Customer Code : _____

# DATASHEET

DAPU P/N: **T75D-BCAD-10.00MHz-B**

Customer P/N: _____

| DAPU | | | Customer Approval |
|---|---|---|---|
| Drew | Audited | Approved | |
| Amway.wei | Carry.Wang | James.Liu | |
| Date: 2017.04.21 | | | Stamp, please! Thanks! |

## Guangdong Dapu Telecom Technology Co.,Ltd

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# Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---|---|---|---|
| 2.0 | The first issued | Amway | 2017.04.21 |
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# 1. Electrical Parameters

| **MODEL： T75D-BCAD-10.00MHz-B** | | | | | | |
|---|---|---|---|---|---|---|
| Item | Parameters | Electrical Spec | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | | 10.00 | | MHz | |
| | Output Waveform | | HCMOS | | | |
| | Output Low Voltage | | | 0.4 | V | $V_{cc}$=3.3V, $O_{load}$=15 pF |
| | Output High Voltage | 2.8 | | | V | $V_{cc}$=3.3V, $O_{load}$=15 pF |
| | Duty Cycle | 45 | 50 | 55 | % | @50% |
| | Rise / Fall Time （10%~90%） | | | 6 | ns | @25℃ |
| | Load | | 15 | | pF | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -0.5 | | +0.5 | $\times 10^{-6}$ | $T_A$ varied from-20℃ to70℃, measurement referenced to frequency observed with $T_A$ = 25℃, $V_{cc}$= 3.3V, $V_c$=1.65V, $O_{load=}$ 15pF, temperature variable speed less than 2℃per minute. |
| | Initial Frequency Tolerance | -0.5 | | +0.5 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A$ = 25℃±3℃, $V_{cc}$=3.3V, $V_c$=1.65V within 30 days after ex-works. |
| | Frequency Tolerance vs. Supply Voltage | -0.2 | | +0.2 | $\times 10^{-6}$ | measurement referenced to frequency observed $T_A$=25℃, $V_{cc}$ varied from 3.13V to 3.47V, $V_c$=1.65V and $O_{Load}$= 15pF . |
| | Frequency Tolerance vs. Load | -0.2 | | +0.2 | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A$=25℃, $V_{cc}$=3.3V, $V_c$=1.65V, $O_{Load}$= 15pF |
| | Aging Tolerance Per Day | -0.02 | | +0.02 | $\times 10^{-6}$ | $T_A$=25℃±3℃, $V_{cc}$=3.3V, $V_c$=1.65V and after 1h of operation. |
| | Aging Tolerance 1 Year | -1.0 | | +1.0 | $\times 10^{-6}$ | |
| Power Supply | Current Consumption | | 3.0 | | mA | @25℃, $V_{cc}$=3.3V, $V_c$=1.65V, $O_{load}$=15pF. |
| | Supply Voltage | 3.13 | 3.3 | 3.47 | V | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| Voltage Control Characteristics | Frequency Tuning Range | -4 | | -2 | $\times 10^{-6}$ | $V_c$=0V. measurement referenced to $V_c$=1.65V |
| | | -0.5 | | +0.5 | $\times 10^{-6}$ | $V_c$=1.65V. measurement referenced to Exactly10.00MHz |
| | | +2 | | +4 | $\times 10^{-6}$ | $V_c$=3.3V. measurement referenced to $V_c$=1.65V |
| | Linearity | | | 10 | % | |
| | Slope | Positive | | | | |
| | Input Impedance | 100 | | | KΩ | |
| Phase Noise | Phase Noise | | -130 | | dBc/Hz | 1KHz |
| Environmental Conditions | Operable Temperature | -20 | | 70 | ℃ | |
| | Storage Temperature | -40 | | +80 | ℃ | |
| | 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℃ | | | | |

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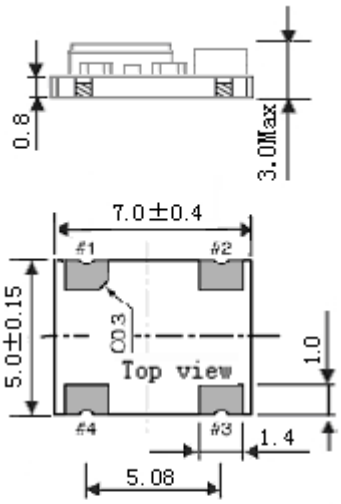
## 2. Mechanical Structure(mm)

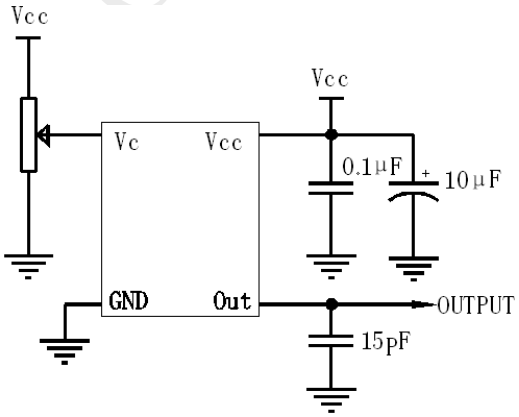



PIN FUNCTION

| | |
|---|---|
| 1 | VC |
| 2 | GND |
| 3 | OUTPUT |
| 4 | VCC |

**Note1:** Tolerance ±0.20mm without mark
**Note2:** Referential weight 0.3g

## 3. Test circuit



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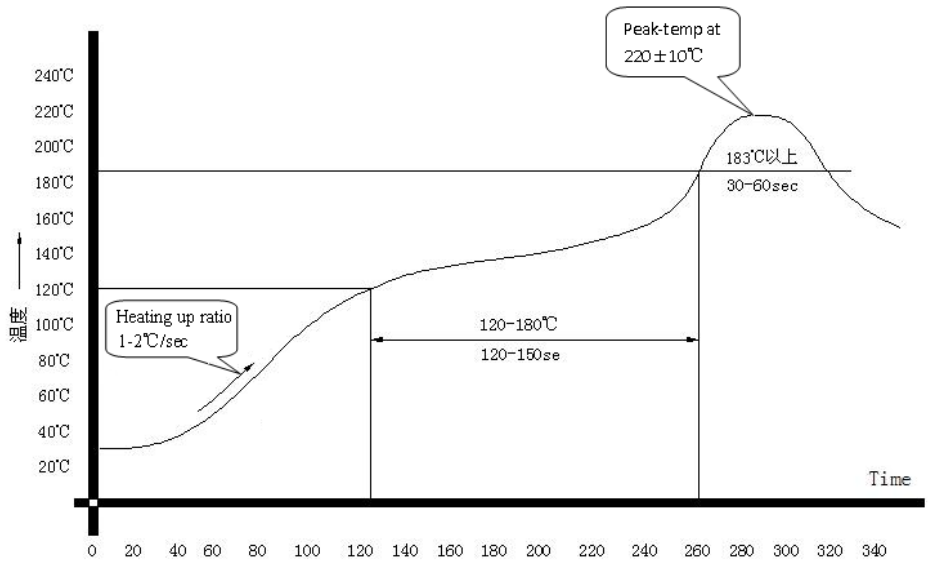
## 4. Reflow Soldering Curve (RoHS)




## 5. Package: Tape & Reel (mm)