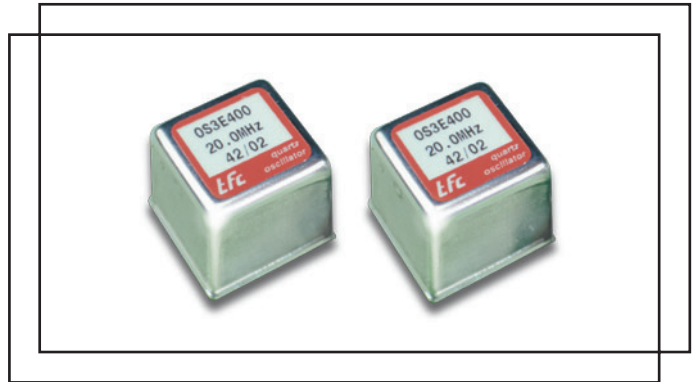


Series OS3E400 stratum 3E (5.0 ~ 50.0)MHz

- # CMOS output
- # stratum 3E compliant
- # excellent phase noise
- # extremely low ageing



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:
against temperature change $\pm 0.0085\text{ppm}(0 + 70)^\circ\text{C}$
stratum 3E compliant
long term and 24 hour holdover requirements of Stratum 3E levels
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 $\pm 0.0005\text{ppm max. per day}$
after 30 days continuous operation $\pm 0.1\text{ppm max. first year}$

ageing long term $\pm 0.5\text{ppm min. typical, linearity } \pm 5\%$
voltage trim V_t
trim input impedance 100K Ω 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

- 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) $^\circ\text{C}$
storage range (-40 +125) $^\circ\text{C}$

Series OS3E400 stratum 3E

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:

frequency, date code, serial number on high temperature metalised polyester label

Ordering code:

standard specification: OS3E400-15-V2* - 10.00M

OS3E400-15 = series generic code

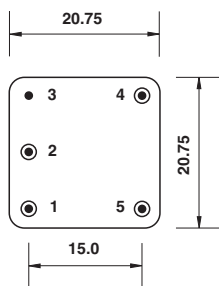
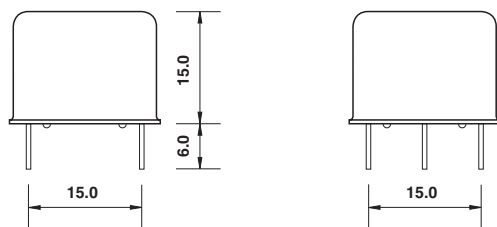
V2* supply voltage code: V2 = +5Vd.c. supply

*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):

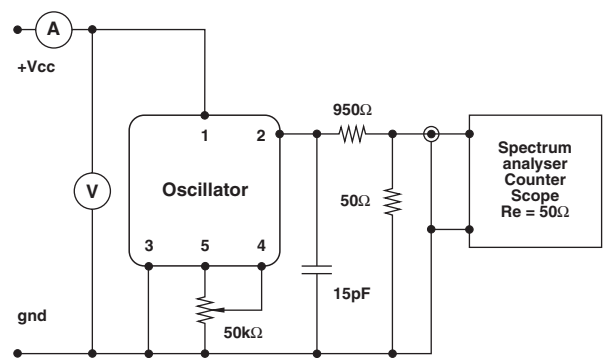


Pins viewed from bottom
pin diameter 0.45mm

Pin connections:

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

Test circuit:



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