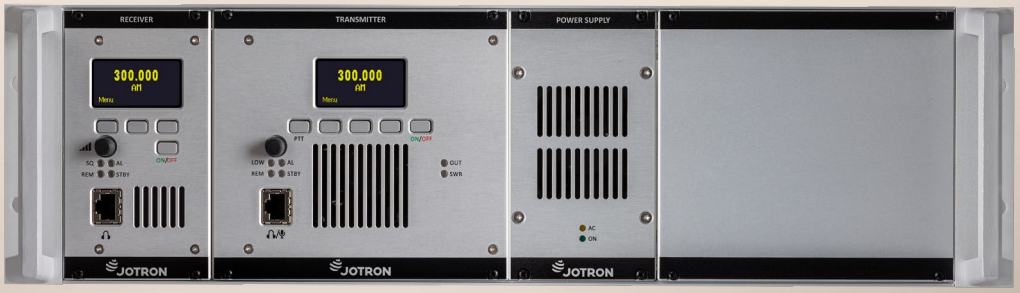
TR-7730U

UHF AM Digital Radio



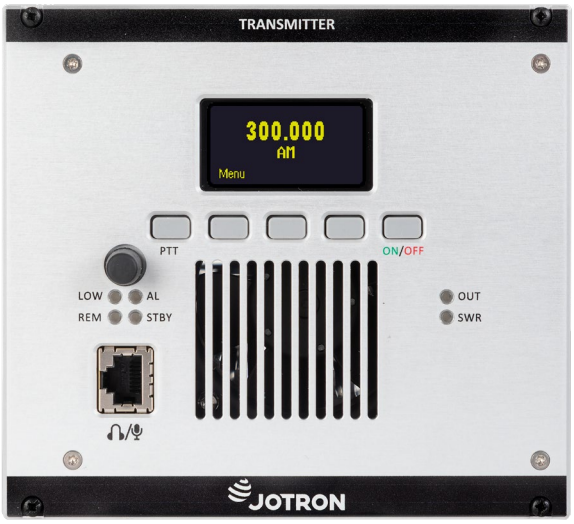
- Secure by design
- Supports distributed VoIP systems
- Web server with built in spectrum analyzer
- Improved SCT algorithm
- 3 LAN interfaces

JOTRON
Performance for Life

Jotron 7000-series

Features

- Excellent RF performance in congested areas
- Advanced digital signal processing (DSP)
- Remote control through Ethernet
- Easy set-up and control
- Compact design
- In-band signalling for PTT and squelch
- Continuous duty cycle
- Offset carrier
- VoIP according to ED-137
- Start-up time < 10 seconds
- Parallel operation (analogue and VoIP interfaces)



Excellent RF performance in congested areas

Careful analogue design is the key to achieving the best collocation capabilities possible. The 7000 series of radios are designed without compromising the synthesizers and analogue front end. Together with a linear power amplifier design and strict control by an ultra fast digital signal processor, making these the ultimate radios of choice for professional air traffic control applications.

Advanced digital signal processing (DSP)

The receiver and transmitter use the most powerful digital signal processors to perform the intermediate frequency (IF) and the audio frequency (AF) filtering. In addition, all the modulation and demodulation tasks are performed in the signal processor. This means improved product control, less tunable parts and improved reliability.

Remote control through Ethernet

The radio has alternative ways of being controlled, allowing it to fit easily into an existing onsite infrastructure. The radio is controlled and monitored using Simple Network Management Protocol (SNMP) and the Jotron dedicated Remote Control and Monitoring System (RCMS) or by a standard SNMP management application.

Alternatively, set-up and control can be either TCP/IP on the Ethernet, or the RS232/RS485 ports. The radio has a built in web-server for displaying current status and event history.

Easy set-up and control

All parameters can be set and adjusted electronically from the front panel or from the remote interface. The front panel contains a graphical display, menu buttons and switches that are used during set-up of the radio.

Compact and flexible design

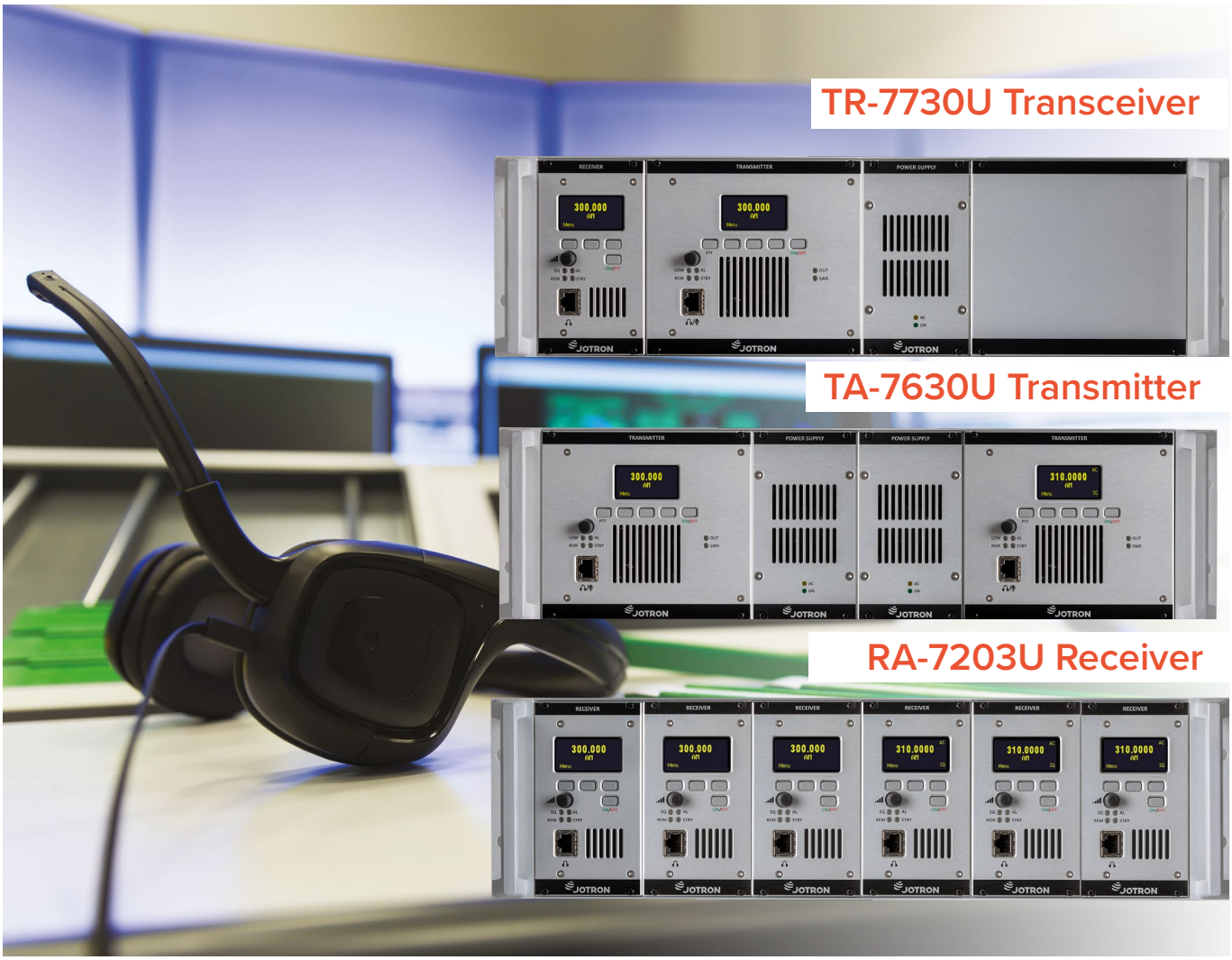
A complete transceiver consists of 3 units; transmitter, receiver and power supply. A 3 U/19'' sub-rack can hold one transceiver, up to 6 receiver units or 2 transmitter units, therefore offering a flexible and compact design.

BITE system

The Built In Test Equipment (BITE) system continuously monitors the technical parameters and reports real-time activity.

Keying options

The transmitter includes the following keying options: Positive and negative voltages (up to 50 V), ground keying and phantom keying on the audio line. In addition, in-band tone signalling with configurable tones for easy integration is also an option.



Duty cycle

The transmitter is designed for continuous duty cycle. The unique cooling concept in the transmitter, keeps the temperature low, ensuring the best maximum operational life. This makes the radio the perfect choice for VOLMET and ATIS applications requiring continuous transmission.

Offset carrier

Up to 5 offset carriers are available using the temperature controlled oscillator in the transmitter.

Squelch system

The squelch system consists of a level and a noise compensated squelch, both are adjustable, which is useful in radio frequency congested areas. Relay contacts with configurable logic and in-band tone signaling are available, making this system flexible.

VoIP according to ED-137

VoIP has been an option in Jotron radios since 2009. These radios are fully compliant with the ED-137 standard. Additional options for IPv6 and G.729 compression codec for use through connections with bandwidth limitations are available. By using VoIP interface the audio delay is minimalized, therefore, comparable to a radio operated with an analogue or a TDM line.

Parallel operation on all interfaces

A Voice Communication and Control System (VCCS) using an analogue interface can be connected and operated in parallel with a VCCS VoIP interface, allowing a seamless transition between analogue and VoIP.

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Security features

- Jotron is ISO 27001 certified
- Secure development (BSA and NIST 800-218 Secure Development Framework)
- CERT C/C++ Secure Coding Standard.
- Supporting distributed VoIP systems eliminating the need for a server (Supporting up to 20 VoIP streams!)
- Up to 6 recorder streams
- Powerful SCT algorithm based on FFT
- New WEB server with improved logging and a built-in spectrum analyzer
- WolfSSL security library w/maintenance agreement
- Ipv6 – Improved functionality with SLAAC and routing capabilities
- Security table (Individual configuration on protocol and interface level)
- Secure update (Secure upload (HTTPS), authentication/signing of FW)
- Included with security option
- HTTPS (Web)
- SIP-Auth(SHA-256)
- SIP-TLS/SRTP
- SIP-DTLS/SRTP
- SNTP authorization
- TLS w/digest authorization on Recorder interface
- TLS on TCP protocols (DSC, VDL, TCP Remote)

Standards

EN 302 617(AM)

ENVIRONMENTAL	SPECIFICATIONS
Temperature range	Operating: -20°C to +55°C, storage: -40°C to +70°C
Humidity	90% @ +40°C (non condensing)
Random vibration	ETSI EN 3000019-2-2(V2.1.2), IEC 60068-2-64
Bump	ETSI EN 3000019-2-2(V2.1.2), IEC 60068-2-29
Free fall	ETSI EN 3000019-2-2(V2.1.2), IEC 60068-2-32
EMC	EN 301 489 – part 22
Safety	IEC 60950-1, CSA-C22.2, no. 60950

Dimension drawings