

# Advanced • TV™ 7 Series



## AT78-4K0 ATSC DIGITAL TRANSMITTER 4kW with Manual or Automatic Pre-Correction

OFFERING INDUSTRY-LEADING BROADCAST SOLUTIONS –  
EMPOWERING BROADCASTERS TO DO MORE WITH LESS



Linear AT8001™ featured

### Features

- ▲ 4,000W RF Output
- ▲ Fully Solid State
- ▲ Modular Construction
- ▲ Dual-purposed Exciter
- ▲ Individual Air Cooled Drawers
- ▲ SNMP Interface And PC Configurable
- ▲ Soft-start and Power Factor Correction
- ▲ Manual or Automatic linear and non-linear pre-correction

Linear Advanced • TV - Representative photo profiles two 28RU racks with power to 4kW

### FAST FORWARD TO DIGITAL WITH LINEAR PERFORMANCE

The LINEAR Advanced•TV™ line of 19" transmitters are in a class by itself, and at a price point that makes it a smart investment. Loaded with standard features and an array of substantial options, Broadcasters can count on delivering a consistently high quality signal to its viewing audience. Highlights include significant advances in Linearization, Band Reduction, Transport Stream Rate Adaption and PCR re-stamping.

LINEAR hardware and software provides best-in-class performance. Our proprietary digital linear and non-linear pre-correction algorithms sets us apart from the competition – along with our low cost of entry into the digital world. On units 2.5kW and above, our 19" line features the LINEAR AT8001, 1RU Exciter with automatic pre-correction for both VHF and UHF applications. On units below 2.5kW, Broadcasters have an option of manual or automatic pre-correction.

## Not just digital. Better digital.™

Contact us today for more information.

# Advanced • TV™ Series – AT78-4K0 DIGITAL TRANSMITTER

## Power Amplifier Highlights

- ▲ Small footprint – 4RU (H) x 19" (W) x 26" (D)
- ▲ Amplifier / RF Efficiency rating at 27%!
- ▲ PFC/Power Supply Efficiency rating at 95%!
- ▲ Temperature speed-controlled cooling fans
- ▲ Efficient design – easy access for component replacement



## Transmitter Highlights

- ▲ Pre-correction: Non-linear and linear
- ▲ Band Reduction
- ▲ Transport Stream Rate Adaption and PCR re-stamping

## Applications

- ▲ DTV Transmitter
- ▲ DTV Translator (External Receiver / Decoder Required)

## Options

- ▲ Redundant dual exciters
- ▲ Translator option (Receiver/Decoder)
- ▲ AT8001 – options 1 through 9
- ▲ Spares Kit

## TECHNICAL SPECIFICATIONS

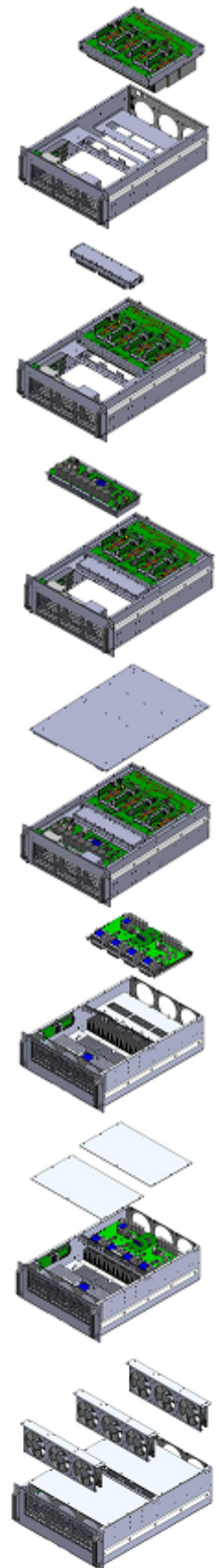
TRANSMITTER MODEL NUMBER	AT78-4K0
Transmitter/Translator Power Out (W)	4,000
Transmitter/Translator Size (W x D x H - inches)	28RU x 19" x 42" (x2 shown)
Number of PA's	8
RF Connector Type	3 1/8"
Transmitter/Translator Weight (lbs) *	660*
Heat load of each Transmitter/Translator (BTU)	42,000
Air Flow (CFM)	5,040
Power Consumption (Maximum W)	22,222
Operation AC Voltage (Volts) / Frequency (Hz)	single ph., 208 Volts/60 Hz
System	ATSC A-53. 8-VSB

GENERAL	
Power Factor	>0.92
Oscillator	Synth by PLL
Internal Time base	10 MHz OCXO
Frequency Stability	+/-0.3 ppm
Ideal Room Temperature Range (degrees F)	40 to 90
Ideal Room Humidity Levels	0 -80%

INPUTS	
Transport Stream Input Compliant to ATSC/MPEG2 SMPTE 310M	YES
Transport Stream Input – ASI	YES
Transport Stream Connector	75 Ohm BNC unbalanced
Transport Stream Data rate - SMPTE 310M	19.39 Mbps
Transport Stream Data rate – ASI	270 Mbps
External Time Base	10 MHz (0-10dBm)
External Time Base Connector	50 Ohm BNC

OUTPUTS	
Frequency Range	UHF Ch 14-69
Pilot Frequency Overall Stability	+/-0.3 ppm
Harmonics / Spurious Radiation	Meets FCC mask requirements
Sideband Performance	Compliant with FCC radiation Mask. Measured at the output of Linear-supplied output filter
Phase Noise @20 kHz Offset	<-104 dBc/Hz
Signal to Noise (EVM)	27 dB or better
Output Sample Connector	N Type
Frequency Adjustment Steps	1 Hz
Symbol Rate	10.76 MHz
Digital to Analog Converter	16 bit

\* Weight estimated for drawers and exciter, not filter or cabinet.



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