



Z-Communications, Inc.

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V585ME11

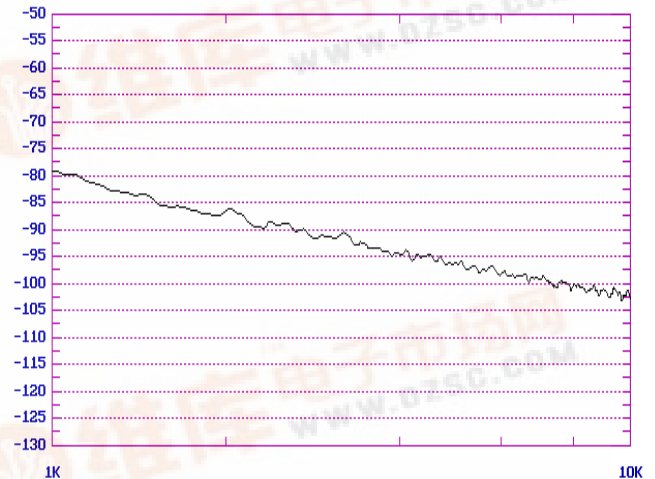
VOLTAGE CONTROLLED OSCILLATOR

Rev A1



PHASE NOISE (1 Hz BW. typical)

$L(f)$ (dBc/Hz)



FEATURES

- Frequency Range: 1100 - 1500 MHz
- Tuning Voltage: 0.8-20 Vdc
- MINI-14S - Style Package

APPLICATIONS

- Satellite Communications
- Test Instrumentation
- Cable Modems

PERFORMANCE SPECIFICATIONS

VALUE

UNITS

Oscillation Frequency Range

1100 - 1500

MHz

Phase Noise @ 10 kHz offset (1 Hz BW, typ.)

-102

dBc/Hz

Harmonic Suppression (2nd, typ.)

-10

dBc

Tuning Voltage

0.8-20

Vdc

Tuning Sensitivity (avg.)

40

MHz/V

Power Output

6±2

dBm

Load Impedance

50

Ω

Input Capacitance (max.)

100

pF

Pushing

<5

MHz/V

Pulling (14 dB Return Loss, Any Phase)

<15

MHz

Operating Temperature Range

0 to 80

°C

Package Style

MINI-14S

POWER SUPPLY REQUIREMENTS

Supply Voltage (Vcc, nom.)

10

Vdc

Supply Current (Icc, typ.)

16

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

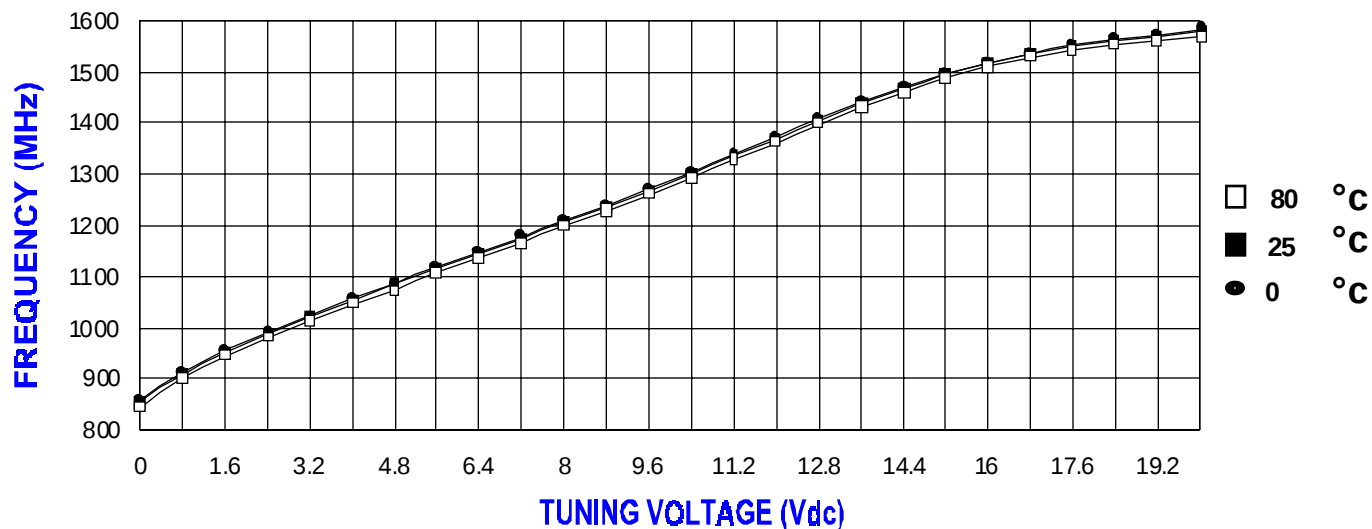
NOTES:

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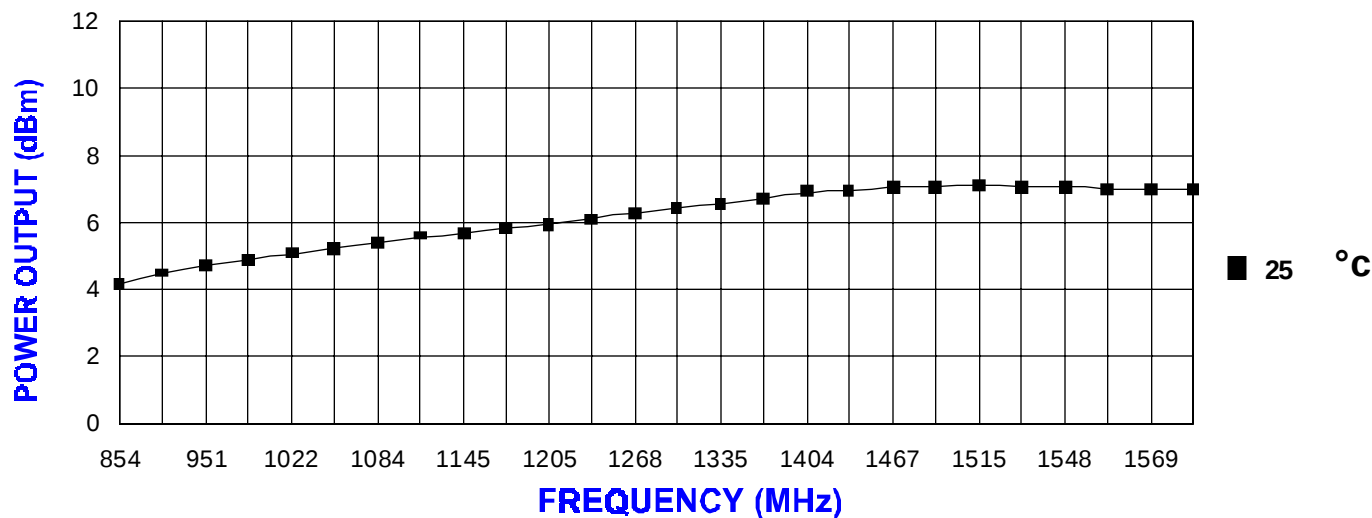
**LOW COST - HIGH PERFORMANCE
VOLTAGE CONTROLLED OSCILLATOR**

V585ME11
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TUNING CURVE, typ.

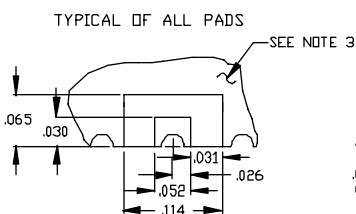
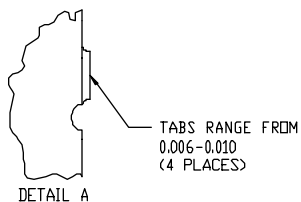
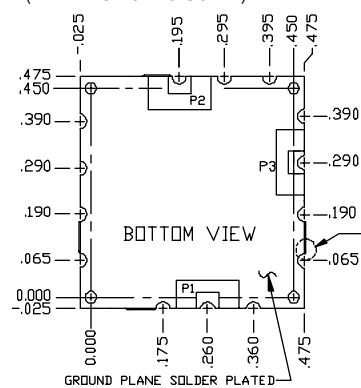


POWER CURVE, typ.



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.
3. THE SHIELD'S BASE METAL IS BRASS. 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=V_T
P2=RF OUT
P3=V_{CC}

