

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

# DATASHEET

DAPU P/N:           O22A-S425-10.00MHz          

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2018.09.28			

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## 1. Electrical Parameters

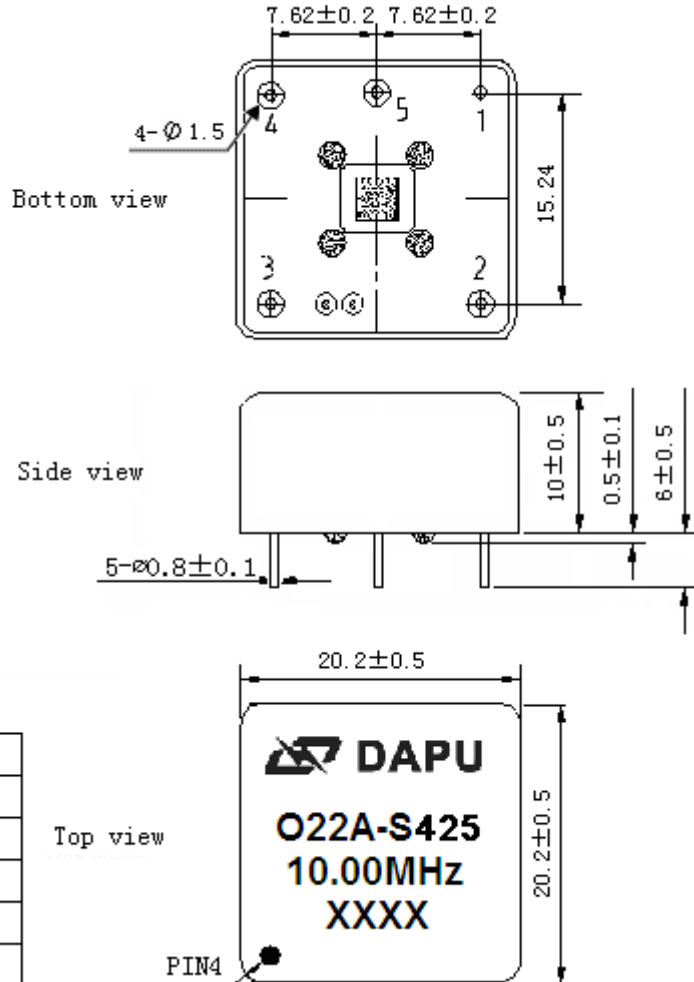
MODEL: O22A-S425-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	6	7	8	dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-40	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.01		+0.01	$\times 10^{-6}$	$T_A$ varied from $-55^{\circ}\text{C}$ to $90^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=5.0\text{V}$ , $V_{\text{c}}=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature variable speed less than $2^{\circ}\text{C}$ per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_{\text{c}}=2.5\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-1		+1	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}$ varied from 4.75V to 5.25V, $V_{\text{c}}=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ .
	Frequency Tolerance vs. Load	-1		+1	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_{\text{c}}=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ .
	Short Term Stability			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}\text{C}$ ; 1s, using PN9000 equipment.
	Aging Tolerance per day	-0.3		+0.3	$\times 10^{-9}$	$V_{\text{cc}}, V_{\text{c}}, T_A$ constant Measurement referenced to frequency observed with
	Aging Tolerance 1Year	-0.03		+0.03	$\times 10^{-6}$	$T_A=25^{\circ}\text{C}, V_{\text{cc}}=5.0\text{V}, V_{\text{c}}=2.5\text{V}, O_{\text{load}}=50\Omega$ and after 30 days of operation.
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Current Consumption			300	mA	@ $25^{\circ}\text{C}$
	Current Consumption during warm up			900	mA	
	Warm-Up Time			5	minutes	@ $25^{\circ}\text{C}$ within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 30 minutes on.



Voltage Control Characteristics	Frequency Tuning Range			-0.5	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.5V$ .
		-0.1		+0.1	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to exactly 10.00MHz.
		+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 @25°C			-100	dBc/Hz	1Hz
				-130		10Hz
				-150		100Hz
				-160		1KHz
				-165		10KHz
				-170		100KHz
Environmental Conditions	Operable Temperature	-55		+90	°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; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Not humidity sensitive.				
	Vibration	Frequency range: 20Hz~2000Hz, acceleration : 6g , ASD:0.04g <sup>2</sup> /Hz one cycle per 30 min, test 2 hour. (3 times for each 3 directions X , Y , Z), GJB 150.16A-2009				
Shock	100g; 6ms; half sine wave (3 times for each 3 directions X , Y , Z),GJB 360B-2009					
Full Package Storage	Relative humidity (%)	20% ~ 70%				
	Temperature (°C)	-10~35°C				



## 2. Mechanical Structure (mm)



### PIN FUNCTION

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

- Note1:** Tolerance  $\pm 0.2$ mm without mark
- Note2:** The first two xx representative: week  
After two xx representative: year
- Note3:** Referential Weight 8.0g



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package(mm)

