

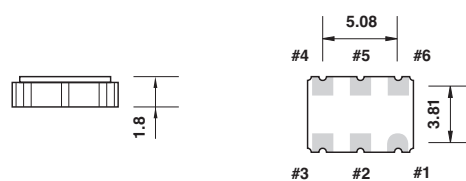
Type VT - M - L,V smd VCXO
(100 ~ 700)MHz,
Multiplier, PECL, LVDS
(7.0 x 5.0)mm, height 1.8mm

A high frequency, smd, voltage controlled crystal oscillator manufactured over the frequency range of 100MHz to 700MHz. Good linearity, wide pulling range, +3.3V d.c. and 2.5Vd.c. supply.

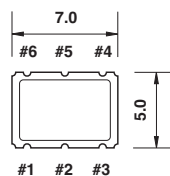
A standard package providing an excellent combination of parameters within a small smd enclosure.

Supplied on tape and reel with 1000 and 3000 pieces per reel.

Dimensions(mm)



pads viewed from bottom
pad size (1.4 x 1.27)mm



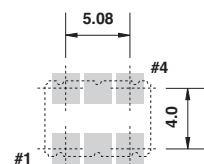
top view

pad connections:

- #1 voltage control
- #2 tri-state
- #3 ground
- #4 output
- #5 complimentary output
- #6 V_{DD}

output inhibit:

- #2 high: output oscillation
- #2 low: output high impedance



suggested land pattern
pad size (2.0 x 1.8)mm

connect 0.1 μ F capacitor
between V_{DD} and ground

Frequency stability -vs- temperature:

TEMP. RANGE	COMBINED TOLERANCE	
(-10 +60) $^{\circ}$ C	± 25 ppm	± 50 ppm
(-20 +70) $^{\circ}$ C	± 25 ppm	± 50 ppm
(-40 +85) $^{\circ}$ C		± 50 ppm

Tolerance inclusive of calibration tolerance at +25 $^{\circ}$ C, temperature tolerance, load variation and supply voltage variation, first year ageing, vibration and shock

Electrical specification:

	PECL		LVDS		
	3.3Vd.c.		2.5Vd.c.		
	min.	max.	min.	max.	
supply voltage $\pm 5\%$	2.97	3.63	2.97	3.63	Vd.c.
frequency range	100 ~ 700		100 ~ 700		MHz
pulling range	± 50	-	± 50	-	ppm
control voltage range	0.3	3.0	0.3	3.0	V
supply current (100 ~ 160)MHz	-	75	-	65	mA
supply current (160 ~ 700)MHz	-	100	-	80	mA
o/p high	2.275	-	-	1.6	V
o/p low	-	1.68	0.9	-	V
rise and fall time, t_r	-	1.0	-	1.0	nano sec.
start up time	-	3	-	3	milli sec.
tri-state: active o/p	0.7V _{DD}	-	0.7V _{DD}	-	V
tri-state: high impedance o/p	-	0.3V _{DD}	-	0.3V _{DD}	V
linearity	-	10	-	10	%
modulation bandwidth	25	-	25	-	kHz
input impedance	2000	-	2000	-	K Ω
RMS phase jitter(integrated 12kHz ~ 20MHz)	-	4	-	4	pico.sec
ageing	-	± 3	-	± 3	ppm
storage temperature range	(-55 +125) $^{\circ}$ C				$^{\circ}$ C

Ordering information

EXAMPLE	<i>type VT - M - L smd VCXO, 155.52MHz, ±50ppm pulling, +3.3Vd.c., ±25ppm(-10 +60)°C, output PECL, multiplier</i>
TFC PART NUMBER	VT - M - L 155.52M E M I
VT - M - L	<i>type: VT = VCXO type VT; (7.0 x 5.0)mm package, M; multiplier, L; PECL load</i>
155.52	<i>frequency: 155.52MHz, frequency range (100 ~ 700)MHz</i>
E	<i>supply voltage: E = +3.3Vd.c.</i>
M	<i>frequency stability: M = ±25ppm</i>
I	<i>temperature range: I = (-10 +60)°C</i>
OPTIONS	
supply voltage	<i>E: +3.3Vd.c., J: +2.5Vd.c.</i>
frequency stability	<i>M: ±25ppm, P: ±50ppm</i>
temperature range	<i>I: (-10 +60)°C, C: (-20 +70)°C, L: (-40 +85)°C</i>