

Travelling Merchant: _____

DATASHEET

Standard: **T53-AQAD-19.20MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2013.08.06			

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1. Electrical Parameters

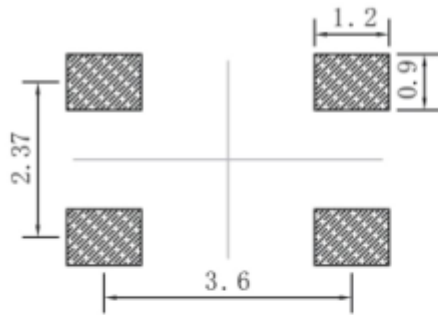
MODEL: T53-AQAD-19.20MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	19.20			MHz	
	Output Waveform	Clipped Sine Wave				
	Vp-p	0.8			V	
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-2.5		+2.5	$\times 10^{-6}$	T_A varied from -30°C to 75°C , measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$, $O_{load}=10\text{K}\Omega//10\text{pF}$, temperature variable speed less than 2°C per minute.
	Nominal Frequency Tolerance	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.2		+0.2	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$, V_{cc} varied from 3.13V to 3.47V, $V_c=1.5\text{V}$ and $O_{Load}=10\text{K}\Omega//10\text{pF}$.
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-6}$	10% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$ and $O_{Load}=10\text{K}\Omega//10\text{pF}$.
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	$T_A=25^{\circ}\text{C}$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$ and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
Power Supply	Operating Current		2	3	mA	@ 25°C , $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$, $O_{Load}=10\text{K}\Omega//10\text{pF}$.
	Supply Voltage	3.13	3.3	3.47	V	



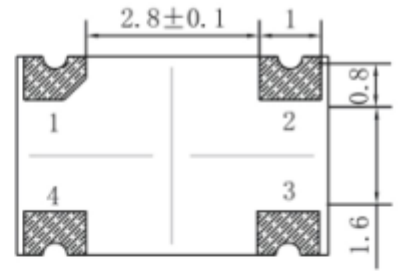
Voltage Control	Frequency tuning range			-4	$\times 10^{-6}$	$V_c=0.5V$. measurement referenced to $V_c=1.5V$.
		-1		+1	$\times 10^{-6}$	$V_c=1.5V$. measurement referenced to Exactly 19.20MHz.
		+4			$\times 10^{-6}$	$V_c=2.5V$. measurement referenced to $V_c=1.5V$.
	Linearity			10	%	
	Slope	Positive				
Input Impedance	100				K Ω	
Phase Noise	Phase Noise		-50	-45	dBc/Hz	10Hz
			-80	-75		100Hz
			-125	-120		1KHz
			-140	-135		10KHz
Environmental Conditions	Operable Temperature	-30		+75	$^{\circ}C$	
	Storage Temperature	-55		+105	$^{\circ}C$	
	ESD Level	Human Body Model,class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Level 2.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~2000Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z) .IEC 68-2-06 Test Fc.				
Shock	100g; 6ms; half sine wave (3 times for each 3 directions X ,Y, Z),IEC 68-2-27 Test Ea/Severity 50A.					



2. Mechanical Structure(mm)



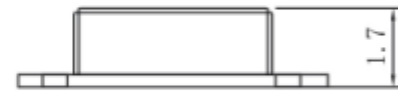
Solder pad layout



Bottom view



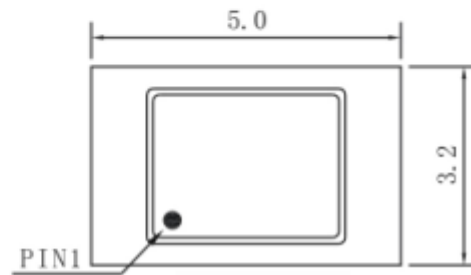
Right view



Side view

PIN FUNCTION

PIN	FUNCTION
1	V _C
2	GND
3	OUTPUT
4	V _{CC}

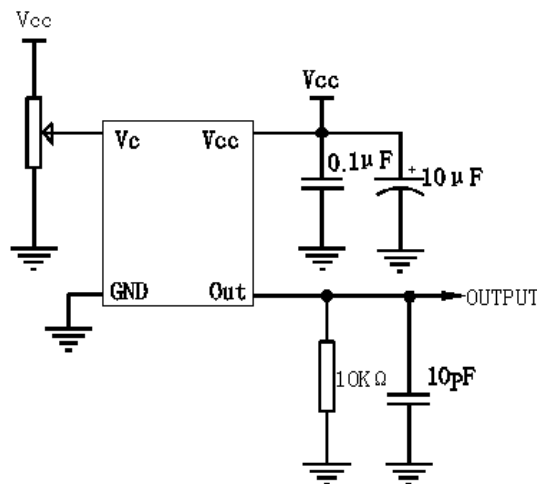


Top view

Note1: Tolerance ± 0.1 mm without mark

Note2 Referential Weight 0.05g

3. Test Circuit





4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

