

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

# DATASHEET

DAPU P/N:     **O11L-R425-100.00MHz**    

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2019.11.23			

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**Table of amendment**

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2019.11.23



## 1. Electrical Parameters

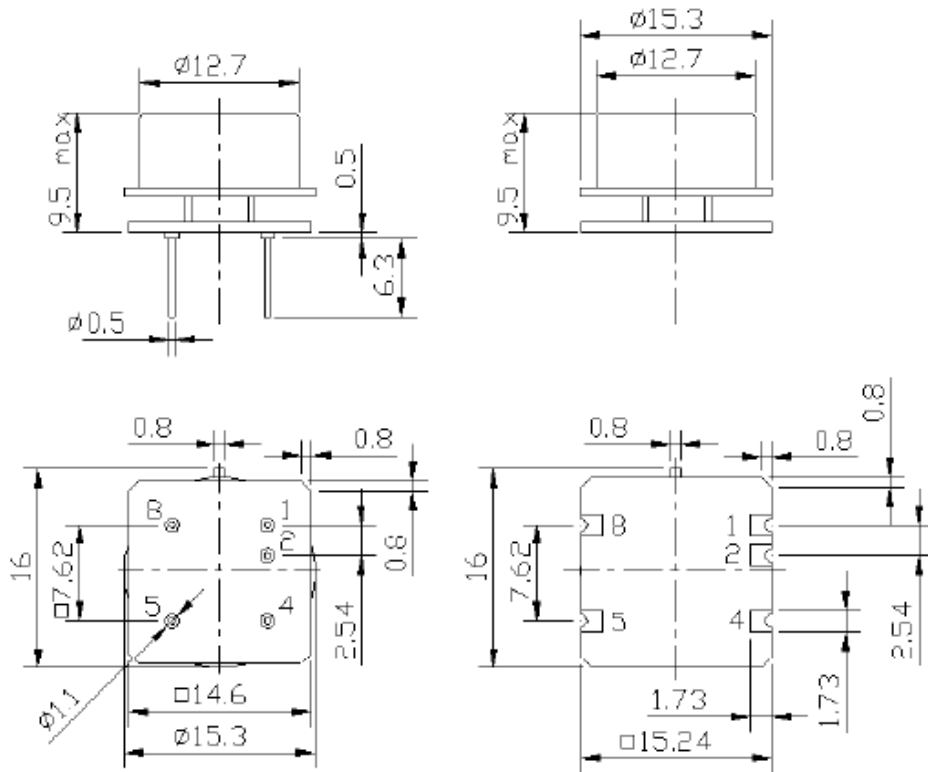
MODEL:O11L-R425-100.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	100.00			MHz	
	Output Waveform	Sine Wave				
	Level	7			dBm	
	Harmonics Suppression			-25	dBc	
	Load	50			$\Omega$	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	$\times 10^{-9}$	$T_A$ varied from $-40^\circ\text{C}$ to $85^\circ\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.1\text{V}$ , $O_{\text{load}}=15\text{pF}$ , 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 $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.1\text{V}$ , and after 5 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-2		+2	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}$ , $V_{\text{cc}}$ varied from 4.75V to 5.25V, and $O_{\text{load}}=50\Omega$ .
	G-Sensitivity	$\pm 0.2$		$\pm 1$	$\times 10^{-9}/\text{G}$	worst direction, 0 – 1kHz vibration BW(for 0 - 2kHz BW height of OCXO 10.5mm)
	Retrace	-0.02		+0.02	$\times 10^{-6}$	
	Allan Deviation			0.05	$\times 10^{-9}$	1s
	Aging Tolerance Per Day	-3		+3	$\times 10^{-9}$	$V_{\text{cc}}, T_A$ constant measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ ,
	Aging Tolerance 1 Year	-0.3		+0.3	$\times 10^{-6}$	$V_{\text{cc}}=5.0\text{V}$ , and after 30 days of operation.
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Reference Voltage	4.1	4.2	4.3	V	
	Steady Consumption		36		mA	
	Warm up current			240	mA	@ $25^\circ\text{C}$
	Warm-Up Time		30	60	S	@ $25^\circ\text{C}$ within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 15 minutes on.



Voltage Control Characteristics	Frequency Tuning Range	-1		-0.3	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.1V$
		-0.1		+0.1	$\times 10^{-6}$	$V_c=2.1V$ . measurement referenced to exactly 100.00MHz
		+0.3		+1	$\times 10^{-6}$	$V_c=4.2V$ . measurement referenced to $V_c=2.1V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K $\Omega$
Phase Noise	Phase Noise			-90	dBc/Hz	10Hz
				-120		100Hz
				-150		1KHz
				-165		10KHz
				-165		100KHz
Environmental Conditions	Operable Temperature	-40		+85	$^{\circ}C$	
	Storage Temperature	-55		+125	$^{\circ}C$	
	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~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	Signal
1	Electrical tuning
2	Reference voltage
4	GND
5	RF Out
8	+V Supply

Note1: Tolerance  $\pm 0.20\text{mm}$  without mark

## 3. Test Circuit

