

Customer Code: _____

DATASHEET

DAPU P/N: 055F-A445-10.00MHz-E

Customer P/N: _____

| DAPU | | | Customer Approval |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2023.10.23 | | | |

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Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---------|-------------------|--------------|--------------|
| 1.0 | The first issued | <i>Amway</i> | 20223.10.23 |
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1. Electrical Parameters

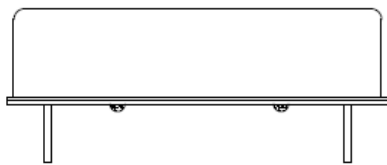
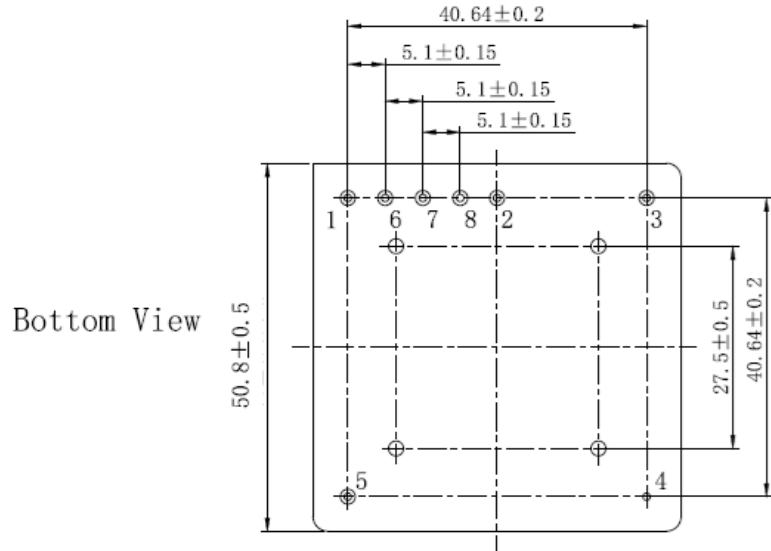
| MODEL: O55F-A445-10.00MHz-E | | | | | | |
|-----------------------------|---|------------|--------|---------|------------------|--|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 10.00 | | | MHz | |
| | Output Waveform | Sine wave | | | | |
| | Level | 7 | | 12 | dBm | |
| | Load | 50 | | | Ω | |
| | Harmonics Suppression | | | -45 | dBc | |
| | Spurious Suppression | | | -80 | dBc | 9 ~ 11MHz |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -1 | | +1 | $\times 10^{-9}$ | T_A varied from 0°C to 70°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, $V_{cc}=12.0V$, $O_{load}=50\Omega$, temperature variable speed less than 2°C per minute. |
| | Initial Frequency Tolerance | -0.03 | | +0.03 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^\circ C$, $V_{cc}=12V$, $V_c=2.5V$, and after 15 minutes of operation, at time of shipment. |
| | Frequency Tolerance vs. supply voltage | -0.5 | | +0.5 | $\times 10^{-9}$ | measurement referenced to frequency observed $T_A=25^\circ C$, V_{cc} varied from 11.4V to 12.6V, $V_c=2.5V$, $O_{load}=50\Omega$. |
| | Frequency Tolerance vs. Load | -0.5 | | +0.5 | $\times 10^{-9}$ | 5% Load Change Measurement referenced to frequency observed with $T_A=25^\circ C$, $V_{cc}=12.0V$, $V_c=2.5V$, $O_{load}=50\Omega$. |
| | Short-Term Stability: Allan Variance | | 0.0002 | | $\times 10^{-9}$ | Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C; 1s. |
| | Aging Tolerance Per Day | -0.5 | | +0.5 | $\times 10^{-9}$ | V_{cc}, V_c, T_A constant Measurement referenced to frequency observed with $T_A=25^\circ C$, $V_{cc}=12.0V$, $V_c=2.5V$, $O_{load}=50\Omega$ and after 30 days of operation. |
| | Aging Tolerance Per 30 Days | -5 | | +5 | $\times 10^{-9}$ | |
| | Aging Tolerance First Year | -0.03 | | +0.03 | $\times 10^{-6}$ | |
| | Aging Tolerance 15 Years | -0.5 | | +0.5 | $\times 10^{-6}$ | |
| | Retrace | | | ± 5 | $\times 10^{-9}$ | |



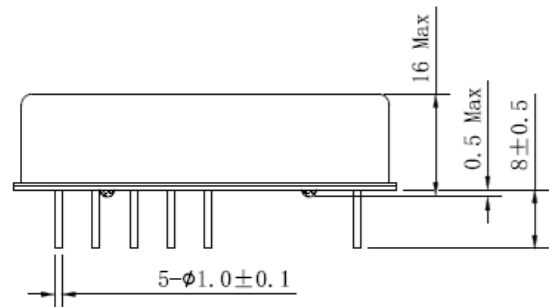
| | | | | | | | |
|---------------------------------|--|---|------|------------|------------|--|--|
| Power Supply | Supply Voltage | 10.5 | 12.0 | 12.6 | V | | |
| | Steady Consumption | | | 150 | mA | @25°C | |
| | Warm up current | | | 400 | mA | | |
| | Warm-Up Time | | | 10 | min | @25°C within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 1hour on | |
| | Oscillator ON/OFF Input Threshold: $\geq 2.4V$ there must be a frequency output. (up to 12.6V input voltage acceptable), When the voltage $\leq 0.4V$, the RF output pin cannot have signal output. | | | | | | |
| | Reference Voltage | 4.925 | 5 | 5.075 | V | | |
| | Reference Voltage Output Impedance | | | 100 | Ω | | |
| Voltage Control Characteristics | Tuning Voltage Range | 0 | 2.5 | 5 | V | | |
| | Tuning Sensitivity | ± 0.15 | | ± 0.25 | ppm/V | | |
| | Linearity | | | 10 | % | | |
| | Slope | Positive | | | | | |
| | Tuning Bandwidth | 1 | | | KHz | | |
| | Input Impedance | 10 | | | K Ω | | |
| Phase Noise | Phase Noise @25°C | | | -50 | dBc/Hz | 0.01 Hz (Insensitive to airflow) | |
| | | | | -88 | | 0.1 Hz | |
| | | | | -119 | | 1Hz | |
| | | | | -145 | | 10Hz | |
| | | | | -157 | | 100Hz | |
| | | | | -160 | | 1KHz | |
| | | | | -166 | | 10KHz | |
| Environmental Conditions | Operating Temperature | 0 | | +70 | °C | | |
| | Operable Temperature | 0 | | +80 | °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 | 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(°C) | -10~35°C | | | | | |



2. Mechanical Structure (mm)

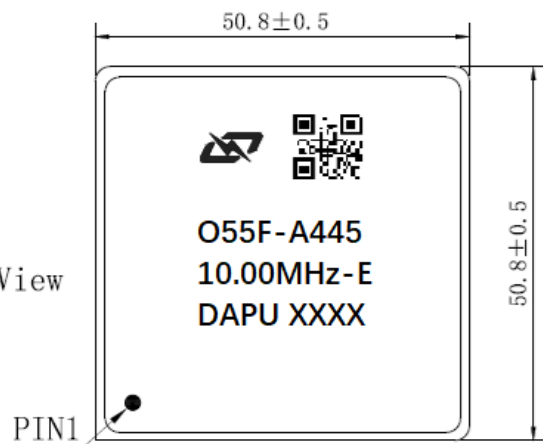


Side View



| Pin | Designation |
|-----|--------------------------|
| 1 | Tuning Voltage Input |
| 2 | Reference Voltage Output |
| 3 | RF Output |
| 4 | Ground |
| 5 | Supply Voltage |
| 6 | Not Connected |
| 7 | Oscillator Enable |
| 8 | Not Connected |

Top View

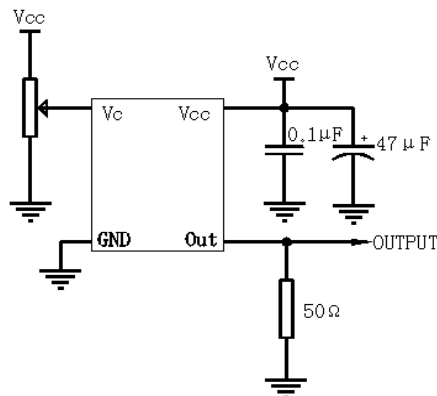


Note1: Tolerance ± 0.20 mm without mark.

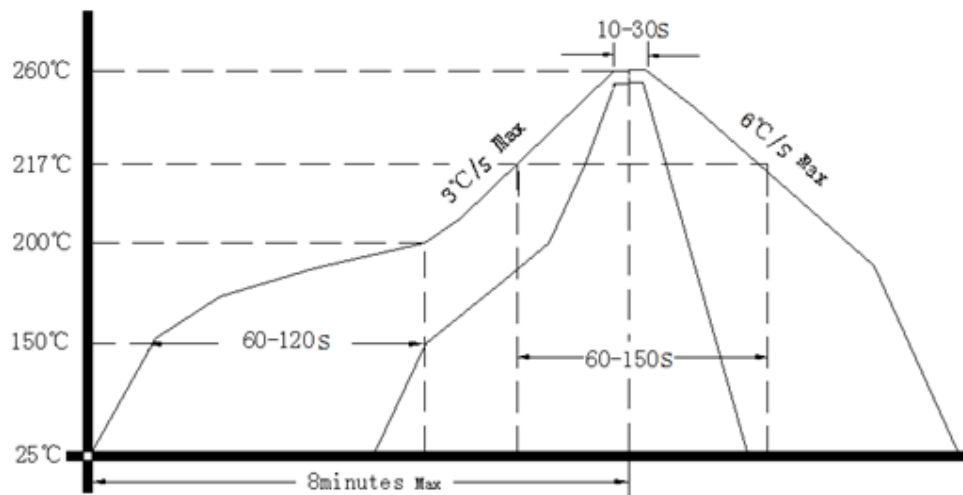
Note2: The first two xx representative: week.
After two xx representative: year.



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

