21%	N/A	
Efficiency (without Filter)	19%	23%	20%	21%
Output Power	150 W		500 W	
	(after Mask Filter)		(before Mask Filter)	
Impedance	50Ω		50Ω	
Input Connector	BNC Female		BNC Female	
Data Input Source	ASI, SMPTE310M			
TSoIP	100Mbit	Gbit	100Mbit	Gbit
RF Output Connector	N Female		DIN(7/16") Female	
Out of Band Emission (with Mask Filter)	FCC Standard	DVB Standard	FCC Standard	DVB Standard
Power Stability	≤ ±2%			
Frequency Stability	≤ ±0.1ppm	GPS	<_±0.1ppm	GPS
SNR(ATSC) MER(DVB-T2)	≥ 37dB @ 150 W	≥ 34dB @ 150 W	≥ 37dB @ 500 W	≥ 34dB @ 500 W
EVM(ATSC)	≤ 2%			
Frequency Response	≤ ±0.5dB			
Group Delay(ATSC)	≤ ±20ns			
Phase Noise(ATSC)	≤ -107dBc @ 20kHz			
Peak to Average Power Ratio(ATSC)	≤ 6.4dB @ 0.1%			
Spurious & Harmonics	≤ -60dBc			
Operating Temp.	-10°C ~ +45°C			
Humidity	≤ 90%			
Cooling	Forced Air Cooling			
Height (in/cm)	4RU 7 (17.8)		5RU 8.75 (22.2)	
Width (in/cm)	19 (48.3)		19 (48.3)	
Depth (in/cm)	23.6 (60)		23.4 (59.5)	
Weight (lbs/kg)	64 (29)		77 (35)	

Specifications subject to change.