

Travelling Merchant: _____

DATASHEET

Standard: **O22B-K428-10.00MHz-I**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.07.31			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2024.07.31

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1. Electrical Parameters

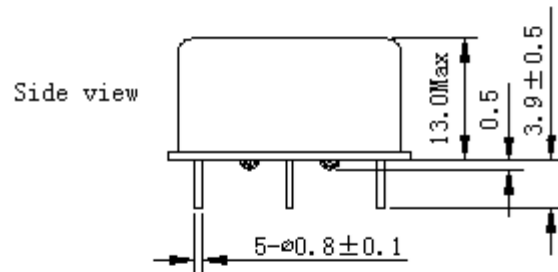
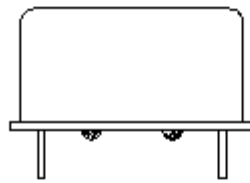
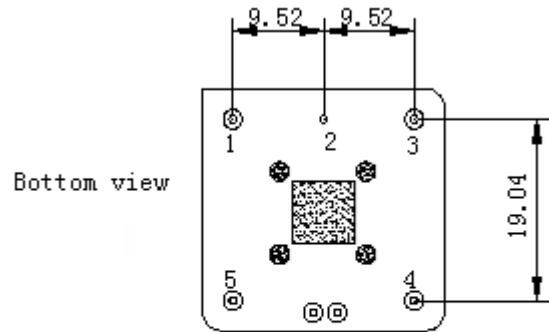
MODEL: O22B-K428-10.00MHZ-I						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	6		10	dBm	
	Load	50			Ω	
	Harmonics Suppression			-40	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	$\times 10^{-9}$	T_A varied from -40°C to 85°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=5.0\text{V}$, $V_c=1.65\text{V}$, $O_{\text{load}}=50\Omega$, 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 $T_A=25^\circ\text{C}$, $V_{\text{cc}}=5.0\text{V}$, $V_c=1.65\text{V}$ and after 15 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_{cc} varied from 4.75V to 5.25V, $V_c=1.65\text{V}$, $O_{\text{load}}=50\Omega$.
	Frequency Tolerance vs. Load	-2		+2	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{\text{cc}}=5.0\text{V}$, $V_c=1.65\text{V}$, $O_{\text{load}}=50\Omega$.
	Short Term Stability			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 1s.
	Aging Tolerance per day	-0.5		+0.5	$\times 10^{-9}$	V_{cc}, V_c, T_A constant Measurement referenced to frequency observed with
	Aging Tolerance 1Year	-0.05		+0.05	$\times 10^{-6}$	$T_A=25^\circ\text{C}, V_{\text{cc}}=5.0\text{V}, V_c=1.65\text{V}, O_{\text{load}}=50\Omega$ and after 30 days of operation.
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Output Reference Voltage	3.135	3.3	3.465	V	
	Current Consumption			300	mA	@ 25°C
	Current Consumption during warm up			600	mA	
	Warm-Up Time			5	minutes	@ 25°C within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 30 minutes on.



Voltage Control Characteristics	Frequency Tuning Range	-1.5		-0.5	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=1.65V$.
		-0.05		+0.05	$\times 10^{-6}$	$V_c=1.65V$. measurement referenced to exactly 10.00MHz.
		+0.5		+1.5	$\times 10^{-6}$	$V_c= 3.3V$. measurement referenced to $V_c=1.65V$.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise @25°C		-120	-110	dBc/Hz	10Hz
			-140	-130		100Hz
			-155	-150		1KHz
			-158	-153		10KHz
			-158	-153		100KHz
Environmental Conditions	Operable Temperature	-40		+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: 10Hz~55Hz;1mm ; 55Hz~1000Hz, acceleration 10g; Vertical axis in each direction 1h, (3 times for each 3 directions X , Y , Z), IEC 68-2-06 Test Fc.				
Shock	100g; 6ms; half sine wave; three mutually perpendicular axes (A total of six directions) in each direction three times, IEC 68-2-27 Test Ea.					
Full Package Storage	Relative humidity (%)	20%~70%				
	Temperature (°C)	-10~35°C				

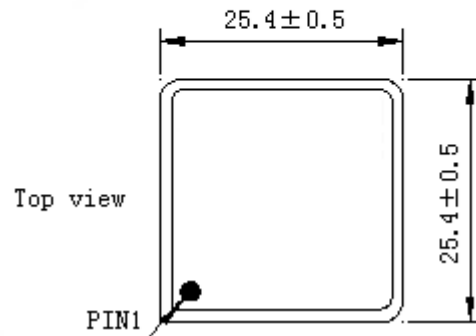


2. Mechanical Structure (mm)



PIN FUNCTION

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

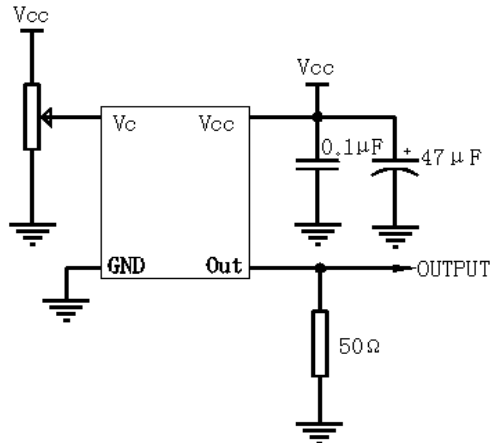


Note1: Tolerance $\pm 0.2\text{mm}$ without mark

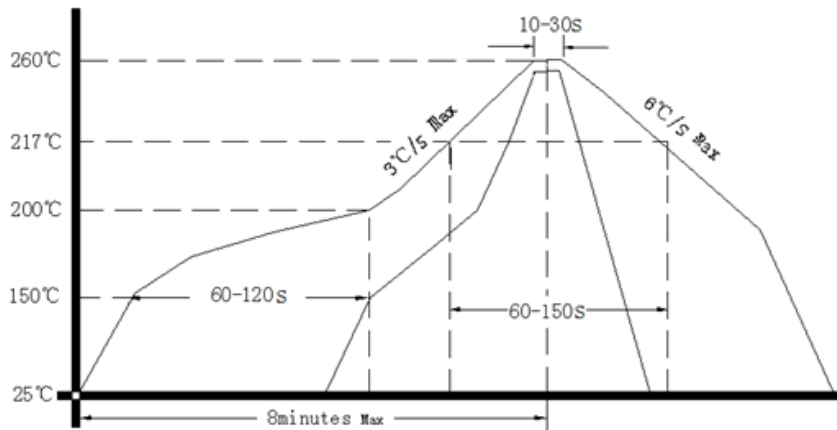
Note2: Referential Weight 13.6g



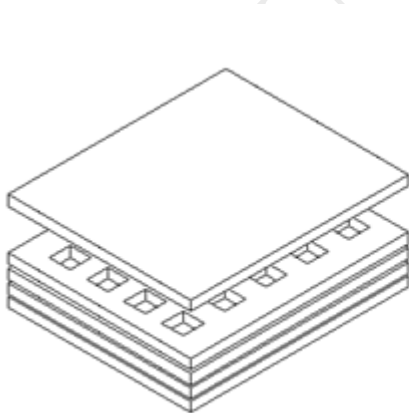
3. Test Circuit



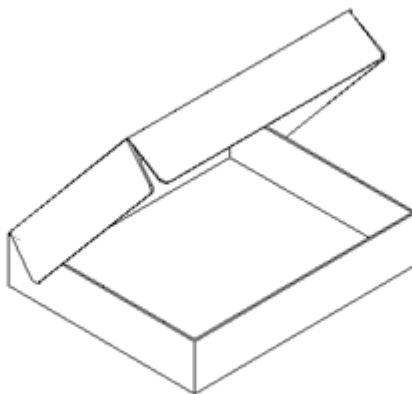
4. Reflow Soldering Curve (RoHS)



5. Package(mm)



Buffer material



Cardboard
Max 20pcs. circulator

