

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

# DATASHEET

Standard:     **M11A-M425-20.00MHz**    

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

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2020.10.22			

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## 1. Electrical Parameters

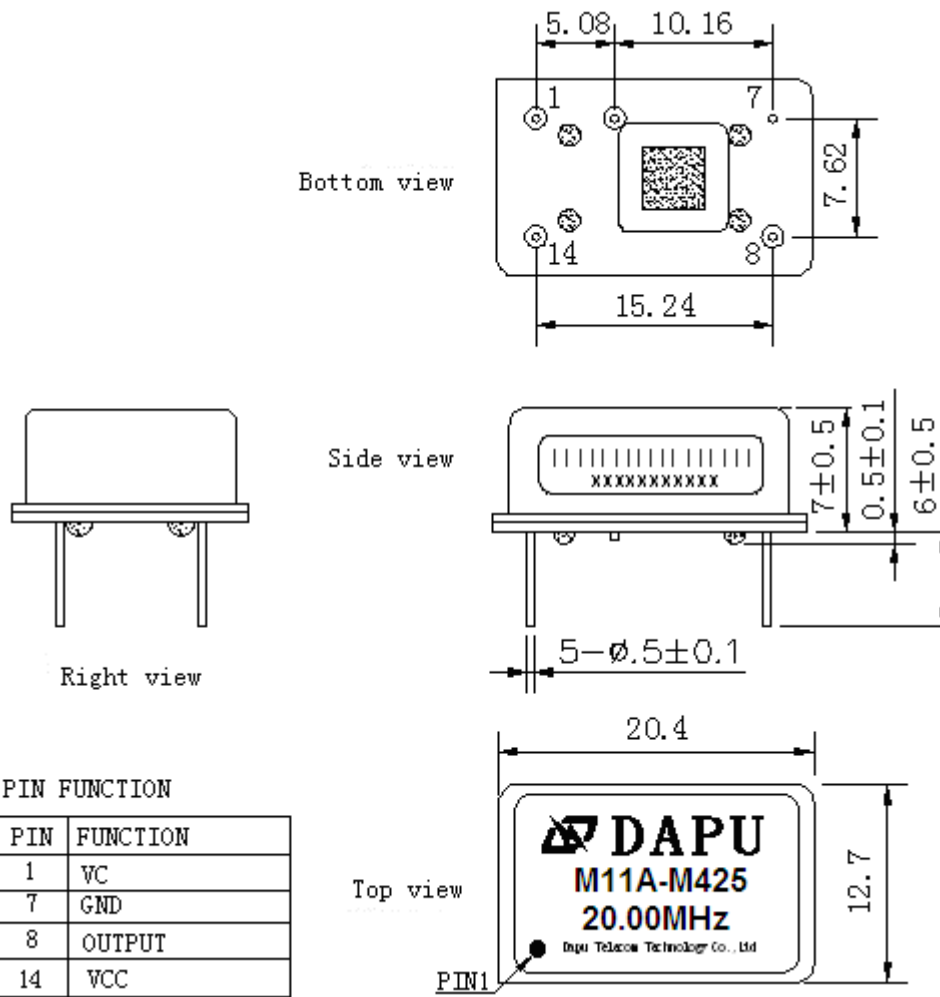
MODEL: M11A-M425-20.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	20.00			MHz	
	Output Waveform	Sine Wave				
	Level	6			dBm	
	Harmonics Suppression			-40	dBc	
	Spurious Suppression			-60	dBc	
	Load	50			$\Omega$	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.5		+0.5	$\times 10^{-6}$	$T_A$ varied from $-55^\circ\text{C}$ to $85^\circ\text{C}$ , measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ , $O_{load}=50\Omega$ , temperature variable speed less than $2^\circ\text{C}$ per minute.
	Initial Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}$ , $V_{cc}$ varied from 4.75V to 5.25V, $V_c=2.5\text{V}$ and $O_{Load}=50\Omega$ .
	Frequency Tolerance vs. Load	-0.1		+0.1	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ , $O_{Load}=50\Omega$ .
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	$T_A=25^\circ\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
Power Supply	Current Consumption			20	mA	@ $25^\circ\text{C}$ , $V_{cc}=5.0\text{V}$ , $V_c=2.5\text{V}$ , $O_{load}=50\Omega$ .
	Supply Voltage	4.75	5.0	5.25	V	
	Warm-Up Time			2	seconds	@ $25^\circ\text{C}$ within $\pm 0.5 \times 10^{-6}$ of final frequency with reference after 1 hours on.



Voltage Control Characteristics	Frequency Tuning Range			-8	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.5V$
		-0.5		+0.5	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to exactly 20.00MHz
		+8			$\times 10^{-6}$	$V_c=5.0V$ . measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K $\Omega$
Phase Noise	Phase Noise @25°C		-90	-85	dBc/Hz	10Hz
			-118	-113		100Hz
			-140	-135		1KHz
			-150	-145		10KHz
			-150	-145		100KHz
			-150	-145		1MHz
Environmental Conditions	Operable Temperature	-55		+85	°C	
	Storage Temperature	-55		+105	°C	
	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~2000Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z) .IEC 68-2009 Test Fc.				
Shock	100g; 6ms; half sine wave (3 times for each 3 directions X ,Y , Z ),IEC 68-2009 Test Ea/Severity 50A.					



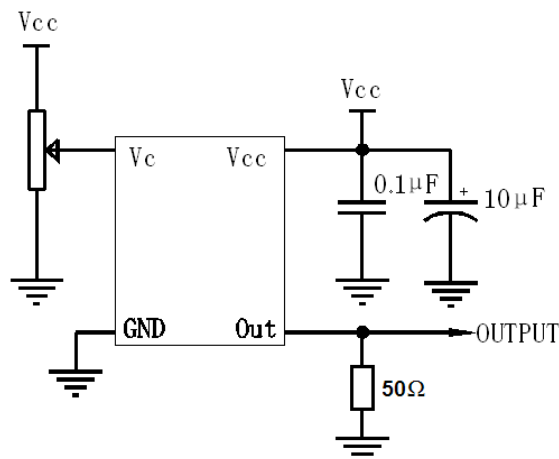
## 2. Mechanical Structure(mm)



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

**Note2:** Referential Weight 4.2g

## 3. Test circuit





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



#### 5. Package: PVC Tube,10pcs (mm)

