

W/DP RD-Q4187-01-A0

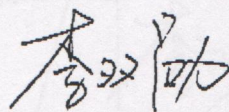
Travelling Merchant: \_\_\_\_\_

# DATASHEET

Standard:           M11A-K819-20.00MHz          

P/N: \_\_\_\_\_

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
<i>Amway.wei</i>	<i>Terry.Yue</i>	<i>James.Liu</i>	
Date: 2013.06.27			



**Guangdong Dapu Telecom Technology Co.,Ltd**

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1. Electrical Parameters

MODEL: M11A-K819-20.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	20.00			MHz	
	Output Waveform	LVCMOS				
	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	45	50	55	%	@50%
	Rise / Fall Time (10%-90%)			7	ns	@25°C
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.3		+0.3	$\times 10^{-6}$	$T_A$ varied from -40°C to 85°C, measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=3.3V, O_{load}=15pF$ , 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 $T_A=25^\circ C, V_{cc}=3.3V$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.05		+0.05	$\times 10^{-6}$	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	-0.05		+0.05	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=3.3V, O_{Load}=15pF$ .
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	$V_{cc}, T_A$ 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	-1		+1	$\times 10^{-6}$	
Power Supply	Current Consumption		15		mA	@25°C, $V_{cc}=3.3V, O_{load}=15pF$ .
	Supply Voltage	3.13	3.3	3.47	V	

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Phase Noise	Phase Noise		-90	-85	dBc/Hz	10Hz
			-115	-110		100Hz
			-135	-130		1KHz
			-145	-140		10KHz
			-145	-140		100KHz
Environmental Conditions	Operable Temperature	-55		+105	°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~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.					

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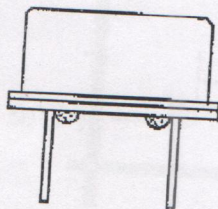
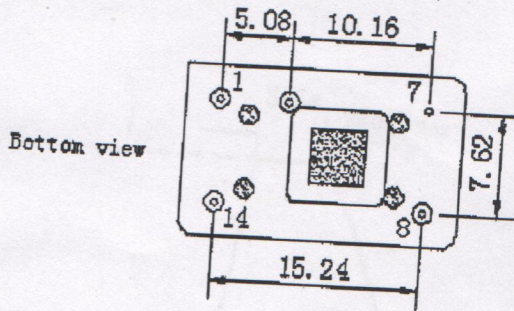
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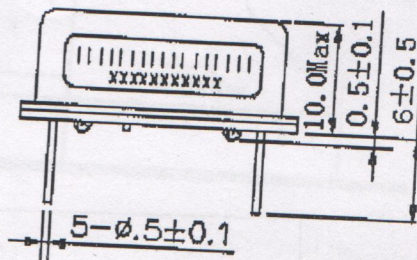
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### 2. Mechanical Structure(mm)

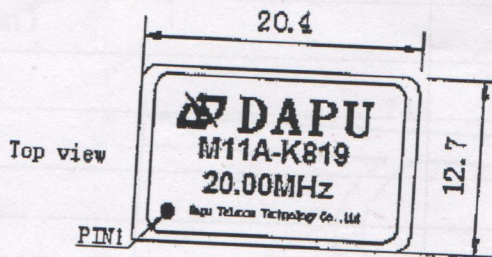


Side view



PIN FUNCTION

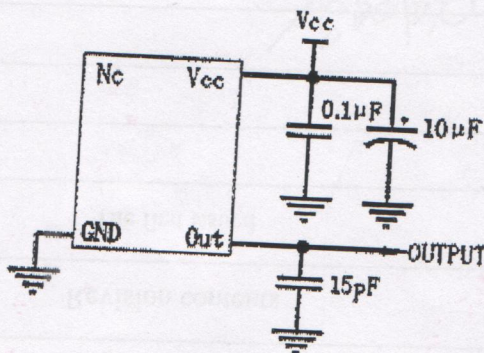
PIN	FUNCTION
1	NC
7	GND
8	OUTPUT
14	VCC



- Note1: Tolerance  $\pm 0.2\text{mm}$  without mark
- Note2: Referential Weight 4.2g
- Note3: NC is not connect

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### 3. Test circuit







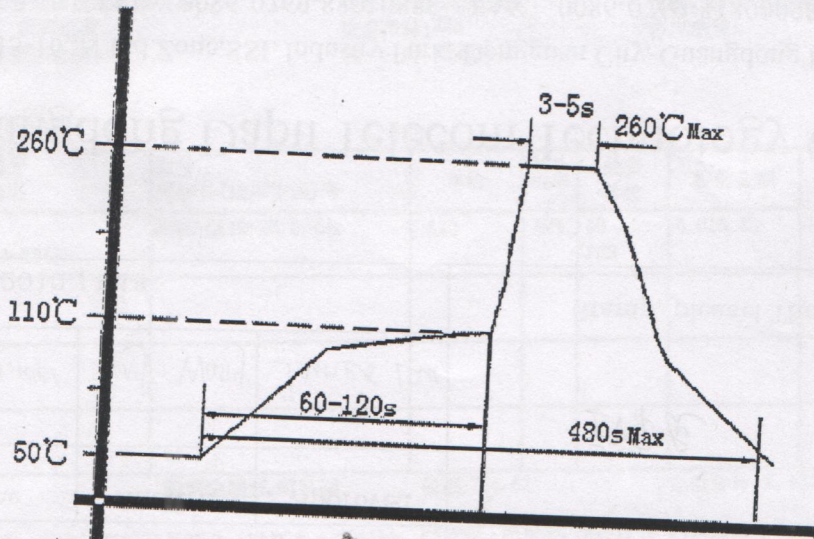
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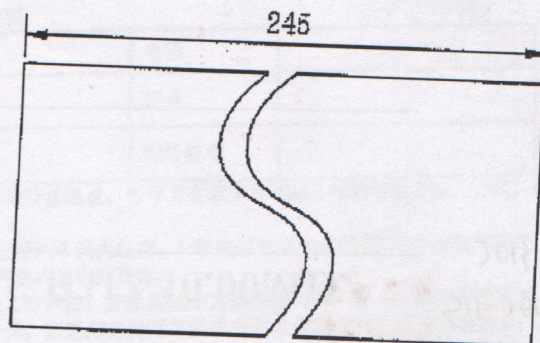
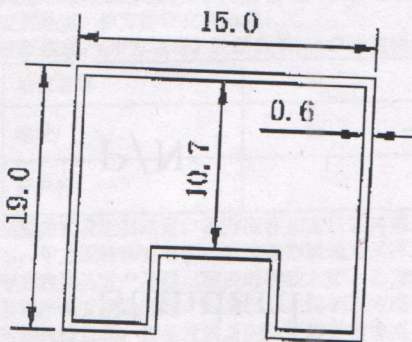
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#### 4. Reflow Soldering Curve (RoHS)



#### 5. Package: PVC Tube, 10pcs (mm)



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