

14118 Stowe Drive, Suite B
 Poway, CA 92064
 TEL: (858) 621-2700 | FAX: (858) 486-1927
 URL: www.zcomm.com
 EMAIL: applications@zcomm.com

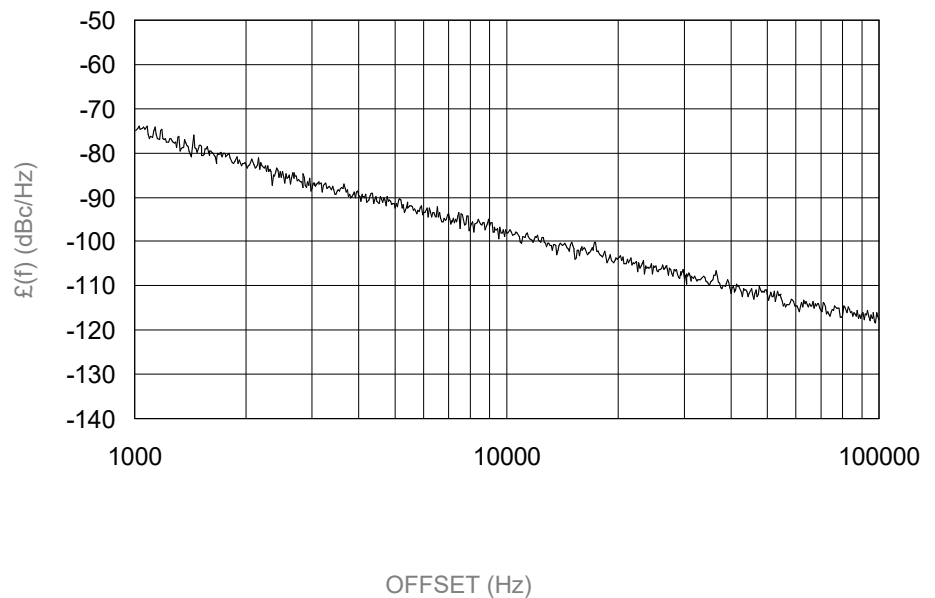
Voltage-Controlled Oscillator Surface Mount Module

Applications

Satellite Communications
 Test Instrumentation
 CATV Headend Equipment

Application Notes

AN-101: Mounting and Grounding
 AN-102: Output Loading
 AN-107: Manual Soldering

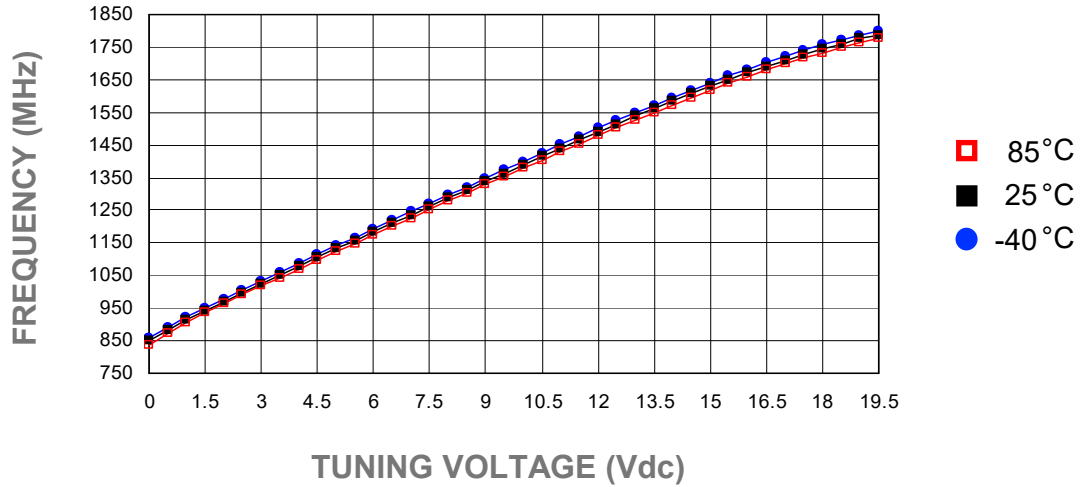


Performance Specifications	Min	Typ	Max	Units
Oscillation Frequency Range	1150		1740	MHz
Phase Noise @ 10 kHz offset (1 Hz BW)		-98		dBc/Hz
Harmonic Suppression (2nd)		-14	-12	dBc
Tuning Voltage	0.5		19.5	Vdc
Tuning Sensitivity (avg.)		48		MHz/V
Power Output	3	6	9	dBm
Load Impedance		50		Ω
Input Capacitance			50	pF
Pushing			5	MHz/V
Pulling (12 dB Return Loss, Any Phase)			10	MHz
Operating Temperature Range	-40		85	$^{\circ}\text{C}$
Package Style	MINI-14S-UL			

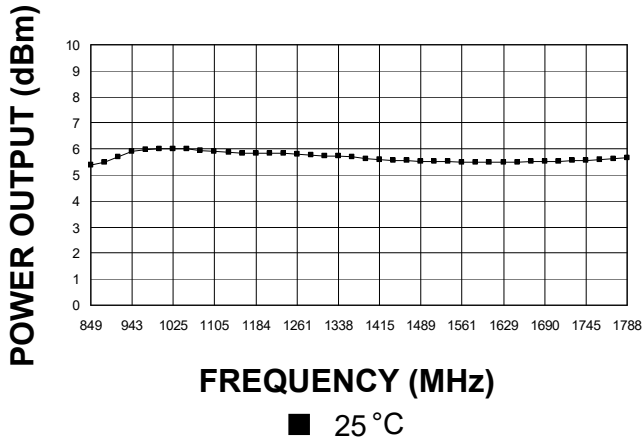
Power Supply Requirements	Min	Typ	Max	Units
Supply Voltage (Vcc, nom.)		8		Vdc
Supply Current (Icc)		15	18	mA

Additional Notes

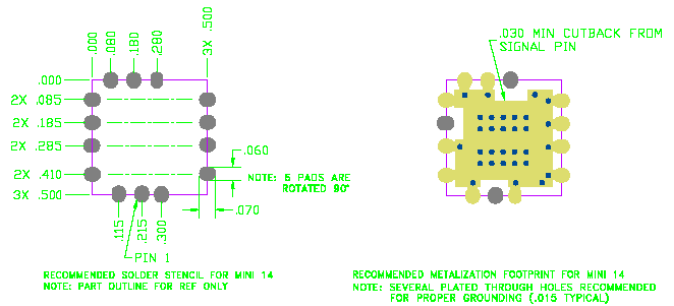
Tuning Curve, typ.



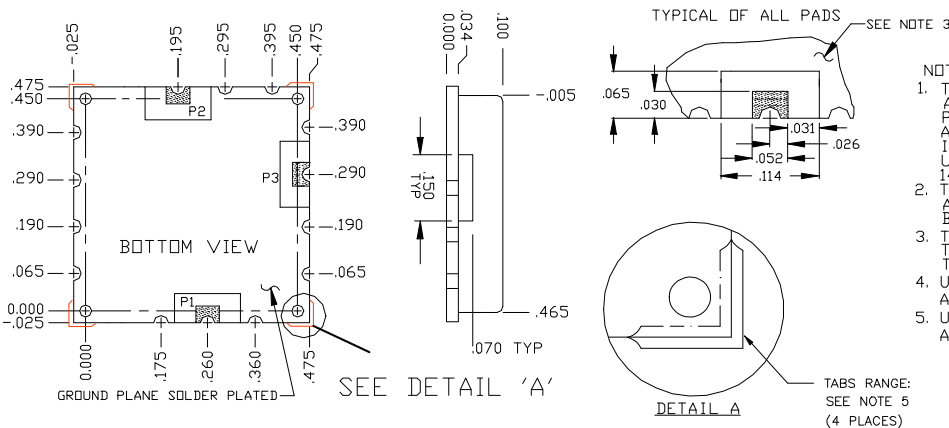
Power Curve, typ.



Footprint



Physical Dimensions



- NOTES:
1. THE INSIDE RADIUS OF ALL 14 HALF HOLES AT THE PERIMETER OF THE BOARD ARE PLATED TO PROVIDE A SURFACE FOR THE ATTACHMENT OF THE VCO TO A PCB IN 11 LOCATIONS, WITH 3 PADS BEING USED FOR ELECTROMECHANICAL INTERFACE. 14 SOLDER LOCATIONS REQUIRED.
 2. THE SURFACE OF THE SHIELD IS TIN PLATED AND MAY BE SOLDERED TO THE SHIELD'S BASE METAL IS COLD ROLLED STEEL.
 3. THE GROUND PLANE IS GROUND AND ATTACHES TO A GROUND TRACK ON THE UPPER SIDE OF THE BOARD AS WELL AS THE SHIELD BY PTH.
 4. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES.
 5. UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS FOLLOWS:
TOLERANCES
.XXX = ± .010
- P1=VT
P2=RF OUT
P3=Vcc

LFSuffix = RoHS Compliant. All specifications are subject to change without notice.