

Type TA smd VCTCXO
(5 ~ 52)MHz, (2.5 ~ 3.5)Vd.c. supply
(7.0 x 5.0)mm, height typical 1.90mm
temperature tolerance from ±0.5ppm

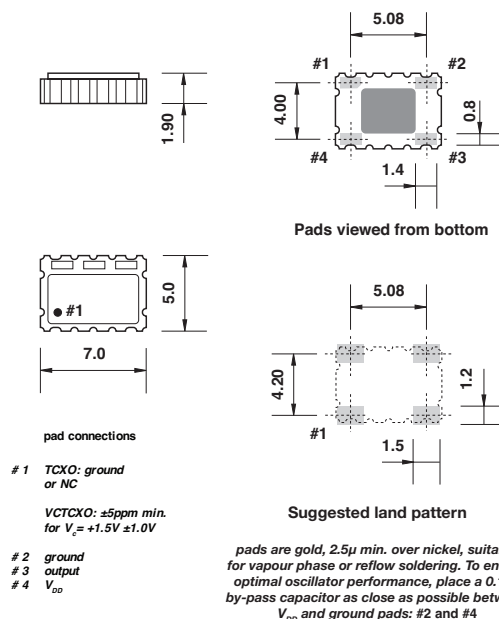
A precision, compact, smd voltage controlled TCXO, low ageing and low power consumption.

Supplied on tape and reel; 1000 or 3000 pieces per reel, RoHS compliant.

Frequency stability -vs- temperature:

TEMP. RANGE	TOLERANCE	
(0 +55)°C	±0.5ppm	±1.0ppm
(-10 +60)°C	±0.5ppm	±1.0ppm
(-20 +70)°C	±0.5ppm	±1.0ppm
(-30 +85)°C	-	±1.0ppm
(-40 +85)°C	-	±1.0ppm

Dimensions(mm)



Electrical specification:

	2.5Vd.c.		3.3Vd.c.		Units
	min.	max.	min.	max.	
supply voltage $V_{DD} \pm 5\%$	2.4	2.75	3.135	3.465	Vd.c.
frequency range	5 ~ 52				MHz
frequency tolerance	±2.0				ppm
frequency stability vs supply ±5%	-	±0.1	-	±0.1	ppm
frequency stability vs load ±10%	-	±0.2	-	±0.2	ppm
frequency stability vs ageing	-	±1.0 max.	-	±1.0 max.	ppm per year
supply current: CMOS	-	6.0	-	6.0	mA
supply current: clipped sine	-	3.5	-	3.5	mA
output level CMOS logic "1"	2.25	-	2.97	-	V
output level CMOS logic "0"	-	0.25	-	0.33	V
duty cycle	45	55	45	55	
output level clipped sine wave	0.8	-	0.8	-	Vp-p
load clipped sine wave	10KΩ//10pF				
load CMOS	15pF				
V_c voltage control range (VCTCXO)	0.5	2.5	0.5	2.5	V
pulling range (VCTCXO)	±5	±12	±5	±12	ppm
V_c input impedance (VCTCXO)	100	-	100	-	KΩ
phase noise @13.0MHz +100Hz	-115		-115		dBc/Hz
phase noise @13.0MHz +1kHz	-135		-135		dBc/Hz
phase noise @13.0MHz +10kHz	-148		-148		dBc/Hz
start up time	-	2	-	2	milli sec
storage temperature range	(-55 +125)°C				°C

Ordering information

EXAMPLE	<i>type TA smd VCTCXO, 20.0MHz, +3.3Vd.c., ±5ppm pulling range, ±1.0ppm(-20 +70)°C, clipped sine wave output</i>
TFC PART NUMBER	TA 20.0M E A B C S
TA	<i>type: TA = VCTCXO type TC</i>
20.0M	<i>frequency: 20.0MHz, frequency range (10 ~ 50)MHz</i>
E	<i>supply voltage: E = +3.3Vd.c.</i>
A	<i>pulling range: A = ±5ppm for VCTCXO</i>
B	<i>frequency stability: B = ±1ppm</i>
C	<i>temperature range: C = (-20 +70)°C</i>
S	<i>output: S = clipped sine wave</i>
OPTIONS	
supply voltage	<i>E: +3.3Vd.c., J: +2.5Vd.c.,</i>
pulling range	<i>A: ±5ppm, B: ±8ppm, C: ±10ppm, T: TCXO</i>
frequency stability	<i>A: ±0.5ppm, B: ±1.0ppm</i>
temperature range	<i>B: (0 +55)°C, I: (-10 +60)°C, C: (-20 +70)°, D: (-30 +85)°C, L: (-40 +85)°C</i>
output logic	<i>J: CMOS 15pF, S: clipped sine wave 10K//10pF</i>