

Customer Code : _____

DATASHEET

DAPU P/N: **T75A-E319-80.00MHz**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2023.07.07			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2023.04.03
1.1	The "Mechanical Structure" changed	<i>Amway</i>	2023.07.07



1. Electrical Parameters

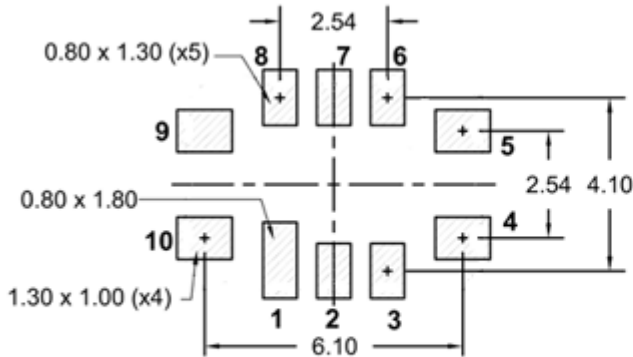
MODEL: T75A-E319-80.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	80.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Output High Voltage	2.4			V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			8	ns	@25°C
	Start-up Time			10	ms	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-6}$	T_A varied from 0°C to 70°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15\text{ pF}$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.05		+0.05	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}, V_{cc}$ varied from 3.13V to 3.47V, and $O_{Load}=15\text{ pF}$.
	Frequency Tolerance vs. Load	-0.05		+0.05	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$.
	Allan Deviation		0.1		$\times 10^{-9}$	1s
	Aging Tolerance Per Day	-0.04		+0.04	$\times 10^{-6}$	$T_A=25^\circ\text{C}, V_{cc}=3.3V$, and after 1h of operation.
	Aging Tolerance 1 Year	-1.5		+1.5	$\times 10^{-6}$	
	Freq.shift after reflow soldering	-1		+1	$\times 10^{-6}$	Two consecutive solder reflows after 1hour recovery@25°C
	Total Frequency Tolerance	-4.6		+4.6	$\times 10^{-6}$	Inclusive of calibration @25°C, frequency vs.change in temperature, change in supply voltage(+/-5%),load change(+/-5%),reflow soldering process and 20years aging.



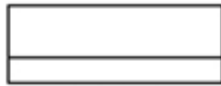
Power Supply	Current Consumption			12	mA	@25°C, V _{cc} =3.3V, O _{Load} =15pF.
	Supply Voltage	3.13	3.3	3.47	V	
Phase Noise	Phase Noise @25°C		-70		dBc/Hz	10Hz
			-100			100Hz
			-120			1KHz
			-140			10KHz
			-150			100KHz
			-155			1MHz
Environmental Conditions	Operable Temperature	0		+70	°C	
	Storage 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; JEDEC JESD22-A115C.				
	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.					
Full Package Storage	Relative humidity (%)	20% ~70%				
	Temperature (°C)	-10~35°C				



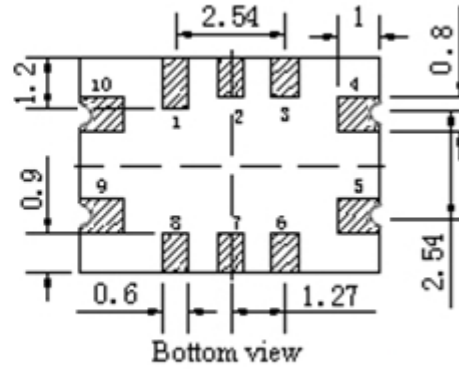
2. Mechanical Structure(mm)



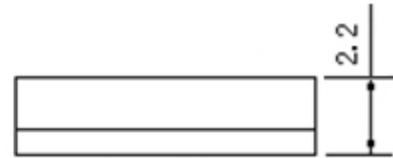
Solder pad layout



Right view



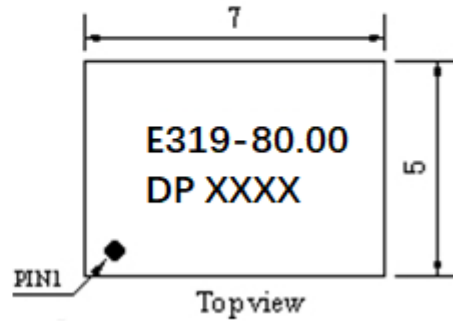
Bottom view



Front view

PIN FUNCTION

PIN	NOTATION	FUNCTION
1, 2, 3, 6, 7	NC	Not Connect
4	GND	GND
5	OUTPUT	RF Output
8	Tri-state	Enable/Disable
9	VCC	Supply Voltage
10	NC	Not Connect



Top view

Note1: Tolerance $\pm 0.20\text{mm}$ without mark

Note2: The first two xx representative: week

After two xx representative: year

Note3: Referential Weight 0.2g

Note4: Output Enable/Disable:

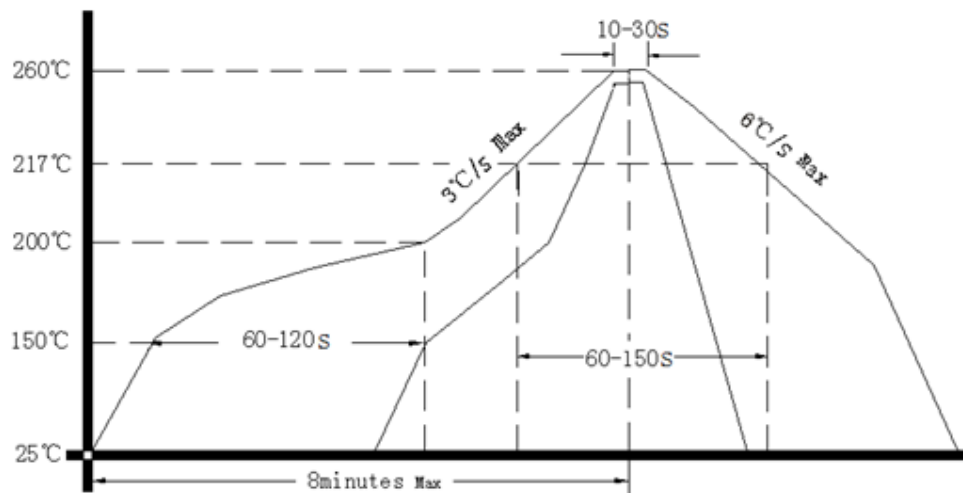
E/D	OUT
high level, open	data
low level	no data



3. Test circuit



4. Reflow Soldering Curve (RoHS)



Note: If soldering with a hot air gun, ensure the temperature < 320°C , soldering time < 15 seconds.

5. Package: Tape & Reel (mm)

