



Features

- Accurately and stability frequency at wider Temperature range
- Support low power supply voltage and low power consumption
- Voltage Control Function are available

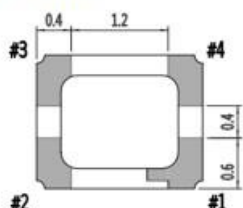
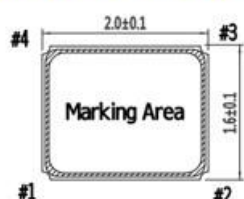
Applications

- GNSS
- WiMAX
- Cellular Phone
- Wireless Communications

Electrical Specifications

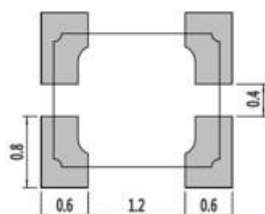
Item		Symbol	TCX0 G21TC		VC-TCX0 G21VT		Remarks
Output frequency range		F ₀	9.6 MHz to 52.0 MHz				
Supply Voltage		V _{CC}	1.8V±5%. 2.8V±5%. 3.3V±5%				Available within 1.71~3.63V
Operating Temperature Range		T _{OPR}	-30~85℃ (-40~85℃ option)				
Storage temp. range		T _{STG}	-40~85℃				
Output Voltage		V _{pp}	0.8V Min				Clipped Sinewave
Output Load		-	10K Ω // 10 pF				
Frequency Stability	Vs. temp.	-	±0.5ppm, ±2.5ppm				
	Vs. load	-	±0.1ppm max				(10KΩ//10pF) ±10%
	Vs. supply voltage	-	±0.1ppm max				V _{CC} ±5%
Frequency tolerance		F _{tol}	±1.5ppm max				After reflow, +25 °C
Start-up time		T _{str}	2.0ms max				More than 90% of final V _{pp}
Current consumption		I _{CC}	1.5 mA max (≤ 26MHz) 2.0 mA max (> 26MHz)				
Symmetry			40~60%				GND level (DC cut)
Frequency control range		V _{cont}	-		±8~±15ppm		V _{cont} =0.9±0.6V, 1.4±1V, 1.65V±1V
Frequency aging		F _{age}	±1.0ppm/year max				
Phase Noise (dBc/Hz Max.)	Output Freq.		f ≤ 40MHz	f > 40MHz	f ≤ 40MHz	f > 40MHz	
	Offset @10Hz	-	-80	-75	-78	-73	
	Offset @100Hz	-	-105	-100	-103	-98	
	Offset @1kHz	-	-130	-125	-128	-123	
	Offset @10kHz	-	-145	-140	-143	-138	
	Offset @100kHz	-	-150	-145	-148	-143	
	Offset @1MHz	-	-150	-145	-148	-143	

Mechanical Dimensions Unit: (mm)



Pin	Connection	
	TCX0	VC-TCX0
#1	NC/GND	V _{cont}
#2	GND	
#3	OUT	
#4	V _{CC}	

Recommended PAD Layout



Test Circuit

