

Sub-miniature precision hybrid smd OCXO

Temperature tolerance: $\pm 0.1\text{ppm}(-5 +70)^\circ\text{C}$

Low profile smd package

Good phase noise

AT cut crystal

+3.3V d.c. supply

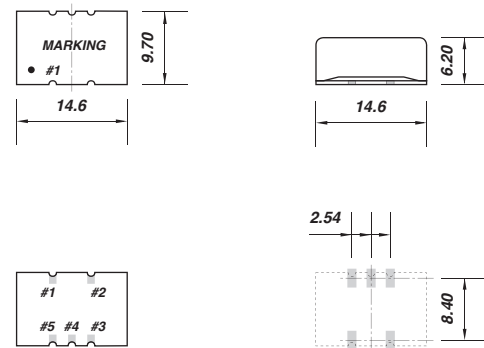
Fast warm up

RoHS compliant

Generic specification:

frequency:	(10 ~ 40)MHz
output:	clipped sine wave 0.8Vp/p min., 10K Ω /10pF
stability:	
against temperature	$\pm 0.1\text{ppm}(-5 +70)^\circ\text{C}$
against supply voltage change	$\pm 0.02\text{ppm max.}, V_{cc} \pm 5\%$
against load change	$\pm 0.02\text{ppm max.},$ load $\pm 10\%$
ageing short term	$\pm 0.003\text{ppm max. per day}$ after 30 days continuous operation
ageing long term	$\pm 1.0\text{ppm max. per year}$ after 30 days continuous operation
voltage trim V_t	$\pm 5\text{ppm minimum},$ $\pm 10\text{ppm typical}$ $+1.5Vd.c. \pm 1.5Vd.c.$ linearity $\pm 5\%$
trim input impedance	100K Ω min.
power supplies:	
supply voltage V_{cc}	+3.3Vd.c.
voltage reference	+3Vd.c.
start up current	750mA max. at -5°C
quiescent current	320mA max. at $+25^\circ\text{C}$
warm up time	2 minutes max. to within 0.5ppm of nominal
insulation resistance	500Meg Ω min., 100Vd.c.
phase noise:	-120dBc/Hz, $f_o + 100\text{Hz}$ -130dBc/Hz, $f_o + 1\text{kHz}$ -140dBc/Hz, $f_o + 10\text{kHz}$
temperature:	
operating range	$(-5 +70)^\circ\text{C}$
storage range	$(-40 +125)^\circ\text{C}$
marking:	part number, frequency, date code, serial number

Dimensions(mm):



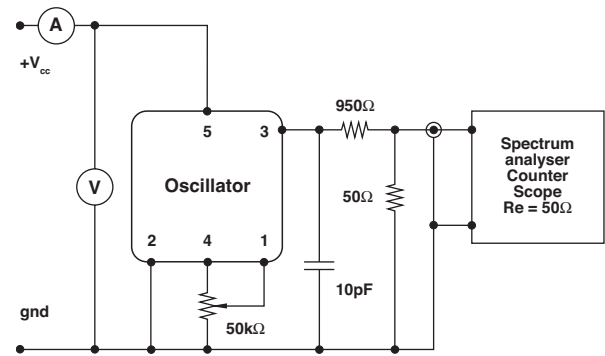
pads viewed from bottom
pad size (1.0 x 1.5)mm

suggested land pattern
pad size (1.2 x 2.5)mm

Pin connections:

- # 1 tune
- # 2 ground/ case
- # 3 output
- # 4 V_{ref} or N/C
- # 5 $+V_{cc}$

Test circuit, CMOS load:



test circuit includes a 20:1 step down into a matched 50 Ω load

Environmental conditions:

- MIL standard 202F** method 213, condition J
- MIL standard 202F** method 107, condition A
- MIL standard 202F** method 204, condition B
- solderability** 5 seconds max. at $+230^\circ\text{C}$
3 seconds max. at $+350^\circ\text{C}$

