V2520SM/V2520TO

Ultra Low phase noise VCO with built-in buffer amplifier



Features

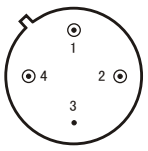
- Built-in buffer amplifier low frequency pulling
- Ultra low phase noise
- Flexible tuning design,custom frequency range 300～4700MHz available bandwith 10～30％
- Thin film hybrid construction
- TO-8D、SMO-8D、SP-1 packages available
- Operating temperature range：-55℃～+85℃

Specifications(T_A=25℃,V_{CC}=+12V)

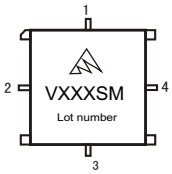
Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Frequency Range	f_L～f_H	MHz	2420～2620	–	V_T:0～15V
Power Output	P_o	dBm	≥10	11	V_T=5V
Power Output Variation	△P_o	dB	≤±1.5	±1.0	f_{L-H}:2420～2620MHz
Tuning Voltage	V_T	V	0～15	–	–
Pushing	K_{VC}	MHz/V	–	2.5	V_{CC}=11～13V, V_T=5V
Spurious	R_{fs}	dBc	≤-75	–	f_{L-H}:2420～2620MHz
Harmonics	R_{fn}	dBc	–	-15	f_{L-H}:2420～2620MHz
SSB Phase Noise	S_Φ	dBc/Hz	–	-104	V_T=5V, f_m=10KHz
Frequency Drift	△f	MHz	–	28.0	V_T=5V, T_A:-55～+85℃
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

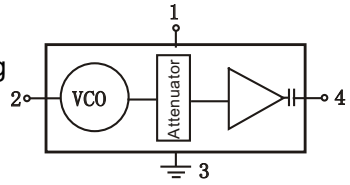


SMO-8D

Application Notes

1.See assembly section for mounting information

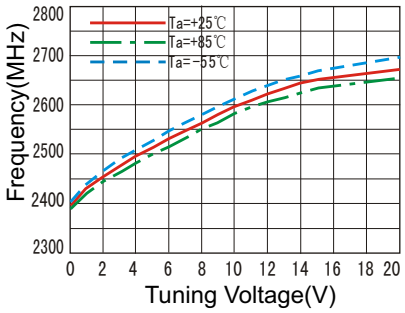
2.ESD observe handling precautions



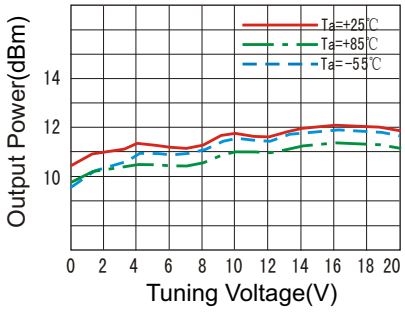
1. Vcc 3. GND
2. V_T 4. Po

Typical Performance

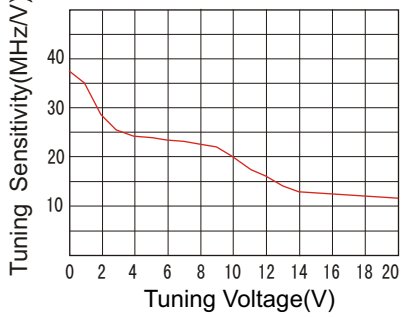
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

