Customer Code : _____

# DATASHEET

DAPU P/N: **M11A-I426-10.00MHz**

Customer P/N: _____

| DAPU | | | Customer Approval |
|---|---|---|---|
| Drew | Audited | Approved | |
| Amway.wei | Carry.Wang | James.Liu | |
| Date: 2016.10.25 | | | Stamp, please! Thanks! |


## Guangdong Dapu Telecom Technology Co.,Ltd

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# Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---|---|---|---|
| 1.0 | The first issued | Amway | 2016.10.25 |
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# 1. Electrical Parameters

| **MODEL： M11A-I426-10.00MHz** | | | | | | |
|---|---|---|---|---|---|---|
| Item | Parameters | Electrical Spec | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | | 10.00 | | 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-40℃ to 85℃, measurement referenced to frequency observed with $T_A$ = 25℃, $V_{cc}$=5.0V, $V_c$=2.5V, $O_{load}$=50Ω, temperature variable speed less than 2℃per minute. |
| | Initial Frequency Tolerance | -1 | | +1 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A$=25℃, $V_{cc}$=5.0V, $V_c$=2.5V 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℃, $V_{cc}$ varied from 4.75V to 5.25V, $V_c$ =2.5V and $O_{Load}$=50Ω. |
| | Frequency Tolerance vs. Load | -0.05 | | +0.05 | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A$=25℃, $V_{cc}$=5.0V, $V_c$=2.5V, $O_{Load}$=50Ω. |
| | Aging Tolerance Per Day | -0.02 | | +0.02 | $\times 10^{-6}$ | $T_A$=25℃, $V_{cc}$=5.0V, $V_c$=2.5V and after 1h of operation. |
| | Aging Tolerance 1 Year | -1 | | +1 | $\times 10^{-6}$ | |
| Power Supply | Current Consumption | | | 20 | mA | @25℃, $V_{cc}$=5.0V, $V_c$=2.5V, $O_{load}$=50Ω. |
| | Supply Voltage | 4.75 | 5.0 | 5.25 | V | |

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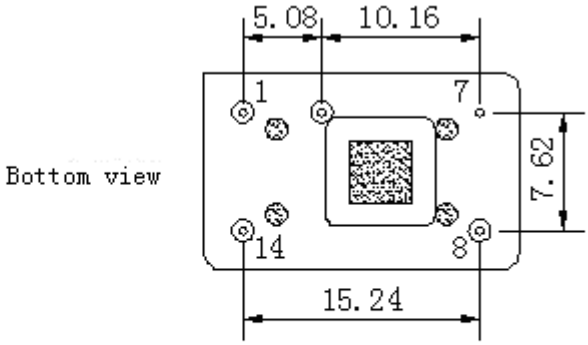
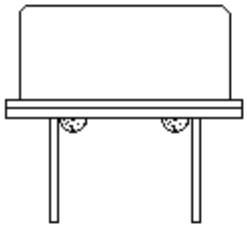
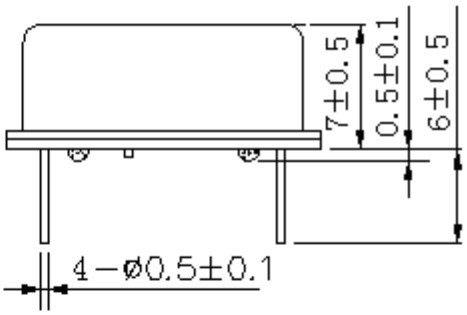
| | | | | | | |
|---|---|---|---|---|---|---|
| Voltage Control Characteristics | Frequency Tuning Range | -15 | | -10 | $\times 10^{-6}$ | $V_c$=0V. measurement referenced to $V_c$=2.5V |
| | | -1 | | +1 | $\times 10^{-6}$ | $V_c$=2.5V. measurement referenced to exactly 10.00MHz |
| | | +10 | | +15 | $\times 10^{-6}$ | $V_c$=5.0V. measurement referenced to $V_c$=2.5V |
| | Linearity | | | 10 | % | |
| | Slope | Positive | | | | |
| | Input Impedance | 100 | | | KΩ | |
| Phase Noise | Phase Noise | | -90 | -85 | dBc/Hz | 10Hz |
| | | | -115 | -110 | | 100Hz |
| | | | -135 | -130 | | 1KHz |
| | | | -145 | -140 | | 10KHz |
| | | | -148 | -143 | | 100KHz |
| | | | 150 | -145 | | 1MHz |
| Environmental Conditions | Operable Temperature | -40 | | +85 | ℃ | |
| | Storage Temperature | -55 | | +105 | ℃ | |
| | 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 (℃) | -10~35℃ | | | | |

## 2. Mechanical Structure(mm)

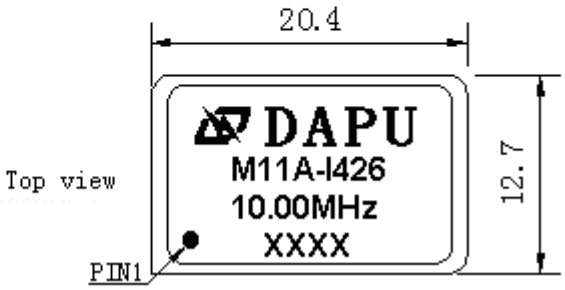



PIN FUNCTION

| PIN | NOTATION | FUNCTION |
|---|---|---|
| 1 | VC | Control Voltage |
| 7 | GND | GND |
| 8 | OUTPUT | RF Output |
| 14 | VCC | Supply Voltage |




**Note1:** Tolerance ±0.20mm without mark

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

**Note3:** Referential weight 4.2g

**Note4:** NC is not connect

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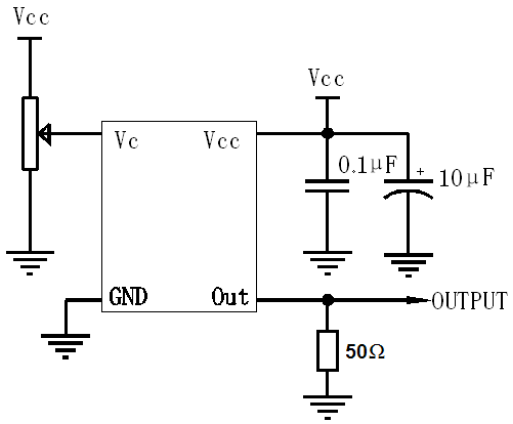
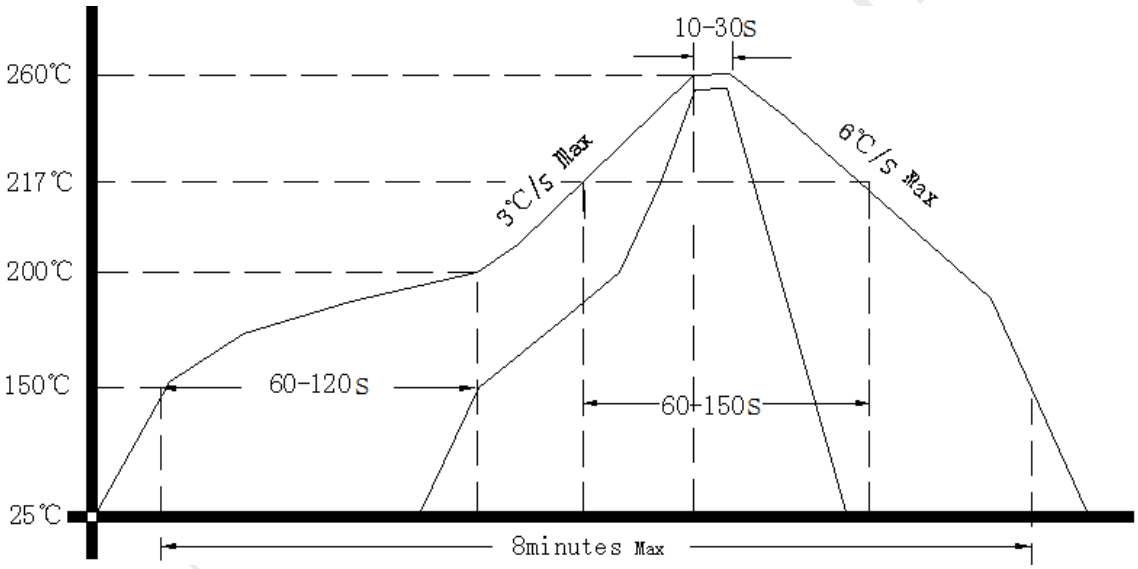
## 3. Test circuit




## 4. Reflow Soldering Curve (RoHS)




## 5. Package: PVC Tube,10pcs（mm）