

Customer Code : \_\_\_\_\_

# DATASHEET

DAPU P/N: T75B-Y319-10.00MHz-A

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

| DAPU             |         |          | Customer Approval      |
|------------------|---------|----------|------------------------|
| Drew             | Audited | Approved | Stamp, please! Thanks! |
|                  |         |          |                        |
| Date: 2020.05.08 |         |          |                        |

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## 1. Electrical Parameters

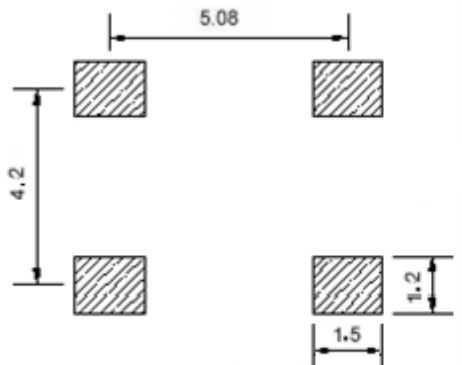
| MODEL: T75B-Y319-10.00MHz-A |   |            |      |       |                  |   |
|-----------------------------|---|------------|------|-------|------------------|---|
| Item                        | Description   | Parameters |      |       | Unit             | Test Condition  |
|                             |   | Min.       | Typ. | Max.  |                  |   |
| Output                      | Frequency   | 10.00      |      |       | MHz              |   |
|                             | Output Waveform                                     | HCMOS      |      |       |                  |   |
|                             | Output Low Voltage                                  |            |      | 0.33  | V                | $V_{cc}=3.3V, O_{load}=15\text{ pF}$  |
|                             | Output High Voltage                                 | 2.97       |      |       | V                | $V_{cc}=3.3V, O_{load}=15\text{ pF}$  |
|                             | Duty Cycle  | 45         | 50   | 55    | %                | @50%  |
|                             | Rise / Fall Time<br>(10%~90%)                       |            |      | 8     | ns               | @25°C   |
|                             | Start time  |            |      | 2     | ms               |   |
|                             | Load  | 15         |      |       | pF               |   |
| 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 $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15\text{ pF}$ , 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              | -0.3       |      | +0.3  | $\times 10^{-6}$ | 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                        | -0.2       |      | +0.2  | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$ .   |
|                             | Aging Tolerance 1 Year                              | -1         |      | +1    | $\times 10^{-6}$ | $T_A=25^\circ\text{C}, V_{cc}=3.3V$ , and after 1h of operation.  |
|                             | Aging Tolerance 20 Year                             | -4.6       |      | +4.6  | $\times 10^{-6}$ |   |
| Power Supply                | Current Consumption                                 |            |      | 6     | mA               | @25°C, $V_{cc}=3.3V, O_{Load}=15\text{ pF}$ .   |
|                             | Supply Voltage                                      | 3.13       | 3.3  | 3.47  | V                |   |



|                          |   |  |      |      |        |        |
|--------------------------|---|--|------|------|--------|--------|
| Phase Noise              | Phase Noise   |  | -95  |      | dBc/Hz | 10Hz   |
|                          |   |  | -120 |      |        | 100Hz  |
|                          |   |  | -140 |      |        | 1KHz   |
|                          |   |  | -147 |      |        | 10KHz  |
|                          |   |  | -150 |      |        | 100KHz |
| 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 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 (°C)  | -10~35°C   |      |      |        |        |



## 2. Mechanical Structure(mm)



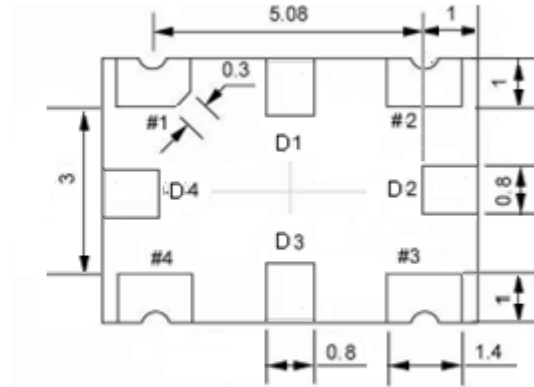
Solder pad layout



Right view

### PIN FUNCTION

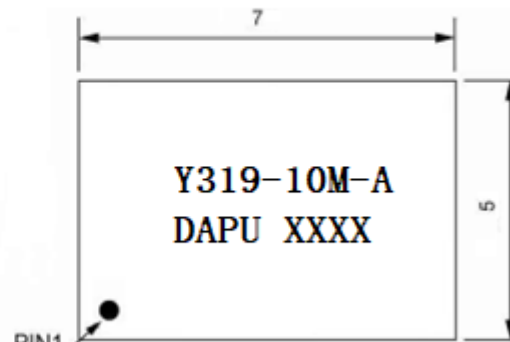
| PIN            | NOTATION | FUNCTION       |
|----------------|----------|----------------|
| D1, D2, D3, D4 | NC       | Not Connect    |
| 1              | NC       | Not Connect    |
| 2              | GND      | GND            |
| 3              | OUTPUT   | RF Output      |
| 4              | VCC      | Supply Voltage |



Bottom view



Side view



Top view

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

**Note2:** The first two xx representative: week

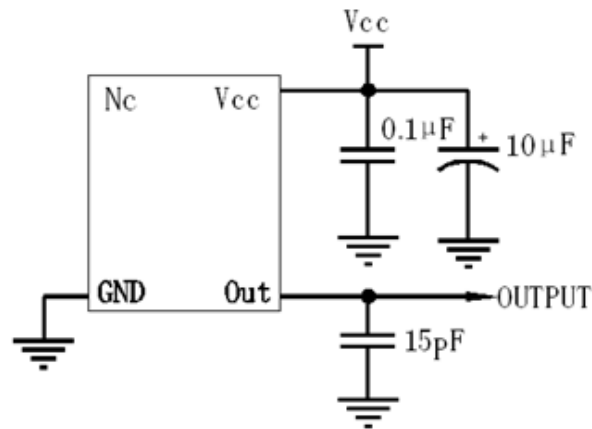
After two xx representative: year

**Note3:** Referential Weight 0.2g

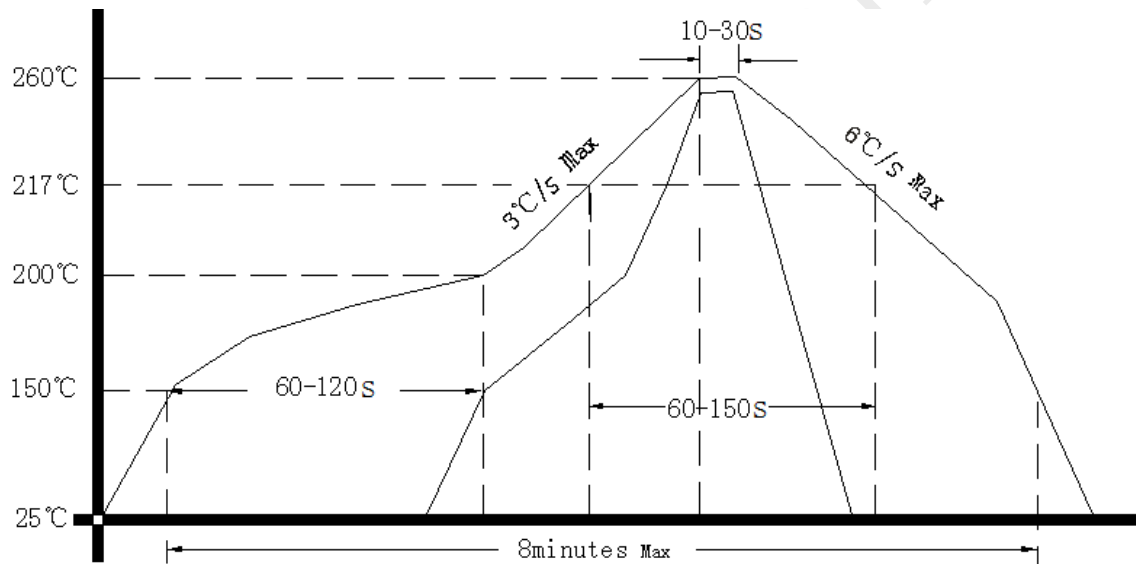
**Note4:** NC is not connect



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package: Tape & Reel (mm)

