

Customer Code : _____

DATASHEET

DAPU P/N: M936-D419-20.00MHz

Customer P/N: _____

| DAPU | | | Customer Approval |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2022.06.27 | | | |

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Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---------|---|--------------|--------------|
| 1.0 | The first issued | <i>Amway</i> | 2016.03.03 |
| 1.1 | The “ESD Level” “Mechanical Structure” “Reflow Soldering Curve” “Package: Tape & Reel” changed | <i>Amway</i> | 2022.06.27 |
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1. Electrical Parameters

| MODEL: M936-D419-20.00MHz | | | | | | |
|---------------------------|---|------------|------|-------|------------------|--|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 20.00 | | | MHz | |
| | Output Waveform | Sine Wave | | | | |
| | Level | 7 | | | dBm | |
| | Harmonics Suppression | | | -30 | dBc | |
| | Spurious Suppression | | | -60 | dBc | |
| | Load | 50 | | | Ω | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -0.05 | | +0.05 | $\times 10^{-6}$ | T_A varied from -20°C to 70°C , measurement referenced to frequency observed with $T_A = 25^{\circ}\text{C}$, $V_{cc} = 3.3\text{V}$, $O_{load} = 50\Omega$, 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 $T_A = 25^{\circ}\text{C}$, $V_{cc} = 3.3\text{V}$ 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 $O_{Load} = 50\Omega$. |
| | Frequency Tolerance vs. Load | -0.05 | | +0.05 | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A = 25^{\circ}\text{C}$, $V_{cc} = 3.3\text{V}$, $O_{Load} = 50\Omega$. |
| | Aging Tolerance Per Day | -0.02 | | +0.02 | $\times 10^{-6}$ | $T_A = 25^{\circ}\text{C}$, $V_{cc} = 3.3\text{V}$, and after 1h of operation. |
| | Aging Tolerance 1 Year | -1 | | +1 | $\times 10^{-6}$ | |
| Power Supply | Current Consumption | | | 15 | mA | @ 25°C , $V_{cc} = 3.3\text{V}$, $O_{load} = 50\Omega$. |
| | 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 |
| | | | -145 | -140 | | 100KHz |
| | | | -148 | -143 | | 1MHz |

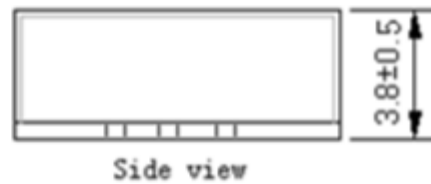
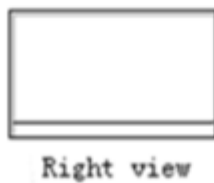
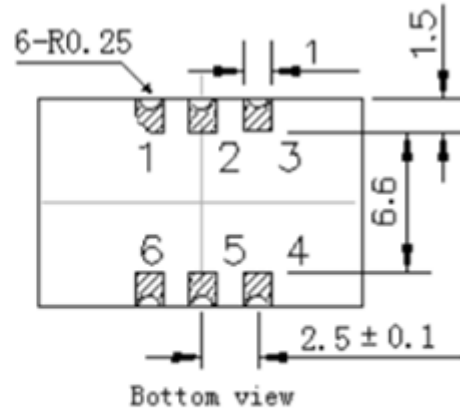
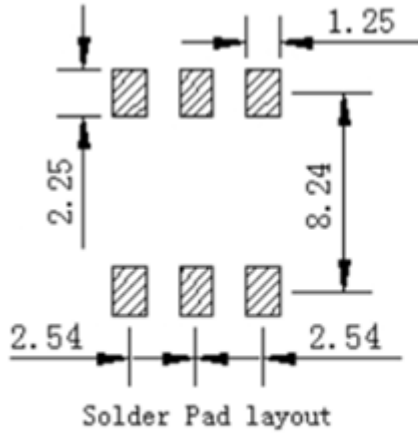


| | | | | | | |
|-----------------------------|---|---|--|------|----|--|
| Environmental Conditions | Operable Temperature | -20 | | +70 | °C | |
| | Storage Temperature | -55 | | +105 | °C | |
| | ESD Level | Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010. | | | | |
| | | Machine 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 | | | | |

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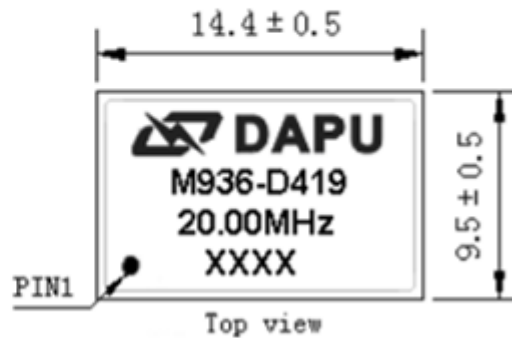


2. Mechanical Structure(mm)



PIN FUNCTION

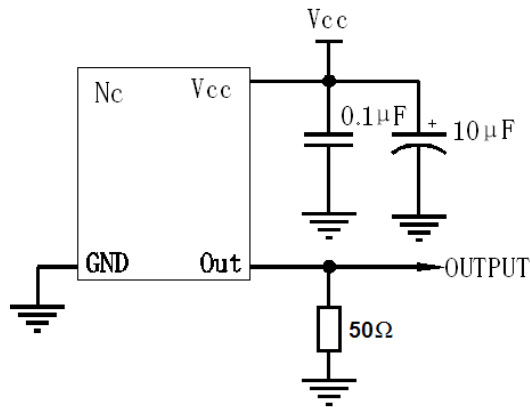
| PIN | NOTATION | FUNCTION |
|-----|----------|----------------|
| 1 | NC | Not Connect |
| 2,5 | NC | Not Connect |
| 3 | GND | GND |
| 4 | OUTPUT | RF Output |
| 6 | VCC | Supply Voltage |



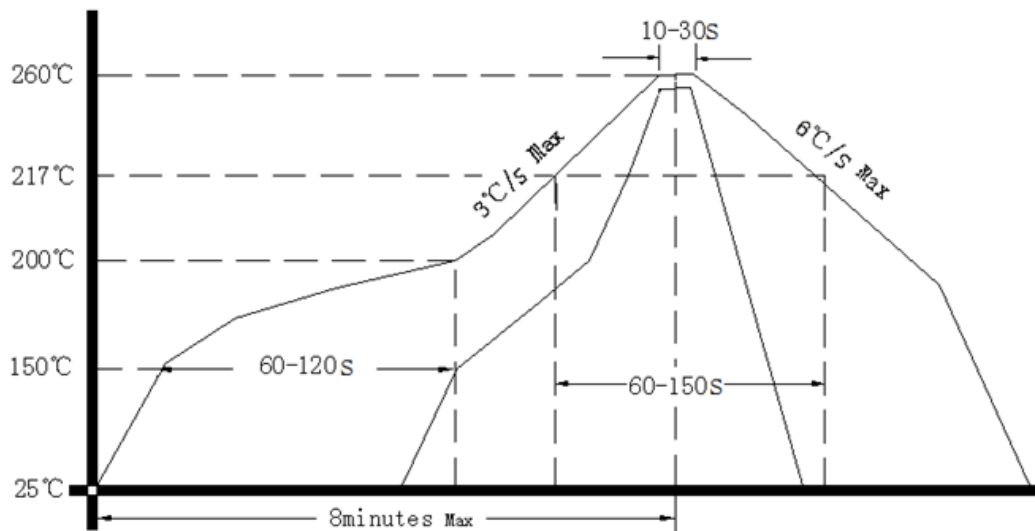
- Note1:** Tolerance $\pm 0.20\text{mm}$ without mark
- Note2:** The first two xx representative: week
After two xx representative: year
- Note3:** Referential Weight 2g
- Note4:** NC is not connect



3. Test circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

