

UHF/AM Transceiver 1W - 15W FSG7016 GTRX / 25 KHz



The FSG7016 GTRX base station represents a concept for ground-to-air-communication on small and regional airfields, as well as for military use.

Practically all user requirements are met by the FSG7016 GTRX. The heart of the FSG7016 GTRX is the original transceiver from the handheld FSG7016. Its sophisticated technology covers the whole 225 to 399,975 MHz frequency range in 25 kHz steps with 7.000 channels available.

Preselection of 4 memory channels with any out of 7.000 frequencies is a standard feature. In addition, the scanning function of any of the 4 pre-set channels, or of any frequency range within a user-defined upper and lower frequency scan limit, allows continuous memory- or frequency scan.

The system is mounted in a 19" and 2 height units high housing, available as a desktop or as 19" rack-mount unit.

The keypad on the front panel allows quick and simple operation. The two lines LC-display shows the selected operating mode and frequency.

The power supply is normally via the AC mains supply, an external DC backup can additionally be connected.

The basic version of the system is offered with 1 Watt RF carrier power output (4 W PEP); the base station can be equipped additionally with a 15 - 20 W HF power amplifier.

Sensible additional features and a complete pack of accessories allow this system to be used in almost every situation:

The transceiver may be controlled remotely by using a multi-wire cable with a distance range of up to 100 m connected to the desktop remote control.

A 2-wire interface and a remote control desktop unit with 2-wire interface are the option of your choice if remote control is required for larger distances.

The base station can be equipped optionally with an AF interface technology in 600 ohm 0 dBm (775mV) for RX and TX.

The optional FSG7016 GTRX tape recorder permits the AF to be recorded for documentational purposes.

When the optional 12 V/6,5 Ah battery is used (only available for the 1 W version), the system operates reliably even in the case of a power failure and as the base station is independent from the mains power supply, it can be used as an backup or emergency station as well.

Remote control for transceiver FSG7016 GTRX Rack

Specification:

- * Desktop remote control with integrated 230 V AC power supply and external 12 V DC 115 V AC power supply on request.
- * Integrated loudspeaker and microphone
- * 2-wire line-interface to the transceiver system



Further accessories for transceiver FSG7016 GTRX Rack

- * Handmicrophone
- * Footswitch
- * Antenna cable
- * Headset
- * UHF Antenna
- * Lightning protection

Technical characteristics

Temperature	-20 - +55 / +70°C oper., -40 - +85 °C storage
Frequency range (MHz)	225 – 399,75; (25 kHz); 7.000 channels
Power supply	AC 100 – 240 V or DC 12 – 16 V
Dimensions	445 x 85 x 300 mm
Weight	approx. 7,0 kg
Certifications	Reg. TP-No. B130558J / DFS-No. B-7848/95

Receiver

Sensitivity	$\leq 1\mu\text{V}/-107\text{ dBm}$ for 6 dB S+N/N, m=0.3/1 kHz
Squelch	$\leq 1.5\ \mu\text{V}/50\Omega$, Hysteresis ca. 3 dB SQ ON/OFF
Selectivity	$\geq \pm 8\text{ kHz} / -6\text{ dB}$ $\geq \pm 17\text{ kHz} / -60\text{ dB}$ $\leq \pm 25\text{ kHz} / -70\text{ dB}$
Intermodulation	$\geq 70\text{ dB}$, incl. ZF Mirror Frequency suppression
NF Climax Filter	$\geq 20\text{ dB} / 5\text{ kHz}$ (0 dB = 1 kHz)
AF output	$\geq 8\text{ W} / 2\ \Omega$, and $\geq 100\text{ mW} / 600\ \Omega$
max. HF input level	50 V / 50 Ω

Transmitter

RF output	$\geq 1\text{ W} / 50\ \Omega$ (20 W optional)
Freq. toler.	$\leq \pm 2,5\text{ ppm}$ 0 – 40 °C / $\leq \pm 5\text{ ppm}$ -20 - +55°C
Spectr. mask	$\leq 6\text{ dB}$, 350 – 3.000 Hz (0 dB = 1 kHz)
AF fidelity	
Modulation	$\geq 80\%$ amplitude at 300 MHz, 0°C to +40°C $\geq 70\%$ AM at 225 MHz to 340 MHz, -20°C to +60°C
Distortion	$\leq 10\%$ at 90% modulation, 400 to 3.000 Hz

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