

Customer Code : \_\_\_\_\_

# DATASHEET

DAPU P/N: **O55A-A425-10.00MHz-A**

Customer P/N: \_\_\_\_\_

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2018.07.17			

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## 1. Electrical Parameters

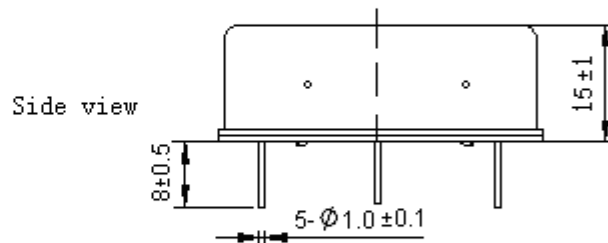
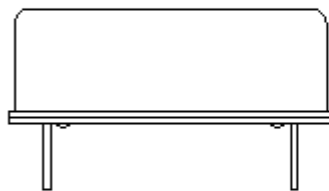
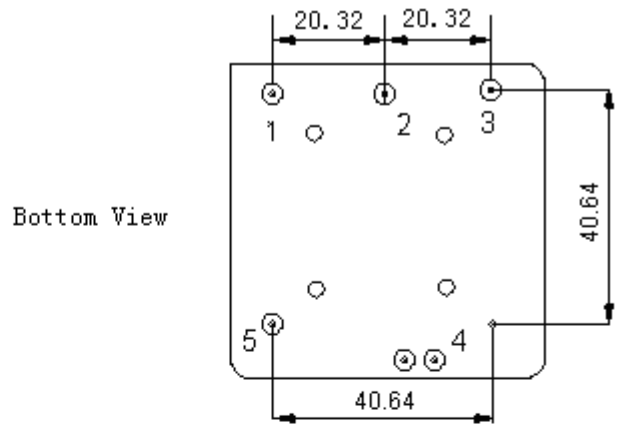
MODEL: O55A-A425-10.00MHZ-A						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	6		10	dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-40	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-9}$	$T_A$ varied from $-20^{\circ}\text{C}$ to $70^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ , $O_{load}=50\Omega$ , temperature variable speed less than $2^{\circ}\text{C}$ per minute.
	Initial Frequency Tolerance	-0.05		+0.05	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ , and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.01		+0.01	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$ , $V_{cc}$ varied from 4.75V to 5.25V, $V_c=2.5\text{V}$ , $O_{load}=50\Omega$ .
	Frequency Tolerance vs. Load	-0.01		+0.01	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ , and $O_{Load}=50\Omega$ .
	Short-Term Stability: Allan Variance			0.005	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1 hour ref. to $25^{\circ}\text{C}$ ; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-0.05		+0.05	$\times 10^{-9}$	$V_{cc}, T_A$ constant measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ , and after 30 days of operation.
	Aging Tolerance 1 Year	-5		+5	$\times 10^{-9}$	
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			1000	mA	@ $25^{\circ}\text{C}$
	Warm up current			2600	mA	



Voltage Control Characteristics	Frequency Tuning Range	-0.5		-0.3	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.5V$ .
		-0.05		+0.05	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to exactly 10.00MHz.
		+0.3		+0.5	$\times 10^{-6}$	$V_c=5.0V$ . measurement referenced to $V_c=2.5V$ .
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K $\Omega$
Phase Noise	Phase Noise		-130	-120	dBc/Hz	10Hz
			-145	-135		100Hz
			-150	-145		1KHz
			-155	-150		10KHz
			-155	-150		100KHz
			-155	-150		1MHz
Environmental Conditions	Operable Temperature	-20		+70	$^{\circ}C$	
	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 $^{\circ}C$				



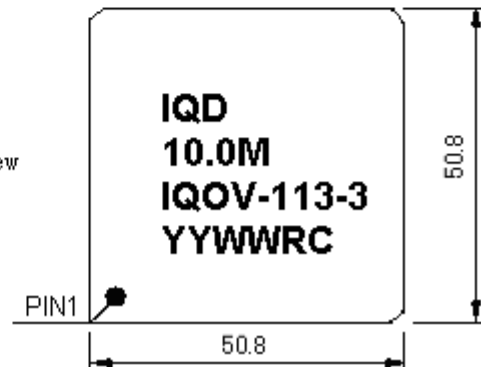
## 2. Mechanical Structure(mm)



PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VC	Control Voltage
2	VREF	Vref=4.5V
3	OUTPUT	RF Output
4	GND	GND
5	VCC	Supply Voltage

Top View



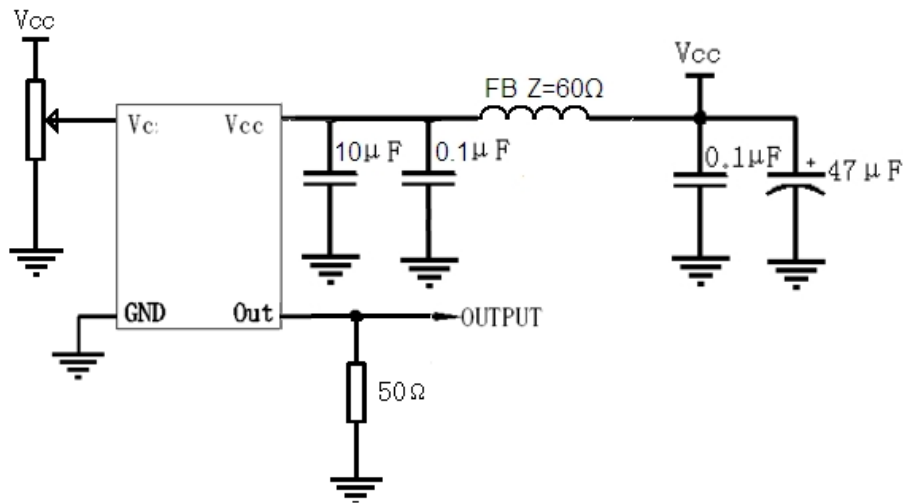
**Note1:** Tolerance  $\pm 0.2\text{mm}$  without mark

**Note2:** Referential weight 56.1g

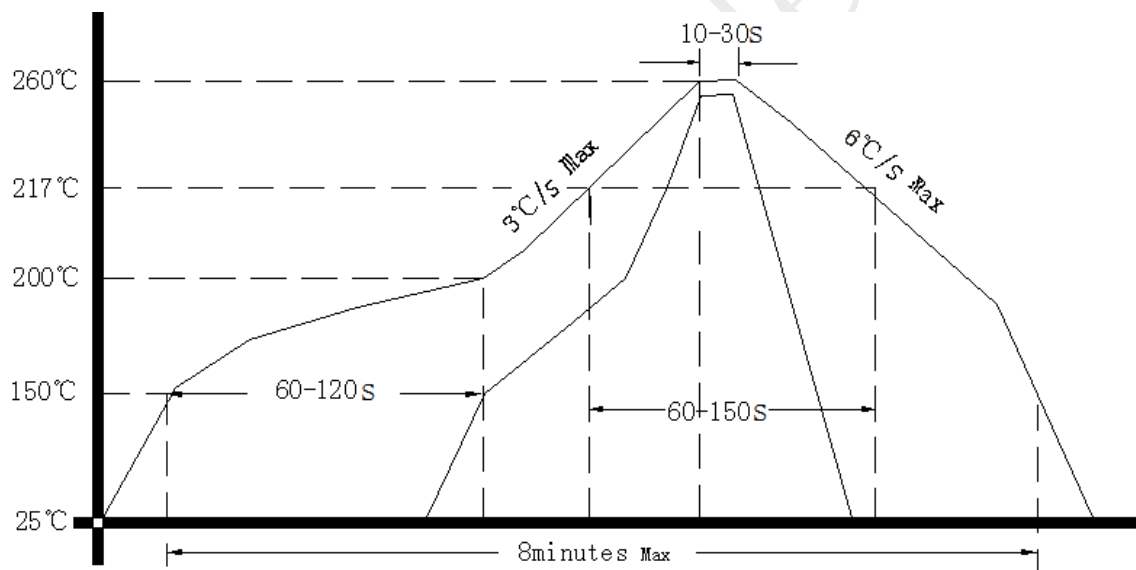
**Note3:** The YY representative: year  
After two WW representative: week



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package (mm)

