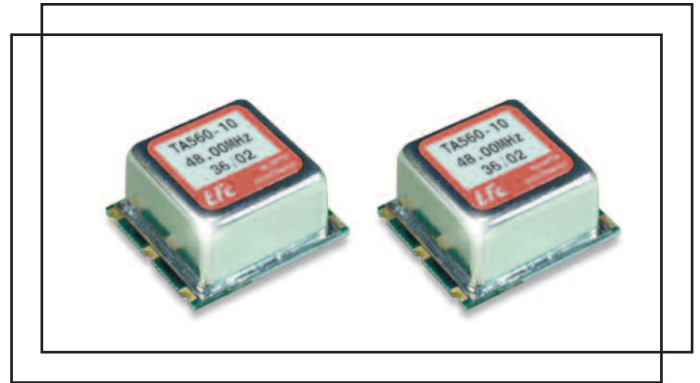


## Series TA560-10 1MHz ~ 1GHz

- # sine wave, CMOS output
- # hermetic seal
- # excellent phase noise
- # very low ageing
- # RoHS compliant



### Standard options:

<b>frequency range:</b>	1MHz ~ 1GHz		
<b>accuracy codes:</b>	(A)	(B)	(C)
temperature tolerance	$\pm 0.5\text{ppm}$	$\pm 1.0\text{ppm}$	$\pm 2.0\text{ppm}$
temperature range	$(0 +50)^\circ\text{C}$	$(-20 +70)^\circ\text{C}$	$(-40 +70)^\circ\text{C}$
<b>output codes:</b>	(S)	(L)	
output	sine wave, 0dBm into 50 harmonics -30dBc max.	CMOS 15pF, 45% ~ 55% <2ns max. rise and fall	
<b>supply voltage codes:</b>	(V1)*	(V2)*	(V3)*
supply voltage $V_{cc}$	+3.3Vd.c.	+5.0Vd.c.	+12.0Vd.c.
voltage reference option*	+3.0Vd.c.	+3.0Vd.c.	+3.0Vd.c.
	add suffix (R) for $V_{ref}$ output on pin #5		

### Generic specification:

<b>stability:</b>	
against supply voltage change	$\pm 0.02\text{ppm max. for } V_{cc} \pm 5\%$
against load change	$\pm 0.02\text{ppm max. for load } \pm 10\%$
ageing short term	$\pm 0.005\text{ppm max. per day}$
ageing long term	$\pm 1.5\text{ppm max. first year}$
voltage trim $V_t$	$\pm 10\text{ppm min. typical, linearity } \pm 5\%$
trim input impedance	$100\text{K min.}$
<b>power supplies:</b>	
supply voltage $V_{cc}$	+3.3Vd.c.      +5.0Vd.c.      +12.0Vd.c.
supply current	frequency, $V_{cc}$ and output load dependent
insulation resistance	$500\text{Meg min., at } +100\text{Vd.c.}$
<b>phase noise:</b>	
single sideband, 1Hz bandwidth	$-80\text{dBc/Hz, } f_o + 10\text{Hz}$ $-100\text{dBc/Hz, } f_o + 100\text{Hz}$ $-125\text{dBc/Hz, } f_o + 1\text{kHz}$
<b>temperature:</b>	
operating range	$(0 +50)^\circ\text{C}$ $(-20 +70)^\circ\text{C}$ $(-40 +70)^\circ\text{C}$
storage range	$(-40 +125)^\circ\text{C}$ $(-40 +125)^\circ\text{C}$ $(-40 +125)^\circ\text{C}$

## Series TA560-10

### 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:** MIL standard 202F, method 208, +235°C, RoHS compliant

### Marking:

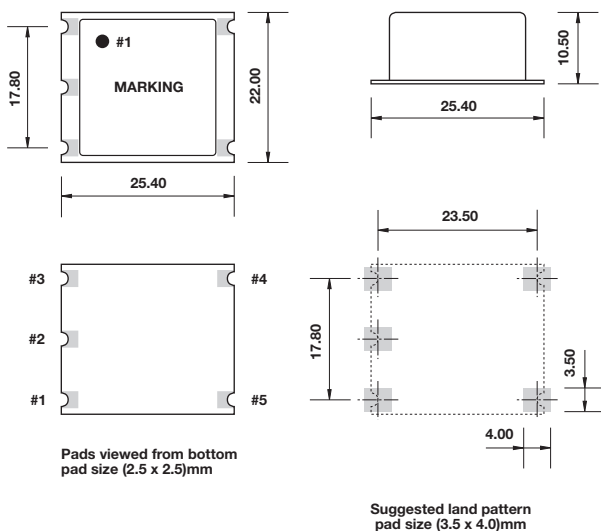
frequency, date code, serial number on high temperature metalised polyester label

### Ordering code:

- standard specification:** TA560-10 A S V2\* - 16.384M
- TA560-10** = series generic code
- A** temp. tol. and temp. range code: A =  $\pm 0.5\text{ppm}(0 + 50)^\circ\text{C}$
- S** output code: S = sine wave output, 0dBm into 50
- V2\*** supply voltage code: V2 = +5Vd.c. supply
- \*Add suffix (R) for  $V_{ref}$  output on pin #5
- 16.384M** output frequency: 16.384M = 16.384MHz

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

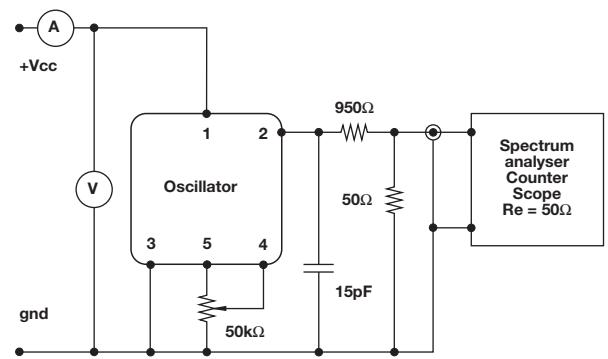
### Dimensions(mm):



### Pin connections:

- #1 +V<sub>CC</sub>
- #2 output
- #3 ground/case
- #4 trim voltage V<sub>c</sub>
- #5 n.c. or trim reference voltage\*

### Test circuit:



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