Surface Mounted (SMD) VCXO

Without Enable Disable

2.5x2.0mm HCMOS Compatible Output SMD VCXO

RoHS compliant 2002/95/EC

Static sensitive device

NEW Part! - Recommended for new designs

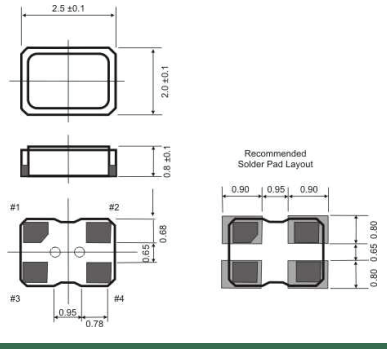
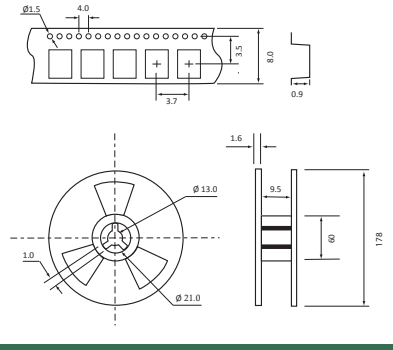
Frequency Stability Options				
Operating Temperature Range		**Frequency Stability (PPM)**		
Available Temp. Range Options		±25PPM	±50PPM	±100PPM
Standard	-10°C to +70°C	AS	BS	CS
Industrial	-40°C to +85°C	AI	BI	CI

Operating Conditions	
Storage Temp	-55°C to +125°C

Option Codes	
Supply Voltage	Option Code
+3.3V DC	3
+2.8V DC	2
+1.8V DC	18

Marking & Specification Code Format					
Type	Voltage Code	Stab vs OTR	Frequency	Pulling	WWYY
VC221	See Panel	See Above	20.000	in PPM	1611

Electrical Characteristics Ta = +25°C, Note Inclusive of V_{DD} ±10%, Load Change ±10%, Ageing, Shock & Vibration

Parameter	Condition	V_{DD} = +1.8V ±5%	V_{DD} = +2.8V ±5%	V_{DD} = +3.3V ±5%
Available Frequency	MHz	6.00 - 54.00	6.00 - 54.00	6.00 - 54.00
Initial Freq. Accuracy	Tuned to nominal freq.	V_C = 0.9V ±0.15V	V_C = 1.25V ±0.2V	V_C = 1.65V ±0.2V
Output Logic High "1"	HCMOS	1.62V Min.	2.52V Min.	2.97V Min.
Output Logic Low "0"	HCMOS	0.18V Max.	0.28V Max.	0.33V Max.
Voltage Control Parameters	Pulling Range *	±80PPM Min.	±80PPM Min.	±80PPM Min.
	Control Voltage	0.9V_{DC} ±0.9V	1.25V_{DC} ±1.0V	1.65V_{DC} ±1.35V
Output Load		HCMOS = 15pF		
Rise/Fall Time	TTL/CMOS	6ns Max : 4ns Typ.		
Duty Cycle	10% to 90% V_{DD}	50% ±10%		
Start Up Time	0V to V_{DD}	10mS Max : 5ms Typ.		
Input Current	Frequency Dependant	3mA - 7mA		
Integrated Phase Jitter	12kHz - 20MHz	1ps Max.		
Period Jitter	RMS	2ps Typ.		
	p-p	14ps Max.		
Phase Noise	Typ. at 27MHz with +3.3V	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz
		-40dBc/Hz	-104dBc.Hz	-132dBc/Hz	-147dBc/Hz	-152dBc/Hz	-150dBc/Hz
Linearity		6% Typ. : 10% Max.		
Modulation Bandwidth	at -3dB	10kHz Min. $V_{CONTROL}$ at 1.65V or 2.5V		
Slope Polarity	(Transfer Function)	Monotonic & Positive: Increase Voltage = Increase O/P Freq.		
Input Impedance		1MΩ Typ.		
Ageing		±3PPM per Year Max.		

Dimensions (mm)