Customer Code : _____

DATASHEET

DAPU P/N: **O22B-T446-100.00MHz**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Amway.wei	Tony·Wang	Jason zhao	
Date: 2020.07.17			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2012.06.25
1.1	"Steady Consumption" and "Warm up current" and "Frequency Tolerance vs. Operating Temperature Range- Test Condition" change	Amway	2013.08.13
1.2	"Phase Noise" change	Amway	2013.09.24
1.4	"Cut-off Frequency" add "Mechanical Structure" change	Amway	2014.08.26
1.5	Modified the 1st page "Full Package Storage" added "Frequency Tuning Range" and "Mechanical Structure" changed	Amway	2015.11.11
1.6	"Warm-Up Time" added "Frequency Tuning Range" changed	Amway	2016.01.12
1.7	The "Mechanical Structure" "ESD Level" changed	Amway	2020.03.02
1.8	The "Short-Term Stability: Allan Variance" "Mechanical Structure" changed	Amway	2020.07.17

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1. Electrical Parameters

MODEL：O22B-T446-100.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		100.00		MHz	
	Output Waveform		Sine wave			
	Level	7			dBm	
	Load		50		Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-75	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-6}$	T_A varied from -40℃ to 80℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=12.0V, V_c=2.5V, O_{load}=50Ω, temperature rise speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=12.0V, V_c=2.5V and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-0.05		+0.05	$\times 10^{-6}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 11.4 to 12.6V, V_c=2.5V, O_{load}=50Ω.
	Frequency Tolerance vs. Load	-0.05		+0.05	$\times 10^{-6}$	5% Load Change Measurement referenced to frequency observed with T_A=25℃,V_{cc}=12.0V, V_c=2.5V, O_{load}=50Ω.
	Short-Term Stability: Allan Variance			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25℃; 1s.
	Aging Tolerance per day	-1		+1	$\times 10^{-9}$	V_{cc},V_c, T_A constant Measurement referenced to frequency observed with T_A=25℃,V_{cc}=12.0V, V_c=2.5V, O_{load}=50Ω and after 30 days of operation.
	Aging Tolerance 1Year	-0.1		+0.1	$\times 10^{-6}$	
Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Steady Consumption			150	mA	@25℃
	Warm up current			370	mA	
	Warm-Up Time			15	minutes	@25℃within ±0.05×10^{-6} of final frequency with reference after 1 hour on.

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Voltage Control Characteristics	Frequency Tuning Range			-2	$\times 10^{-6}$	V_c=0V. measurement referenced to V_c=2.5V.
		-0.1		+0.1	$\times 10^{-6}$	V_c=2.5V. measurement referenced to exactly 100.00MHz.
		+2			$\times 10^{-6}$	V_c=5.0V. measurement referenced to V_c=2.5V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
	Cut-off Frequency	50			KHz	3dB
Phase Noise	Phase Noise @25℃		-90	-85	dBc/Hz	10Hz
			-130	-125		100Hz
			-155	-150		1KHz
			-165	-160		10KHz
			-168	-163		100KHz
			-170	-165		1MHz
Environmental Conditions	Operable Temperature	-40		+85	℃	
	Storage Temperature	-55		+105	℃	
	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	Not humidity sensitive.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz～500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z)， IEC 68-2-06 Test Fc.				
	Shock	50g; 11ms; 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℃				

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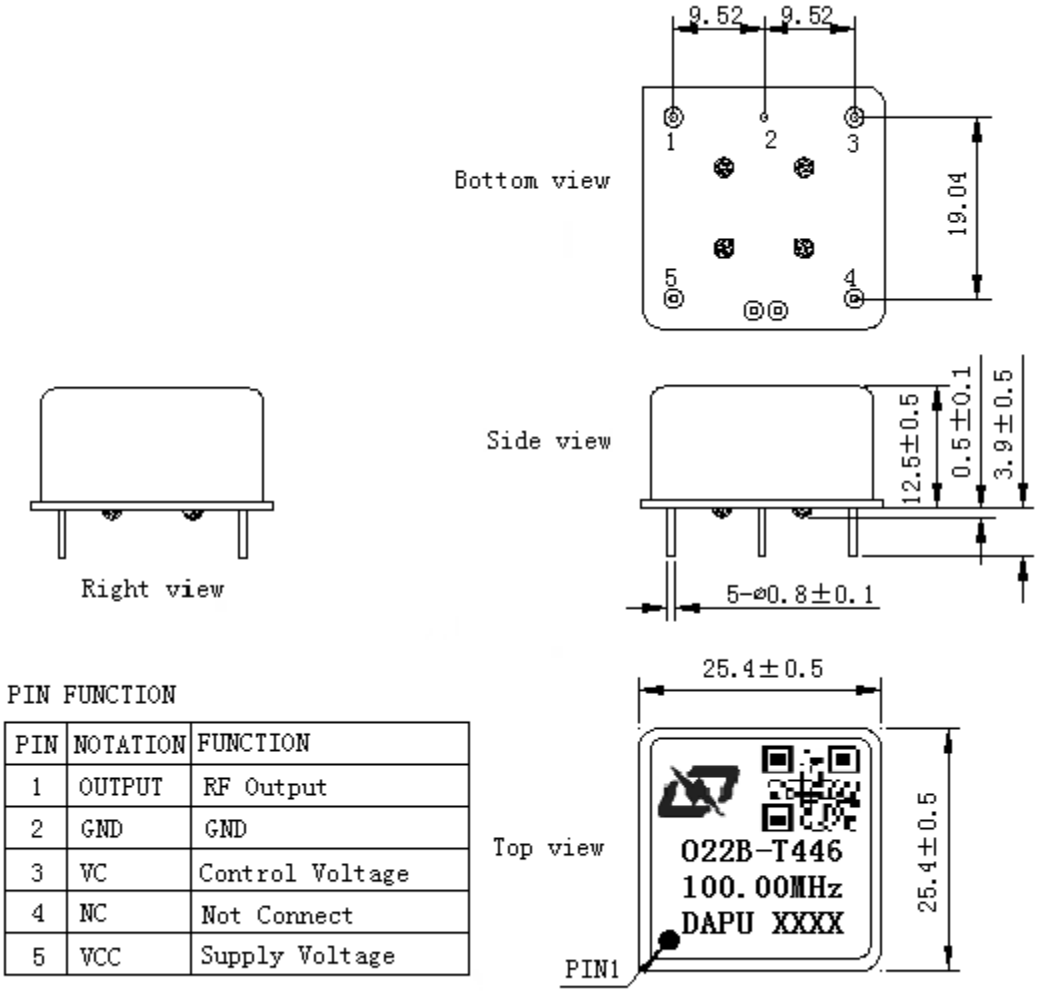
2. Mechanical Structure (mm)



PIN FUNCTION

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

Note1: Tolerance ±0.2mm without mark

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

Note3: Referential Weight 13.6g

Note4: NC is not connect

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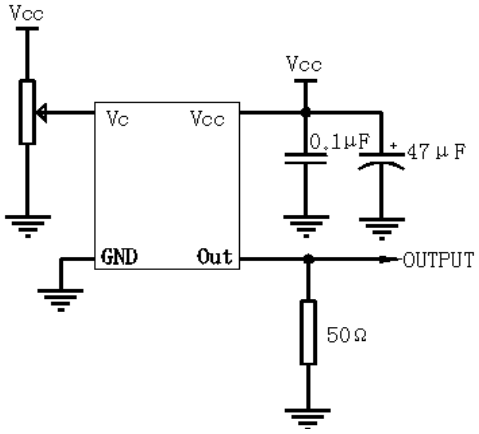
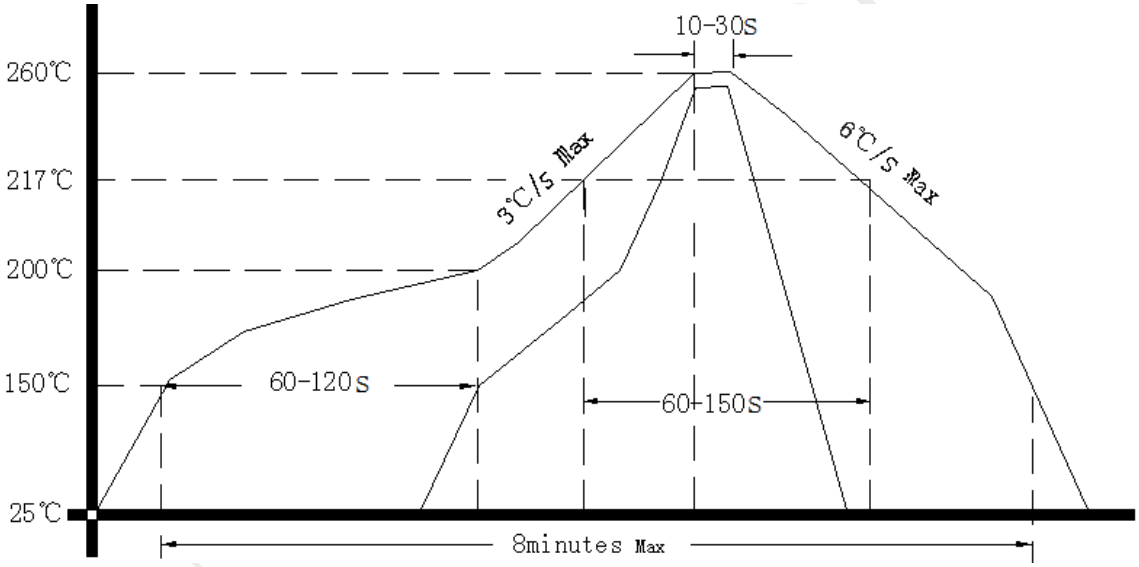
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package（mm）