

Customer Code : _____

DATASHEET

DAPU P/N: **O22B-W446-100.00MHz-A**

Customer P/N: _____

| DAPU | | | Customer Approval |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2024.08.02 | | | |

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Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---------|-------------------|--------------|--------------|
| 1.0 | The first issued | <i>Amway</i> | 2024.08.02 |
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1. Electrical Parameters

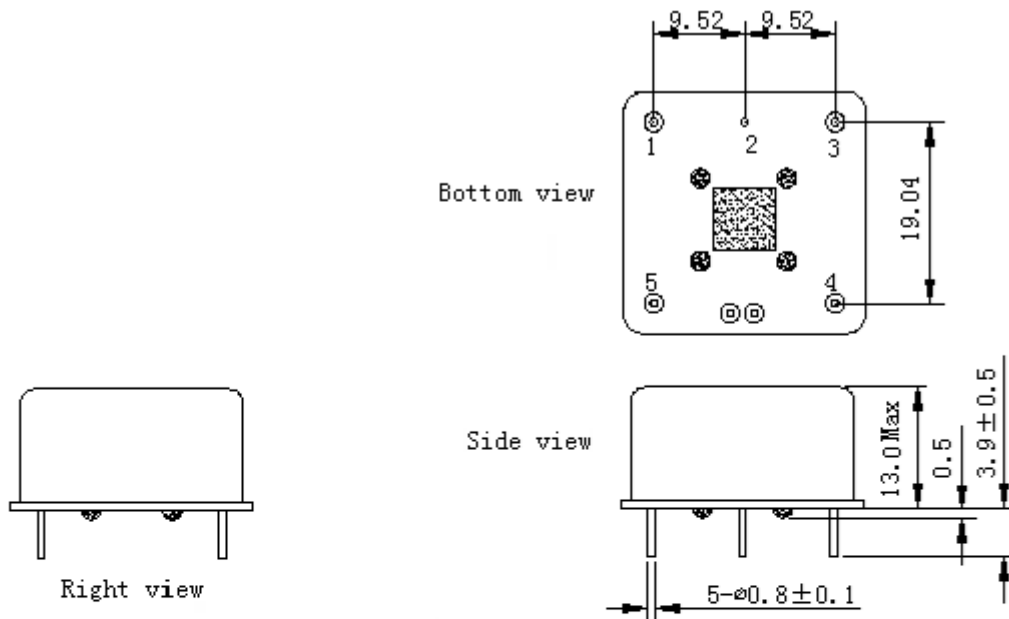
| MODEL: O22B-W446-100.00MHz-A | | | | | | |
|------------------------------|---|------------|------|------|------------------|---|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 100.00 | | | MHz | |
| | Output Waveform | Sine wave | | | | |
| | Level | 14 | | | dBm | |
| | Load | 50 | | | Ω | |
| | Harmonics Suppression | | | -30 | dBc | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -0.1 | | +0.1 | $\times 10^{-6}$ | T_A varied from -40°C to 70°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=12\text{V}$, $O_{\text{load}}=50\Omega$, temperature variable speed less than 2°C per minute. |
| | Initial Frequency Tolerance | -0.1 | | +0.1 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12\text{V}$, $V_c=5\text{V}\pm 0.2\text{V}$ and after 15 minutes of operation, within 30 days after ex-works. |
| | Frequency Tolerance vs. supply voltage | -5 | | +5 | $\times 10^{-9}$ | measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$, V_{cc} varied from 11.4V to 12.6V, $V_c=5\text{V}$, $O_{\text{load}}=50\Omega$. |
| | Frequency Tolerance vs. Load | -5 | | +5 | $\times 10^{-9}$ | 5% Load Change Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12\text{V}$, $V_c=5\text{V}$, $O_{\text{load}}=50\Omega$. |
| | Short Term Stability | | | 0.03 | $\times 10^{-9}$ | Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 1s. |
| | Aging Tolerance per day | -2 | | +2 | $\times 10^{-9}$ | V_{cc}, V_c, T_A constant Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=12\text{V}$, $V_c=5\text{V}$, $O_{\text{load}}=50\Omega$ and after 30 days of operation. |
| | Aging Tolerance 1Year | -0.2 | | +0.2 | $\times 10^{-6}$ | |
| Power Supply | Supply Voltage | 11.4 | 12 | 12.6 | V | |
| | Steady Consumption | | | 200 | mA | @ 25°C |
| | Warm up current | | | 400 | mA | |
| | Warm-Up Time | | | 10 | minutes | @ 25°C within $\pm 0.03 \times 10^{-6}$ of final frequency with reference after 1 hour on. |



| | | | | | | |
|---------------------------------|---|--|--|------|------------------|---|
| Voltage Control Characteristics | Frequency Tuning Range | | | -2 | $\times 10^{-6}$ | $V_c=0V$. measurement referenced to $V_c=5V$. |
| | | -0.1 | | +0.1 | $\times 10^{-6}$ | $V_c=5V$. measurement referenced to exactly 100.00MHz. |
| | | +2 | | | $\times 10^{-6}$ | $V_c=10V$. measurement referenced to $V_c=5V$. |
| | Linearity | | | 10 | % | |
| | Slope | Positive | | | | |
| | Input Impedance | 100 | | | | K Ω |
| Phase Noise | Phase Noise | | | -100 | dBc/Hz | 10Hz |
| | | | | -135 | | 100Hz |
| | | | | -165 | | 1KHz |
| | | | | -180 | | 10KHz |
| | | | | -185 | | 100KHz |
| | | | | -185 | | 1MHz |
| Environmental Conditions | Operable Temperature | -40 | | +70 | $^{\circ}C$ | |
| | Storage Temperature | -55 | | +105 | $^{\circ}C$ | |
| | 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 | Not humidity sensitive. | | | | |
| | Vibration | Test Condition: 0.75mm ;acceleration:10g;10Hz~500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z), IEC 68-2-06 Test Fc. | | | | |
| Shock | 50g; 11ms; 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 ($^{\circ}C$) | -10~35 $^{\circ}C$ | | | | |

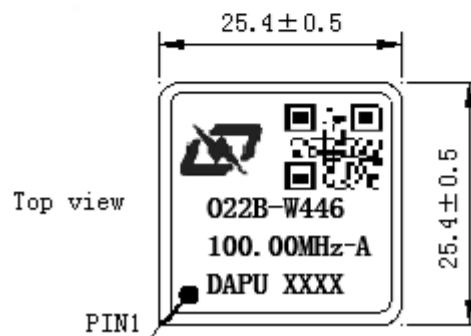


2. Mechanical Structure (mm)



PIN FUNCTION

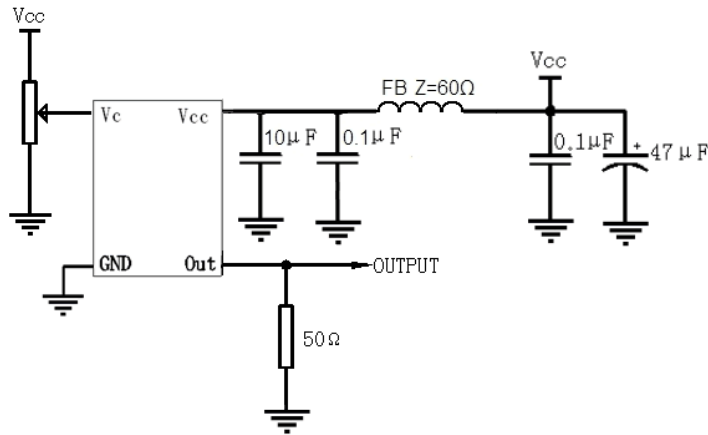
| PIN | NOTATION | FUNCTION |
|-----|----------|-----------------|
| 1 | OUTPUT | RF Output |
| 2 | GND | GND |
| 3 | VC | Control Voltage |
| 4 | NC | Not Connect |
| 5 | VCC | Supply Voltage |



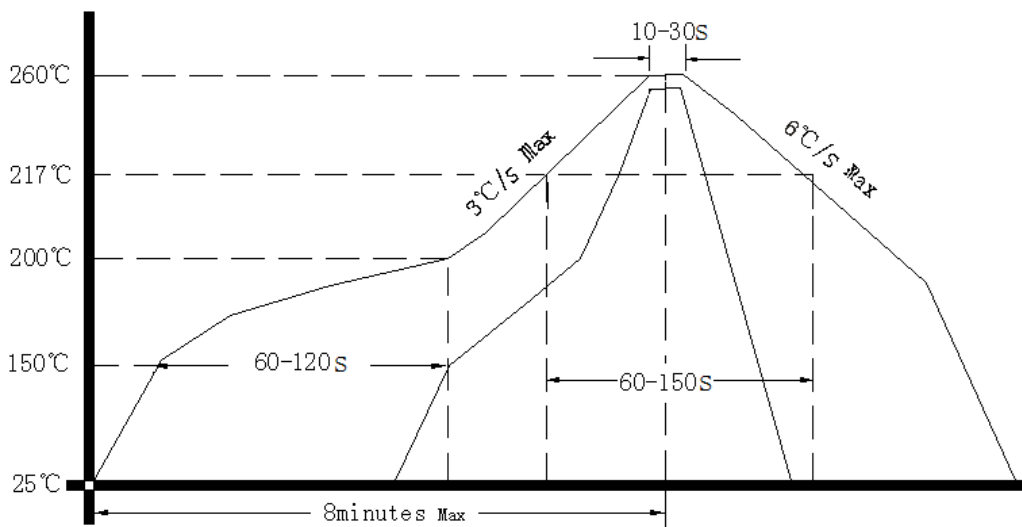
- Note1:** Tolerance ± 0.20mm without mark
- Note2:** The first two xx representative: year
After two xx representative: week
- Note3:** Referential weight 13.6g
- Note4:** NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)

