

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

# DATASHEET

DAPU P/N : T936-E312-204.80MHz

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

| DAPU             |         |          | Customer Approval      |
|------------------|---------|----------|------------------------|
| Drew             | Audited | Approved | Stamp, please! Thanks! |
|                  |         |          |                        |
| Date: 2024.08.07 |         |          |                        |

## Guangdong Dapu Telecom Technology Co.,Ltd

Building 5, No.24, Industrial East Road, Songshanhu Park, Dongguan, Guangdong, P.R. China

TEL: 0086-0769-88010888 FAX: 0086-0769-81800098





## 1. Electrical Parameters

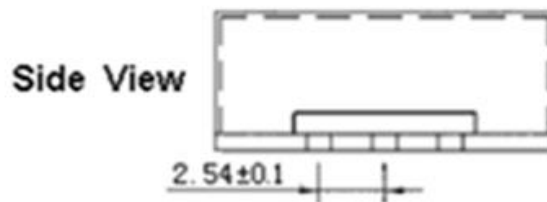
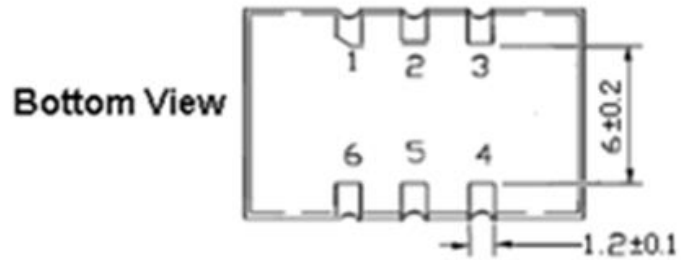
| MODEL: T936-E312-204.80MHZ |   |            |      |      |                  |   |
|----------------------------|---|------------|------|------|------------------|---|
| Item                       | Description   | Parameters |      |      | Unit             | Test Condition  |
|                            |   | Min.       | Typ. | Max. |                  |   |
| Output                     | Frequency   | 204.80     |      |      | MHz              |   |
|                            | Output Waveform                                     | HCMOS      |      |      |                  |   |
|                            | Output Low Voltage                                  |            |      | 0.4  | V                | $V_{cc}=3.3V, O_{load}=15\text{ pF}$  |
|                            | Output High Voltage                                 | 2.7        |      |      | V                | $V_{cc}=3.3V, O_{load}=15\text{ pF}$  |
|                            | Duty Cycle  | 45         | 50   | 55   | %                | @50%  |
|                            | Rise / Fall Time<br>(10%~90%)                       |            |      | 5    | 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 $f_{ref} = (f_{max}+f_{min})/2$ , $V_{cc}=3.3V, V_c=1.65V, O_{load}=15\text{ pF}$ , temperature variable speed less than 2°C per minute. |
|                            | Initial Frequency Tolerance                         | -1.0       |      | +1.0 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, V_c=1.65V$ , and after 15 minutes of operation, within 30 days after ex-works.  |
|                            | Frequency Tolerance vs. Supply Voltage              | -0.1       |      | +0.1 | $\times 10^{-6}$ | measurement referenced to frequency observed $T_A=25^\circ\text{C}, V_{cc}$ varied from 3.13V to 3.47V, $V_c=1.65V$ , and $O_{Load}=15\text{ pF}$ .   |
|                            | Frequency Tolerance vs. Load                        | -0.1       |      | +0.1 | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, V_c=1.65V, O_{Load}=15\text{ pF}$ .  |
|                            | Aging Tolerance Per Day                             | -10        |      | +10  | $\times 10^{-9}$ | $T_A=25^\circ\text{C}, V_{cc}=3.3V, V_c=1.65V$ and after 1h of operation.   |
|                            | Aging Tolerance 1 Year                              | -1         |      | +1   | $\times 10^{-6}$ |   |
| Power Supply               | Current Consumption                                 |            |      | 30   | mA               | @25°C, $V_{cc}=3.3V, O_{Load}=15\text{ pF}$ .   |
|                            | Supply Voltage                                      | 3.13       | 3.3  | 3.47 | V                | @25°C   |



|                                 |  |  |      |     |                  |   |
|---------------------------------|--|--|------|-----|------------------|---|
| Voltage Control Characteristics | Frequency Tuning Range   | -10  |      | -5  | $\times 10^{-6}$ | $V_c=0V$ . measurement referenced to $V_c=1.65V$          |
|                                 |  | -1   |      | +1  | $\times 10^{-6}$ | $V_c=1.65V$ . measurement referenced to exactly 204.80MHz |
|                                 |  | +5   |      | +10 | $\times 10^{-6}$ | $V_c=3.3V$ . measurement referenced to $V_c=1.65V$        |
|                                 | Linearity  |  |      | 10  | %                |   |
|                                 | Slope  | Positive   |      |     |                  |   |
|                                 | Input Impedance  | 100  |      |     |                  | K $\Omega$  |
| Phase Noise                     | Phase Noise  |  | -120 |     | dBc/Hz           | 1KHz  |
| Environmental Conditions        | Operable Temperature   | -40  |      | +85 | $^{\circ}C$      |   |
|                                 | Storage Temperature  | -40  |      | +85 | $^{\circ}C$      |   |
|                                 | 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. |  |      |     |                  |   |

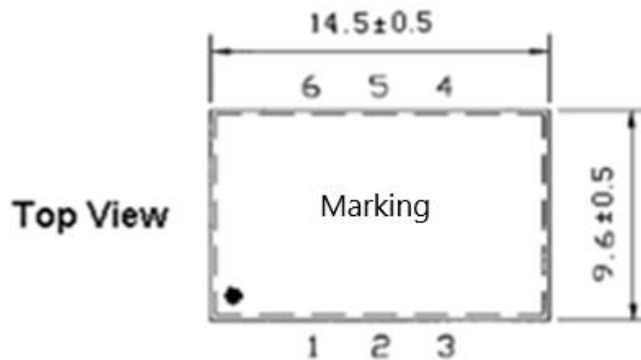


## 2. Mechanical Structure(mm)



### PIN FUNCTION

|   |        |
|---|--------|
| 1 | VC     |
| 2 | NC     |
| 3 | GND    |
| 4 | OUTPUT |
| 5 | NC     |
| 6 | VCC    |



### Marking:



**Note1:** Tolerance  $\pm 0.3\text{mm}$  without mark

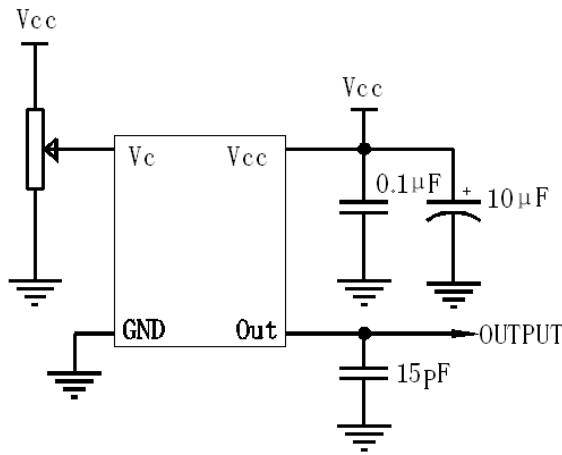
**Note2:** Referential weight 2.2g

**Note3:** NC is not connect

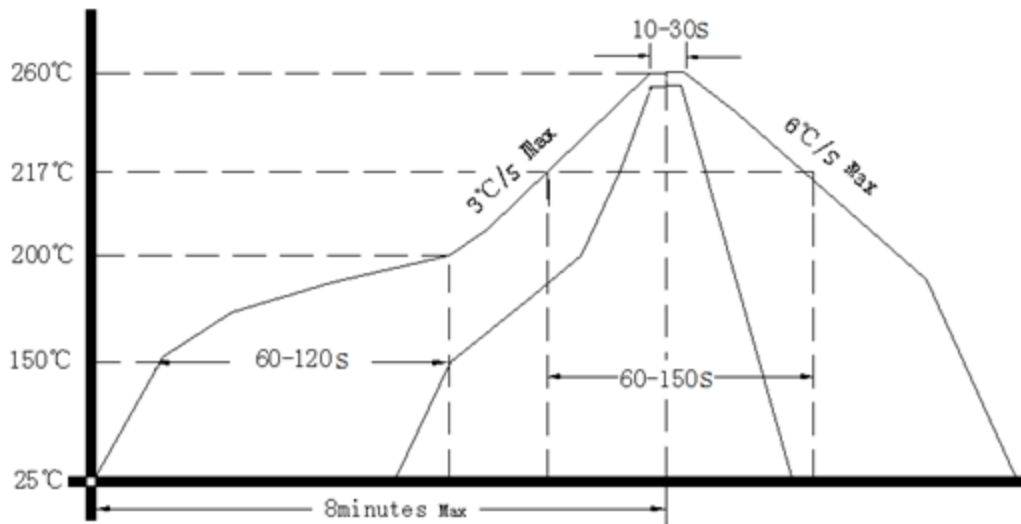
**Note4:** The first two xx representative: year, After two xx representative: week



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



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

