

## VHF/AM Transceiver 6W - 50W FSG90 GTRX 8.33 / 25 KHz



The FSG90 GTRX base station represents a new concept for ground-to-air-communication on airfields, military, for oil rigs and ships and for airlines as a company frequency station.

Practically all user requirements are met by the FSG90 GTRX. The heart of the FSG90 GTRX is the FSG90 VHF/AM Dual Mode transceiver. Its sophisticated technology covers the whole 118.000-136.975 MHz frequency range (MIL. 118.000-149.975 MHz) in 25 kHz steps with 760 channels or in 8.33 kHz mode with 2.278 channels.

Pre selection of 4 memory channels with any out of 760 or 2.278 frequencies is a standard feature. In addition, the scanning function of any of the 4 pre-set channels, or of any frequency range with a user-defined upper and lower frequency scan limit allows continuous memory- or frequency scan.

The base station is mounted in a 19" 2U case and can be used either as a desktop unit or for mounting in 19" equipment.

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 about 100-240V AC mains voltage.

An external power supply 12-16V DC for 6W/10W version or 18-36V DC for 25W/50W version can be connected as an emergency power supply.

The base station is available in four versions:

- With 6 watt carrier power output (20 W PEP)
- With 10 watt carrier power output (36 W PEP)
- With 25 watt carrier power output (90 W PEP)
- With 50 watt carrier power output (180 W PEP)

The base station can optionally be operated remotely via various remote control options.

Connection options for documentation, DF suppression and external audio interface are available at the rear of the base station.

If a 12V / 6.5 Ah battery is installed (only available for the 6W/10W version), also in the case of a power failure the uninterrupted operation is ensured for several hours.

## Technical characteristics

Temperature	-20 - +55 / +70°C oper., -40 - +85 °C storage
Frequency range (MHz)	118.000 – 136.975; (8.33/25 kHz); 2.278 / 760 channels MIL 118.000 – 149.975; (8.33/25 kHz); 3.838 / 1.280 channels
Power supply	6W/10W version: AC 100 – 240 V or DC 12 - 16 V 25W/50W version: AC 100 – 240 V or DC 18 - 36 V
Dimensions	445 x 85 x 300 mm
Weight	approx. 7,0 kilos
Certifications	Reg. TP-No. A132937J / DFS-No. B-7850/97

## Receiver

Sensitivity	$\leq 1\mu\text{V}/-107\text{ dBm}$ for 6 dB S+N/N, m=0.3/1 kHz
Squelch	AM/FM combined, 4 thresholds (SETUP)
Selectivity	$\pm 9 / \pm 17 / \pm 25\text{ kHz}$ for $\leq 6 / \geq 50 / \geq 70\text{ dB}$ (25 kHz) $\pm 3 / \pm 7.37\text{ kHz}$ for $\leq 6 / \geq 50\text{ dB}$ (8.33 kHz)
RF immunity	-33 dBm (50 kHz – 1.215 MHz); ICAO Annex 10
Intermodulation	$\geq 70\text{ dB}$ , any CH freq. $\geq \pm 1$ and $\geq \pm 2$ CH
Spur. emission	$\leq 0,4\text{ nW} / -64\text{ dBm} / 141\ \mu\text{V}$ (50 $\Omega$ )
AF response	350 – 2.500 Hz $\leq 6\text{ dB}$ (8.33 and 25 kHz) 4.000 Hz $\geq 20\text{ dB}$ ; and 3.200 Hz $\geq 45\text{ dB}$
AF output	$\geq 8\text{ W} / 2\ \Omega$ , and $\geq 100\text{ mW} / 600\ \Omega$

## Transmitter

RF output	$\geq 6\text{ W} / 50\ \Omega$ (10 W or 25 W optional)
Frequency tolerance	$\leq \pm 1\text{ ppm}$ 0 – 40 °C / $\leq \pm 1.5\text{ ppm}$ -20 - +55°C
Spectr. Mask AF fidelity	$\leq 6\text{ dB}$ , 350 – 2.500 Hz (25 kHz/8.33 kHz) $\geq 45\text{ dB}$ , 3.200 Hz (8.33 kHz spacing) $\geq 60\text{ dB}$ , 5.000 Hz (8.33 kHz spacing)
Modulation	$\geq 80\%$ average, voice processor controlled
Distortion	$\leq 10\%$ / 1kHz, (15% / 0.35 – 2.5 kHz, m = 0.7)

**Stangl Funktechnik GmbH Erlanger Str. 9 D-91083 Baiersdorf Germany**

**Phone: +49 (0) 9133 / 7777-0**

**Internet: [www.stangl-funktechnik.de](http://www.stangl-funktechnik.de)**

**Fax: +49 (0) 9133 / 7777-40**

**Mail: [info@stangl-funktechnik.de](mailto:info@stangl-funktechnik.de)**