

**PTS PRECISION  
TEST SYSTEMS**

## **FSM Series of Field Strength Meters**

The FSM series of field strength meters will measure the strength of a RF signal appearing at its input from +20 dBm to -110 dBm for wide bandwidth models and +10 dBm to -120 dBm for narrow bandwidth models. The RF strength will be displayed on an LCD display to an accuracy of  $\pm 3$  dB over the entire 130 dB dynamic range. A matching field signal generator is also available to act as a signal source for propagation studies.



- Many models to choose from covering the 20 MHz to 3 GHz frequency range
- 130 dB dynamic range. Measures from +20 dBm to -110 dBm or +10 dBm to -120 dBm depending upon what bandwidth is chosen
- Frequency range and step size can be altered to customer's requirements upon special request
- Handheld portable units operating on rechargeable batteries. Typically five hours use between charges
- Fast log detector enables GSM or digital signals to be captured as well as normal CW signals

# Applications

The FSM series of field strength meters are ideal for the following applications:

1. Propagation study or mapping of radio systems including analog and digital systems.
2. Measurement of antenna performance of a cellular phone or two way radio.
3. Direction finding using a directional antenna.

Three modes of operation, namely CW, PULSE or MAX-HOLD enables the FSM series to measure normal analog CW signals as well as pulse signals such as encountered in GSM cellular systems or avionics systems. The FSM series log amplifier has a fast response enabling short bursts of signals to be captured and displayed to an accuracy of  $\pm 3$  dB.

# Specifications

FSM100	20 MHz to 100 MHz in 12.5 kHz steps
FSM200	100 MHz to 200 MHz in 12.5 kHz steps
FSM300	200 MHz to 300 MHz in 12.5 kHz steps
FSM400	300 MHz to 400 MHz in 12.5 kHz steps
FSM500	400 MHz to 500 MHz in 12.5 kHz steps
FSM900	800 MHz to 900 MHz in 5 kHz steps
FSM960	890 MHz to 960 MHz in 100 kHz steps
FSM1850	1750 MHz to 1850 MHz in 12.5 kHz steps
FSM2200	2100 MHz to 2200 MHz in 12.5 kHz steps
FSM2300	2200 MHz to 2300 MHz in 12.5 kHz steps
FSM2400	2300 MHz to 2400 MHz in 12.5 kHz steps
FSM2500	2400 MHz to 2500 MHz in 12.5 kHz steps
Frequency Accuracy	$\pm 3$ ppm @ 23°C
Level measurement Range (Wide Bandwidth Models)	+20 dBm to -110 dBm
Level measurement Range (Narrow Bandwidth)	+10 dBm to -120 dBm
Level Measurement Resolution	0.1 db
Level Measurement Accuracy	$\pm 3$ dB
Measurement bandwidth (FSM100 to FSM 500)	$\pm 3.75$ kHz
Measurement bandwidth (FSM900)	$\pm 15$ kHz
Measurement bandwidth (All other models)	To be advised
Selectivity (FSM100 to FSM900)	40 dB @ $\pm 25$ kHz
Selectivity (FSM960)	40 dB @ $\pm 200$ kHz
Selectivity (All other models)	To be advised
Display Type	Liquid Crystal with back light
Battery Life	Five hours after full charge
Charger	115 VAC or 230 VAC $\pm 10\%$
Size	200 mm x 100 mm x 45 mm
Weight	0.62 kg
Operating Temperature Range	+10 °C to + 40 °C

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