

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

# DATASHEET

DAPU P/N: T53-F519-19.20MHz

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

| DAPU             |                   |                  | Customer Approval      |
|------------------|-------------------|------------------|------------------------|
| Drew             | Audited           | Approved         | Stamp, please! Thanks! |
| <i>Amway.wei</i> | <i>Carry.Wang</i> | <i>James.Liu</i> |                        |
| Date: 2016.04.15 |                   |                  |                        |

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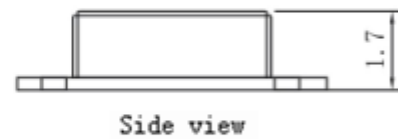
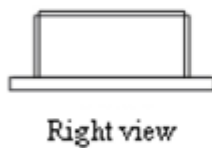
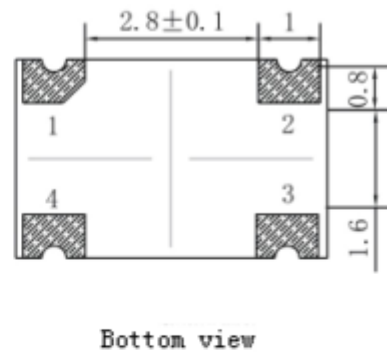
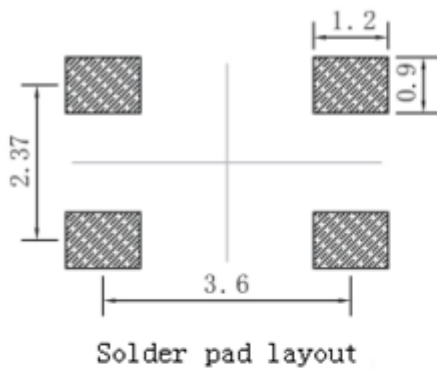
## 1. Electrical Parameters

| MODEL: T53-F519-19.20MHz |   |                   |      |       |                  |  |
|--------------------------|---|-------------------|------|-------|------------------|--|
| Item                     | Description   | Parameters        |      |       | Unit             | Test Condition   |
|                          |   | Min.              | Typ. | Max.  |                  |  |
| Output                   | Frequency   | 19.20             |      |       | MHz              |  |
|                          | Output Waveform                                     | Clipped Sine Wave |      |       |                  |  |
|                          | Vp-p  | 0.8               |      |       | V                |  |
|                          | Load  | 10KΩ//10pF        |      |       |                  |  |
| Frequency Stabilities    | Frequency Tolerance vs. Operating Temperature Range | -0.5              |      | +0.5  | $\times 10^{-6}$ | $T_A$ varied from -40 to 85°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$ , $V_{cc}=3.3V$ , $O_{load}=10K\Omega//10pF$ , 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              | -0.1              |      | +0.1  | $\times 10^{-6}$ | measurement referenced to frequency observed $T_A=25^\circ C$ , $V_{cc}$ varied from 3.13V to 3.47V, and $O_{Load}=10K\Omega//10pF$ .  |
|                          | Frequency Tolerance vs. Load                        | -0.1              |      | +0.1  | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A=25^\circ C$ , $V_{cc}=3.3V$ , $O_{Load}=10K\Omega//10pF$ .   |
|                          | Aging Tolerance Per Day                             | -0.02             |      | +0.02 | $\times 10^{-6}$ | $T_A=25^\circ C$ , $V_{cc}=3.3V$ , and after 1h of operation.  |
|                          | Aging Tolerance 1 Year                              | -1                |      | +1    | $\times 10^{-6}$ |  |
| Power Supply             | Current Consumption                                 |                   |      | 6     | mA               | @25°C, $V_{cc}=3.3V$ , $O_{load}=10K\Omega//10pF$ .  |
|                          | Supply Voltage                                      | 3.13              | 3.3  | 3.47  | V                |  |
| Phase Noise              | Phase Noise @25°C                                   |                   | -85  | -80   | dBc/Hz           | 10Hz   |
|                          |   |                   | -115 | -110  |                  | 100Hz  |
|                          |   |                   | -135 | -130  |                  | 1KHz   |
|                          |   |                   | -145 | -140  |                  | 10KHz  |
|                          |   |                   | -150 | -145  |                  | 100KHz   |
|                          |   |                   | -150 | -145  |                  | 1MHz   |



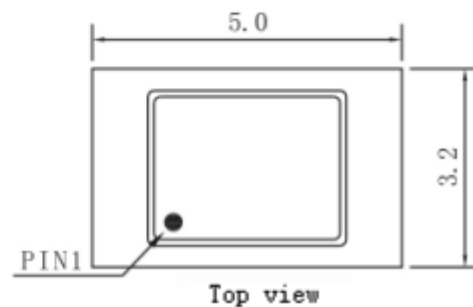
|                          |  |  |      |    |  |
|--------------------------|--|--|------|----|--|
| Environmental Conditions | Operable Temperature   | -40  | +85  | °C |  |
|                          | Storage Temperature  | -55  | +105 | °C |  |
|                          | ESD Level  | Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.   |      |    |  |
|                          |  | Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010.   |      |    |  |
|                          | 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)



### PIN FUNCTION

| PIN | NOTATION | FUNCTION       |
|-----|----------|----------------|
| 1   | NC       | Not Connect    |
| 2   | GND      | GND            |
| 3   | OUTPUT   | RF Output      |
| 4   | VCC      | Supply Voltage |



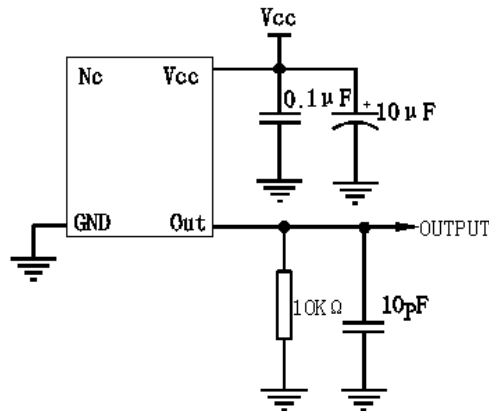
Note1: Tolerance ±0.20mm without mark

Note2: Referential Weight 0.05g

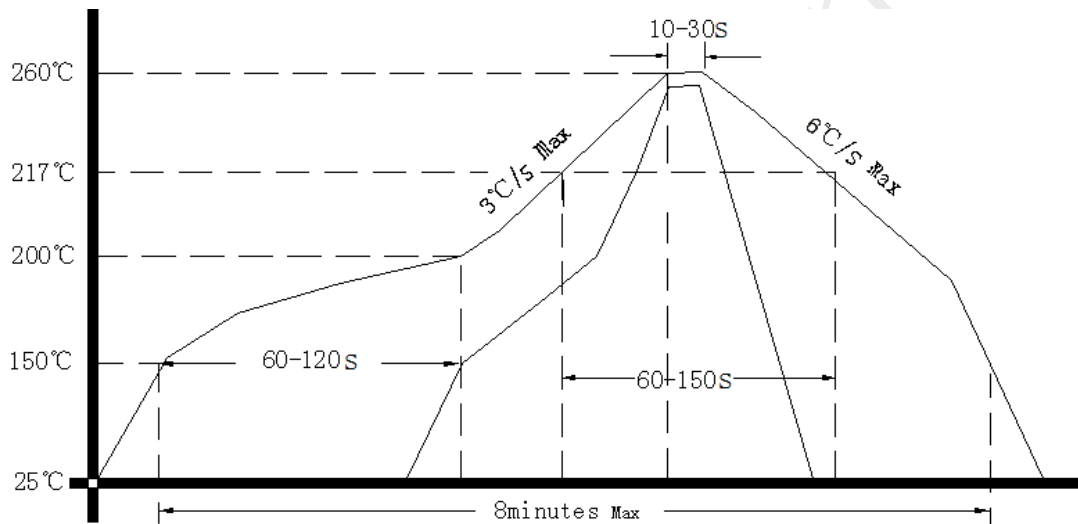
Note3: NC is not connect



### 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)

