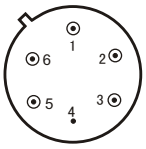
HE723/HEM723
Dual Tuning VCO

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

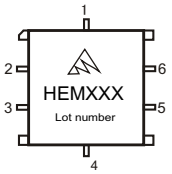
Specifications(T_A=25℃,V_{CC}=+12V)

Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Primary Frequency Range	f_L～f_H	MHz	1800～2100	–	V_{T1}:0～15V
Fine Frequency Range	–	MHz	–	20	V_{T2}:0～10V
Main Output	P_{o1}	dBm	⩾12	–	V_{T1}=10V V_{T2}=5V
Aux Output	P_{o2}	dBm	–	0	–
Power Output Variation	△P_O	dB	–	3.0	f_{L-H}:1800～2100MHz
Primary Tuning Voltage	V_{T1}	V	0～15	–	–
Fine Tuning Voltage	V_{T2}	V	0～10	–	–
Pushing	K_{VC}	MHz/V	–	3.0	V_{CC}=11～13V,V_{T1}=10V, V_{T2}=5V
Spurious	R_{fs}	dBc	⩽-70	–	f_{L-H}:1800～2100MHz
Harmonics	R_{fn}	dBc	–	-25	f_{L-H}:1800～2100MHz
SSB Phase Noise	S_Φ	dBc/Hz	–	-95	V_{T1}=10V, V_{T2}=5V ,f_m=10KHz
Frequency Drift	△f	MHz	–	40	V_{T1}=10V, V_{T2}=5V ,T_A:-55～+85℃
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℃

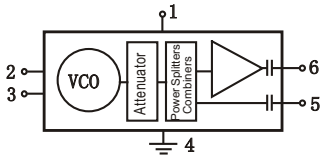


TO-8E



SMO-8E

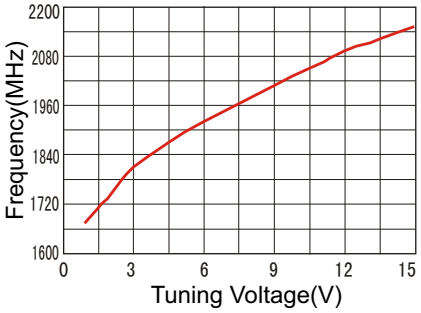
Application Notes
1.Pin 5 should be connected 50Ω load
2.See assembly section for mounting information
3.ESD observe handling precautions
4.Specified specification available within frequency range 25～5000MHz



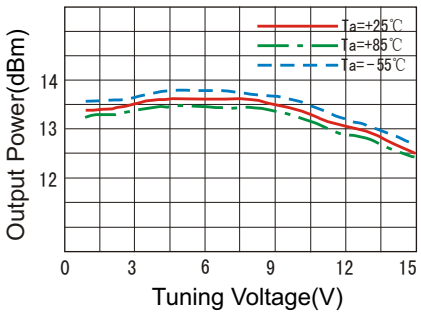
1. Vcc 4. GND
2. V_{T2} 5. P_{O2}
3. V_{T1} 6. P_{O1}

Typical Performance

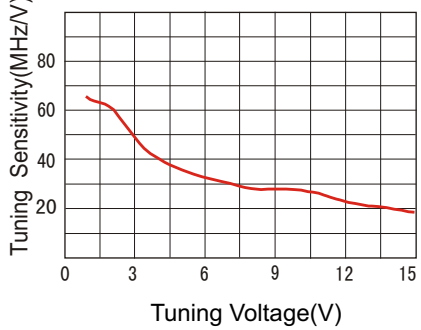
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency