

Travelling Merchant: _____

DATASHEET

Standard: **O55A-K325-10.00MHz**

P/N: _____

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2018.04.27 | | | |

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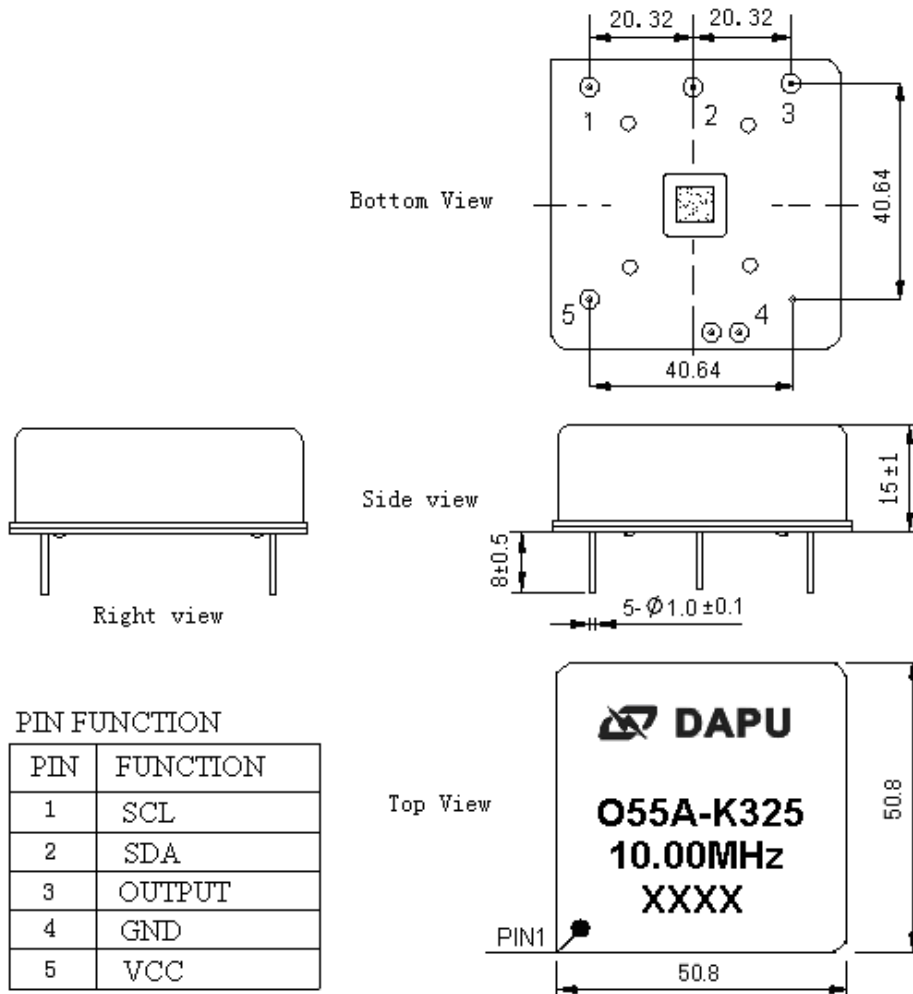
1. Electrical Parameters

| MODEL: O55A-K325-10.00MHz | | | | | | |
|---------------------------|--|------------|------|-------|--------------------|---|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 10.00 | | | MHz | |
| | Output Waveform | HCMOS | | | | |
| | Output Low Voltage | | | 0.4 | V | $V_{cc}=5.0V, O_{load}=15pF$ |
| | Output High Voltage | 2.4 | | | V | $V_{cc}=5.0V, O_{load}=15pF$ |
| | Duty Cycle | 45 | 50 | 55 | % | @50% |
| | Rise / Fall Time (10%~90%) | | | 10 | ns | |
| | Load | 15 | | | pF | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -0.02 | | +0.02 | $\times 10^{-9}$ | T_A varied from $-40^{\circ}C$ to $85^{\circ}C$, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=5.0V, O_{load}=15pF$, temperature variable speed less than $2^{\circ}C$ per minute. |
| | Initial Frequency Tolerance | -0.05 | | +0.05 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, DAC=0x7FFF$, and after 15 minutes of operation, within 30 days after ex-works. |
| | Frequency Tolerance vs. Supply Voltage | -0.02 | | +0.02 | $\times 10^{-9}$ | measurement referenced to frequency observed $T_A=25^{\circ}C, V_{cc}$ varied from 4.75V to 5.25V, $O_{load}=15pF$. |
| | Frequency Tolerance vs. Load | -0.02 | | +0.02 | $\times 10^{-9}$ | 5% load change measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V$, and $O_{Load}=15pF$. |
| | Short-Term Stability: Allan Variance | | | 0.005 | $\times 10^{-9}$ | Temperature stability, no EMI/EMC or other interference, test after power for 1hour ref. to $25^{\circ}C$; 1s, using PN9000 equipment. |
| | G-sensitivity | | | 1.5 | $\times 10^{-9}/G$ | X,Y,Z Total |
| | Aging Tolerance Per Day | -0.1 | | +0.1 | $\times 10^{-9}$ | V_{cc}, T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V$, and after 7 days of operation. |
| | Aging Tolerance 1 Year | -0.01 | | +0.01 | $\times 10^{-6}$ | V_{cc}, T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V$, and after 30 days of operation. |
| Power Supply | Supply Voltage | 4.75 | 5.0 | 5.25 | V | |
| | Steady Consumption | | | 900 | mA | @ $25^{\circ}C$ |
| | Warm up current | | | 3000 | mA | |
| | Warm-up time | | | 15 | min | @ $25^{\circ}C$ within $\pm 0.015 \times 10^{-6}$ of final frequency with reference after 1 hour on. |



| | | | | | | |
|-----------------------------|---|---|------|-------|------------------|--|
| DAC Control Characteristics | Frequency Tuning Range | -0.5 | | -0.2 | $\times 10^{-6}$ | DAC=0x0000. measurement referenced to DAC=0x7FFF |
| | | -0.05 | | +0.05 | $\times 10^{-6}$ | DAC=0x7FFF. measurement referenced to Exactly 10.00MHz |
| | | +0.2 | | +0.5 | $\times 10^{-6}$ | DAC=0xFFFF. measurement referenced to DAC=0x7FFF |
| | Linearity | | | 10 | % | |
| | Slope | Positive | | | | |
| Phase Noise | Phase Noise | | -100 | -90 | dBc/Hz | 1Hz |
| | | | -130 | -120 | | 10Hz |
| | | | -145 | -135 | | 100Hz |
| | | | -150 | -145 | | 1KHz |
| | | | -155 | -150 | | 10KHz |
| | | | -155 | -150 | | 100KHz |
| | | | -155 | -150 | | 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~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)



Note1: Tolerance $\pm 0.2\text{mm}$ without mark

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

Note3: Referential weight 56.1g

3. I2C Devices Address

3.1 DIGITAL-TO-ANALOG CONVERTER,VOLTAGE OUTPUT

Device name : DAC8571

Device supplier : TI

Device address : 1001100

3.2. DIGITAL THERMOMETER AND THERMOSTAT

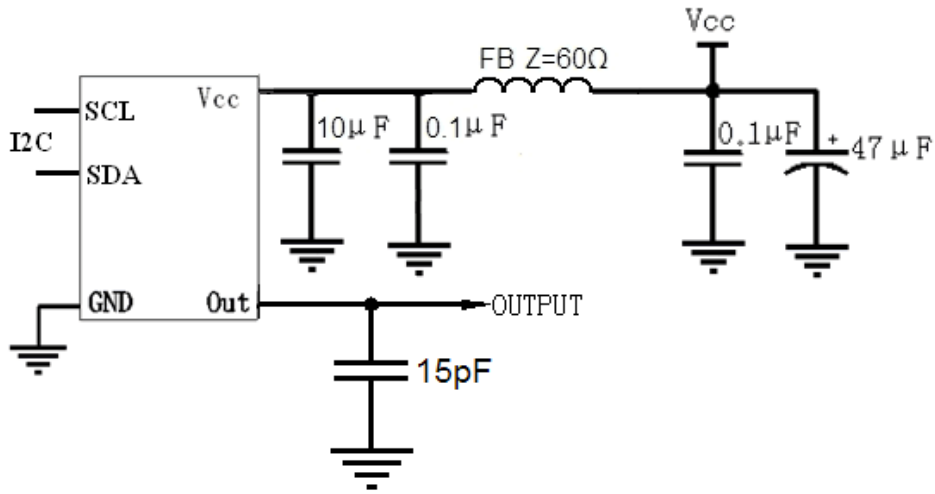
Device name: LM75

Device supplier: National

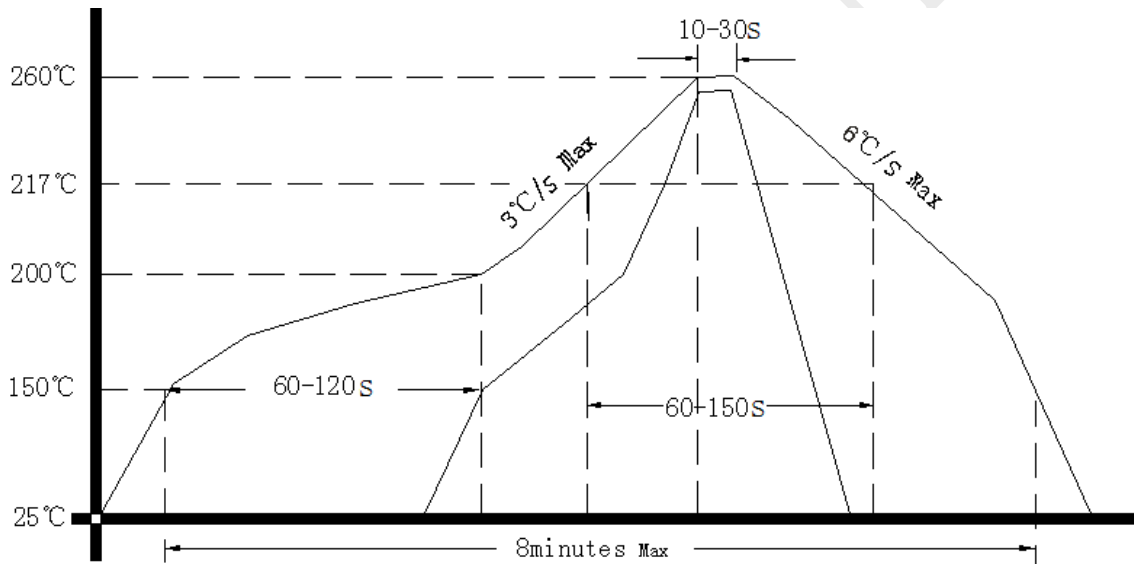
Device address: 1001000

Note: More detailed information see the datasheet provide by the supplier.

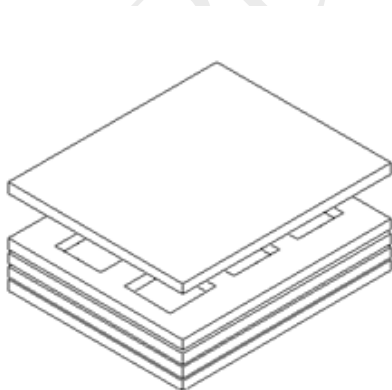
4. Test Circuit



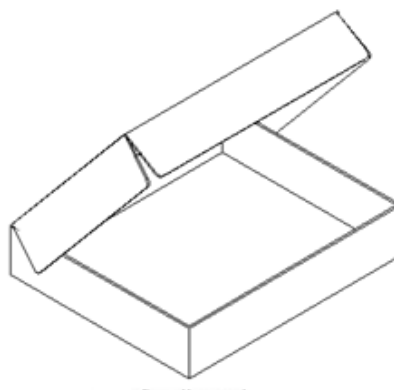
5. Reflow Soldering Curve (RoHS)



5. Package (mm)



Buffer material



Cardboard
Max 6pcs. circulator

