

Travelling Merchant: \_\_\_\_\_

# DATASHEET

Standard:           **O22A-V446-100.00MHz-A**          

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

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2014.08.29			

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## 1. Electrical Parameters

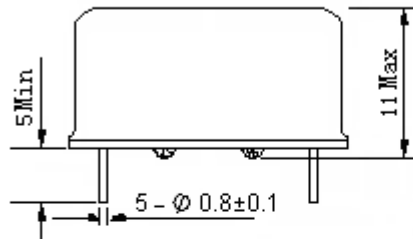
MODEL: O22A-V446-100.00MHZ-A						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	100.00			MHz	
	Output Waveform	Sine wave				
	Level	9			dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.5		+0.5	$\times 10^{-6}$	$T_A$ varied from $-40^{\circ}\text{C}$ to $70^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=12.0\text{V}$ , $V_c=4.5\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature variable speed less than $2^{\circ}\text{C}$ per minute.
	Initial Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , $V_{\text{cc}}=12.0\text{V}$ , $V_c=4.5\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Aging Tolerance per day	-5		+5	$\times 10^{-9}$	$V_{\text{cc}}, V_c, T_A$ constant Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ ,
	Aging Tolerance 1 Year	-0.5		+0.5	$\times 10^{-6}$	$V_{\text{cc}}=12.0\text{V}$ , $V_c=4.5\text{V}$ , $O_{\text{load}}=50\Omega$ and after 30 days of operation.
Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Current Consumption			150	mA	@ $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
	Current Consumption during warm up			300	mA	@ $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Voltage Control Characteristics	Frequency Tuning Range			-0.5	$\times 10^{-6}$	$V_c=0\text{V}$ . measurement referenced to $V_c=4.5\text{V}$ .
		-0.5		+0.5	$\times 10^{-6}$	$V_c=4.5\text{V}$ . measurement referenced to exactly 100.00MHz.
		+0.5			$\times 10^{-6}$	$V_c=9.0\text{V}$ . measurement referenced to $V_c=4.5\text{V}$ .
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			K $\Omega$	



Phase Noise	Phase Noise @25°C		-135	-125	dBc/Hz	100Hz
			-160	-155		1KHz
			-170	-165		10KHz
			-170	-165		100KHz
Environmental Conditions	Operable Temperature	-40		+70	°C	
	Storage Temperature	-55		+85	°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.					

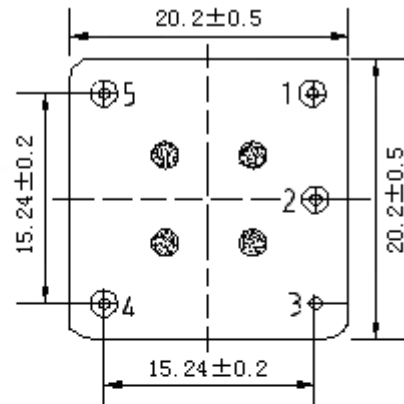


## 2. Mechanical Structure (mm)



Side view

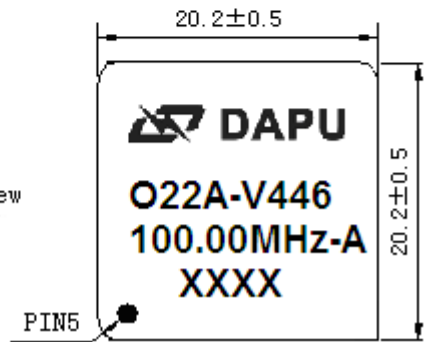
Bottom view



PIN FUNCTION

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

Top view



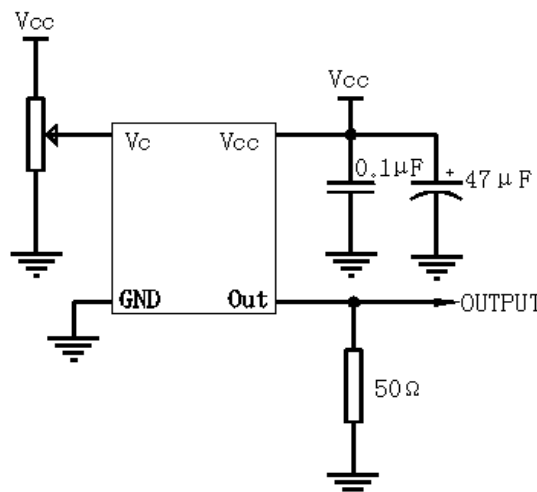
**Note1:** Tolerance  $\pm 0.2\text{mm}$  without mark

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

**Note3:** Referential Weight 30g

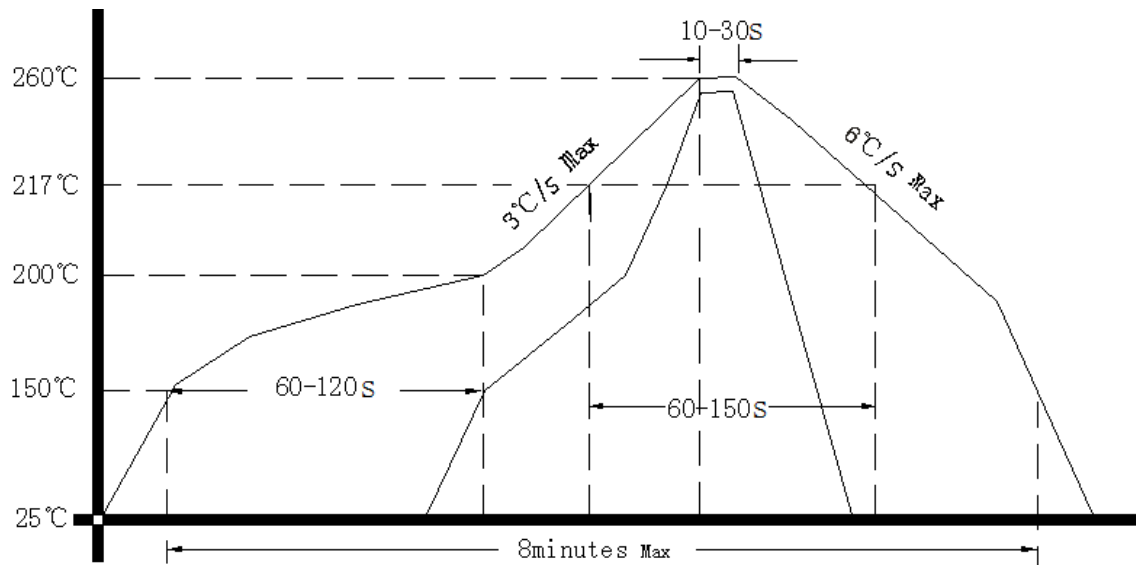
**Note4:** NC is not connect

## 3. Test Circuit





#### 4. Reflow Soldering Curve (RoHS)



#### 5. Package(mm)

