

RADITEK INC.

OVEN CONTROLLED CRYSTAL OSCILLATORS

code-w

ROC XO-OC50 SERIES



- Stability up to $\pm 0.005 \times 10^{-6}$
- Low Aging
- Compact Package
- PCS Base Stations
- Cellular Base Stations
- Synthesizer
- Measurement Equipment
- Digital Switching

Performance Characteristics

Parameter			OC50					
Frequency Range		F ₀	1.000MHz~160.000MHz					
Standard Frequency(MHz)		F ₀	4.096	5	8.192	10	16.384	20
Frequency Accuracy			±0.1PPM (center control voltage)					
Supply Voltage		V _{DD}	B: +5.0VDC±10%		C: +12.0VDC±10%			
Supply	Warming State		5W Max					
Consumption	Steady State		2W Max (at 25°C)					
Output Load			A: TTL 15pF B: TTL 50pF		C: CMOS 15pF D: CMOS 50pF		G: Sine Wave	
Output Duty			45%~55%					—
Control Voltage Range			See Ordering Information					
Frequency Stability Vs	Temperature Range		±3×10 ⁻⁸ (reference to frequency at 25°C V _{DD} ±5%)					
	Power Supply Load		±1×10 ⁻⁸ (V _{DD} ±5%) ±1×10 ⁻⁸ (5% change from 50Ω) <7min					
	Warm-up Time		(to be within ±10 ⁻⁸ ×F ₀ , F ₀ Refers to Frequency after 1h operation)					
Rise Time/Fall Time		Tr/Tf	10nS Max				—	
Output	"0"Level	V _{OL}	0.4V Max		10%V _{DD}		>0dBm//50Ω	
Level	"1"Level	V _{OH}	2.4V Min		90%V _{DD}			
Storage Temperature Range		T _{STG}	-40°C~+100°C					
Aging (After 30 days, at+25°C)			B:±5×10 ⁻⁹ /day / ±5×10 ⁻⁷ /year / ±3×10 ⁻⁶ /10 year C:±1×10 ⁻⁹ /day / ±1×10 ⁻⁷ /year / ±1×10 ⁻⁶ /10 year					
Phase Noise (at 10MHz)			1Hz	10Hz	100Hz	1KHz	10KHz	
			-80dBc/Hz	-120dBc/Hz	-140dBc/Hz	-145dBc/Hz	-150dBc/Hz	
Internal Reference Voltage			4V±0.08(V _{DD} =5V)			8V±0.16(V _{DD} =12V)		
Slope and Linearity			Positive / ±10%					

Frequency Stability Over Temperature Range

Temperature Range	Frequency Stability				
	A: $\pm 5 \times 10^{-9}$	B: $\pm 1 \times 10^{-8}$	D: $\pm 5 \times 10^{-8}$	E: $\pm 1 \times 10^{-7}$	H: $\pm 5 \times 10^{-7}$
A: 0°C~+50°C	●	●	●	●	●
B: -10°C~+60°C		●	●	●	●
C: -20°C~+70°C		●	●	●	●
E: -40°C~+75°C				●	●

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Specifications may be subject to change

10/10/06

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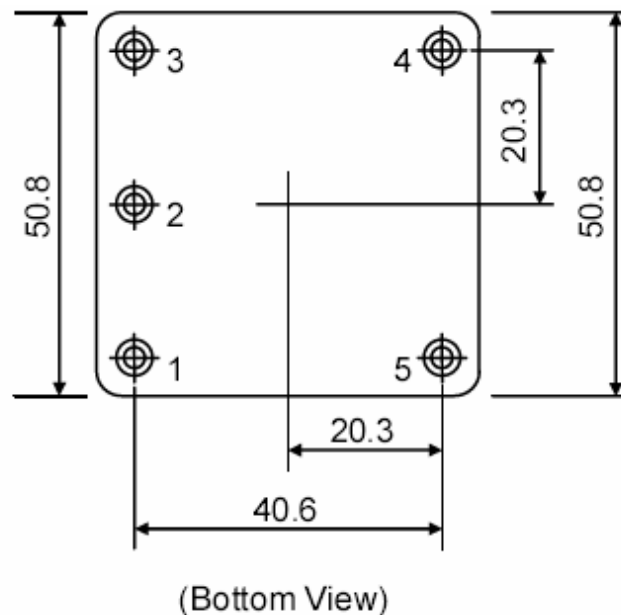
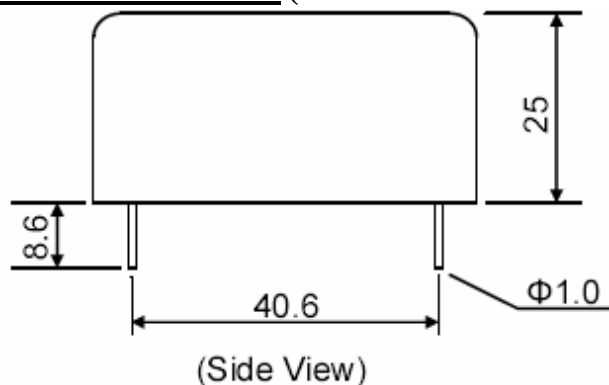
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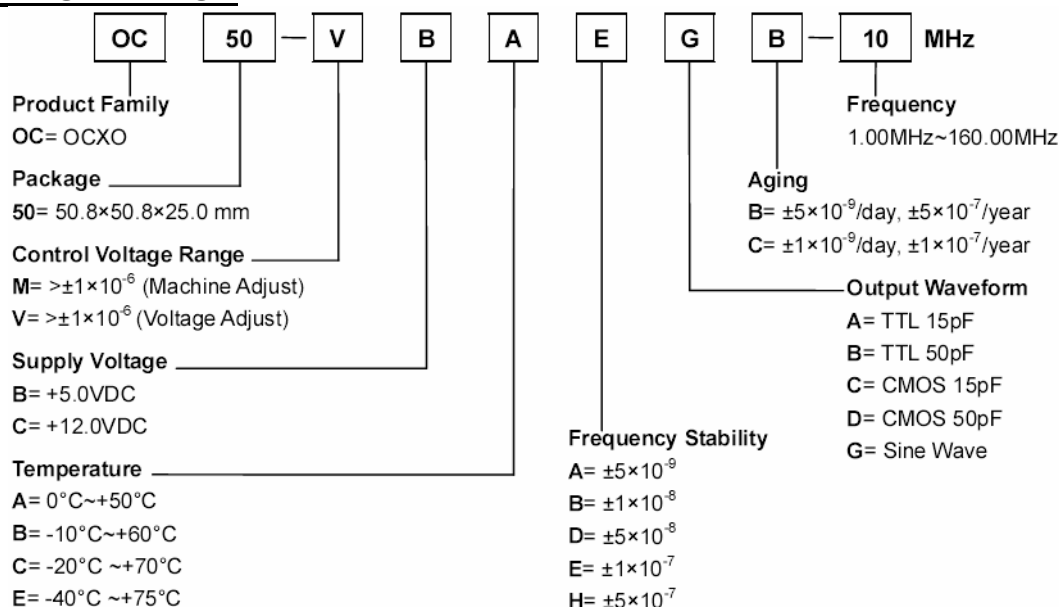
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OUTLINE DRAWING (units in mm – not to scale)



PIN	FUNCTION
#1	Control Voltage
#2	Reference Voltage/NC
#3	Output
#4	GND
#5	+DC

ORDERING INFORMATION



ORDERING EXAMPLE

OC50-VBAEGB-10MHz

OCXO / $\geq 1 \times 10^{-6}$ (Voltage Adjust) / +5.0VDC / 0°C~+50°C / $\pm 1 \times 10^{-7}$ / Sine Wave / $\pm 5 \times 10^{-9}$ /day, $\pm 5 \times 10^{-7}$ /year / 10MHz

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