

Customer Code : _____

DATASHEET

DAPU P/N: **O23A-MSDD-10.00MHz**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2019.11.04			

Guangdong Dapu Telecom Technology Co.,Ltd

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

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



1. Electrical Parameters

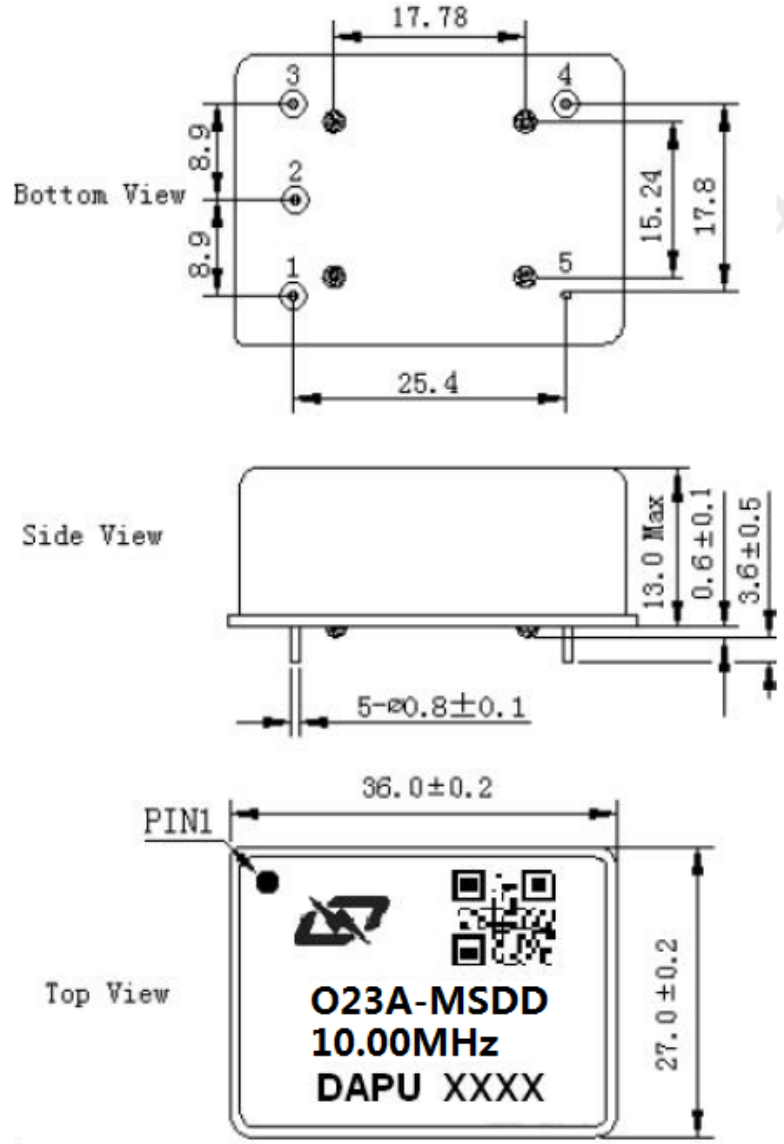
MODEL: O23A-MSDD-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	10			dBm	
	Load	50			Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-60	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	$\times 10^{-9}$	T_A varied from 0°C to 55°C, measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=12.0\text{V}$, $V_c=1.65\text{V}$, $O_{load}=50\Omega$, temperature rise speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=12.0\text{V}$, $V_c=1.65\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-2		+2	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}$, V_{cc} varied from 11.4V to 12.6V, $V_c=1.65\text{V}$, $O_{load}=50\Omega$.
	Frequency Tolerance vs. Load	-2		+2	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=12.0\text{V}$, $V_c=1.65\text{V}$, $O_{load}=50\Omega$.
	Short Term Stability			0.03	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C; 1s, using PN9000 equipment.
	Aging Tolerance per day	-1		+1	$\times 10^{-9}$	V_{cc}, V_c, T_A constant Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=12.0\text{V}$, $V_c=1.65\text{V}$, $O_{load}=50\Omega$ and after 30 days of operation.
	Aging Tolerance 1 Year	-0.05		+0.05	$\times 10^{-6}$	
Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Reference Voltage Accuracy	3.13	3.3	3.47	V	$I_{load} \leq 5\text{ mA}$
	Current Consumption			200	mA	@25°C
	Current Consumption during warm up			500	mA	
	Warm-Up Time			0.5	S	



Voltage Control Characteristics	Frequency Tuning Range			-0.5	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=1.65V$.
		-0.1		+0.1	$\times 10^{-6}$	$V_c=1.65V$. measurement referenced to exactly 10.00MHz.
		+0.5			$\times 10^{-6}$	$V_c=3.3V$. measurement referenced to $V_c=1.65V$.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise		-85		dBc/Hz	1Hz
			-120			10Hz
			-140			100Hz
			-150			1KHz
			-155			10KHz
Environmental Conditions	Operable Temperature	0		+55	$^{\circ}C$	
	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	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 ($^{\circ}C$)	-10~35 $^{\circ}C$				



2. Mechanical Structure (mm)



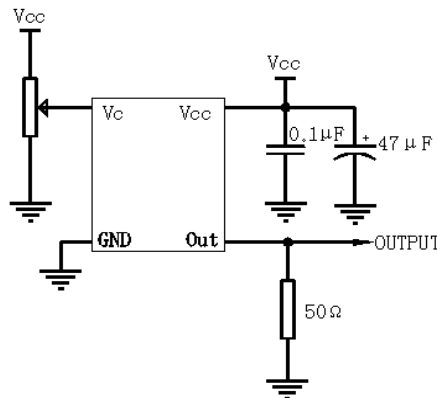
PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VC	Control Voltage
2	VREF	Reference Voltage
3	VCC	Supply Voltage
4	OUTPUT	RF Output
5	GND	GND

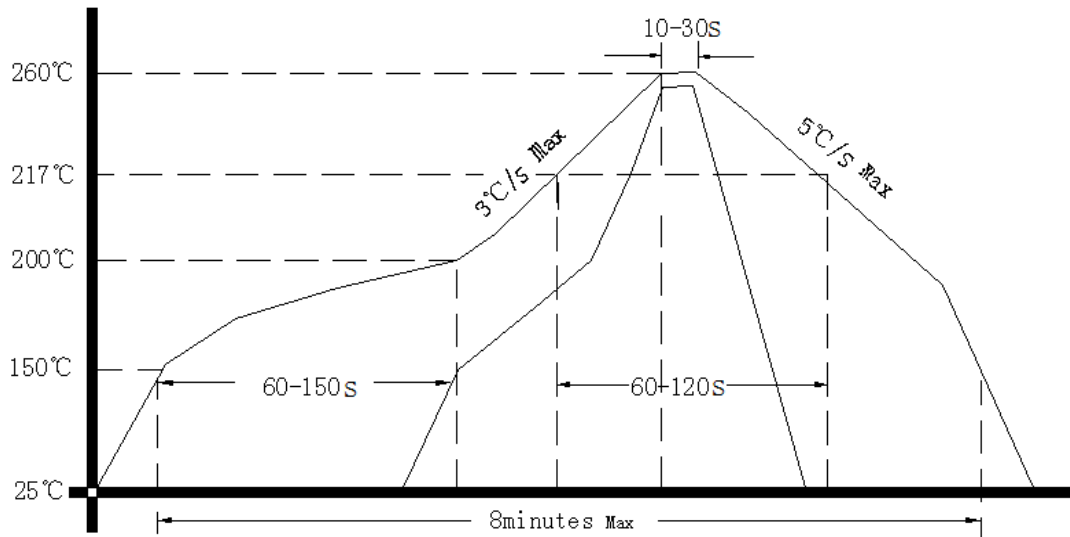
- Note1:** Tolerance ±0.20mm without mark
- Note2:** The first two xx representative: week
After two xx representative: year
- Note3:** Referential Weight 21g
- Note4:** NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)

