

Features

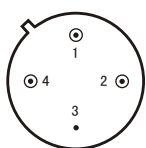
- Built-in buffer amplifier low frequency pulling
- Ultra low phase noise
- Flexible tuning design, custom frequency range
300~4700MHz available bandwidth 10~30%
- Thin film hybrid construction
- TO-8D、SMO-8D、SP-1 packages available
- Operating temperature range: -55℃~+85℃

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

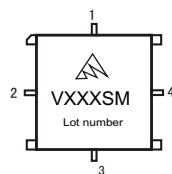
Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Frequency Range	$f_L \sim f_H$	MHz	1420~1620	—	$V_T: 0 \sim 15\text{V}$
Power Output	P_o	dBm	≥ 10.5	11.5	$V_T=5\text{V}$
Power Output Variation	ΔP_o	dB	$\leq \pm 1.5$	± 1.0	$f_{L-H}: 1420 \sim 1620\text{MHz}$
Tuning Voltage	V_T	V	0~15	—	—
Pushing	K_{VC}	MHz/V	—	1.5	$V_{CC}=11 \sim 13\text{V}$, $V_T=5\text{V}$
Spurious	R_{fs}	dBc	≤ -75	—	$f_{L-H}: 1420 \sim 1620\text{MHz}$
Harmonics	R_{fn}	dBc	—	-15	$f_{L-H}: 1420 \sim 1620\text{MHz}$
SSB Phase Noise	S_{Φ}	dBc/Hz	—	-108	$V_T=5\text{V}$, $f_m=10\text{KHz}$
Frequency Drift	Δf	MHz	—	18.0	$V_T=5\text{V}$, $T_A: -55 \sim +85^{\circ}\text{C}$
Current	I_{CC}	mA	—	65	—
Tuning Port Capacitance	C_T	pF	—	45	—

Absolute Ratings

Maximum DC Voltage : +15V
Maximum Tuning Voltage : +25V
Minimum Tuning Voltage : -0.7V
Maximum Storage Temp: +125℃



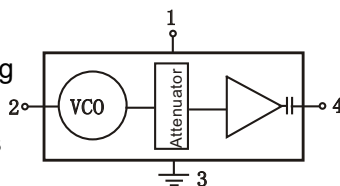
TO-8D



SMO-8D

Application Notes

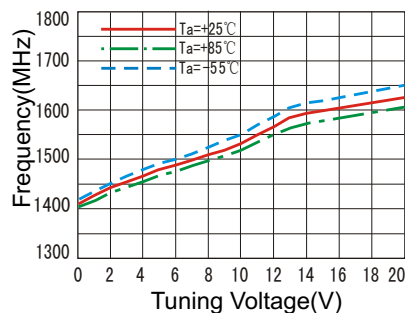
1. See assembly section for mounting information
2. ESD observe handling precautions



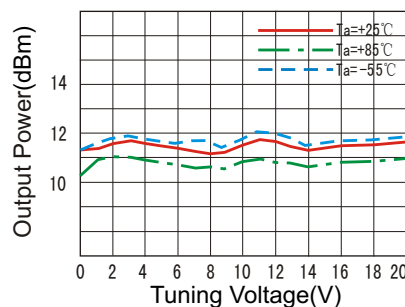
1. V_{CC} 3. GND
2. V_T 4. P_o

Typical Performance

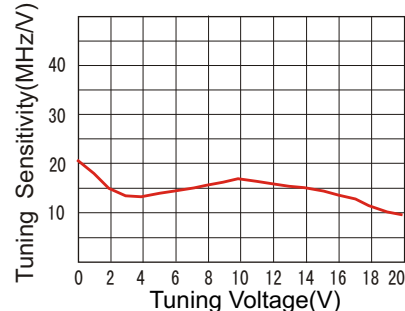
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

