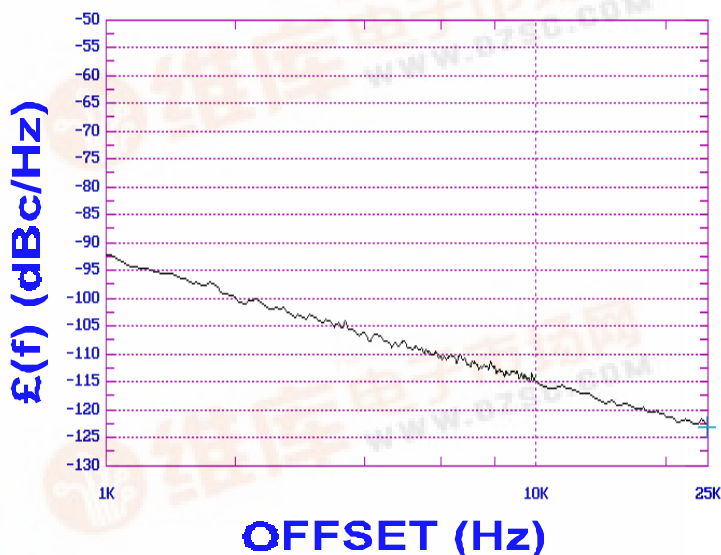



Z-Communications, Inc.

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 TEL (619) 621-2700 FAX (619) 621-2722

V418MEM1
VOLTAGE CONTROLLED OSCILLATOR

Rev A1


PHASE NOISE (1 Hz BW, typical)

FEATURES

- Frequency Range: 403 - 433 MHz
- Tuning Voltage: 0.5-4.5 Vdc
- MINI-16M-LOW- Style Package

APPLICATIONS

- Mobitex Radios
- RF Modems
- Satellite Communications

PERFORMANCE SPECIFICATIONS

	VALUE	UNITS
Oscillation Frequency Range	403 - 433	MHz
Phase Noise @ 10 kHz offset (1 Hz BW, typ.)	-114	dBc/Hz
Harmonic Suppression (2nd, typ.)	-12	dBc
Tuning Voltage	0.5-4.5	Vdc
Tuning Sensitivity (avg.)	12	MHz/V
Power Output	0±3	dBm
Load Impedance	50	Ω
Input Capacitance (max.)	150	pF
Pushing	<5	MHz/V
Pulling (14 dB Return Loss, Any Phase)	<5	MHz
Operating Temperature Range	-40 to 85	$^{\circ}\text{C}$
Package Style	MINI-16M-LOW	

POWER SUPPLY REQUIREMENTS

Supply Voltage (Vcc, nom.)	5	Vdc
Supply Current (Icc, typ.)	13	mA

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

APPLICATION NOTES

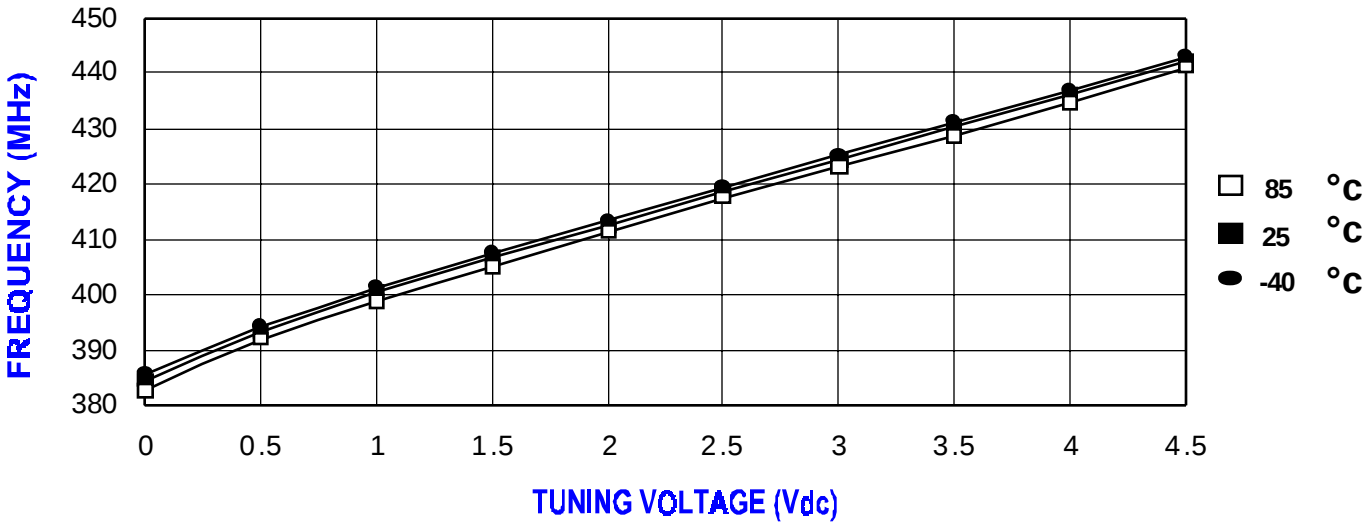
- AN-100/1 : Mounting and Grounding of VCOs
- AN-102 : Proper Output Loading of VCOs
- AN-107 : How to Solder Z-COMM VCOs

NOTES

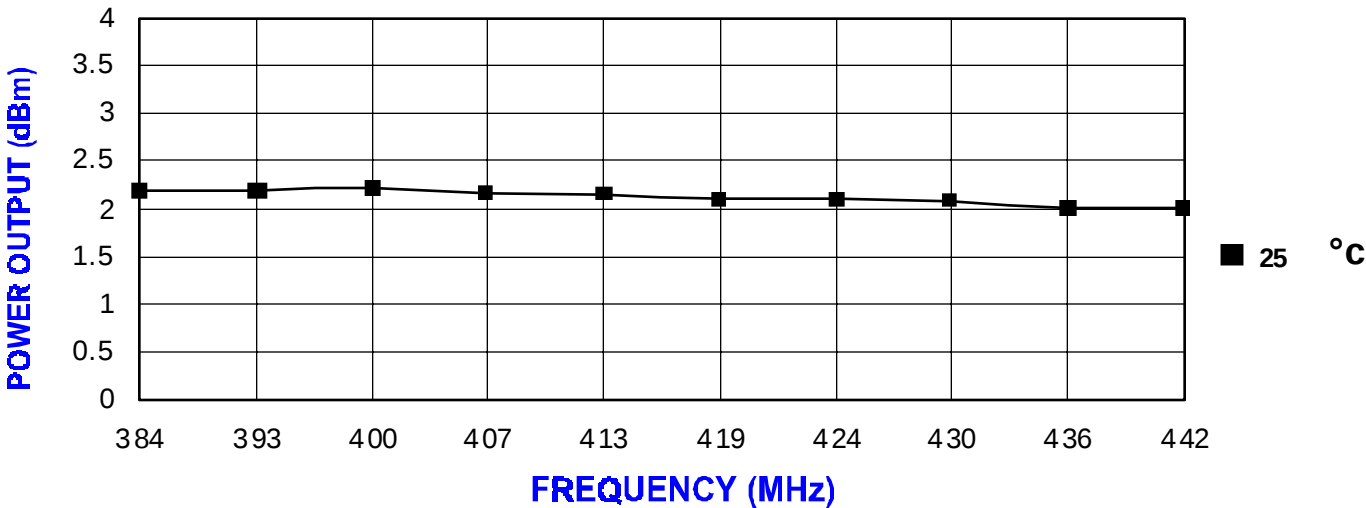
MODULATION SENSITIVITY (avg.): 3.89 kHz/V

pdf.dzsc.com

TUNING CURVE, typ.

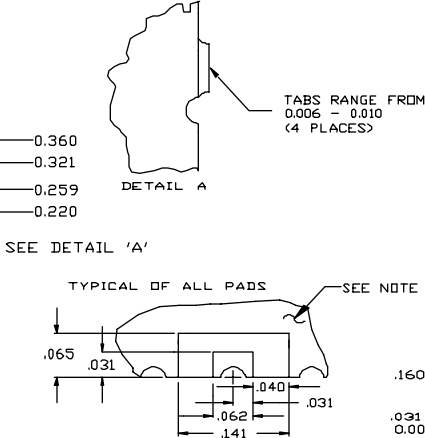
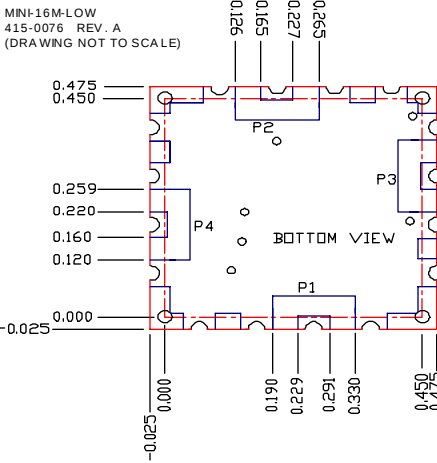


POWER CURVE, typ.



PHYSICAL DIMENSIONS

MINI-16M-LOW
415-0076 REV. A
(DRAWING NOT TO SCALE)



- NOTES:
1. THE INSIDE RADIUS OF ALL 16 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 12 LOCATIONS, WITH 4 PADS BEING USED FOR ELECTROMECHANICAL INTERFACE, 16 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
P4=MOD INPUT (OPTIONAL)

