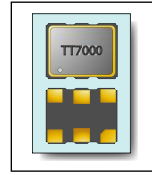


# TT-VT4000CT

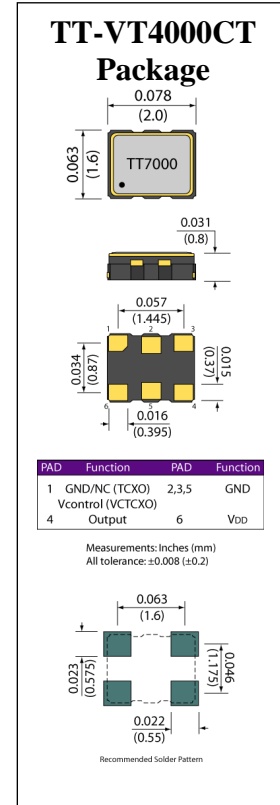
## Crystal Oscillator



**FEATURES:**  
**Tight Stability**  
**Ceramic Package**

**CMOS and Clipped Sine**  
**5.0 x 3.2 x 1.65 mm**

Parameter	Unit	Min.	Max.
Frequency Range	MHz	10	40
Frequency Tolerance at 25°C	ppm	-	±2.0
Frequency Stability			
Vs. Supply Voltage (±5%) change	ppm	-	±0.5
Vs. Load (±10%) change	ppm	-	±0.2
Vs. Aging	ppm	-	±1.0
Storage Temperature Range	°C	-55	+125
Current Consumption (CMOS)	mA	-	6
Current Consumption (Clipped Sine)	mA	-	3.5
Load (CMOS)	pF		15
Load (Clipped Sine)			10 KOhms//10pF
Output Level (CMOS)	V	90%	10%
Output Level (Clipped Sine)	V p-p	0.8	-
Duty Cycle (CMOS only)	%		45/55
Voltage			3.3, 5.0 ±5%
Output Level	Vp-p	0.8	-
Load			10KOhms//10pF
Control Voltage Range (VCTCXO)	V		See Table
Frequency Deviation (VCTCXO)	ppm	±5	±10
VC Input Impedance (VCTCXO)	KOhms	100	-
Start-up Time	mSec	-	2
Phase Noise			
	@ 1 kHz	dBc/Hz	-145 typical



### Frequency Stability vs. Temperature Range

Temperature	Stability (ppm)
-10 to 60°C	±0.05, ±0.1, ±0.2, ±0.28, ±0.5
-20 to 70°C	±0.1, ±0.2, ±0.28, ±0.5
-40 to 85°C	±0.2, ±0.28, ±0.5

### Control Voltage

V	Min.	Max.
3.0	0.5	2.5
2.5	0.4	2.4
1.8	0.3	1.5

### Environmental

Terminal Material	W
Terminal Plating	Ni-Au
REACH Compliant	Yes
RoHS Compliant	Yes
RoHS Exemptions	No
Re-flow Temp. Max.	260°C
MSL	1

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**Example Part Number:** VT4000CT-A-18-A-27-24M576

VT4000CT	1	2	3	4	5
	Stability	Voltage	Pull Range	Temp. Range	Frequency
	A = ±0.5	30= 3.0 V	A = ±10	16= -10 to 60°C	Frequency in MHz
	B = ±0.28	25= 2.5V	B = ±8	27= -20 to 70°C	i.e. 24M576
	C = ±0.2	18= 1.8V	C = ±5	48= -40 to 85°C	use M for decimal point
	D = ±0.1				
	E = ±0.05				