

Travelling Merchant: _____

DATASHEET

Standard: VC756B-CCAD-2.048MHz

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2013.04.08			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2006.12.12
1.1	Version upgraded	<i>Amway</i>	2013.04.08
1.2	“Mechanical Structure”change	<i>Amway</i>	2013.04.26
1.3	“Note4”and“Test circuit”change	<i>Amway</i>	2013.05.10



1. Electrical Parameters

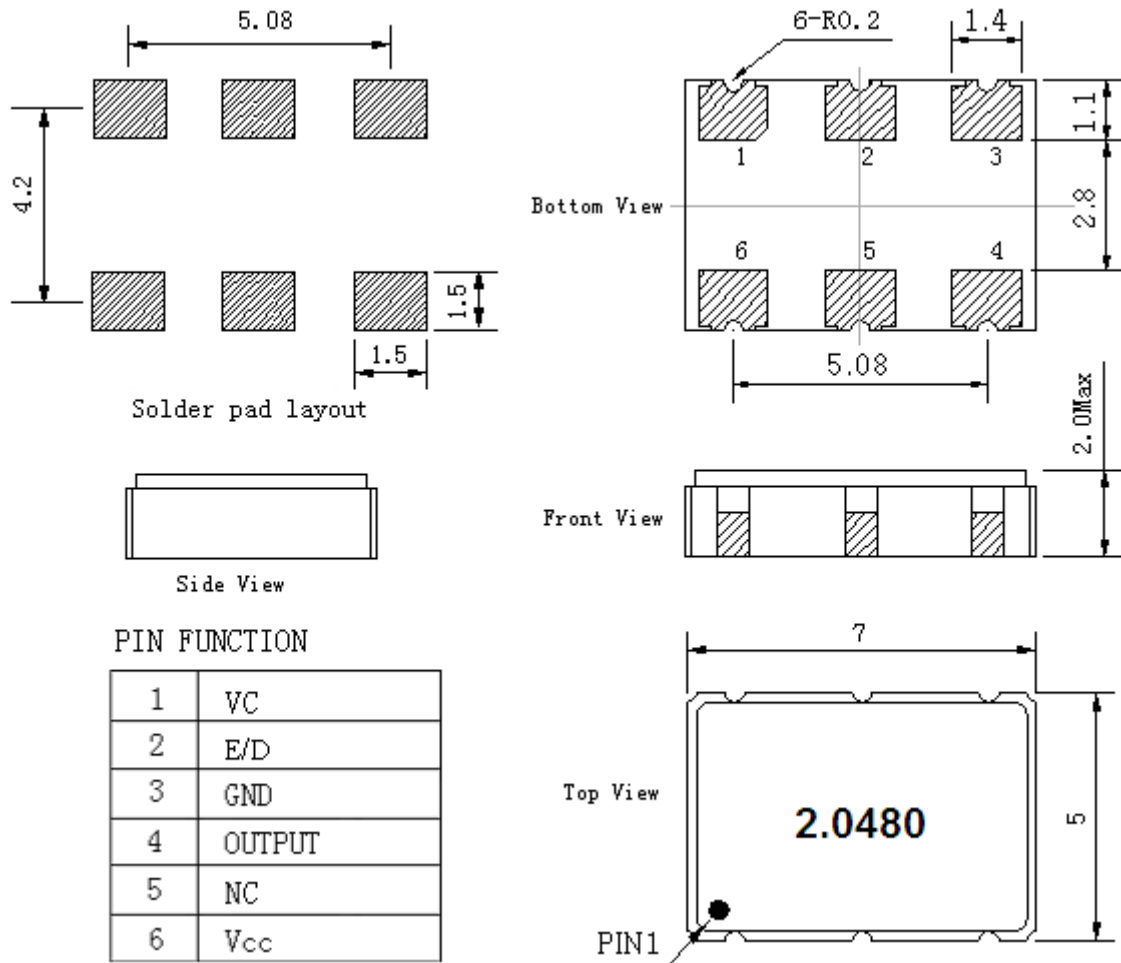
MODEL: VC756B-CCAD-2.048MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	2.048			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.33	V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Output High Voltage	2.97			V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			6	ns	@25°C
	Load	15			pF	
	Jitter			1	ps	RMS (12kHz ~20MHz)
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-25		+25	$\times 10^{-6}$	T_A varied from -40°C to 85°C, measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, V_c=1.65V, O_{load}=15\text{pF}$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-15		+15	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, V_c=1.65V$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-5		+5	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}, V_{cc}$ varied from 3.13V to 3.47V, $V_c=1.65V$ and $O_{Load}=15\text{pF}$.
	Frequency Tolerance vs. Load	-3		+3	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, V_c=1.65V, O_{Load}=15\text{pF}$.
	Aging Tolerance 1 Year	-3		+3	$\times 10^{-6}$	$T_A=25^\circ\text{C}, V_{cc}=3.3V, V_c=1.65V$ and after 1h of operation.
Power Supply	Current Consumption			5	mA	@25°C, $V_{cc}=3.3V, V_c=1.65V, O_{load}=15\text{pF}$.
	Supply Voltage	3.13	3.3	3.47	V	



Voltage Control Characteristics	Frequency Tuning Range			-100	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=1.65V$
		-15		+15	$\times 10^{-6}$	$V_c=1.65V$. measurement referenced to exactly 2.048MHz
		+100			$\times 10^{-6}$	$V_c=3.3V$. measurement referenced to $V_c=1.65V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise		-130		dBc/Hz	1KHz
Environmental Conditions	Operable Temperature	-40		+85	$^{\circ}C$	
	Storage Temperature	-55		+105	$^{\circ}C$	
	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)



Note1: Tolerance $\pm 0.1\text{mm}$ without mark

Note2: Referential Weight 0.3g

Note3: NC is not connect

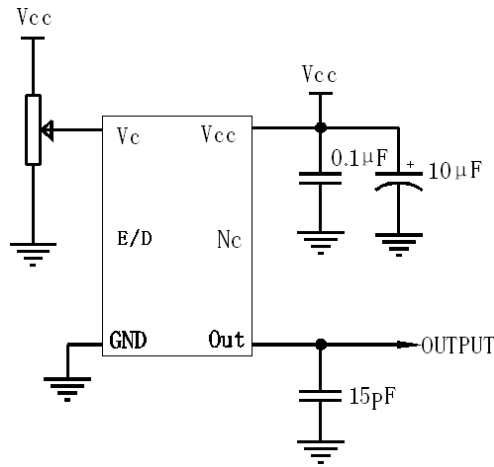
Note4: Disable: $V_{il} \leq 0.3V_{CC}$

Enable: $V_{ih} \geq 0.7V_{CC}$

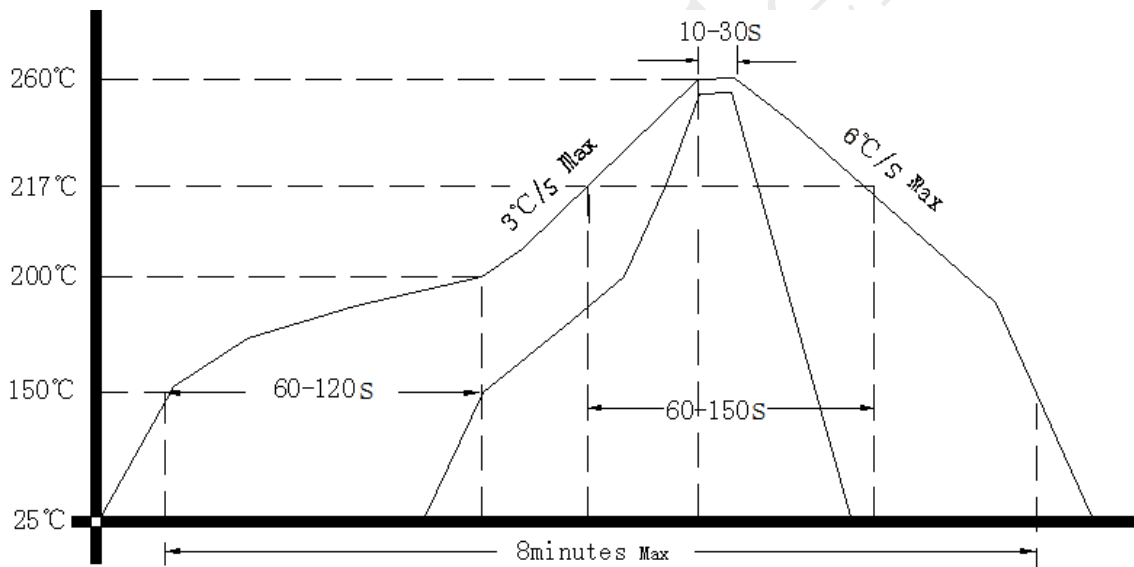
E/D	OUT
high level, open	data
low level	no data



3. Test circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

