



ShaanXi DongXin HengKe Electronics Co., LTD

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SMD PROGRAMMABLE CRYSTAL OSCILLATOR

TCXO/VC-TCXO

Applications

GPS RF Wireless communication devices(LTE,WiMAX, Wi-Fi,W-LAN,LOT other)

Features

Frequency/temperature characteristics: $\pm 0.5\text{ppmMax}$, $\pm 2.0\text{ppm}$
 Package Size: 2.0*1.6 , 2.5*2.0 , 3.2*2.5

Supply Voltage: 1.8V Typ./2.5V Typ./3.3V Typ.
 Features:Low noise



Specifications

Ltem	Symbol	VC-TCXO	TCXO	Conditions/Remarks
Output frequency range	fo	10MHz to 55MHz 16,16.368,16.369,19.2,20,24,25,26,27,27.6,30,32,38.4,40,48,50,52 Mhz		Standard frequency
Supply voltage	Vcc	1.8V \pm 0.1V/2.8V \pm 5%/3.0V \pm 5%/3.3V \pm 5%		Supply voltage range 1.7V to 3.63V
Storage temperature	T stg	-40 $^{\circ}$ C to +90 $^{\circ}$ C		Storage as single product
Operating temperature	T use	G:-40 $^{\circ}$ C to +80 $^{\circ}$ C		
Frequency tolerance	f tol	$\pm 1.5 \times 10^{-6}$ Max		After reflow, $\pm 25^{\circ}$ C
Frequency/temperature characteristics	fo-TC	C: $\pm 0.5 \times 10^{-6}$ Max/G: -40 $^{\circ}$ C to +85 $^{\circ}$ C F: $\pm 2.0 \times 10^{-6}$ Max/G: -40 $^{\circ}$ C to +85 $^{\circ}$ C		Standard stability version
Frequency/load coefficient	fo-Load	$\pm 0.1 \times 10^{-6}$ Max		10k Ω //10pF \pm 10%
Frequency/voltage coefficient	fo-Vcc	$\pm 0.1 \times 10^{-6}$ Max		Vcc \pm 5%
Frequency aging	f-age	$\pm 0.5 \times 10^{-6}$ Max		+25%,First year,10MHz, 12MHz \leq fo \leq 20MHz 24MHz \leq fo \leq 40MHz
		$\pm 1.5 \times 10^{-6}$ Max		+25%,First year,10MHz < fo < 12MHz 20MHz < fo < 24MHz 40MHz < fo \leq 55MHz
Current Consumption	lcc	1.5mA Max		10MHz \leq fo \leq 26MHz
		1.8mA Max		26MHz < fo \leq 40MHz
		2.0mA Max		40MHz < fo \leq 50MHz
		2.1mA Max		50MHz < fo \leq 55MHz
input resistance	Rin	500 k Ω Min		VC-GND(DC)
Frequency control range	f-cont	$\pm 8.0 \times 10^{-6}$ to $\pm 12.0 \times 10^{-6}$		B: Vc=0.9V \pm 0.6V (Vcc=1.8V)or C: Vc=1.4V \pm 1.0V (Vcc=2.8V)or D: Vc=1.5V \pm 1.0V (Vcc=3.0V)or E: Vc=1.65V \pm 1.0V (Vcc=3.3V)
Frequency change polarity	-	Positive polarity		-
Symmetry	SYM	45% to 55%		GND level (DC cut)
Output voltage	Vpp	0.8V Min		Peak to Peak
Start-up time	t-str	1.0ms Max		T=0 at 90% Vcc
Output load condition	Load-R	10k Ω		DC cut capacitor=0.01 μ F
	Load-C	10pF		

External dimensions (Unit:mm)

Pin Function

Name	Function
Pin 1	GND or NC
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VCC

Land Pattern

nit : mm

Fottprint (Recommended) (Unit:mm)

Size	TG2016SMN (2.0x1.6mm)	TG2520SMN (2.5x2.0mm)
A	0.75	1.0
B	0.6	0.8
C	1.13	1.4
D	1.65	2.1

For stable operation, please add a bypass Capacitor (0.01 μ F to 0.1 μ F) between Vcc and GND. Please place it as close to TCXO as possible.