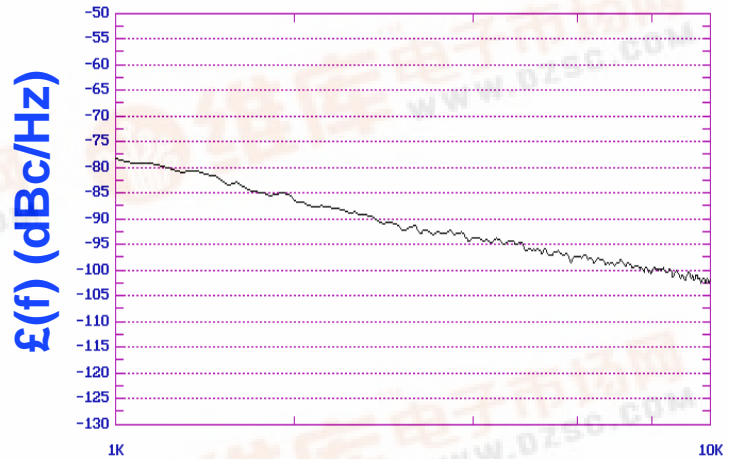




SMV0135A-LF
VOLTAGE CONTROLLED OSCILLATOR
 Rev A1

PHASE NOISE (1 Hz BW, typical)



| FEATURES |
|--|
| <ul style="list-style-type: none"> • Frequency Range: 120 - 150 MHz • Tuning Voltage: 0.5-4.5 Vdc • SUB-L - Style Package |
| APPLICATIONS |
| <ul style="list-style-type: none"> • Portable Radios • Basestations • Test Instruments |

| PERFORMANCE SPECIFICATIONS | VALUE | UNITS |
|---|-----------|--------|
| Oscillation Frequency Range | 120 - 150 | MHz |
| Phase Noise @ 10 kHz offset (1 Hz BW, typ.) | -100 | dBc/Hz |
| Harmonic Suppression (2nd, typ.) | -11 | dBc |
| Tuning Voltage | 0.5-4.5 | Vdc |
| Tuning Sensitivity (avg.) | 12 | MHz/V |
| Power Output | 5±3 | dBm |
| Load Impedance | 50 | Ω |
| Input Capacitance (max.) | 50 | pF |
| Pushing | <2 | MHz/V |
| Pulling (14dB Return Loss, Any Phase) | <1 | MHz |
| Operating Temperature Range | -30 to 85 | °C |
| Package Style | SUB-L | |
| POWER SUPPLY REQUIREMENTS | | |
| Supply Voltage (Vcc, nom.) | 5 | Vdc |
| Supply Current (Icc, typ.) | 20 | mA |

All specifications are typical unless otherwise noted and subject to change without notice.

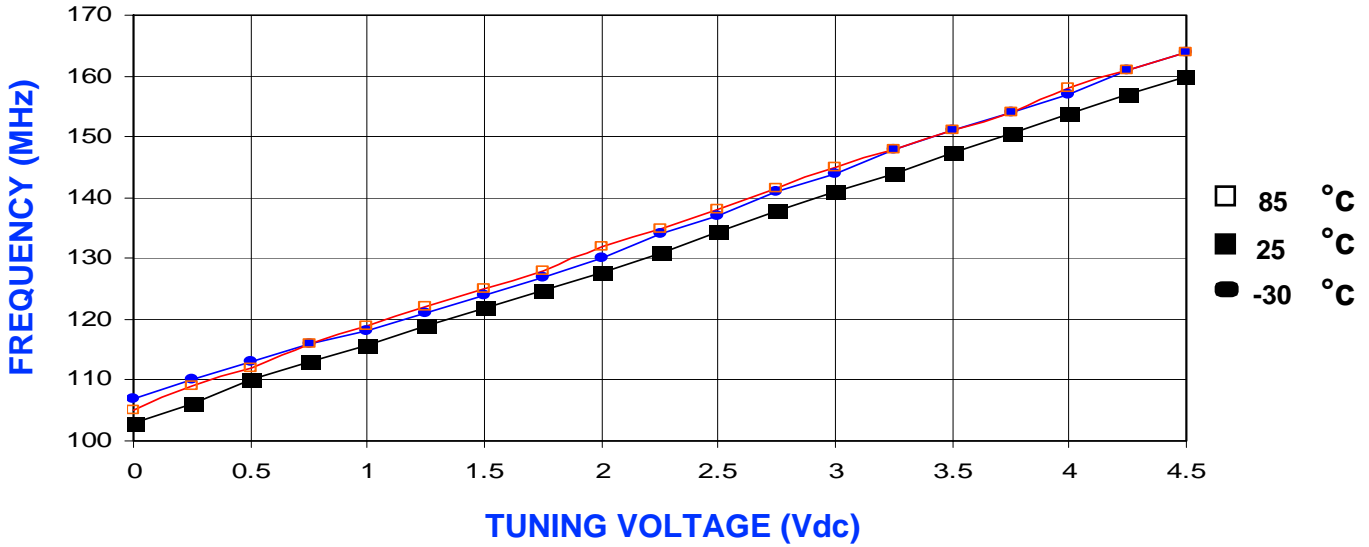
APPLICATION NOTES

- AN-100/1 : Mounting and Grounding of VCOs
- AN-102 : Proper Output Loading of VCOs
- AN-107 : How to Solder Z-COMM VCOs

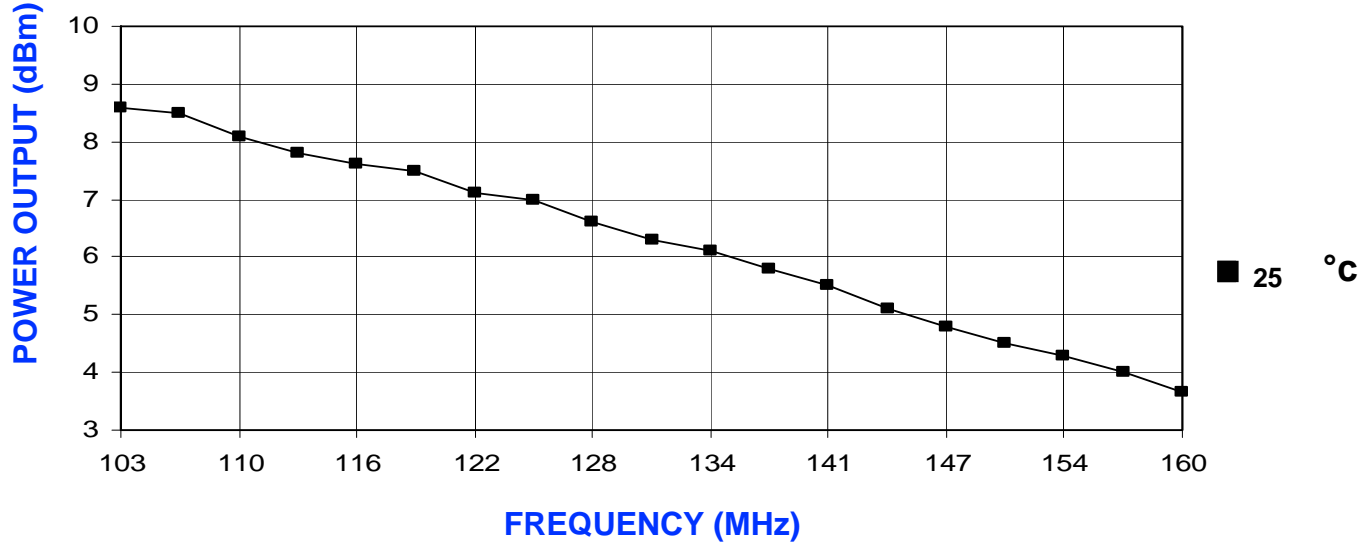
NOTES:



TUNING CURVE, typ.

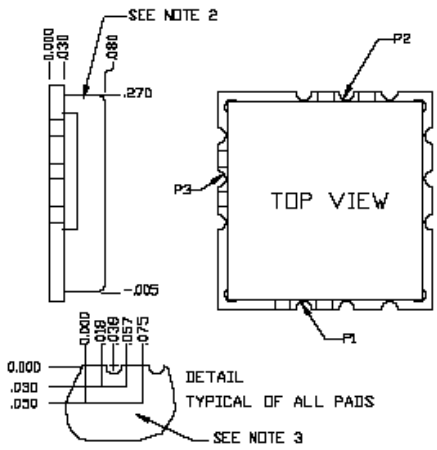
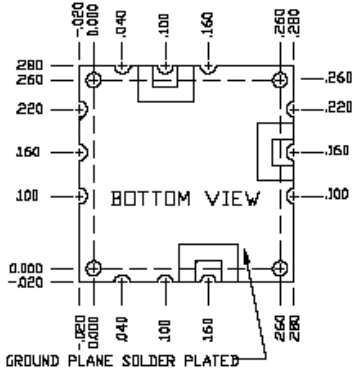


POWER CURVE, typ.



PHYSICAL DIMENSIONS

SUB-L
415-0040 REV. D
(DRAWING NOT TO SCALE)



NOTES:

1. THE INSIDE RADIUS OF ALL 12 HALF HOLES AT THE PERIMETER OF THE BOARD ARE SOLDER PLATED TO PROVIDE A SURFACE FOR THE ATTACHMENT OF THE VCO TO THE MOTHERBOARD.
2. THE SHIELD MATERIAL IS NICKEL SILVER AND MAY BE SOLDERED ALSO.
3. THE GROUND PLANE IS GROUND AND ATTACHES TO THE GROUND TRACK ON THE UPPER SIDE OF THE BOARD AS WELL AS THE SHIELD BY PTH.

TOLERANCES UNLESS OTHERWISE NOTED
.XXX ± .010

P1= VT
P2= RF OUT
P3= VCC