



# TR-7550

## VHF/AM TRANSCEIVER



[www.jotron.com](http://www.jotron.com)



## ▶ Jotron 7000 Series

Microcomputer Controlled  
Transmitter and Receiver  
Adjustable RF Output Power  
Multichannel or Programmable  
Fixed Channel Operation  
Adjustable RF Power Output  
Selectable channel spacing 25 kHz or 8.33 kHz  
Remote and/or Local Control of All Functions  
Built-in Coaxial Relay For Antenna and Control Transfer to  
Standby Units  
RS-485 Multidrop Data Bus



### LED display

With 8 characters normally show the operating frequency. A push-button selects different BITE measurements available

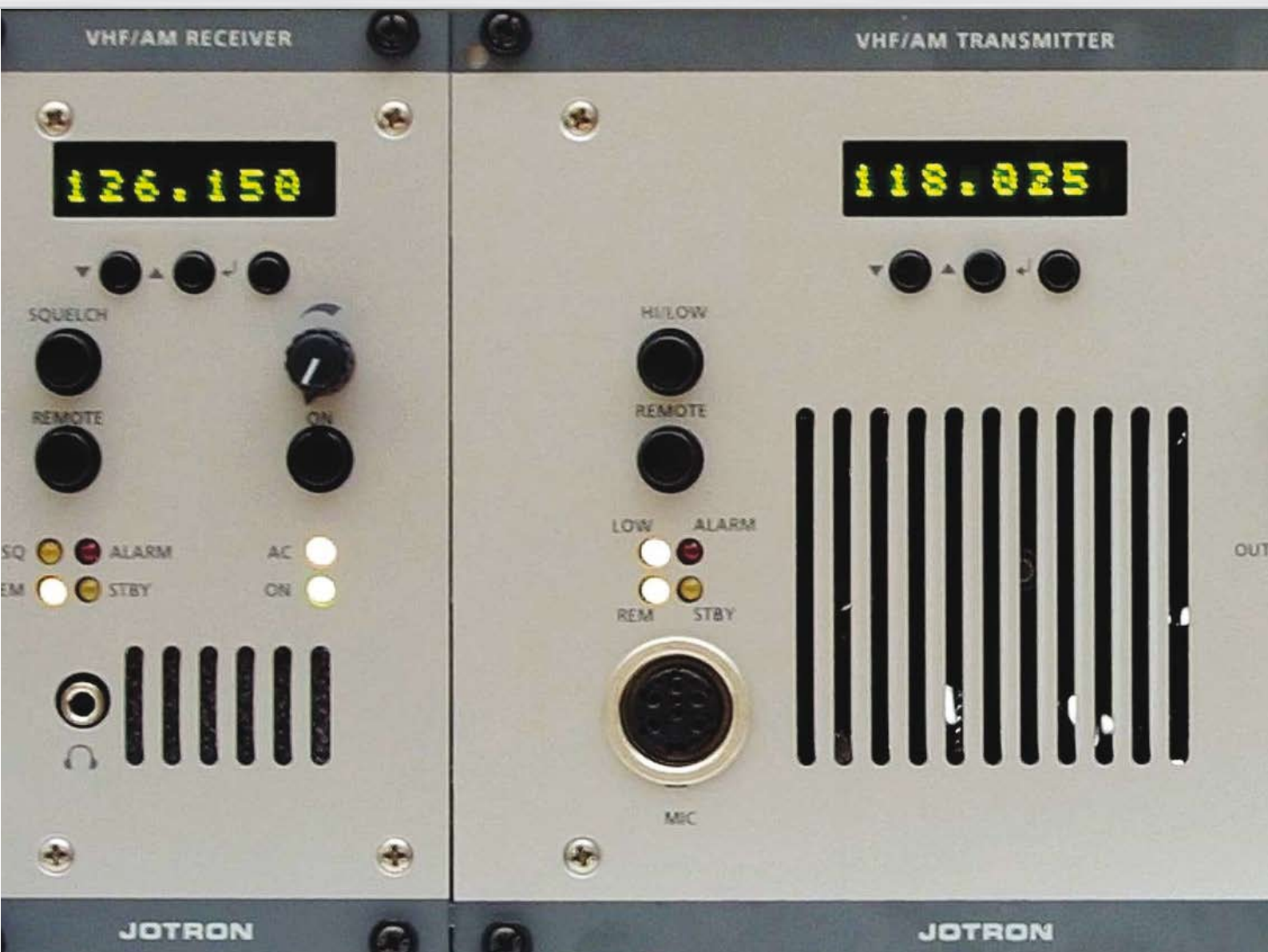
internally in the receiver and transmitter. In case of an alarm, the cause for the alarm will automatically be shown on the display to ease service.

### User friendly frequency change

By 3 push-buttons. The increment/decrement is dependent of the selected channel spacing. Set-up of the transceiver is also selected with these buttons.

### Programmable SingleChannel

Units can be programmed to operate on a single channel or allow change between up to 99 pre-programmed channels. Re-programming of single-channel frequency can be done by remote lines.



**RS-485 Multidrop Databus**

Enable remote control and monitoring of up to 128 units through a single connection. All units individually addressable.

**Squelch button**

On/off selection, the level is adjusted with the frontpanel pushbuttons.

**Remote/Local switch**

Select between local and remote operation. The output level on the audio line of the receiver part and the input sensitivity on the audio line of the transmitter part is adjusted with frontpanel pushbuttons.

**Audio volume**

For adjustment of the local loudspeaker output level.

**PTT**

Transmit button for local operation.

**LED indicators**

AC/DC power availability, Alarm, High SWR, Low Power Output, Remote Control, Standby operation, Squelch, Transmit.





# TECHNICAL SPECIFICATIONS

## SPECIFICATIONS

Frequency range: 118 - 137 MHz. Optional to 156 MHz  
 Channel separation: 25 kHz or 8.33 kHz (12,5 kHz optional)  
 RF input impedance: 50  $\Omega$   
 Frequency error:  $< \pm 1.5$  ppm ( $< \pm 1$  ppm 0 - 40°C)  
 Frequency selection: 25 kHz or 8.33 kHz steps  
 Supply voltage AC: 115/230VAC -10+15% / 50-60 Hz f12%  
 Supply voltage DC: 21.6 - 31.2 VDC negative earth  
 Duty cycle: 100% at ambient temperature below 40°C  
 Operating temperature: -20°C to +55°C, Ambient Air Humidity: 90% at +40°C (non-condensing)  
 Storage temperature: -40°C to +70°C  
 Power consumption: Max. 300VA (TR-7550), Receiver only: Less than 10watt  
 Size: Industry standard 19" Rack, 3U high  
 Weight: Approx 9 kg

## RECEIVER:

Sensitivity: 10 dB SINAD at 1  $\mu$ V pd, m = 0.30. Acc. to ITU-T  
 Squelch: Adjustable from 1  $\mu$ V to 25  $\mu$ V pd  
 Hysteresis:  $< 3$  dB. Opening/closing:  $< 50$  ms  
 Adjacent channel selectivity:  $> 70$  dB at 25KHz,  $> 60$ dB at 8.33KHz  
 Cross modulation:  $> 85$  dB  $> 100$ KHz frequency offset  
 Spurious response immunity:  $> 80$  dB  
 Intermodulation immunity:  $> 75$  dB ref. 1  $\mu$ V EMF. 2 interfering signals  $> 100$  kHz offset from receiving frequency  
 Blocking/Desensitisation:  $> 100$  dB @ 1MHz  
 Image Rejection:  $> 100$ dB  
 AGC:  $< 3$  dB from - 107 to + 5 dBm input signal  
 Attac time: 50 ms, Recovery time: 200 ms  
 Spurious radiation:  $< 2$ nW  
 Audio response: 25 kHz: +1 / - 3 dB rel. to 1 kHz, 300 - 3400 Hz  
 $< -30$  dB at 5000 Hz  
 8.33 kHz: +1 / - 3 dB rel. to 1 kHz, 300  
 $< -2500$  Hz -30 dB at 3200 Hz  
 $< 5\%$   
 THD:  $> 40$  dB  
 AF intermodulation:  $> 40$  dB, 100  $\mu$ V, 30% mod, 1 kHz. Weighted ITU-T  
 S/N ratio:  $> 40$  dB, 100  $\mu$ V, 30% mod, 1 kHz. Weighted ITU-T  
 Audio output impedance: 600  $\Omega$

## TRANSMITTER:

Modulation: AM up to 95%  
 Harmonic emission:  $< 80$  dBc  
 Standing wave ratio: 1:  $\infty$  Output is reduced automatically with severe mismatch  
 Output power: Max. 50W. Adjustable. (TA-7525: Max. 25W, TA-7510: 10W.)  
 Adjacent channel power:  $> 75$  dBc/25 kHz,  $> 55$  dBc/8.33 kHz  
 Antenna connector: 50  $\Omega$ N - connector  
 T/R relay: Built in. Key relay contacts available for external equipment  
 Keying time: Less than 20 ms  
 Line input: 600  $\Omega$ , -20 to +10 dBm  
 Mic input: Dynamic. Sensitivity 2.5mV. On front panel, or remote connector  
 LF compression (VOGAD): 30 dB, with less than 3dB change in modulation level  
 Limiter: Limiting amplifier prevents over modulation  
 Audio response: 25 kHz: +1/ - 3 dB rel. to 1 kHz, 300 Hz - 3.400 Hz  
 $< -30$  dB at 5000 Hz  
 8.33 kHz: +1/ - 3 dB rel. to 1 kHz, 300 Hz - 2.500 Hz  
 $< -30$  dB at 3200 Hz  
 Distortion: Less than 5% at 90% modulation  
 Hum and noise level: Better than 45 dB below at 90% modulation



Agent/Distributor:

Jotron AS reserves the right to change the design and/or specifications at any time without prior notice.



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