Customer Code : _____

DATASHEET

DAPU P/N : **JT53-Y311-20.00MHz**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Date: 2018.09.04			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, China

TEL：0086-0769-88010888 FAX：0086-0769-81800098

Bldg 16,.N.Ind.Zone,SSL Industry Park,
Dongguan City, Guangdong Province,
PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2018.07.18
1.1	The “Mechanical Structure” changed	Amway	2018.09.04

Bldg 16,.N.Ind.Zone,SSL Industry Park,
Dongguan City, Guangdong Province,
PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

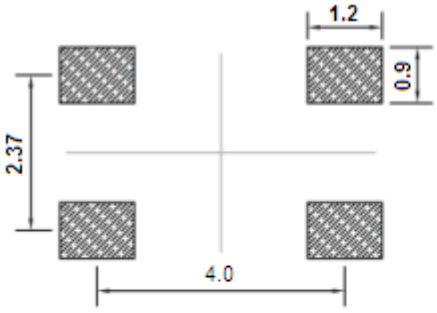
1. Electrical Parameters

MODEL： JT53-Y311-20.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		20.00		MHz	
	Output Waveform		HCMOS			
	Output Low Voltage			0.33	V	V_{cc}=3.3V, O_{load}=15pF
	Output High Voltage	2.97			V	V_{cc}=3.3V, O_{load}=15pF
	Duty Cycle	40	50	60	%	@50%
	Rise / Fall Time (10%~90%)			6	ns	
	Start time			2	ms	
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.28		+0.28	$\times 10^{-6}$	T_A varied from-40 to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=3.3V, V_c=1.5V O_{load}=15pF , temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-2		+2	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, V_c=1.5V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.3		+0.3	$\times 10^{-6}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 2.9V to 3.465V, V_c=1.5V and O_{Load}=15pF .
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, V_c=1.5V ,O_{Load}=15pF .
	Aging Tolerance 20 Year	-2.5		+2.5	$\times 10^{-6}$	20 years at 25 ℃
Power Supply	Current Consumption			5	mA	@25℃, V_{cc}=3.3V, V_c=1.5V, O_{load}=15pF .
	Supply Voltage	2.9	3.3	3.465	V	
Phase Noise	Phase Noise		-123	-118	dBc/Hz	100Hz
			-145	-140		1KHz
			-158	-153		10KHz

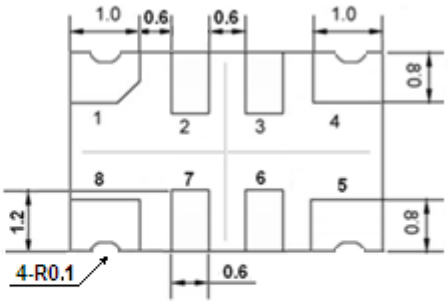
Voltage Control Characteristics	Frequency Tuning Range	-10		-5	$\times 10^{-6}$	V_c=0.5V. measurement referenced to V_c=1.5V
		-2		+2	$\times 10^{-6}$	V_c=1.5V. measurement referenced to exactly 20.00MHz
		+5		+10	$\times 10^{-6}$	V_c=2.5. measurement referenced to V_c=1.5V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Environmental Conditions	Operable Temperature	-40		+85	℃	
	Storage Temperature	-55		+125	℃	
	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 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.				
Full Package Storage	Relative humidity (%)	20%～70%				
	Temperature (℃)	-10~35℃				

Bldg 16,.N.Ind.Zone,SSL Industry Park,
Dongguan City, Guangdong Province,
PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

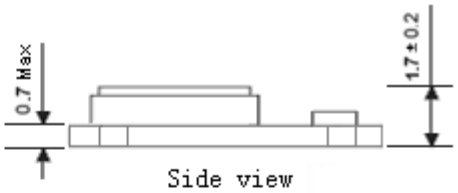
2. Mechanical Structure(mm)



Solder pad layout



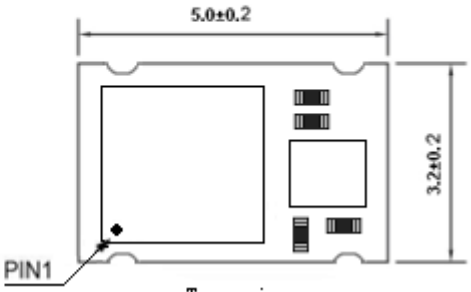
Bottom view



Side view

PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VC	Control Voltage
2, 3	NC	Not Connect
4	GND	GND
5	OUTPUT	RF Output
6, 7	NC	Not Connect
8	VCC	Supply Voltage



Top view

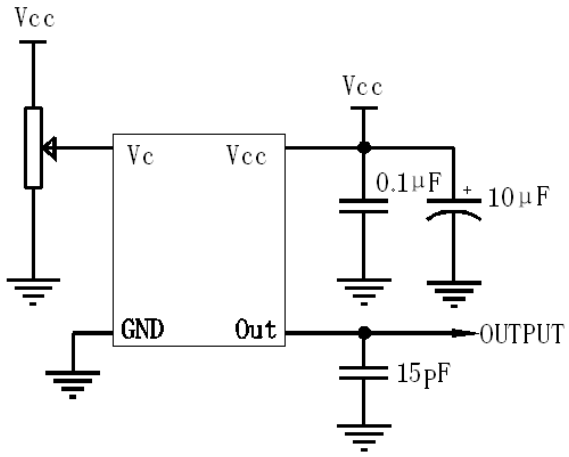
Note1: Tolerance ±0.10mm without mark

Note2: Referential weight 0.05g

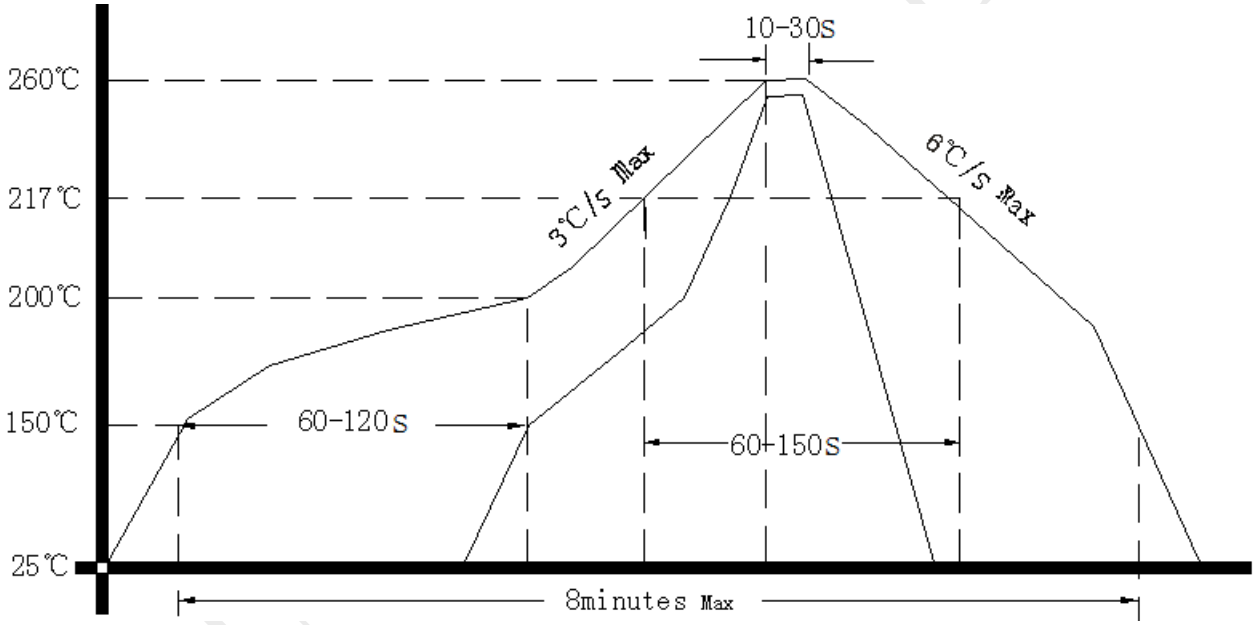
Note3: NC is not connect

Bldg 16,.N.Ind.Zone,SSL Industry Park,
Dongguan City, Guangdong Province,
PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

3. Test circuit



4. Output Waveform



5. Package: Tape & Reel (mm)