Travelling Merchant:_____

DATASHEET

Standard: **VC936J-AEAD-122.88MHz**

P/N: **VC-0010**

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Tina.Tang	James.Liu	
Date: 2012.03.05			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, China

TEL：0086-0769-88010888 FAX：0086-0769-81800098

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PR China
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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2009.01.06
2.0	Template Updated	Amway	2012.03.05

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PR China
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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℃, V_{cc}=3.3V
	Output High Voltage	2.2			V	@25℃, V_{cc}=3.3V
	Duty Cycle	45	50	55	%	@50%, measurement at V_c=1.65V
	Rise / Fall Time (20%~80%)			1	ns	@25℃
	Load		50		Ω	Connect to V_{cc}-2.0V
	Jitter			1	ps	RMS (12KHz ~20MHz)
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-30		+30	$\times 10^{-6}$	T_A varied from -40℃ to85℃, measurement referenced to frequency observed with T_A= 25℃, V_{cc}=3.3V, V_c=1.65V, O_{load}=50Ω Connect to V_{cc}-2.0V, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-15		+15	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A = 25℃, V_{cc}= 3.3V, V_c=1.65V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-5		+5	$\times 10^{-6}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 3.13V to 3.47V, V_c=1.65V and O_{Load}=50Ω Connect to V_{cc}-2.0V.
	Frequency Tolerance vs. Load	-3		+3	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, V_c=1.65V and O_{Load}=50Ω Connect to V_{cc}-2.0V.
	Aging Tolerance 1 Year	-3		+3	$\times 10^{-6}$	T_A=25℃, V_{cc}=3.3V, V_c=1.65Vand after 1h of operation.
Power Supply	Current Consumption			90	mA	@25℃, O_{Load}=50Ω Connect to V_{cc}-2.0V.
	Supply Voltage	3.13	3.3	3.47	V	

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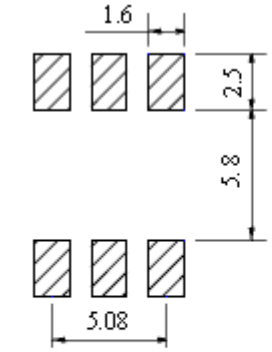
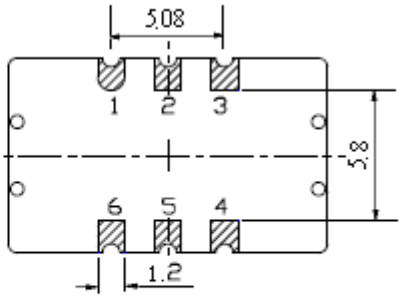
Voltage Control Characteristics	Frequency Tuning Range	-200		-75	$\times 10^{-6}$	V_c= 0V. measurement referenced to V_c=1.65V
		-15		+15	$\times 10^{-6}$	V_c=1.65V. measurement referenced to exactly 122.88MHz
		+75		+200	$\times 10^{-6}$	V_c=3.3V. measurement referenced to V_c=1.65V
	Linearity			15	%	
	Slope	Positive				
	Input Impedance	1			MΩ	
Phase Noise	Phase Noise		-70	-65	dBc/Hz	10Hz
			-100	-95		100Hz
			-125	-120		1KHz
			-145	-140		10KHz
			-148	-143		100KHz
			-150	-145		1MHz
Environmental Conditions	Operable Temperature	-40		+85	℃	
	Storage Temperature	-55		+105	℃	
	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	Level 2.				
	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.				

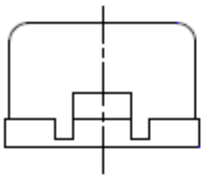
2. Mechanical Structure (mm)



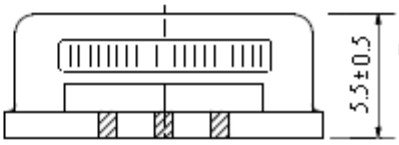
Solder pad layout



Bottom view



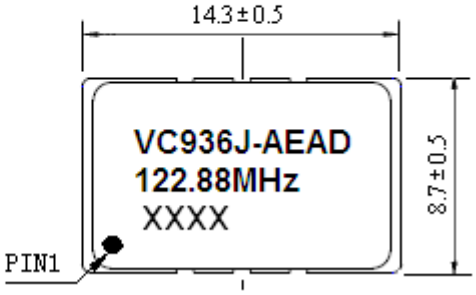
Right view



Front view

PIN FUNCTION

PIN	FUNCTION
1	VC
2	E/D
3	GND
4	OUTPUT
5	$\overline{\text{OUTPUT}}$
6	VCC



Top view

Note1: The first two xx representative: week
After two xx representative: year

Note2: Referential Weight 1.4g

Note3: Enable: Vil≤Vcc-2.0V

Disable: Vih≥Vcc-1.025V

E/D	OUT1	OUT2
low level, open	data	data
high level	no data	no data

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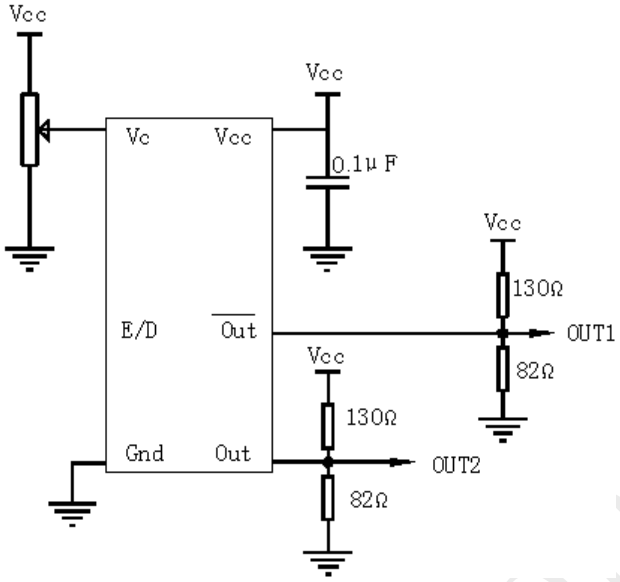
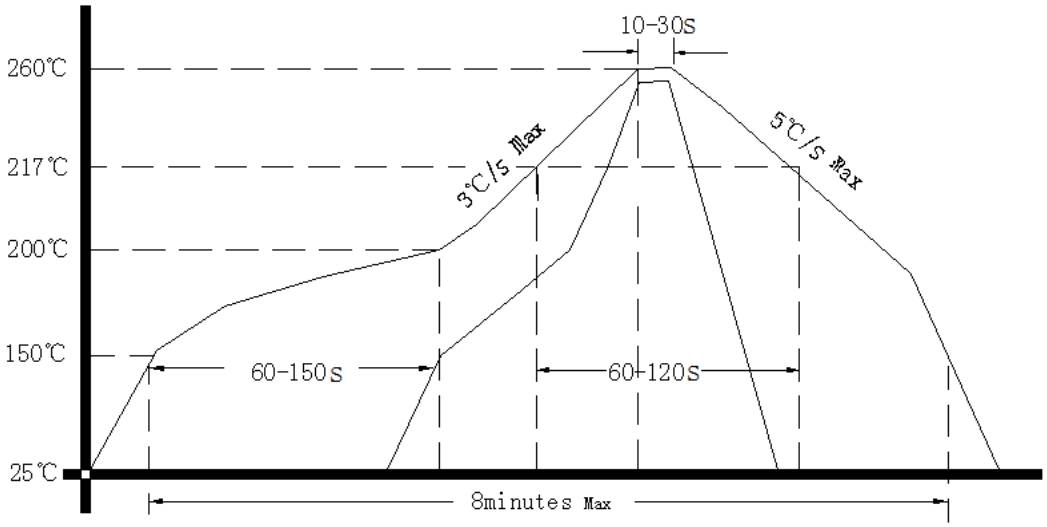
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)