Stability from ±0.05ppm, good phase noise from a precision AT cut crystal.
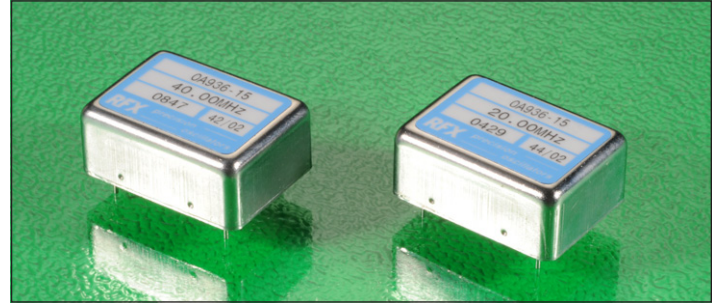
Standard and custom frequency range 1MHz to 1GHz.

Ageing from ±1ppm first year.

A standard OCXO package providing a useful volume for the manufacture of high quality single oven specifications.

Standard options:

frequency range:	1MHz ~ 1GHz		

accuracy codes:	(A)	(B)	(C)
temperature tolerance	±0.05ppm	±0.1ppm	±0.2ppm
temperature range	(0 +50)°C	(-10 +60)°C	(-20 +70)°C

output codes:	(S)	(L)
output	sine wave, 0dBm into 50Ω	CMOS 15pF, 45% ~ 55%
harmonics -30dBc max.		<2ns max. rise and fall

supply voltage codes:	(V1)*	(V2)*	(V3)*
supply voltage	+3.3Vd.c.	+5.0Vd.c.	+12.0Vd.c.
voltage reference option*	+3.0Vd.c.	+4.5Vd.c.	+4.5Vd.c.

*add suffix (R) for V_{ref} output on pin #2

Generic specification:

stability:

against supply voltage change	±0.02ppm max. for V_{cc} ±5%
against load change	±0.02ppm max. for load ±10%
ageing short term	±0.005ppm max. per day
	after 30 days continuous operation
ageing long term	±1ppm max. first year
voltage trim V_t	±10ppm 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	-90dBc/Hz, f_o+10Hz
	-125dBc/Hz, f_o+100Hz
	-140dBc/Hz, f_o+1kHz

temperature:

operating range	(0 +50)°C	(-10 +60)°C	(-20 +70)°C
storage range	(-40 +125)°C	(-40 +125)°C	(-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 and frequency on high temperature
metalised polyester label

Ordering code: **standard specification:** OA936-15 A S V2* - 10.00M
OA936-15 **= series generic code**
A temp. tol. and temp. range code: **A = ±0.05ppm(0 +50)°C**
S output code: **S = sine wave output, 0dBm into 50Ω**
V2* supply voltage code: **V2 = +5Vd.c. supply**
*add suffix (R) for V_{ref} output on pin #2
10.00M output frequenc: **10.00M = 10.000MHz**

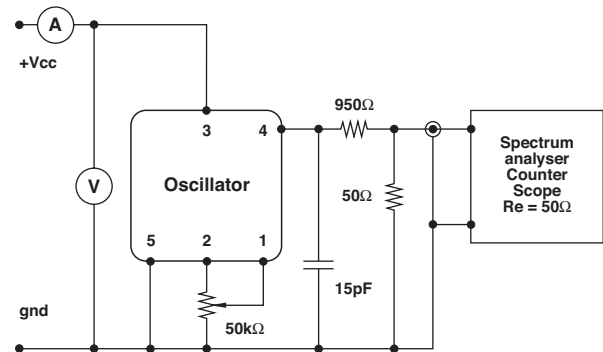**Custom specification:** part number issued with custom specification and drawing

Dimensions(mm):

26.5
36.0
15.0
9.0
8.9
8.9
25.4

MARKING

3   # 4
2
1   # 5

Pins viewed from bottom
pin diameter 0.8mm
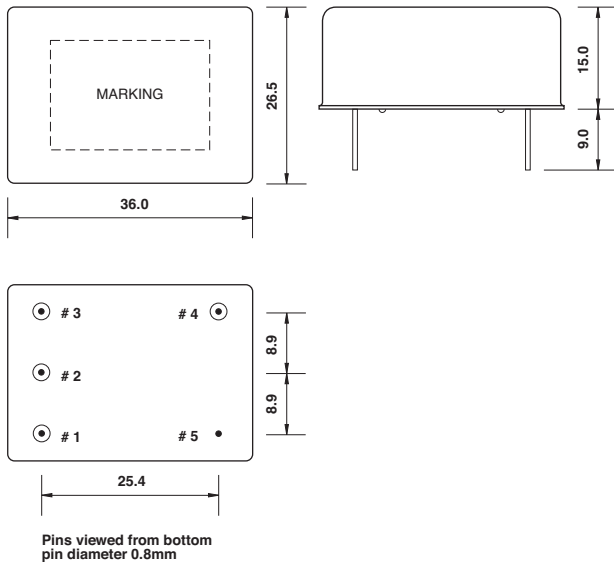
Pin connections:

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

Test circuit, CMOS load:

+Vcc
A
V
Oscillator
3   4
5   2   1
950Ω
50Ω
15pF
50kΩ
gnd
Spectrum analyser Counter Scope Re = 50Ω

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