

Customer Code : _____

DATASHEET

DAPU P/N: **T75A-F319-25.00MHz-B**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2023.11.27			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2023.09.26
1.1	The “Phase Noise” changed	<i>Amway</i>	2023.10.23
1.2	The “Initial Frequency Tolerance” changed	<i>Amway</i>	2023.11.27



1. Electrical Parameters

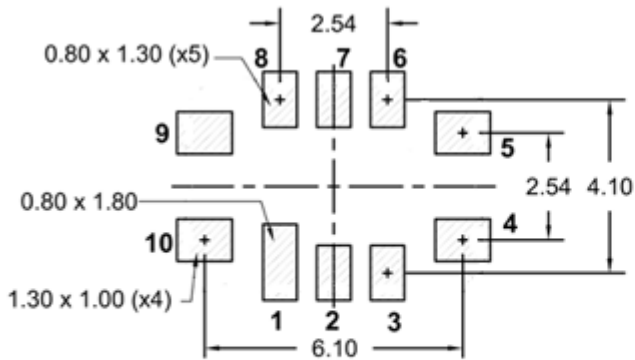
MODEL: T75A-F319-25.00MHz-B						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	25.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Output High Voltage	2.4			V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			8	ns	@25°C
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.5		+0.5	$\times 10^{-6}$	T_A varied from -40°C to 85°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15\text{ pF}$, 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 $T_A=25^\circ\text{C}, V_{cc}=3.3V$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.2		+0.2	$\times 10^{-6}$	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	-0.1		+0.1	$\times 10^{-6}$	10% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$.
	Holdover	-0.8		+0.8	$\times 10^{-6}$	Including frequency stability over temp. Initial Frequency Tolerance, Aging tolerance Per Day.
	Aging Tolerance Per Day	-0.01		+0.01	$\times 10^{-6}$	$T_A=25^\circ\text{C}, V_{cc}=3.3V$, and after 1h of operation.
	Aging Tolerance 15 Years	-2.8		+2.8	$\times 10^{-6}$	
	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.



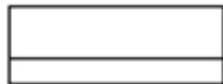
Power Supply	Current Consumption			6	mA	@25°C, V _{cc} =3.3V, O _{Load} =15pF.
	Supply Voltage	3.13	3.3	3.47	V	
Phase Noise	Phase Noise @25°C			-89	dBc/Hz	10Hz
				-118		100Hz
				-140		1KHz
				-152		10KHz
				-154		100KHz
				-154		1MHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage 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				



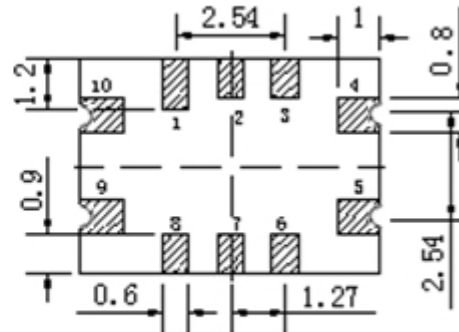
2. Mechanical Structure(mm)



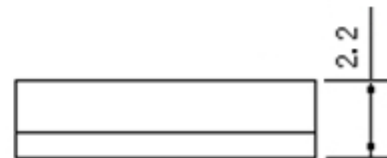
Solder pad layout



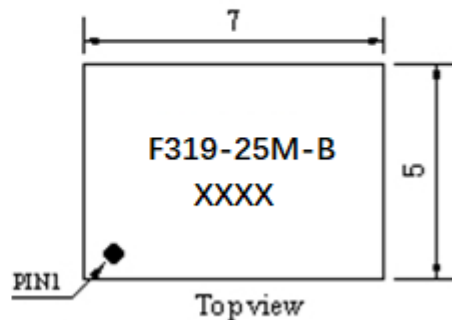
Right view



Bottom view



Front view



Top 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

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

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

Note3: Referential Weight 0.2g

Note4: Output Enable/Disable:

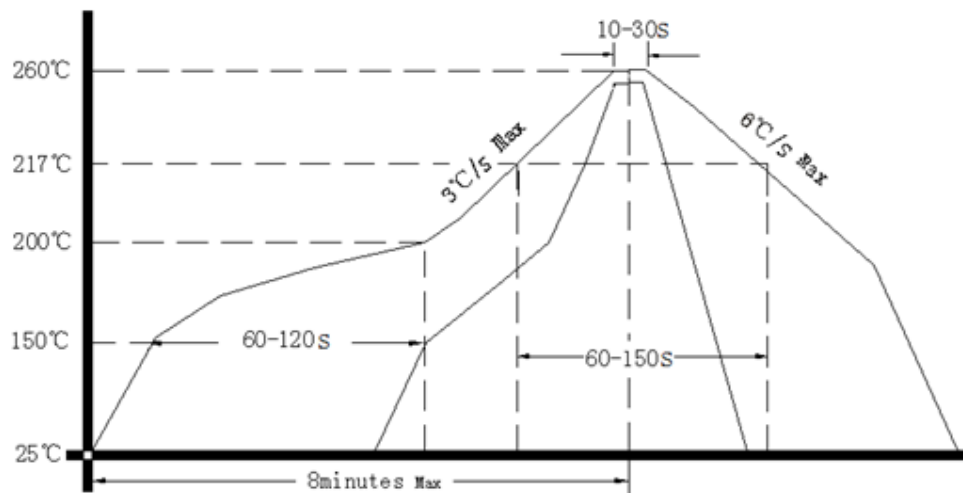
E/D	OUT
high level, open	data
low level	no data



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)

