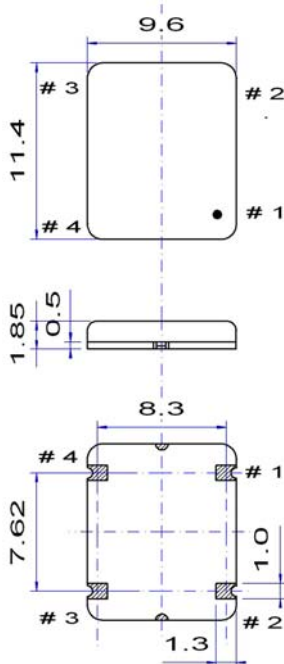


## Specifications

Nominal Frequency Fo	50.0000 MHz	
Frequency stability:		
vs. temperature	≤ ±2.0 ppm	over -40 ~ +85 °C
vs. supply change	≤ ±0.3 ppm	±5%
vs. load change:	≤ ±0.1 ppm	±10%
vs. aging:	≤ ±1.0 ppm	1 <sup>st</sup> year
Frequency tolerance ex factory	≤ ±1.0 ppm	@+25°C
Supply voltage	+5.0 V	±5 %
Current consumption	< 5 mA	
Output level	> 0.8 Vp-p clipped sine wave	
Output load	10 kΩ // 10 pF	±10%
Voltage control (Vc)	+2.5 V ±2.0 V	
Frequency tuning range	> ±10 ppm	positive slope
Input impedance	> 100 kΩ	
Operating temperature range	-40 ~ +85 °C	
Storage temperature range	-55 ~ +125 °C	
Phase noise @ 50 MHz	-95 dBc/Hz @ 10 Hz -125 dBc/Hz @ 100 Hz -145 dBc/Hz @ 1 kHz -155 dBc/Hz @ 10 kHz -158 dBc/Hz @ 100 kHz	
Packaging unit	tape & reel	500 or 1'000 pcs

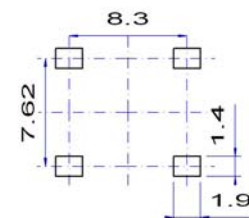
## Mechanical Drawing and PIN Connections



Pin function

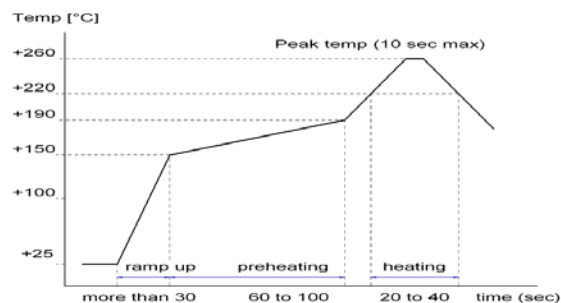
- # 1 Vc Voltage control
- # 2 GND
- # 3 Output
- # 4 Vdc

Example for solder pattern



Do not design any conductive path between the pattern

Example for IR reflow soldering temperature



## Test Data

### 1. Electrical parameters, measured @ +25 °C

TEST ITEMS	Preset Freq.	Adjust Freq.		Current max ( 5.3V)	Output Level ( 5.0V)	Freq. Stability				Controllable Freq.		
		fmax	fmin			Supply Voltage Changed		Load Changed		Cont. Volt.		
SPECS	max min	+1.0 -1.0		+5.0	+0.7	5.30V	4.70V	11Kohm 9 pF	9Kohm 11 pF	+4.5V	+0.5V -10.0	
No.	S.No.	ppm	ppm	ppm	mA	Vp-p	ppm	ppm	ppm	ppm	ppm	ppm
1	1	+0.92	----	----	3.2	1.6	+0.09	-0.12	-0.00	+0.00	+15.4	-16.0
2	2	+0.24	----	----	3.2	1.6	+0.04	-0.09	-0.01	-0.00	+15.3	-15.9
3	3	+0.50	----	----	3.2	1.6	+0.06	-0.11	-0.01	-0.00	+15.4	-16.1
4	4	+0.60	----	----	3.2	1.6	+0.15	-0.18	-0.00	+0.00	+15.3	-15.9
5	5	+0.43	----	----	3.2	1.6	+0.06	-0.09	-0.01	-0.00	+15.0	-15.7
6	6	+0.33	----	----	3.2	1.6	+0.07	-0.10	-0.00	-0.00	+15.4	-16.1
7	7	+0.16	----	----	3.2	1.6	+0.07	-0.10	-0.01	+0.00	+15.1	-15.7
8	8	+0.80	----	----	3.2	1.6	+0.07	-0.11	-0.00	+0.00	+15.6	-16.2
9	9	+0.59	----	----	3.2	1.6	+0.06	-0.10	-0.00	+0.00	+15.6	-16.2
10	10	+0.28	----	----	3.2	1.6	+0.09	-0.12	-0.00	+0.00	+15.4	-16.0
11	11	+0.38	----	----	3.2	1.6	+0.21	-0.24	-0.00	+0.00	+15.1	-15.7
12	12	+0.53	----	----	3.2	1.6	+0.16	-0.18	-0.00	+0.00	+15.1	-15.7
13	13	+0.35	----	----	3.2	1.6	+0.07	-0.12	-0.01	-0.00	+15.4	-15.9
14	14	+0.74	----	----	3.2	1.6	+0.05	-0.08	+0.00	+0.01	+15.5	-16.2
15	15	+0.15	----	----	3.2	1.6	+0.04	-0.09	-0.01	+0.00	+15.6	-16.2
16	16	+0.18	----	----	3.2	1.6	+0.13	-0.15	-0.00	+0.01	+15.2	-15.8
17	17	+0.66	----	----	3.2	1.5	+0.11	-0.14	-0.00	+0.00	+15.2	-15.8
18	18	+0.61	----	----	3.2	1.6	+0.11	-0.14	-0.00	+0.00	+15.2	-15.8
19	19	+0.31	----	----	3.2	1.6	+0.05	-0.09	-0.00	+0.00	+15.4	-16.0
20	20	+0.16	----	----	3.2	1.6	+0.14	-0.17	-0.00	+0.00	+14.8	-15.5

### 2. Frequency deviation, measured over -40 up to +85 °C

No.	+85° C (ppm)	+50° C (ppm)	+25° C (ppm)	+0° C (ppm)	-40° C (ppm)
1	-0.67	-0.37	+0.00	-0.00	-1.17
2	+1.19	+0.40	+0.00	-0.77	-0.34
3	+0.61	-0.35	+0.00	-0.28	-0.94
4	+0.97	-0.51	+0.00	+0.22	-0.97
5	+0.22	-0.60	+0.00	-0.06	-0.97
6	+0.25	-0.84	+0.00	-0.20	-0.69
7	+1.32	-0.30	+0.00	+0.27	-0.24
8	-0.26	+0.11	+0.00	-0.75	-0.30
9	+0.45	+0.10	+0.00	-0.59	+0.40
10	+0.37	-0.13	+0.00	-0.48	-0.96
11	+1.27	-0.02	+0.00	-0.20	-0.73
12	+0.22	+0.03	+0.00	+0.02	-0.72
13	+1.54	-0.90	+0.00	-0.07	-0.73
14	-0.25	-0.70	+0.00	+0.42	-1.49
15	-0.43	+0.23	+0.00	-0.35	-0.91
16	-0.04	-0.41	+0.00	-0.19	-0.94
17	+0.05	+0.29	+0.00	+1.15	-1.31
18	-0.31	+0.18	+0.00	-0.88	-1.53
19	-0.98	+0.11	+0.00	-0.28	-0.56
20	+1.23	-0.29	+0.00	-0.33	-0.79

3. Phase noise @ 50.0 MHz carrier frequency

