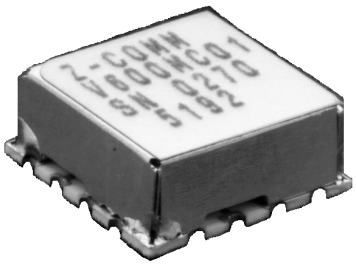
Z-Communications, Inc.
9939 Via Pasar • San Diego, CA 92126
TEL (619) 621-2700 FAX (619) 621-2722

# V585ME08

## VOLTAGE CONTROLLED OSCILLATOR

Rev A1



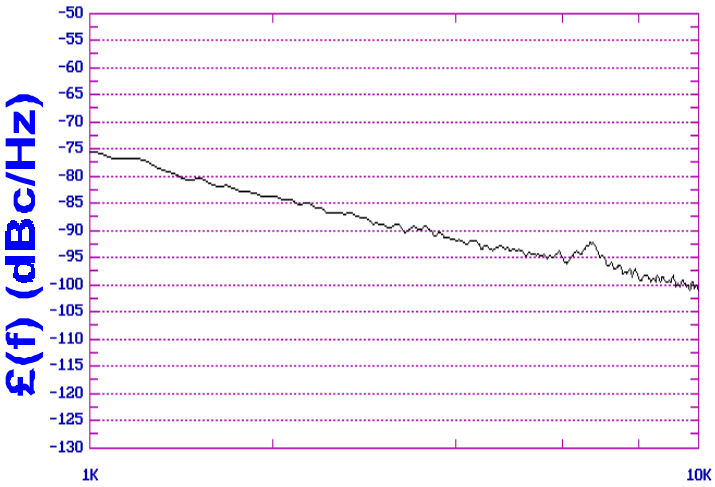
### FEATURES

- Frequency Range: 950 - 1900 MHz
- Tuning Voltage: 0-12 Vdc
- MINI-14S - Style Package

### APPLICATIONS

- Satellite Communications
- Test Instrumentation
- Earthstations

### PHASE NOISE (1 Hz BW, typical)




| PERFORMANCE SPECIFICATIONS | VALUE | UNITS |
|---|---|---|
| Oscillation Frequency Range | 950 - 1900 | MHz |
| Phase Noise @ 10 kHz offset (1 Hz BW, typ.) | -99 | dBc/Hz |
| Harmonic Suppression (2nd, typ.) | -8 | dBc |
| Tuning Voltage | 0-12 | Vdc |
| Tuning Sensitivity (avg.) | 91 | MHz/V |
| Power Output | 5.5±2.5 | dBm |
| Load Impedance | 50 | Ω |
| Input Capacitance (max.) | 150 | pF |
| Pushing | <5 | MHz/V |
| Pulling (14 dB Return Loss, Any Phase) | <15 | MHz |
| Operating Temperature Range | -30 to 80 | °C |
| Package Style | MINI-14S | |
| **POWER SUPPLY REQUIREMENTS** | | |
| Supply Voltage (Vcc, nom.) | 10 | Vdc |
| Supply Current (Icc, typ.) | 15 | mA |

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

### APPLICATION NOTES

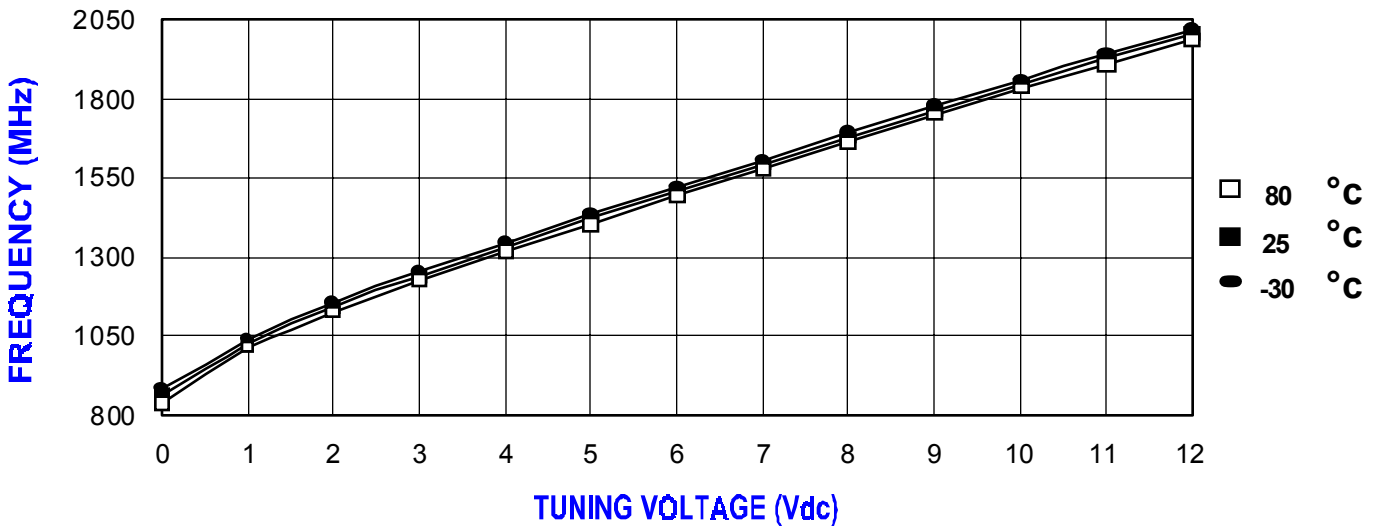
- AN-100/1 : Mounting and Grounding of VCOs
- AN-102 : Proper Output Loading of VCOs
- AN-107 : How to Solder Z-COMM VCOs

**NOTES:**

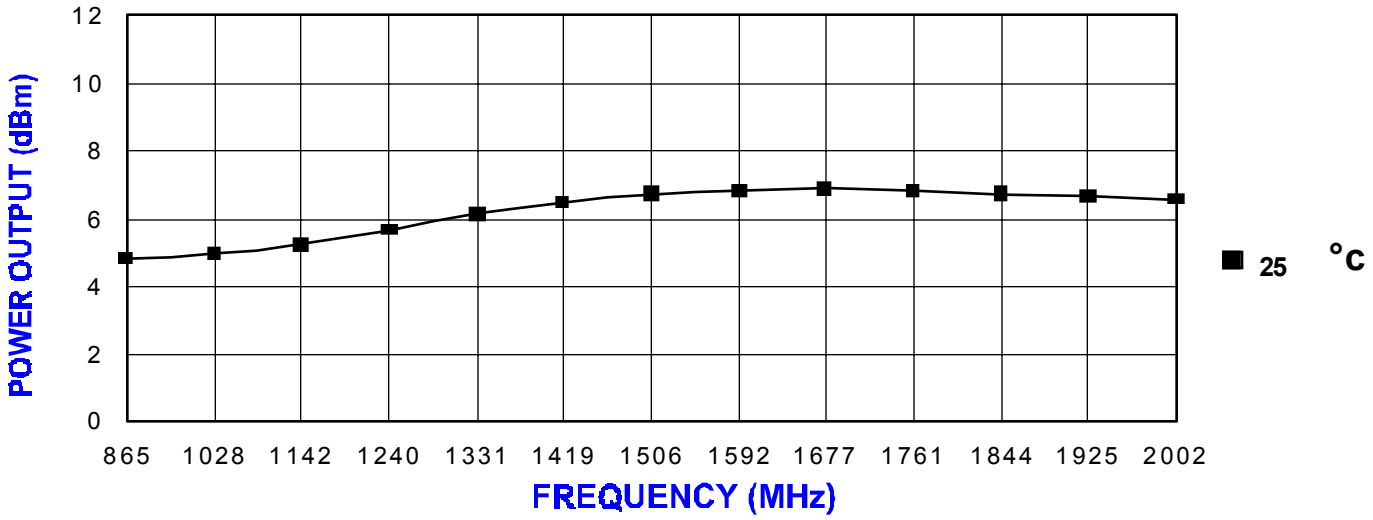
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## TUNING CURVE, typ.

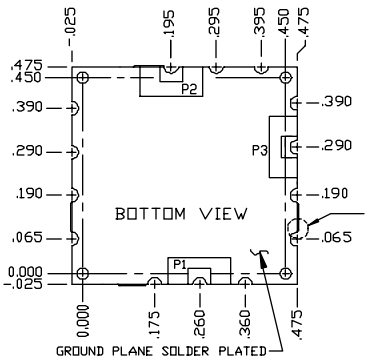


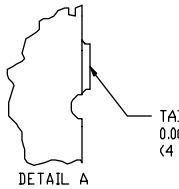

## POWER CURVE, typ.

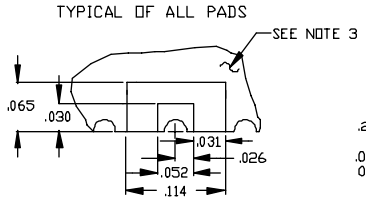



## PHYSICAL DIMENSIONS

MINI-14S
415-0062 REV. B
(DRAWING NOT TO SCALE)




NOTES:
1. THE INSIDE RADIUS OF ALL 14 HALF HOLES AT THE PERIMETER OF THE BOARD ARE SOLDER PLATED TO PROVIDE A SURFACE FOR THE ATTACHMENT OF THE VCO TO A MOTHERBOARD, 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 SHIELDS BASE METAL IS BRASS.
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

