

**Features**

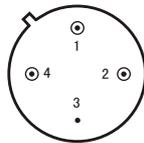
- Low phase noise
- Hyperabrupt varactor octave bandwidth
- Perfect tuning linearity
- Reliable thin film hybrid construction
- TO-8C、SMO-8C、SP-1 packages available
- Operating temperature range: -55°C ~ +85°C

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

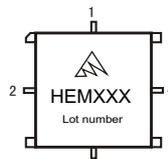
Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Frequency Range	$f_L \sim f_H$	MHz	800 ~ 1600	—	$V_T: 0 \sim 20\text{V}$
Power Output	$P_o$	dBm	$\geq 13$	14	$V_T=10\text{V}$
Power Output Variation	$\Delta P_o$	dB	$\leq \pm 1.5$	—	$f_{L-H}: 800 \sim 1600\text{MHz}$
Tuning Voltage	$V_T$	V	0 ~ 20	—	—
Pushing	$K_{VC}$	MHz/V	—	2.0	$V_{CC}=11 \sim 13\text{V}, V_T=10\text{V}$
Spurious	$R_{fs}$	dBc	$\leq -70$	—	$f_{L-H}: 800 \sim 1600\text{MHz}$
Harmonics	$R_{fn}$	dBc	—	-10	$f_{L-H}: 800 \sim 1600\text{MHz}$
SSB Phase Noise	$S_{\Phi}$	dBc/Hz	—	-100	$V_T=10\text{V}, f_m=10\text{KHz}$
Frequency Drift	$\Delta f$	MHz	—	22	$V_T=10\text{V}, T_A: -55 \sim +85^{\circ}\text{C}$
Current	$I_{CC}$	mA	—	30	—
Tuning Port Capacitance	$C_T$	pF	—	150	—

**Absolute Ratings**

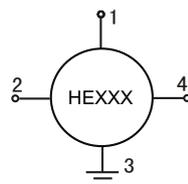
- Maximum DC Voltage : +15V
- Maximum Tuning Voltage : +30V
- Minimum Tuning Voltage : -0.7V
- Maximum Storage Temp: +125°C



TO-8C



SMO-8C



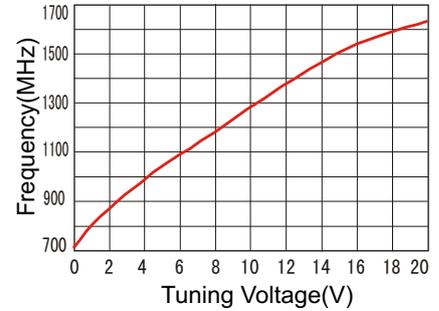
1. Vcc 3. GND  
2. VT 4. Po

**Application Notes**

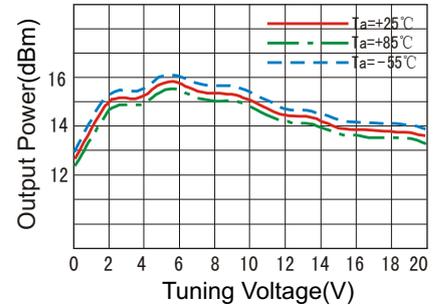
1. This device is only an oscillator; an external buffer amplifier or isolator is required to lower the frequency pulling
2. See assembly section for mounting information
3. ESD observe handling precautions
4. Equivalent to VTO-8090 of HP

**Typical Performance**

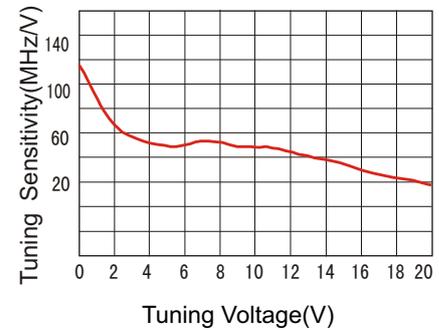
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

