

Sawtek Inc., a leading manufacturer of high reliability electronic components for military and commercial use, introduces a **miniaturized oscillator** for use in the generation and transmission of radio frequencies.

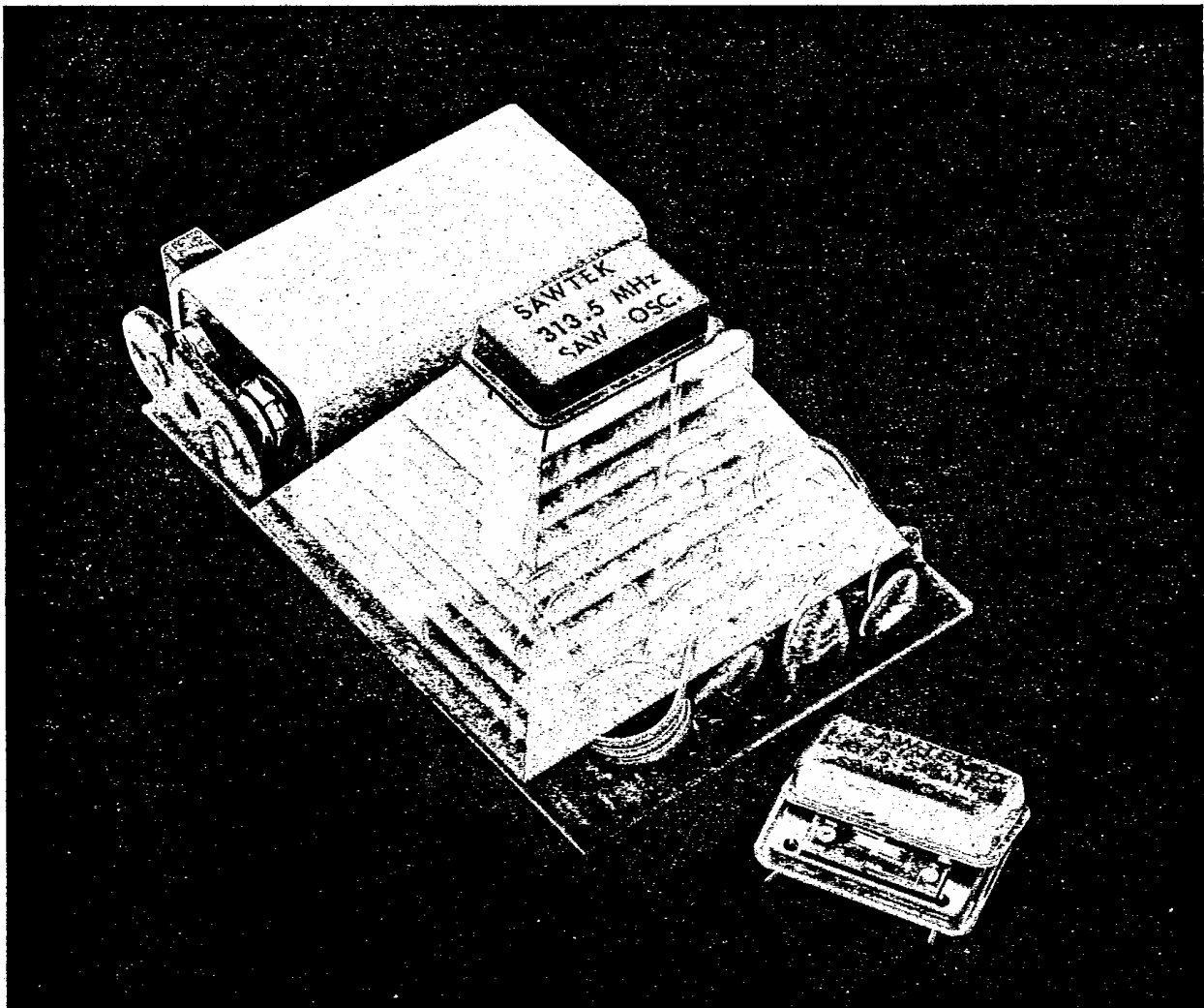
This highly advanced oscillator is a sealed unit with no moving parts. It is **impervious to dust, dirt, and humidity, and requires no tuning.**

Additional radio frequency components are not required, and a broad frequency range is available. Because an entire discrete RF oscillator circuit may be replaced by this highly stable module, greatly simplified assembly is possible, resulting in **reduced assembly, inspection, and test times.**

The Sawtek oscillator is **easily modulated** using pulse code modulation techniques.

FEATURES

- Crystal control of frequency insures **highly stable operation** over a wide temperature range.
- Elimination of variable tuning capacitor **prevents tampering in the field** resulting in reduction of returned units.
- Sealed unit is **not affected by dirt, dust and humidity.**
- Oscillation at fundamental frequencies up to 1 gigahertz **removes the necessity for frequency multiplier stages**, thereby eliminating extra parts, installation, and tuning costs.
- Miniature size allows **smaller medical emergency transmitters.**
- Low power consumption results in **longer battery life.**



Surface Acoustic Wave Hybrid Oscillator

7-4

SECURITY

- Medical Emergency Transmitters
- Smoke Detector Transmitters
- Intrusion Transmitters
- Police Emergency Transmitters
- Long Range Wireless Monitoring
- Receiver Front Ends, Local Oscillators, etc.

COMMUNICATIONS

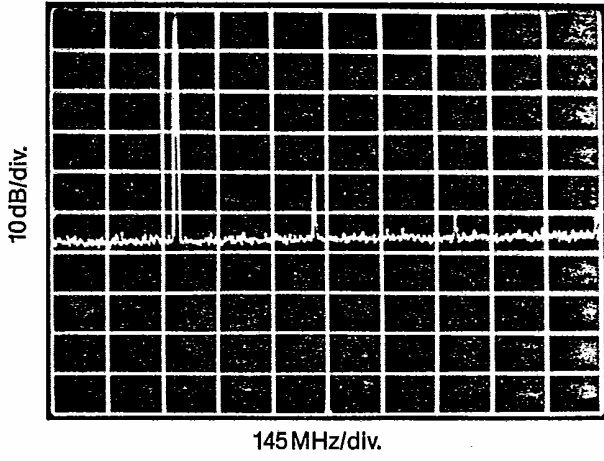
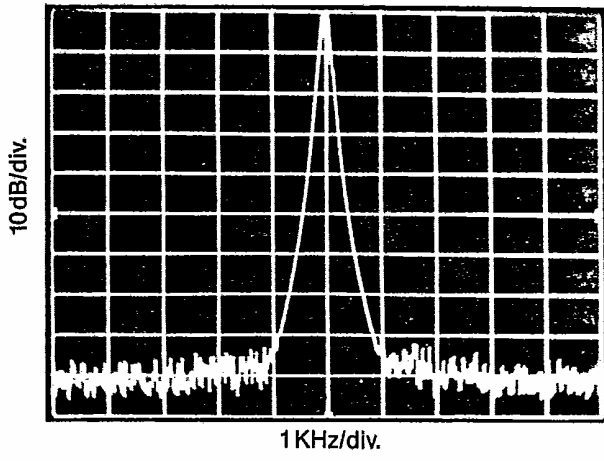
- Cellular Radio
- Direct Broadcast Satellite TV Converters
- VHF/UHF Radio Transmitters and Receivers

CABLE TV

- Local Oscillators for Set Top Converters
- Two Way Modem Reverse Channel Applications
- Frequency Sources for Modulators

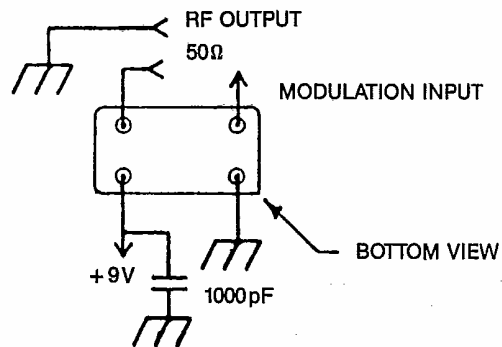
OTHER

- RF Generation and Transmission Applications

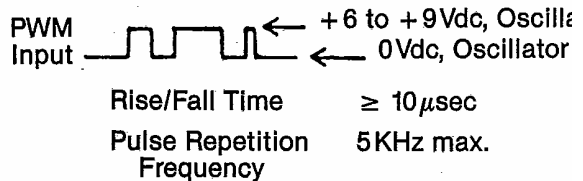


TYPICAL OPERATION	
Operating Frequency (f_0)	200-740MHz
RF Power Output (50Ω Load)	+5 to +10dBm
Harmonics	< -30dBc at $2f_0$ < -40dBc at $\geq 3f_0$
Spurious Rejection	> 70dBc (100Hz-1500MHz)
Operating Voltage	+6 to +9Vdc
Total Power Consumption	200mw at +9Vdc
Package Size	.870 x .500 x .185 (4 Pin DIP Configuration)

Sawtek's hybrid oscillator is controlled by a high-Q SAW resonator, resulting in a clean, stable, and strong output signal. The excellent temperature characteristics of quartz minimize oscillator drift to provide optimum performance for specified temperature ranges. A high impedance modulation port accepts a wide range of pulse inputs.



TYPICAL PULSE PERFORMANCE



P.O. Box 18000 • Orlando, Florida 32860
(305) 886-8860 • Telex 529118