



# UMTS & GSM Testers

Precision Test Systems have recently developed two systems to test GSM and UMTS systems. The systems consist of a portable signal generator and an amplifier.

The Field Signal Generator is a portable handheld unit that operates from rechargeable batteries.

The Power Amplifier connects to the FSG unit to give up to +43 dBm output (20 watts into 50  $\Omega$ ). The PA amplifier is powered from a 100 - 240 VAC AC supply. There is an option for operation from +28 VDC as well.

The frequency range can be optional changed to other frequencies (WiFi for example)

## Features of these systems include:

1. FSG960B (GSM) or FSG2170 (UMTS) portable signal generator.
2. CW Signal Output from +20 dBm to -20 dBm switchable in 1 dB steps.
3. Frequency range: FSM960 is 890 to 960 MHz. FSG2170 is 1710 to 2170 MHz
4. Synthesized units. Frequency can be set in 100 kHz increments. PLL controlled.
5. Typically five hours use between battery charges. Can be used continuously from an AC supply or external DC
6. Matching power amplifier with 23 dB gain. Maximum power output 20 watts.
7. PA960B covers 890 - 960 MHz. 100-240 VAC operation. Output fully protected.
8. PA2170 covers 1710 - 2170 MHz. 100-240 VAC operation. Output fully protected.
9. FSG and PA act as a pair with AGC. Thus output power is leveled with frequency changes.



Picture of the FSG Series

## FSG Specifications

FSG960B	890 MHz to 960 MHz in 100 kHz steps
FSG2170	1710 to 2170 MHz in 100 kHz steps
Frequency Accuracy	± 3 ppm @ 23°C
Generate Level Range	+20 dBm to -20 dBm
Generate Level Resolution	1 dB steps
Generate Level Accuracy	±3 dB
Spurs and Harmonics	-40 dBc or better
Signal Type	CW
Display Type	Liquid Crystal with back light
Battery Life	Five hours after full charge
Charger	100 – 240 VAC useable worldwide
Size	200 mm x 100 mm x 45 mm
Weight	0.62 kg
Operating Temperature Range	+10 °C to + 40 °C

## PA Specifications

PA960B	890 MHz to 960 MHz
PA2170	1710 to 2170 MHz
Amplifier Gain	23 dB
Maximum Power Output	+43 dBm (20 Watts)
Harmonic Output	-10 dBc typical
Protection	Output protected against any mismatch
Power Supply	100 - 240 VAC
Size	TBA
Weight	TBA
Operating Temperature Range	+10 °C to + 40 °C

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Specifications subject to change without notice (160207)