

Travelling Merchant: _____

DATASHEET

Standard: **T75B-G511-20.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2020.09.24			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2020.09.18
1.1	The "Phase Noise" changed	<i>Amway</i>	2020.09.24

DAPU

Confidential



1. Electrical Parameters

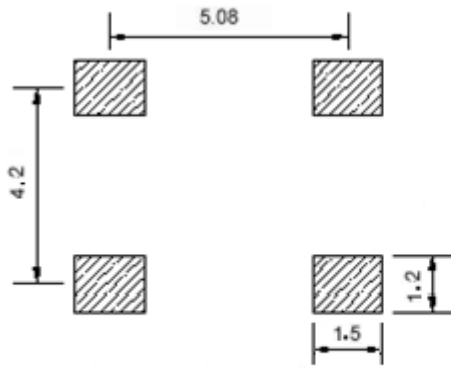
MODEL: T75B-G511-20.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	20.00			MHz	
	Output Waveform	Clipped Sine Wave				
	Vp-p	0.8			V	
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-6}$	T_A varied from -40°C to 85°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.5\text{V}$, $O_{\text{load}}=10\text{K}\Omega//10\text{pF}$, temperature variable speed less than 2°C per minute.
	Nominal Frequency Tolerance	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.5\text{V}$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	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 $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$.
	Frequency Tolerance vs. Load	-0.1		+0.1	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.5\text{V}$ and $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$.
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	$T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.5\text{V}$ and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
Power Supply	Operating Current			10	mA	@ 25°C , $V_{\text{cc}}=3.3\text{V}$, $V_c=1.5\text{V}$, $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$.
	Supply Voltage	3.13	3.3	3.47	V	
Voltage Control	Frequency tuning range			-5	$\times 10^{-6}$	$V_c=0.5\text{V}$. Measurement referenced to $V_c=1.5\text{V}$.
		-1		+1	$\times 10^{-6}$	$V_c=1.5\text{V}$. Measurement referenced to Exactly20.00MHz.
		+5			$\times 10^{-6}$	$V_c=2.5\text{V}$. Measurement referenced to $V_c=1.5\text{V}$.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	



Phase Noise	Phase Noise @25°C		-90	-85	dBc/Hz	10Hz
			-115	-110		100Hz
			-135	-130		1KHz
			-150	-145		10KHz
			-152	-147		100KHz
			-154	-149		1MHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-55		+105	°C	
	ESD Level	Human Body Model,class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Level 3.				
	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.					



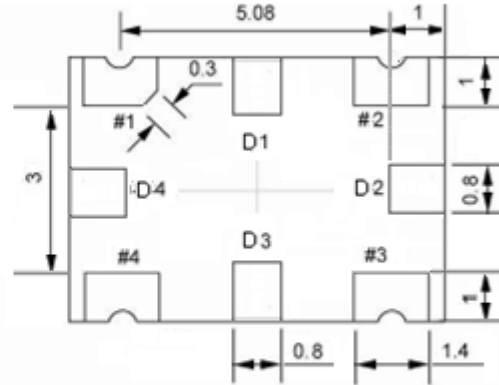
2. Mechanical Structure(mm)



Solder pad layout



Right view



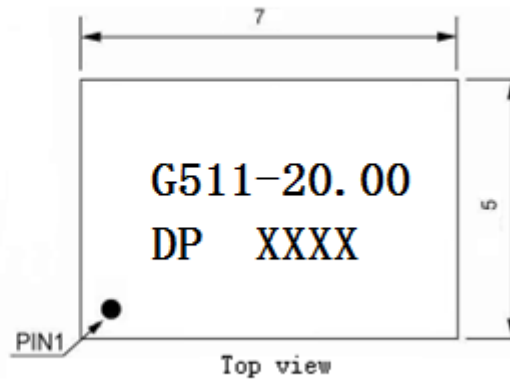
Bottom view



Side view

PIN FUNCTION

PIN	FUNCTION
D1, D2, D3, D4	NC
1	VC
2	GND
3	OUTPUT
4	VCC



Top view

Note1: Tolerance $\pm 0.2\text{mm}$ without mark

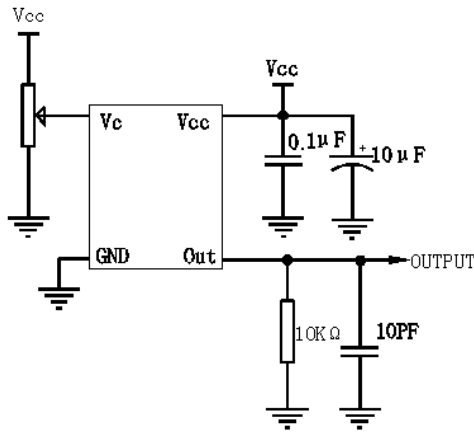
Note2: The first two xx representative: week
After two xx representative: year

Note3: Referential Weight 0.2g

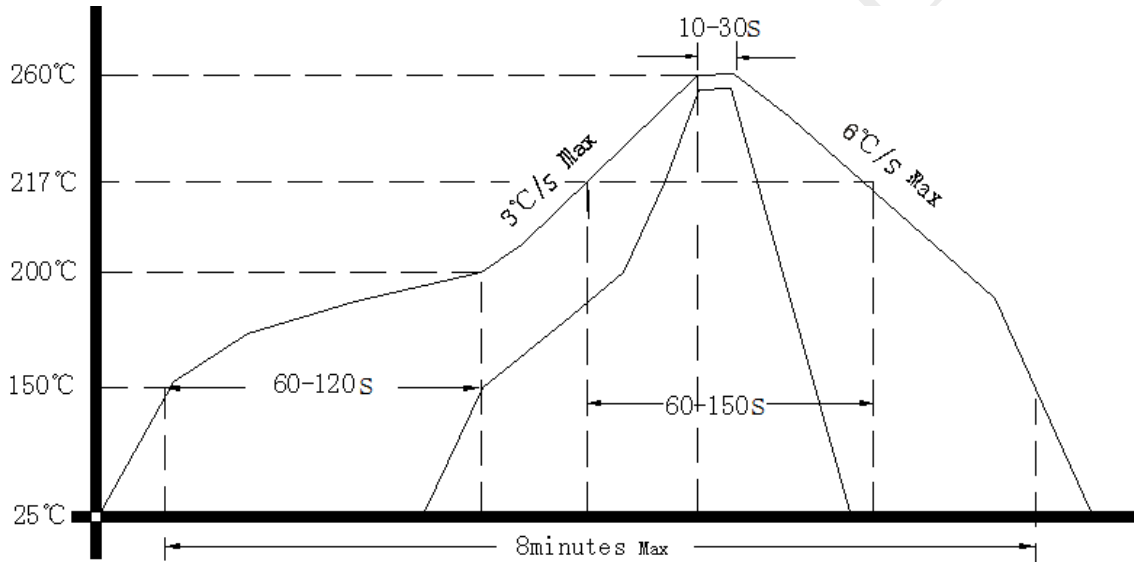
Note4: NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

