

Travelling Merchant: _____

DATASHEET

Standard: **O11H-R319-10.00MHz-A**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2020.05.22			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2017.11.14
1.1	The “ESD Level” “Mechanical Structure” “Package: Tape & Reel” changed	<i>Amway</i>	2020.05.22

DAPU

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1. Electrical Parameters

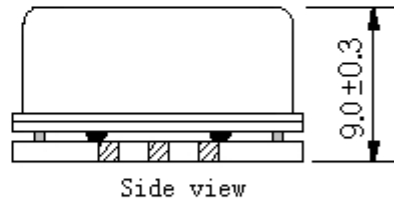
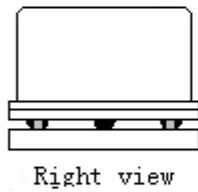
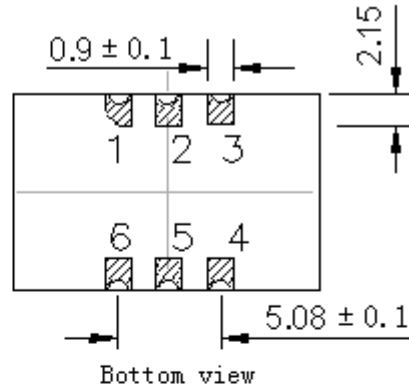
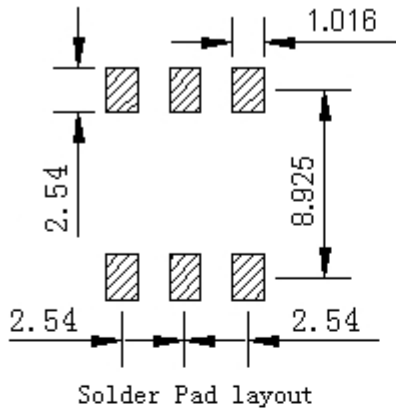
MODEL: O11H-R319-10.00MHZ-A						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15pF$
	Output High Voltage	2.4			V	$V_{cc}=3.3V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			5	ns	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	$\times 10^{-9}$	T_A varied from $-40^{\circ}C$ to $85^{\circ}C$, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15pF$, temperature variable speed less than $2^{\circ}C$ per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	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 Accuracy after Reflow	-0.4		+0.4	$\times 10^{-6}$	Place for 48 Hours after reflow, then test the frequency after 15mins power on ref to nominal frequency @ $25^{\circ}C$.
	Frequency Tolerance vs. Supply Voltage	-1		+1	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}C, V_{cc}$ varied from 3.135V to 3.465V, and $O_{Load}=15pF$.
	Frequency Tolerance vs. Load	-1		+1	$\times 10^{-9}$	10% 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 (in still air)			0.05	$\times 10^{-9}$	Temperature stability, no EMI/EMC or other interference, test after power for 1hour ref. to $25^{\circ}C$; 1s.
	Aging Tolerance Per Day	-1.0		+1.0	$\times 10^{-9}$	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 10 Year	-0.4		+0.4	$\times 10^{-6}$	
	Stratum Compliance Level	Stratum 3E per GR1244				



	Overall Stability	-0.6		+0.6	$\times 10^{-6}$	Include all over 10 years
	Holdover Drift	-2		+2	$\times 10^{-9}$	24 hours, temperature variation $\leq \pm 1^{\circ}\text{C}$. After 30 days of continuous operation
	Frequency Retrace Characteristics	-0.05		+0.05	$\times 10^{-6}$	after stabilization / 24 h Off & 1h On @ 25°C
Power Supply	Supply Voltage	3.135	3.3	3.465	V	
	Steady Consumption			300	mA	@ 25°C
	Warm up current			750	mA	
	Warm up time			5	min	@ 25°C within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Phase Noise	Phase Noise		-85	-75	dBc/Hz	1Hz
			-115	-105		10Hz
			-140	-130		100Hz
			-145	-140		1KHz
			-150	-145		10KHz
Environmental Conditions	Operable Temperature	-40		+85	$^{\circ}\text{C}$	
	Storage Temperature	-55		+105	$^{\circ}\text{C}$	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Level 2.				
	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.					
Full Package Storage	Relative humidity (%)	20%~70%				
	Temperature ($^{\circ}\text{C}$)	-10~35 $^{\circ}\text{C}$				

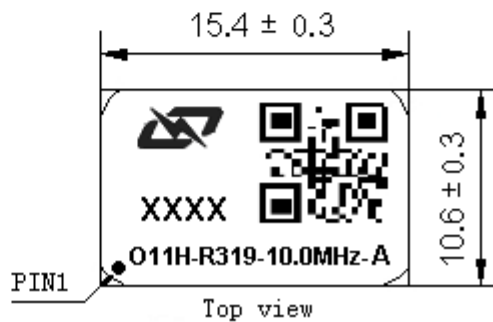


2. Mechanical Structure (mm)



PIN FUNCTION

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



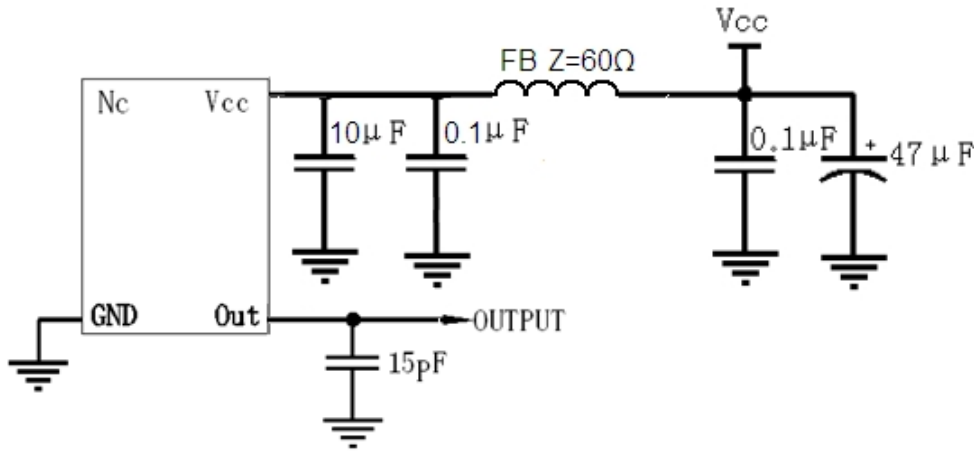
Note1: Tolerance ± 0.2 mm without mark

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

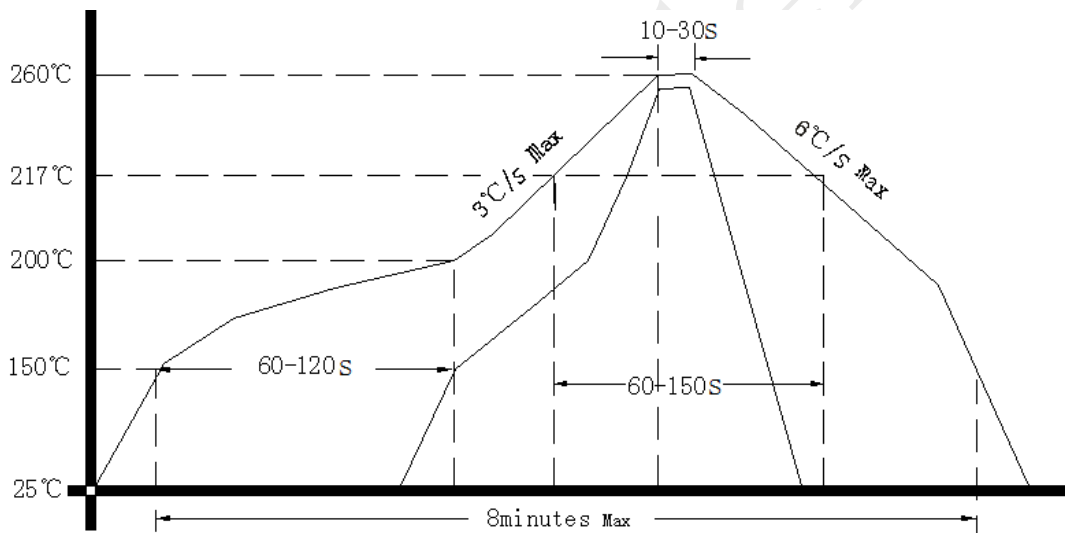
Note3: Referential weight 2.6g



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

