

OCXO OS3E400 - 10

- **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:	$\pm 0.0085\text{ppm}(0 +70)^\circ\text{C}$		
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	$\pm 0.002\text{ppm max. for } V_{cc} \pm 5\%$		
against load change	$\pm 0.002\text{ppm max. for load } \pm 10\%$		
ageing short term	$\pm 0.0005\text{ppm max. per day}$		
ageing long term	after 30 days continuous operation		
voltage trim V_t	$\pm 0.05\text{ppm max. first year}$		
trim input impedance	$\pm 0.5\text{ppm min. typical, linearity } \pm 5\%$ $100\text{K}\Omega \text{ min.}$		
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	500Meg Ω min., 100Vd.c.		
phase noise:			
single sideband, 1Hz bandwidth	$-130\text{dBc/Hz, } f_o + 10\text{Hz}$ $-155\text{dBc/Hz, } f_o + 100\text{Hz}$ $-160\text{dBc/Hz, } f_o + 1\text{kHz}$		
temperature:			
operating range	$(0 +70)^\circ\text{C}$		
storage range	$(-40 +125)^\circ\text{C}$		

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

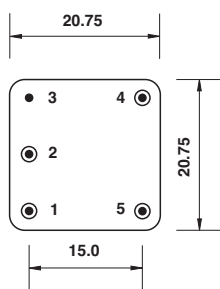
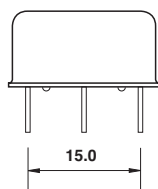
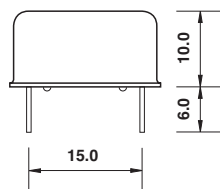
Custom specification: part number issued with custom specification and drawing

Ordering code:

- standard option:** OS3E400-10-V2* - 10.00M
- OS3E400-10 = 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):

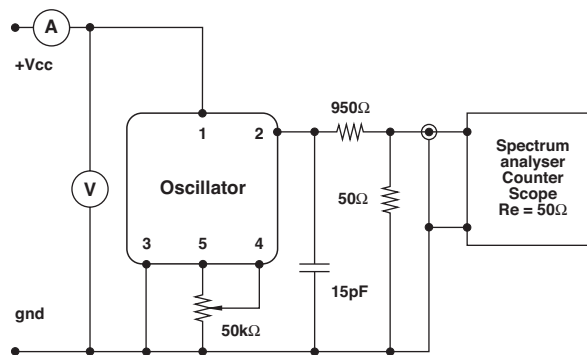


Pins viewed from bottom
pin diameter 0.45mm

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