

Travelling Merchant: _____

DATASHEET

Standard: **O21B-ECAN-12.80MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2013.12.26			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2007.09.12
1.1	“Test Circuit” and “Reflow Soldering Curve” add	<i>Amway</i>	2008.01.08
1.2	“Mechanical Structure” change	<i>Amway</i>	2008.06.12
1.3	“Mechanical Structure” change	<i>Amway</i>	2008.08.22
1.4	“Initial Frequency Tolerance” add “Aging Tolerance Per Day/1 Year/20 Year” change	<i>Amway</i>	2013.12.26



1、Electrical Parameters

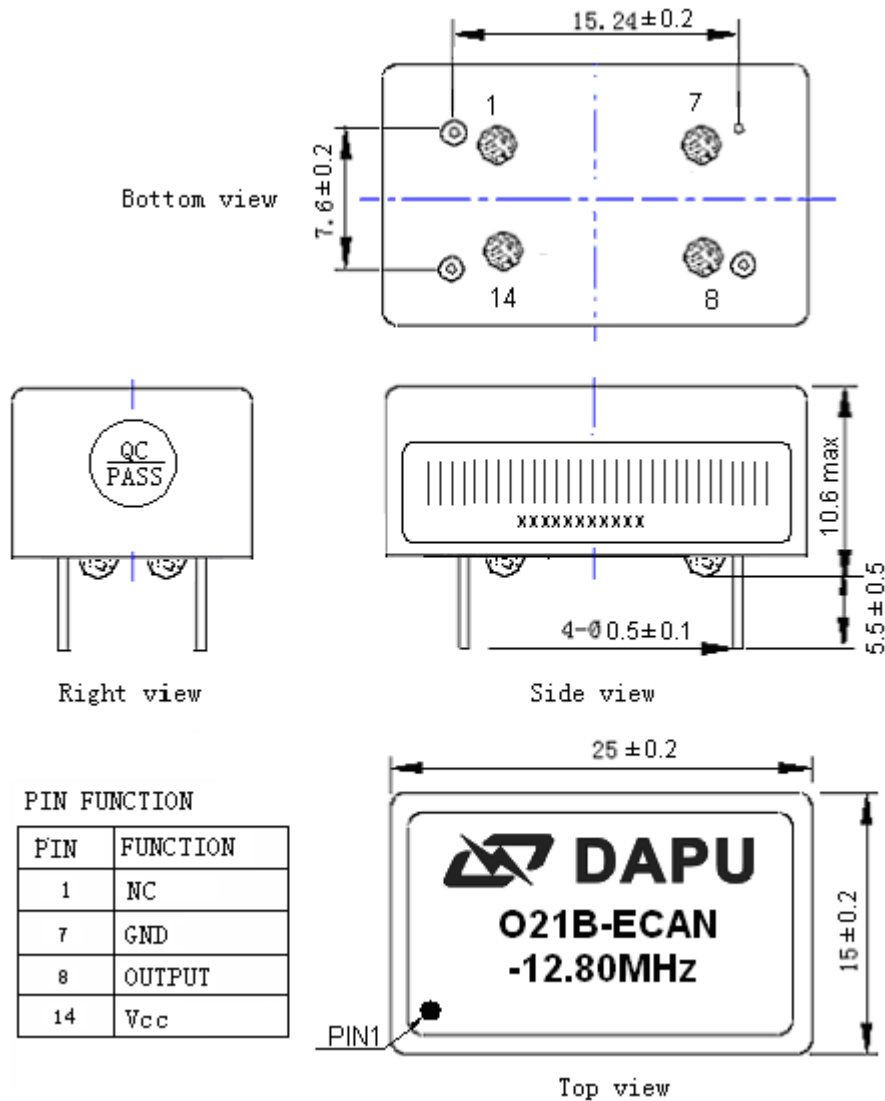
MODEL: O21B-ECAN-12.80MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	12.80			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15pF$
	Output High Voltage	2.7			V	$V_{cc}=3.3V, O_{load}=15pF$
	Duty Cycle	40	50	60	%	@50%
	Rise / Fall Time (10%~90%)			7	ns	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.03		+0.03	$\times 10^{-6}$	T_A varied from $-20^{\circ}C$ to $70^{\circ}C$, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15pF$ temperature rise speed less than $2^{\circ}C$ per minute
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=3.3V$, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.01		+0.01	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^{\circ}C, V_{cc}$ varied from 3.13V to 3.47V, and $O_{Load}=15pF$
	Frequency Tolerance vs. Load	-0.01		+0.01	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=3.3V$, and $O_{Load}=15pF$
	Short-Term Stability : Allan Variance			0.5	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}C; 1s$, using PN9000 equipment.
	Aging Tolerance Per Day	-1		+1	$\times 10^{-9}$	V_{cc}, T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=3.3V$, and after 30 days of operation
	Aging Tolerance 1 Year	-0.1		+0.1	$\times 10^{-6}$	
	Aging Tolerance 20 Year	-1		+1	$\times 10^{-6}$	
		Retrace	-0.01		+0.01	$\times 10^{-6}$
Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Steady Consumption			500	mA	@ $25^{\circ}C$



	Warm up current			1000	mA	
Phase Noise	Phase Noise @25°C		-95	-85	dBc/Hz	10Hz
			-120	-110		100Hz
			-140	-135		1KHz
			-145	-140		10KHz
Environmental Conditions	Operable Temperature	-20		+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; ANSI/ESDA/JEDEC JS-001-2010.				
	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.					



2、Mechanical Structure(mm)

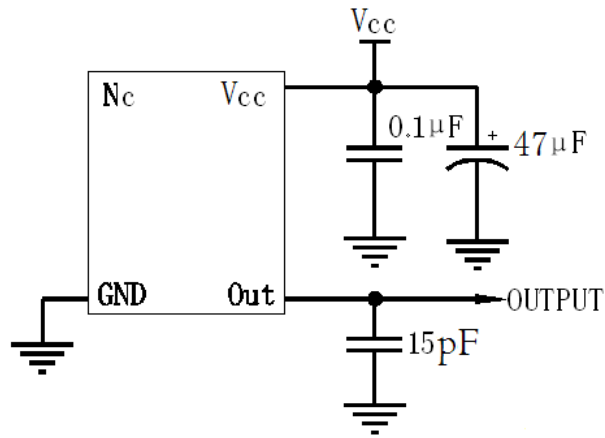


Note1: Referential Weight 6.6g

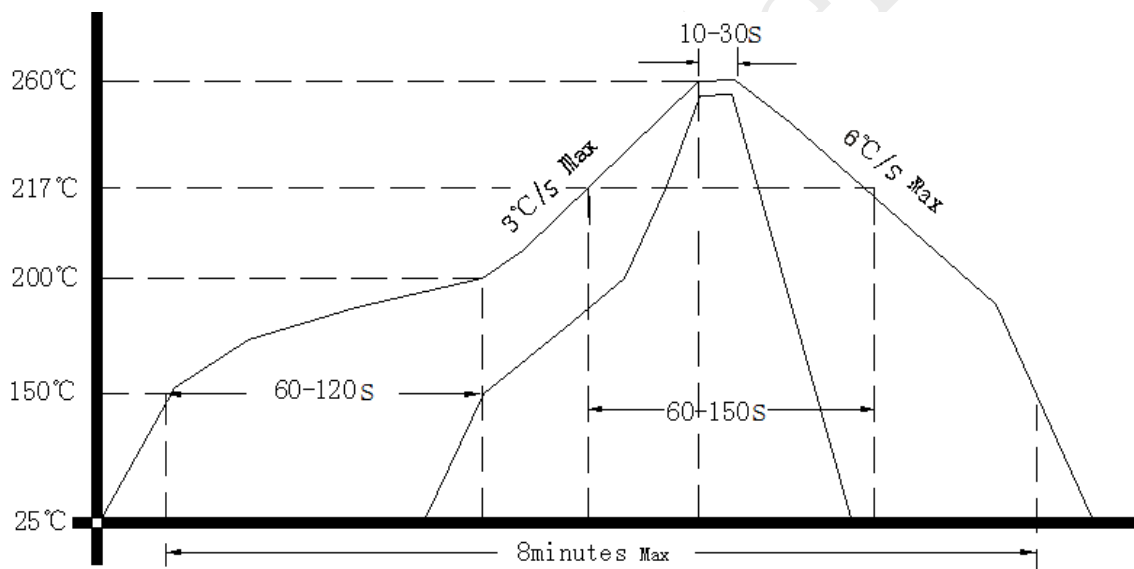
Note2: NC is not connect



3、 Test Circuit



4、 Reflow Soldering Curve (RoHS)



5、 Package: PVC Tube,11pcs (mm)

