

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

# DATASHEET

Standard: VC936J-AEAD-122.88MHz

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

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## 1. Electrical Parameters

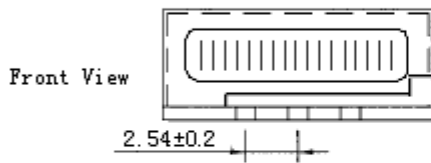
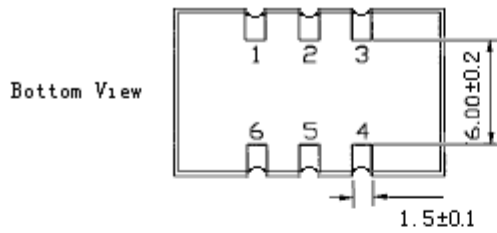
MODEL: VC936J-AEAD-122.88MHZ						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	122.88			MHz	
	Output Waveform	LVPECL				
	Output Low Voltage			1.8	V	@25°C, V <sub>cc</sub> =3.3V(see the following chart 3)
	Output High Voltage	2.2			V	@25°C, V <sub>cc</sub> =3.3V(see the following chart 3)
	Duty Cycle	45	50	55	%	@50%, measurement at V <sub>c</sub> =1.65V
	Rise / Fall Time (20%~80%)			1	ns	@25°C
	Load	50			Ω	Connect to V <sub>cc</sub> -2.0V
	Jitter			1	ps	RMS (12KHz ~20MHz)
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-30		+30	ppm	T <sub>A</sub> varied from -40°C to 85°C, measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, V <sub>c</sub> =1.65V, O <sub>load</sub> =50 Ω Connect to V <sub>cc</sub> -2.0V.
	Initial Frequency Tolerance	-10		+10	ppm	Measurement referenced to frequency observed with T <sub>A</sub> = 25°C, V <sub>cc</sub> = 3.3V, V <sub>c</sub> =1.65V and after 5 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-5		+5	ppm	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> varied from 3.13V to 3.47V, V <sub>C</sub> =1.65V and O <sub>Load</sub> =50 Ω Connect to V <sub>cc</sub> -2.0V.
	Frequency Tolerance vs. Load	-1		+1	ppm	10% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, V <sub>C</sub> =1.65V and O <sub>Load</sub> =50 Ω Connect to V <sub>cc</sub> -2.0V.
	Aging Tolerance 1 Year	-5		+5	ppm	T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, V <sub>c</sub> =1.65V and after 1h of operation.
Power Supply	Current Consumption		65		mA	@25°C, O <sub>Load</sub> =50 Ω Connect to V <sub>cc</sub> -2.0V
	Supply Voltage	+3.13	+3.3	+3.47	V	



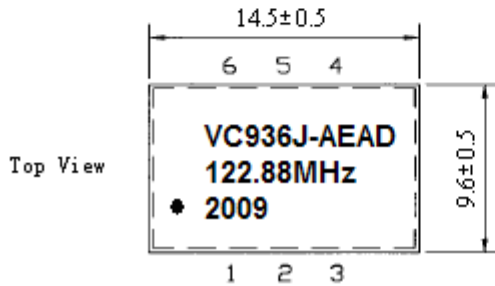
Voltage Control Characteristics	Frequency Tuning Range			-100	ppm	$V_c=0V$ . measurement referenced to $V_c=1.65V$
		-10		+10	ppm	$V_c=1.65V$ . measurement referenced to exactly 122.88MHz
		+100			ppm	$V_c=3.3V$ . measurement referenced to $V_c=1.65V$
	Linearity			20	%	
	Slope	Positive				
	Input Impedance	100				K $\Omega$
Phase Noise	Phase Noise		-80		dBc/Hz	10Hz
			-100			100Hz
			-125			1KHz
			-140			10KHz
			-145			100KHz
Environmental Conditions	Operable Temperature	-40		+85	$^{\circ}C$	
	Storage Temperature	-45		+90	$^{\circ}C$	
	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 68-2-06 Test Fc.				
	Shock	100g; 6ms; half sine wave (3 times for each 3 directions X ,Y , Z ),IEC 68-2-27 Test Ea/Severity 50A.				



## 2. Mechanical Structure (mm)



Side View



PIN FUNCTION

1	VOLTAGE CONTROL
2	E/D
3	GND
4	OUTPUT
5	OUTPUT
6	V <sub>cc</sub>

Note1: Referential Weight 1.4g

Note2: Enable/ Disable

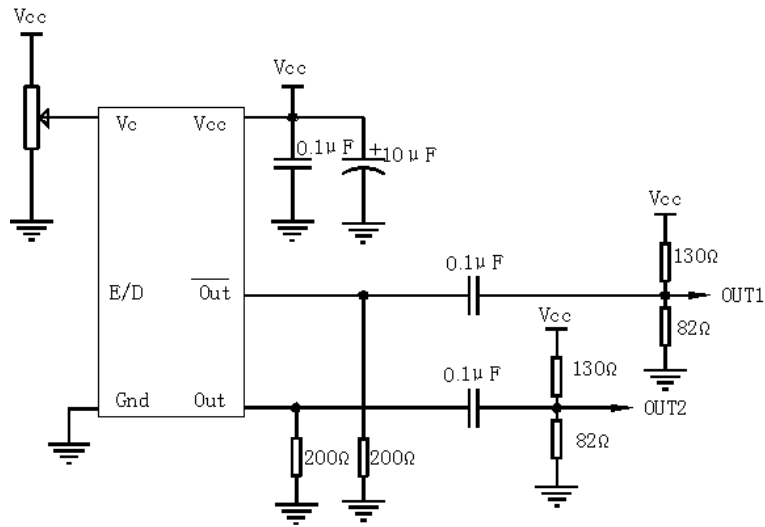
Input Level:  $V_{ih} \geq V_{CC} - 1.025V$

$V_{il} \leq V_{CC} - 2.0V$

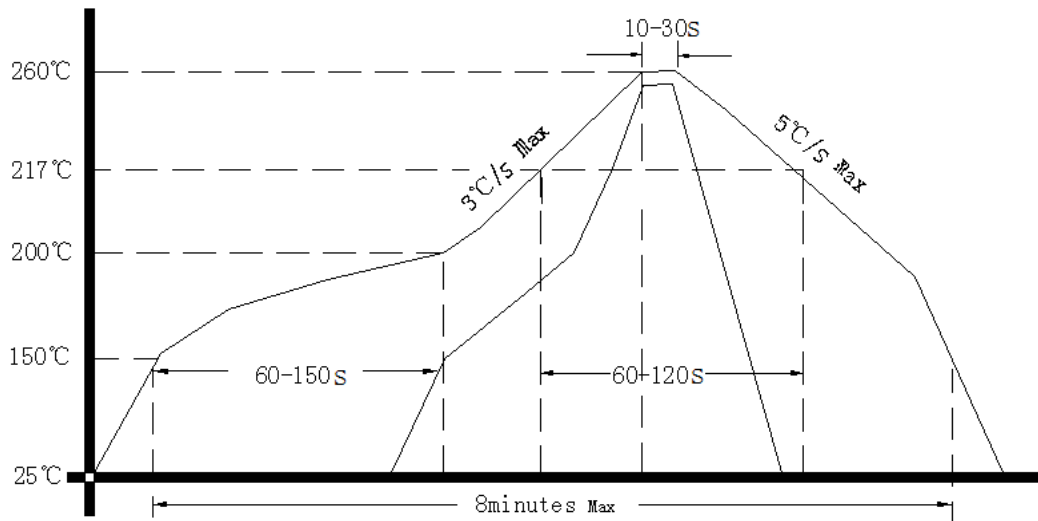
E/D	OUT1	OUT2
Low Level, Open	Data	Data
High Level	Logic low	Logic high



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 6. Package: Tape & Reel (mm)

