



OCXO OS3E400 - 15

- **Stratum 3E compliant; long term and 24 hour holdover to Stratum 3E levels specified in GR-1244-CORE issue 2 and GR-63-CORE issue 1.**
- **High quality, excellent phase noise, extremely low ageing from a precision SC cut resonator.**
- **Hermetic seal.**
- **Manufactured to standard and custom frequencies 5.0MHz to 50MHz.**



Standard options:

frequency range:	_____ (5.0 ~ 50.0)MHz _____		
supply voltage codes:	(V1)*	(V2)*	(V3)*
supply voltage	+3.3Vd.c.	+5.0Vd.c.	+12.0Vd.c.
trim reference option*	+3.0Vd.c.	+4.5Vd.c.	+4.5Vd.c.

* add suffix (R) for V_{ref} output on pin #5

Generic specification:

output:	CMOS 15pF, 45% ~ 55% rise and fall time 2ns max.		
stability:	±0.0085ppm(0 +70)°C		
against temperature change	long term and 24 hour holdover requirements of Stratum 3E levels		
stratum 3E compliant	specified in GR-1244-CORE issue 2 and GR-63-CORE issue 1		
against supply voltage change	±0.002ppm max. for $V_{cc} \pm 5\%$		
against load change	±0.002ppm max. for load ±10%		
ageing short term	±0.0005ppm max. per day		
after 30 days continuous operation			
ageing long term	±0.1ppm max. first year		
voltage trim V_t	±0.5ppm min. typical, linearity ±5%		
trim input impedance	100KΩ min.		
power supplies:			
supply voltage V_{cc}	+3.3Vd.c.	+5.0Vd.c.	+12.0Vd.c.
start up current at min. temp. range	900mA max.	600mA max.	300mA max.
quiescent current at max. temp. range	320mA max.	220mA max.	120mA max.
warm up time	5 minutes max. to within 0.1ppm of nominal		
insulation resistance	500MegΩ min., 100Vd.c.		
phase noise:			
single sideband, 1Hz bandwidth	-110dBc/Hz, $f_o + 10\text{Hz}$		
	-135dBc/Hz, $f_o + 100\text{Hz}$		
	-155dBc/Hz, $f_o + 1\text{kHz}$		
temperature:			
operating range	(0 +70)°C		
storage range	(-40 +125)°C		

Environmental conditions:

- mechanical shock:** MIL standard 202F, method 213, condition J
- thermal shock:** MIL standard 202F, method 107, condition A
- vibration:** MIL standard 202F, method 204, condition B
- solderability:** 5 seconds max. at +230°C, 3 seconds max. at +350°C

Marking: part number, frequency and serial number on high temperature metalised polyester label

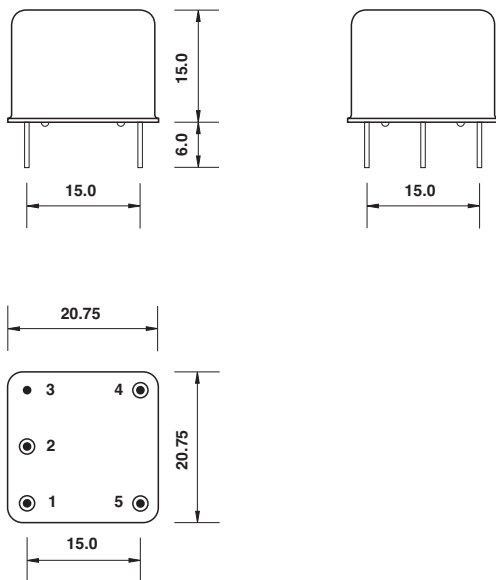
Custom specification: part number issued with custom specification and drawing

Ordering code:

- standard option:** OS3E400-15-V2* - 10.00M
- OS3E400-15 = series generic code
- V2* supply voltage code: V2 = +5Vd.c. supply
- *Add suffix (R) for V_{ref} output on pin #5
- 10.00M output frequency: 10.00M = 10.000MHz

custom specification: part number issued with custom specification and drawing

Dimensions(mm):

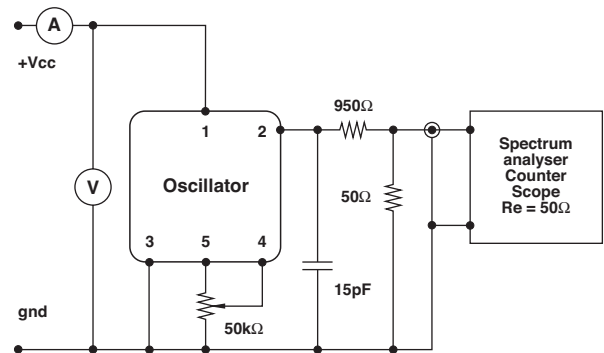


Pins viewed from bottom
pin diameter 0.45mm

Pin connections:

- # 1 +V_{cc}
- # 2 output
- # 3 ground/case
- # 4 trim
- # 5 n.c. or trim reference voltage*

Test circuit, CMOS load:



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