

Customer Code : _____

DATASHEET

DAPU P/N: **M936-I411-28.80MHZ**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2019.05.14			

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1. Electrical Parameters

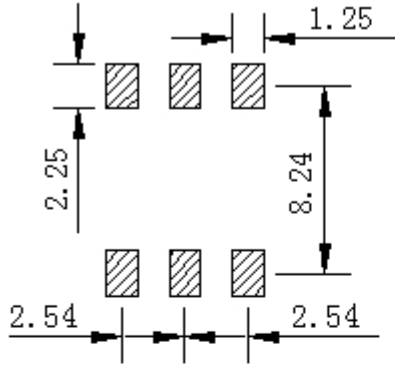
MODEL: M936-I411-28.80MHz						
Item	Parameters	Electrical Spec			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	28.80			MHz	
	Output Waveform	Sine Wave				
	Level	5			dBm	
	Harmonics Suppression			-40	dBc	
	Load	50			Ω	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.28		+0.28	$\times 10^{-6}$	T_A varied from -40°C to 85°C , measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$, $O_{load}=50\Omega$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}$, V_{cc} varied from 3.13V to 3.47V, $V_c=1.5\text{V}$ and $O_{Load}=50\Omega$.
	Frequency Tolerance vs. Load	-0.1		+0.1	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$, $O_{Load}=50\Omega$.
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	$T_A=25^\circ\text{C}$, $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$ and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
Power Supply	Current Consumption			20	mA	@ 25°C , $V_{cc}=3.3\text{V}$, $V_c=1.5\text{V}$, $O_{load}=50\Omega$.
	Supply Voltage	3.13	3.3	3.47	V	



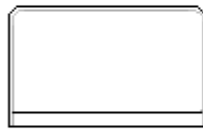
Voltage Control Characteristics	Frequency Tuning Range			-2	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=1.5V$
		-0.5		+0.5	$\times 10^{-6}$	$V_c=1.5V$. measurement referenced to Exactly 28.80MHz
		+2			$\times 10^{-6}$	$V_c=3.0V$. measurement referenced to $V_c=1.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K Ω
Phase Noise	Phase Noise		-80	-75	dBc/Hz	10Hz
			-113	-108		100Hz
			-138	-133		1KHz
			-150	-145		10KHz
			-152	-147		100KHz
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 3.				
	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.					
Full Package Storage	Relative humidity (%)	20%~70%				
	Temperature ($^{\circ}C$)	-10~35 $^{\circ}C$				



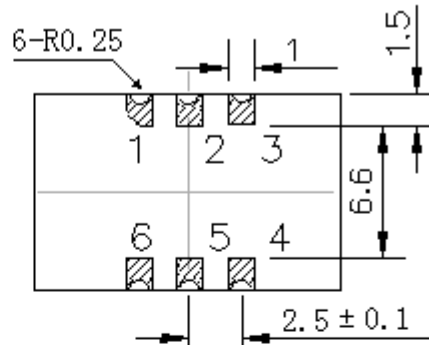
2. Mechanical Structure(mm)



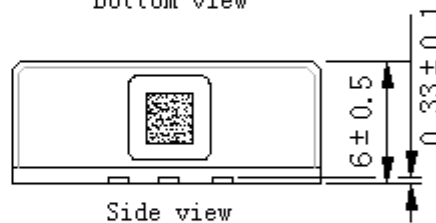
Solder Pad layout



Right view



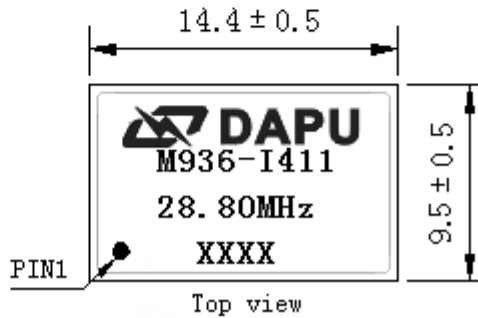
Bottom view



Side view

PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VC	Control Voltage
2,5	NC	Not Connect
3	GND	GND
4	OUTPUT	RF Output
6	VCC	Supply Voltage



Top view

Note1: Tolerance ±0.20mm without mark

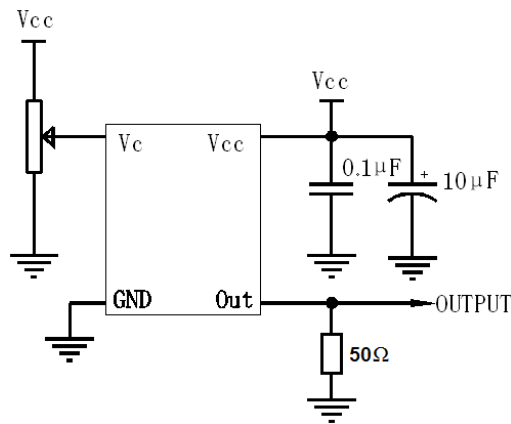
Note2: The first two xx representative: week
After two xx representative: year

Note3: Referential weight 1.5g

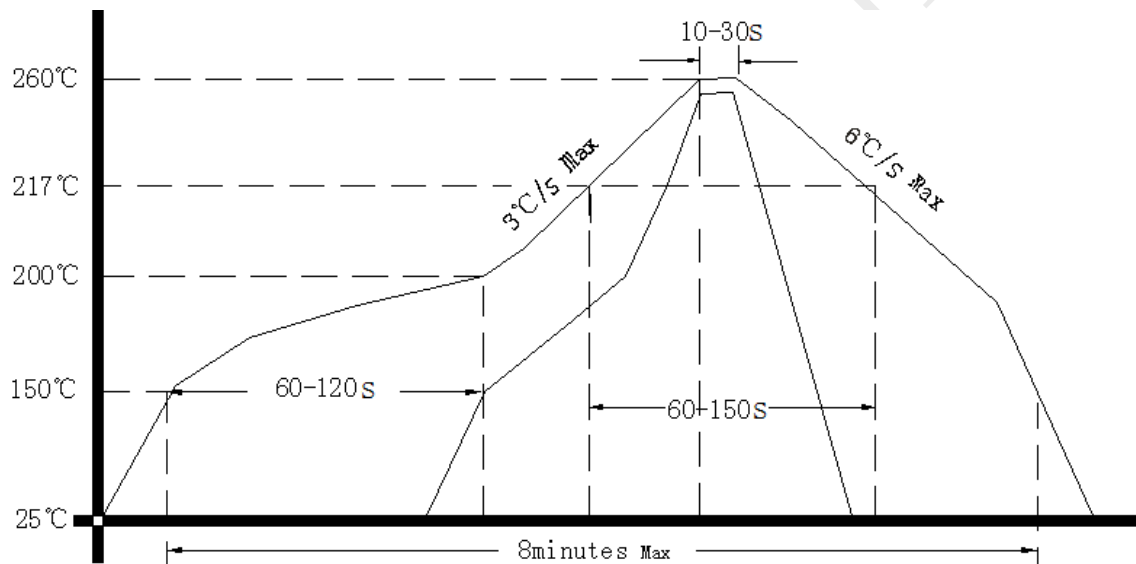
Note4: NC is not connect



3. Test circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

