

## Series OS3E936 stratum 3E (1.0 ~ 125.0)MHz

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



### Standard options:

**frequency range:** (1.0 ~ 125.0)MHz

<b>supply voltage codes:</b>	(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 #2

### 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 $\Omega$  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 $\Omega$ 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 OS3E936 stratum 3E

### Environmental test conditions (on request):

**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:** OS3E936-15-V2\* - 10.00M

OS3E936-15 = series generic code

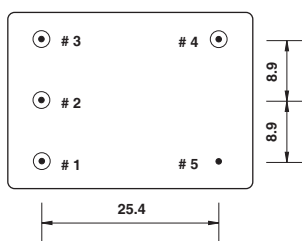
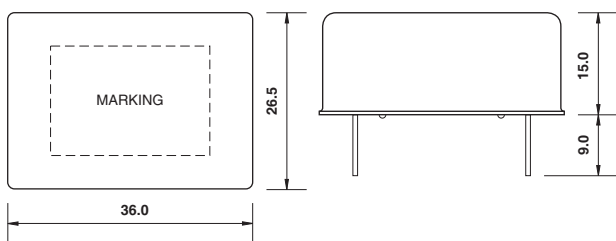
V2\* supply voltage code: V2 = +5Vd.c. supply

\*Add suffix (R) for  $V_{ref}$  output on pin #2

10.00M output frequency: 10.00M = 10.000MHz

**custom specification:** part number issued with custom specification and drawing

### Dimensions(mm):

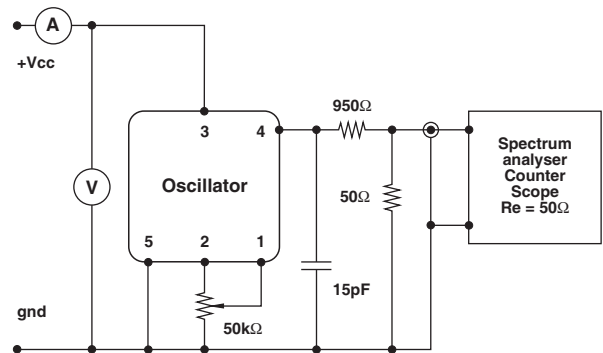


Pins viewed from bottom  
pin diameter 0.8mm

### Pin connections:

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

### Test circuit:



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