AT71-250™ ATSC Digital Transmitter

Engineering that opens doors to the future.

Your best digital choice is clear.

Our AT71-250 is a self contained, low power, solid state UHF television digital transmitter that has been engineered to be a cost-effective solution for your ATSC transmission needs.


We take great care to deliver only the highest quality at the best price, with on-time delivery and service. Our deepest commitment is to your broadcast operation and the communities you serve. We enjoy the extensive resources of a global electronics leader, including the ability to undertake advanced R&D initiatives. You can see the difference that we make all over the world.

The world looks to us for leadership.

Hitachi was founded in 1910 by electrical engineer Namihei Odaira. The Hitachi Group commits about $4 billion each year to research and development of new products. We continue to receive the largest number of world patents per year based on the work of our R&D architects. Hitachi Kokusai Linear has manufactured and installed nearly 40,000 units of Linear TV broadcasting and signal transport equipment in more than 40 countries.
### Technical Specifications

Our AT71-250 ATSC Digital Transmitter incorporates high gain, high efficiency, ultra-reliable LDMOS transistor architecture. It provides a cost-effective means to accomplish your digital transformation with an exceptional price point. It meets FCC and ATSC A/53 specifications, and offers a menu of suitable hardware options to increase operational efficiency for a specific TV network or local TV station's operating requirements.

A continual investment in R&D and engineering talent has enabled us to develop exceptional hardware and software to provide best-in-class performance. Our digital pre-correction algorithms for non-linearity and equalization on passive components set us apart from the competition, along with a low cost of entry into the digital world.

#### AT71-250

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmitter/Translator Power Out (W)</td>
<td>250</td>
</tr>
<tr>
<td>Transmitter/Translator Size (W x D x H - inches)</td>
<td>5 or 6RU x 19&quot; x 42&quot;</td>
</tr>
<tr>
<td>Number of PA’s</td>
<td>1</td>
</tr>
<tr>
<td>RF Connector Type</td>
<td>EIA 7/8&quot;</td>
</tr>
<tr>
<td>Transmitter/Translator Weight (lbs)*</td>
<td>100*</td>
</tr>
<tr>
<td>Heat load of each Transmitter/Translator (BTU)</td>
<td>4,000</td>
</tr>
<tr>
<td>Air Flow (CFM)</td>
<td>630</td>
</tr>
<tr>
<td>Power Consumption (Maximum W)</td>
<td>1,338</td>
</tr>
<tr>
<td>Operation AC Voltage (Volts) / Frequency (Hz)</td>
<td>single ph., 208 Volts/60 Hz</td>
</tr>
<tr>
<td>System</td>
<td>ATSC A-53, 8-VSB</td>
</tr>
</tbody>
</table>

#### GENERAL

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Factor</td>
<td>&gt;0.92</td>
</tr>
<tr>
<td>Oscillator</td>
<td>Synth by PLL</td>
</tr>
<tr>
<td>Internal Time Base</td>
<td>10MHz OCXO</td>
</tr>
<tr>
<td>Frequency Stability</td>
<td>+/-0.3 ppm</td>
</tr>
<tr>
<td>Ideal Room Temperature Range (degrees F)</td>
<td>40 to 90</td>
</tr>
<tr>
<td>Ideal Room Humidity Levels</td>
<td>0-80%</td>
</tr>
</tbody>
</table>

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

### Unmatched Features

- 250W 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

#### POWER AMPLIFIER HIGHLIGHTS

- Small footprint –4 RU (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 with easy access for component replacement

#### TRANSMITTER HIGHLIGHTS

- Pre-correction: non-linear and linear
- Band reduction
- Transport stream rate adaption and PCR re-stamping
- AT71-250-10 is manual pre-correction
- AT71-250-11 is automatic pre-correction

#### APPLICATIONS

- DTV transmitter
- DTV translator (external receiver/decoder required)

#### OPTIONS

- Redundant dual exciters
- Translator option (receiver/decoder)
- Spares kit

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Your best digital choice is clear.

For more information visit [linear-tv.com](http://linear-tv.com)

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