

### Series TA265-8.5

- (10 ~ 155)MHz
- stability from  $\pm 0.5\text{ppm}$
- sine wave, CMOS output
- excellent phase noise
- ageing from  $\pm 4.6\text{ppm}$  over 10 years

### Applications:

- communications equipment
- instrumentation
- portable systems



### Standard options:

<b>frequency range:</b>	_____ (10 ~ 155)MHz _____		
<b>accuracy codes:</b>	_____ (A) _____	_____ (B) _____	_____ (C) _____
temperature tolerance	$\pm 1.0\text{ppm}$	$\pm 1.5\text{ppm}$	$\pm 2.0\text{ppm}$
temperature range	(-10 +60) $^{\circ}\text{C}$	(-20 +70) $^{\circ}\text{C}$	(-35 +70) $^{\circ}\text{C}$
<b>output codes:</b>	_____ (S) _____	_____ (L) _____	
output	Clip sine wave, 0dBm into 50 $\Omega$ harmonics -30dBc max.	CMOS 15pF, 45% ~ 55% <2ns max. rise and fall	
<b>supply voltage codes:</b>	_____ (V1) _____	_____ (V2) _____	_____ (V3) _____
supply voltage	+3.3Vd.c.	+5.0Vd.c.	+12.0Vd.c.

### 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	after 30 days continuous operation		
voltage trim $V_t$	$\pm 1.5\text{ppm max. first year}$		
trim input impedance	$\pm 10\text{ppm min. typical, linearity } \pm 5\%$ 100K $\Omega$ min.		
<b>power supplies:</b>			
supply voltage $V_{cc}$	+3.3Vd.c.	+5.0Vd.c.	+12.0Vd.c.
supply current	50mA typical		
insulation resistance	500Meg $\Omega$ min., 100Vd.c.		
<b>phase noise:</b>			
single sideband, 1Hz bandwidth	-80dBc/Hz, $f_o+10\text{Hz}$		
	-100dBc/Hz, $f_o+100\text{Hz}$		
	-125dBc/Hz, $f_o+1\text{kHz}$		
<b>temperature:</b>			
operating range	(-10 +60) $^{\circ}\text{C}$	(-20 +70) $^{\circ}\text{C}$	(-35 +70) $^{\circ}\text{C}$
storage range	(-40 +125) $^{\circ}\text{C}$	(-40 +125) $^{\circ}\text{C}$	(-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:

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

### Ordering code:

**standard options:**

**TA265-8.5 A S V2 - 18.432M**

**TA265-8.5 = series generic code**

**A** temp. tol. and temp. range code: **A = ±1.0ppm(-10 +60)°C**

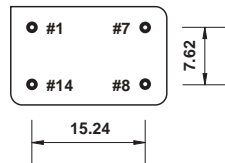
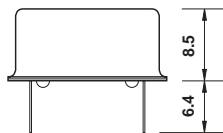
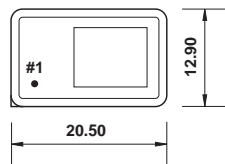
**S** output code: **S = sine wave output, 0dBm into 50Ω**

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

**18.432M** output frequency: **18.432M = 18.432MHz**

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

### Dimensions(mm):

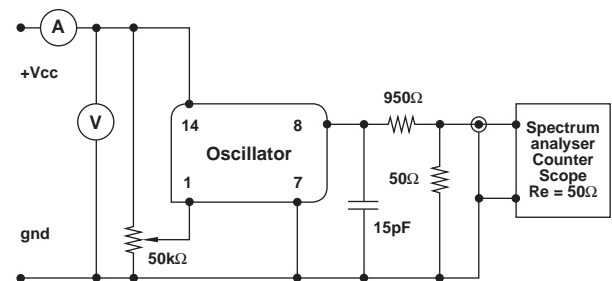


Pins viewed from bottom  
pin diameter 0.45mm

### Pin connections:

- #1 trim
- #7 ground/case
- #8 output
- #14 +V<sub>CC</sub>

### Test circuit, CMOS load:



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