

Customer Code: _____

DATASHEET

DAPU P/N: **O22B-X445-10.00MHz-B**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2022.08.22			

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1. Electrical Parameters

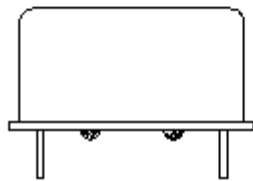
MODEL: O22B-X445-10.00MHz-B						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	5.5	6.2		dBm	
	Load	50			Ω	
	Harmonics Suppression			-50	dBc	
	Spurious Suppression			-80	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-9}$	T_A varied from -40°C to 70°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=12\text{V}$, $O_{\text{load}}=50\Omega$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.05		+0.05	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{\text{cc}}=12\text{V}$, $V_c=2.5\text{V}$, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-0.5		+0.5	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}$, V_{cc} varied form 11.4V to 12.6V, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$.
	Frequency Tolerance vs. Load	-0.5		+0.5	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{\text{cc}}=12\text{V}$, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$.
	Short-Term Stability: Allan Variance			0.35	$\times 10^{-12}$	Temperature stability, no EMI/EMC or other interference, test after power for 1hour ref. to 25°C ; 1s.
	Aging Tolerance Per Day	-0.1		+0.1	$\times 10^{-9}$	V_{cc} , V_c , T_A constant measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{\text{cc}}=12\text{V}$, $V_c=2.5\text{V}$, and after 30 days of operation..
	Aging Tolerance Per Year	-0.02		+0.02	$\times 10^{-6}$	
Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Steady Consumption			150	mA	@ 25°C
	Warm up current			370	mA	
	Warm-Up Time			5	min	@ 25°C within $\pm 0.01 \times 10^{-6}$ power on 5 minutes referred to 1 hour



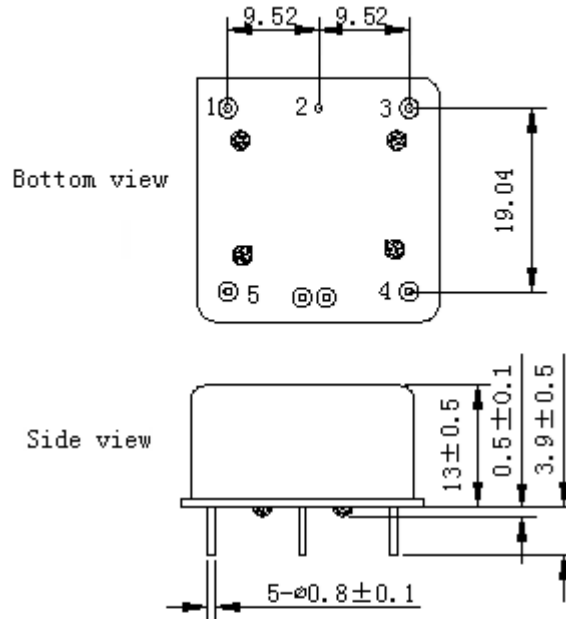
Voltage Control Characteristics	Frequency Tuning Range			-0.3	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=2.5V$
		-0.05		+0.05	$\times 10^{-6}$	$V_c=2.5V$. measurement referenced to exactly 10.00MHz
		+0.3			$\times 10^{-6}$	$V_c=5V$. measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise @25°C		-120	-115	dBc/Hz	1Hz
			-145	-140		10Hz
			-158	-153		100Hz
			-165	-160		1KHz
			-167	-162		10KHz
			-167	-162		100KHz
			-167	-162		1MHz
Environmental Conditions	Operating Temperature	-40		+70	°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~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 (°C)	-10~35°C				



2. Mechanical Structure (mm)

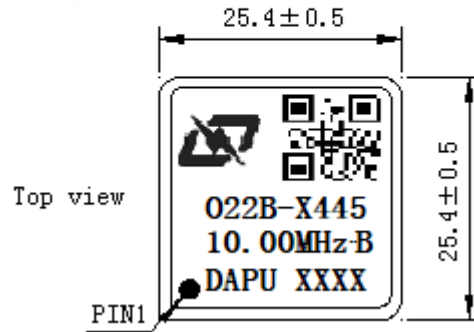


Right view



PIN FUNCTION

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



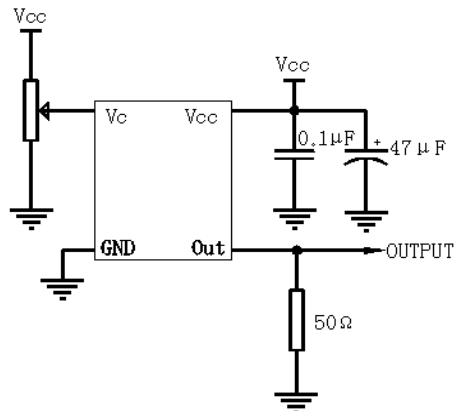
Note1: Tolerance ± 0.20mm without mark.

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

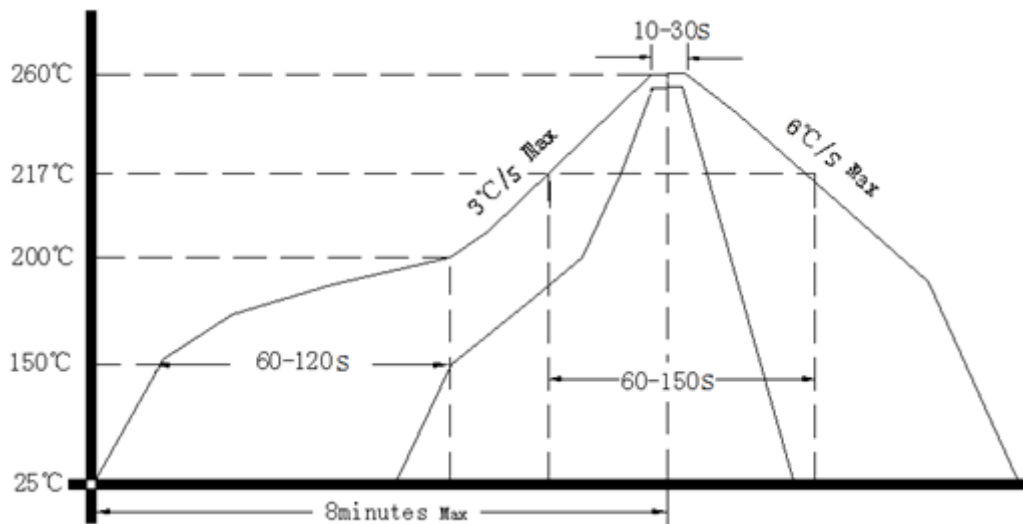
Note3: Referential Weight 13.6g.



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

