

Frequency Synthesizer for UHF 225-400 MHz receivers

The QFS 900027-02 is a frequency synthesizer, designed primarily for high quality and high reliability military UHF radios operating in a hostile environment.



Fig.1 UHF synthesizer 900027-02 for DF2100 UHF receivers

Electrical Specifications

PARAMETER	LIMIT
DC Supply	24V +/- .5V/250 mA +15V/150 mA
RF Power Output	+11 dBm standard optional: 11 to +25 dBm +/- 1 dB
RF Output Impedance	50 ohms VSWR < 2:1 within operating range
Frequency Range	210-400 MHz
Tuning Step	25 kHz /or user specified
Spurious	Less than -80 dBc
Sidebands	Less than -65 dBc
Harmonics	Less than -10 dBc
Phase noise	-96 dBc/Hz 1 kHz offset -100 dBc/Hz 10 kHz offset
Operating Temperature	-20 to +78°C
Storage Temperature	-55 to +85°C
Frequency Selection	Parallel (Format get info)
Reference Oscillator	optional: 0.5 V rms +/- 3 dB into 50 ohms 5 MHz
Enclosure	6.0" x 4.0" x 3.0"
Finish	yellow chromate conversion per MIL-C-5541
Vibration	EIA RS-152-B part 14.3
Manufacturing	MIL-STD-2000
Burn-in	160 hrs under power
Thermal Cycling	min 10 cycles prior to testing -40 to 70°C dwell time 5 min. Rate of temperature change 20°C/min