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## 1000W H.F. DIGITAL TRANSCEIVER MODEL TR-610-R



- Digital design.
- VMOS Amplifier.
- 1000W R.M.S. power.
- Frequency range 1.6 - 30MHz.
- Resolution 1Hz.
- Stability 1ppm
- Memorizes up to 255.
- Memorizes all the parameters.
- J3E (BLS, BLI), A1A, J2A, F1B, H3E modes.
- 3KHz, 1.8KHz filters, G.M.D.S.S.
- Local/Remote operation through RS232.
- Monitoring of incident power, reflected power and line measure.
- VSWR tolerance: Infinite.
- Voice over ip (VoIP) or input line 600Ω.

### Options:

- A.L.E.: Automatic search of the best communication channel.
- High Speed Data Modem: 9600 bps in HF for sending text, fax, images.



The TR-610-R Transceiver is the only equipment in the world in which its receiver is completely digital from its RF input.

The transmitter is completely digital from the audio input signal up to the RF amplifier.



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## TECHNICAL CHARACTERISTICS

### TRANSMISSION

|   |                           |
|---|---------------------------|
| Output power  | 1000W. R.M.S. $\pm 1$ dB. |
| Power Reduction   | -3dB; -6dB; -10dB.        |
| Incident and Reflected Power measurement.                               |                           |
| Micro; Line; Data; Manipulator.   |                           |
| Tuning power for antenna automatic coupler.                             |                           |
| Completely digital design (except RF power amplifier and Power Supply). |                           |
| Harmonics radiation   | -50dBc.                   |
| Spurious radiation  | -60dBc.                   |
| Side band non-desired attenuation                                       | -60dB.                    |
| Output impedance  | 50 $\Omega$ .             |
| Antenna connector type  | N.                        |
| Continuous operation regime.  |                           |
| Voice over ip (VoIP) or line input                                      | 600 $\Omega$ .            |
| Audio response  | 300-3000Hz.               |
| VSWR tolerance  | Infinite.                 |

### RECEPTION

|   |   |
|---|---|
| Operating frequency   | 100KHz - 30MHz.                                     |
| Selectivity:  | 6KHz; 3KHz; 1.8KHz;<br>GMDSS Filter (1700Hz).       |
| Design with high selectivity filter F.I.R. type.                                  |   |
| A.G.C. increase time  | 1ms.  |
| A.G.C. decrease time  | 5ms; 10ms; 50ms; 100ms;<br>500ms; 1s; 5s; 10s.      |
| A.G.C. manual threshold adjustable from 1 $\mu$ V. up to 500 $\mu$ V.             |   |
| Possibility of silence Rx.  |   |
| Built with adjustable Squelch.  |   |
| Digital selective pre-selector adjusted automatically to the reception frequency. |   |
| Rx input selection:   | Bypass<br>Digital Pre-selector<br>Pass band filters |
| Amplifier selection of +10dB. Ip=+45.   |   |
| Sensibility:  | 0.50 $\mu$ V for 10dB sinad<br>(-113dBm)            |
| Independent outputs:  | line and speaker.                                   |
| Dynamic range   | -119dB up to 0dB.                                   |

### POWER SUPPLY

|                         |                                 |
|-------------------------|---------------------------------|
| Power supply voltage:   |                                 |
| Single-phased power     | 220V <sub>AC</sub> $\pm 10\%$ . |
| Three-phased (optional) | 380V <sub>AC</sub> $\pm 10\%$ . |
| Power supply frequency  | 50/60Hz.                        |
| Power used              | Rx: 425W, Tx: 2.2Kw.            |

### MECHANICAL SPECIFICATIONS

|              |                          |
|--------------|--------------------------|
| Dimensions:  |                          |
| Width        | 600mm.                   |
| Height       | 1000mm.                  |
| Depth        | 800mm.                   |
| Built        | Anticorrosion aluminium. |
| Total weight | 110Kg.                   |

### CONFORMITIES

EN61000-3-2 (Electromagnetic compatibility).  
 EN61000-3-3 (Electromagnetic compatibility).  
 89/336/CEE (Electromagnetic compatibility).  
 73/23/CEE (Low voltage directive).  
 ETSI EN301929-1.  
 ETSI EN300773-1.  
 UIT-R M.625-3

### ENVIRONMENTAL SPECIFICATIONS

|                        |            |
|------------------------|------------|
| Operation temperature  | 0 to 50°C. |
| Environmental humidity | 95%.       |

### ACCESORIES PROVIDED

Control Commands for RS232.  
 Operation Software for PC.

### ACCESORIES NOT PROVIDED

Radiant system.  
 A.L.E.  
 High speed data modem.  
 Control processor computer.