

**Features**

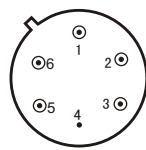
- Built-in buffer amplifier low frequency pulling
- Dual output flexible tuning design
- Perfect tuning linearity thin film hybrid construction
- TO-8E、SMO-8E、SP-1 package
- Operating temperature range: -55°C ~ +85°C

**Specifications**( $T_A=25^\circ\text{C}, V_{CC}=+12\text{V}$ )

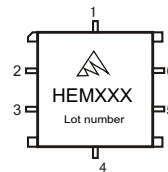
Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Frequency Range	$f_L \sim f_H$	MHz	1800~1950	—	$V_T: 0 \sim 15\text{V}$
Main Output	$P_{O1}$	dBm	$\geq 13$	—	—
Aux Output	$P_{O2}$	dBm	—	0	$V_T=5\text{V}$
Power Output Variation	$\Delta P_O$	dB	$\leq \pm 1.5$	$\pm 1.0$	$f_{L-H}: 1800 \sim 1950\text{MHz}$
Tuning Voltage	$V_T$	V	0~15	—	—
Pushing	$K_{VC}$	MHz/V	—	3.0	$V_{CC}=11 \sim 13\text{V}, V_T=5\text{V}$
Spurious	$R_{fs}$	dBc	$\leq -70$	—	$f_{L-H}: 1800 \sim 1950\text{MHz}$
Harmonics	$R_{fn}$	dBc	-20	-25	$f_{L-H}: 1800 \sim 1950\text{MHz}$
SSB Phase Noise	$S_\Phi$	dBc/Hz	—	-95	$V_T=5\text{V}, f_m=10\text{KHz}$
Frequency Drift	$\Delta f$	MHz	—	35	$V_T=5\text{V}, T_A: -55 \sim +85^\circ\text{C}$
Current	$I_{CC}$	mA	—	70	—
Tuning Port Capacitance	$C_T$	pF	—	90	—

**Absolute Ratings**

- Maximum DC Voltage : +15V
- Maximum Tuning Voltage : +30V
- Minimum Tuning Voltage : -0.7V
- Maximum Storage Temp: +125°C



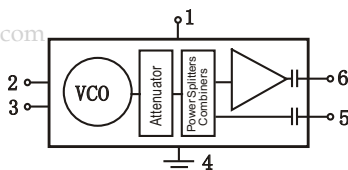
TO-8E



SMO-8E

**Application Notes**

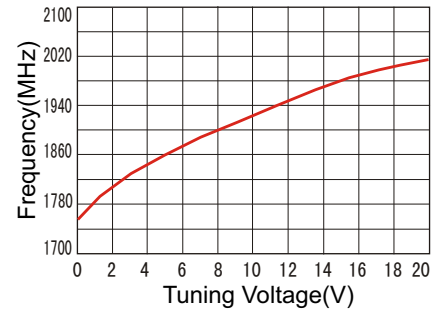
1. This device is only an oscillator; an external buffer amplifier or isolator is required to lower the frequency pulling
2. See assembly section for mounting information
3. ESD observe handling precautions
4. Pin 2 can be used as another tuning port if necessary



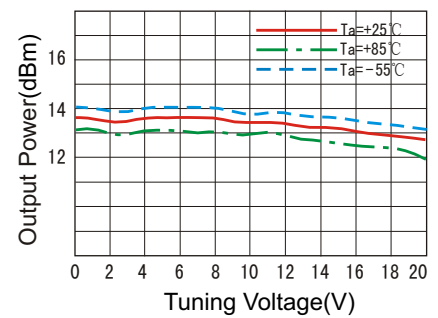
- 1. V<sub>CC</sub>    4. GND
- 2. GND    5. P<sub>O2</sub>
- 3. V<sub>T</sub>    6. P<sub>O1</sub>

**Typical Performance**

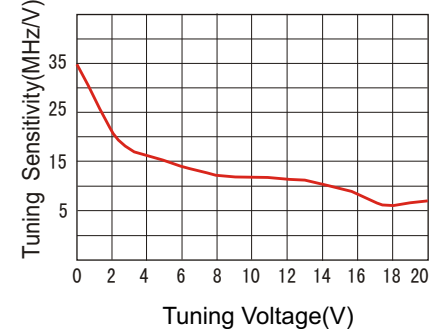
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

