

Customer Code: _____

DATASHEET

DAPU P/N: DPB32125M000AE0ZEB0

| DAPU | | | Customer Approval |
|------------------|----------------|-----------------|--------------------------|
| Drew | Audited | Approved | |
| Jieshu ZHENG | Jianhua LIN | Gangtao FENG | |
| Date : 2024/7/18 | | | |

Stamp, please! Thanks!

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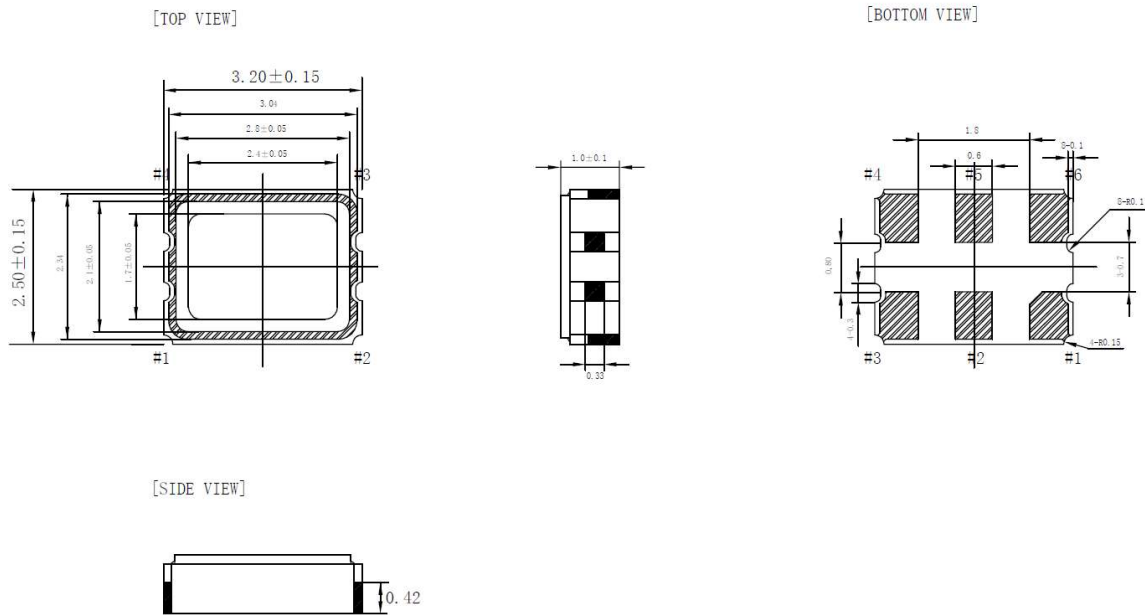
Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---------|-------------------|-----------------|--------------|
| 1.0 | The first issued | Jieshu ZHENG | 2024/7/18 |
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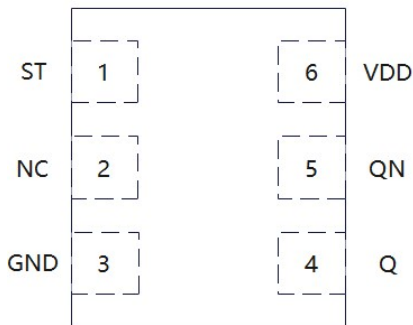
1、Electrical Parameter

| MODEL : | | DPB32125M000AE0ZEB0 | | | | | |
|---------|-----------------------|---------------------|------------------|------|---------|-------|--|
| No. | Parameters | SYM. | Electrical Spec. | | | | Notes |
| | | | Min. | Typ. | Max. | Units | |
| 1 | Nominal Frequency | FL | 125.000 | | | MHz | |
| 2 | Oscillation Mode | - | 3rd | | | | |
| 3 | Total Stability | - | -35 | | 35 | ppm | Includes initial frequency tolerance, frequency temperature coefficient, frequency voltage coefficient, Output load, 1 year aging. |
| 4 | Operating Temperature | Topr | -40 | | 85 | °C | |
| 5 | Storage Temperature | Tstg | -55 | | 125 | °C | |
| 6 | Supply Voltage | VDD | 2.97 | 3.3 | 3.63 | V | VDD±10% |
| 7 | Current Consumption | Idd_ST | | | 10 | uA | ST = "L" |
| | | Idd | | | 70 | mA | ST = "H" or Floating, excluding load termination current. |
| 8 | Output waveform | - | LVPECL | | | - | |
| 9 | Output Load | CL | 50 | | | Ω | Connected between Q and QN |
| 10 | Output Voltage High | VOH | Vcc-1.3 | | Vcc-0.9 | V | |
| 11 | Output Voltage Low | VOL | Vcc-2.1 | | Vcc-1.7 | V | |
| 12 | Rise/Fall Time | Tr/Tf | | | 1.5 | ns | @20% -80% |
| 13 | Aging | - | -3 | | 3 | ppm | First Year at 25°C |
| 14 | Output Enable | - | 70%VDD | | | V | For ST Pin |
| | Output Disable | - | | | 30%VDD | V | For ST Pin |
| 15 | Duty Cycle | - | 45~55 | | | % | |
| 16 | Start-Up Time | Tstart | | | 10 | ms | Measured from the time VDD reaches its rated minimum value. |
| 17 | Phase Jitter(RMS) | | | | 250 | fs | 12kHz to 20MHz |

2、Mechanical Structure

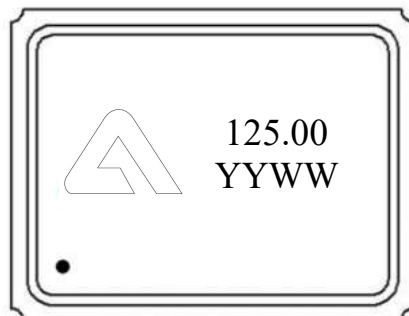


3、Pin Description



| Pin | No | Function | |
|-----|-----|----------|---|
| 1 | ST | INPUT | H or Open: Frequency Output |
| | | | L: Output is high impedance |
| 2 | NC | NA | No Connect: Leave it floating or connect to GND |
| 3 | GND | Power | Power Supply Ground |
| 4 | Q | Output | Oscillator Output |
| 5 | QN | Output | Complementary Oscillator Output |
| 6 | VDD | Power | Power Supply VDD |

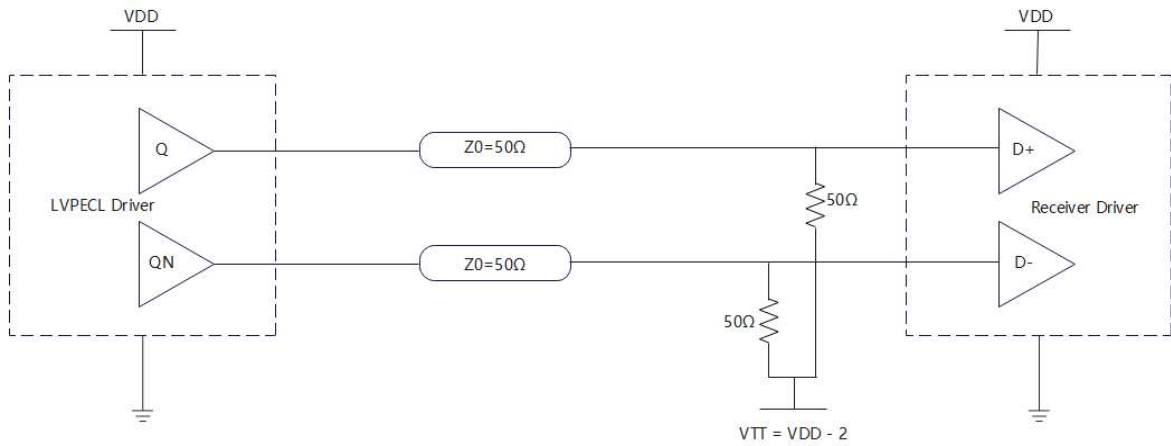
4、Marking



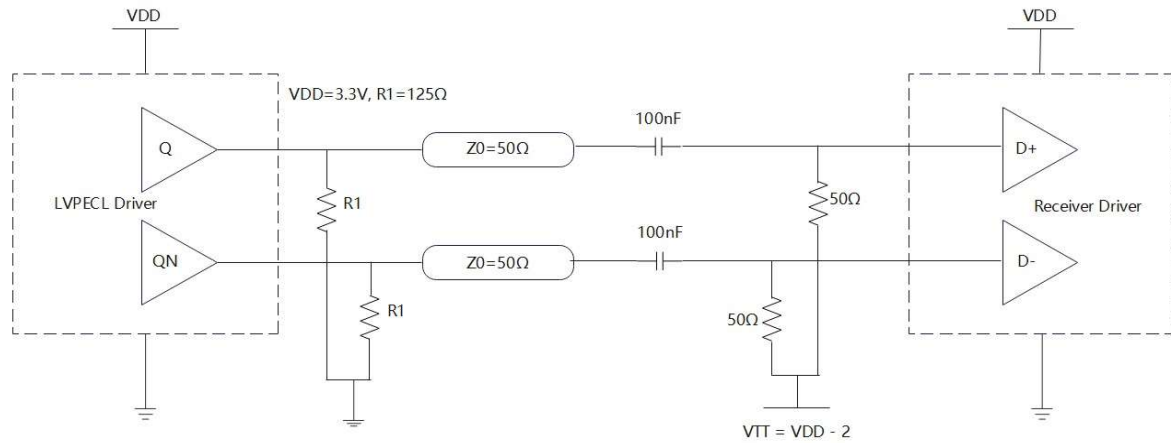
YY:Year
 WW:Week

Pin1

5、 Test Circuit

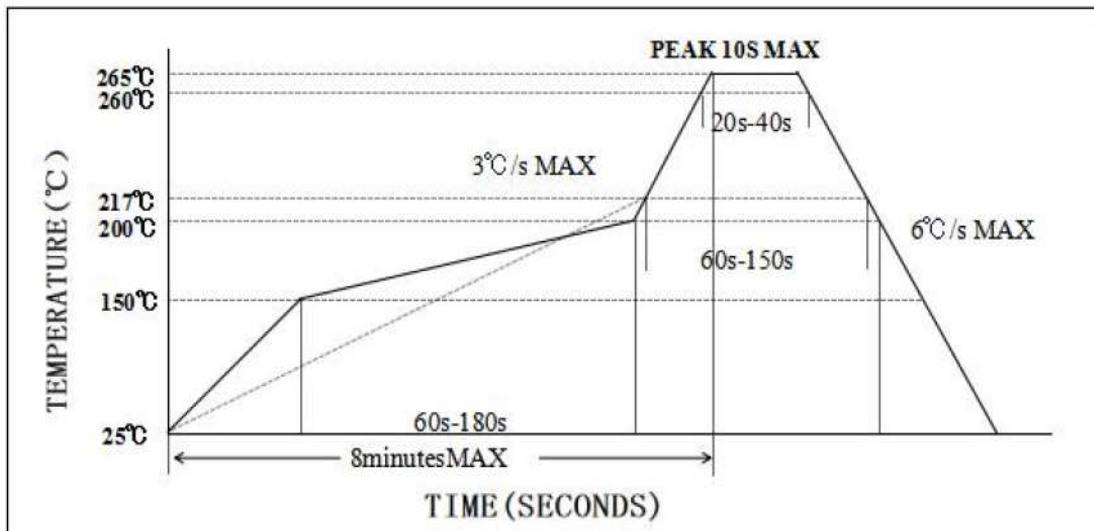


DC-Coupled LVPECL – VTT Bias

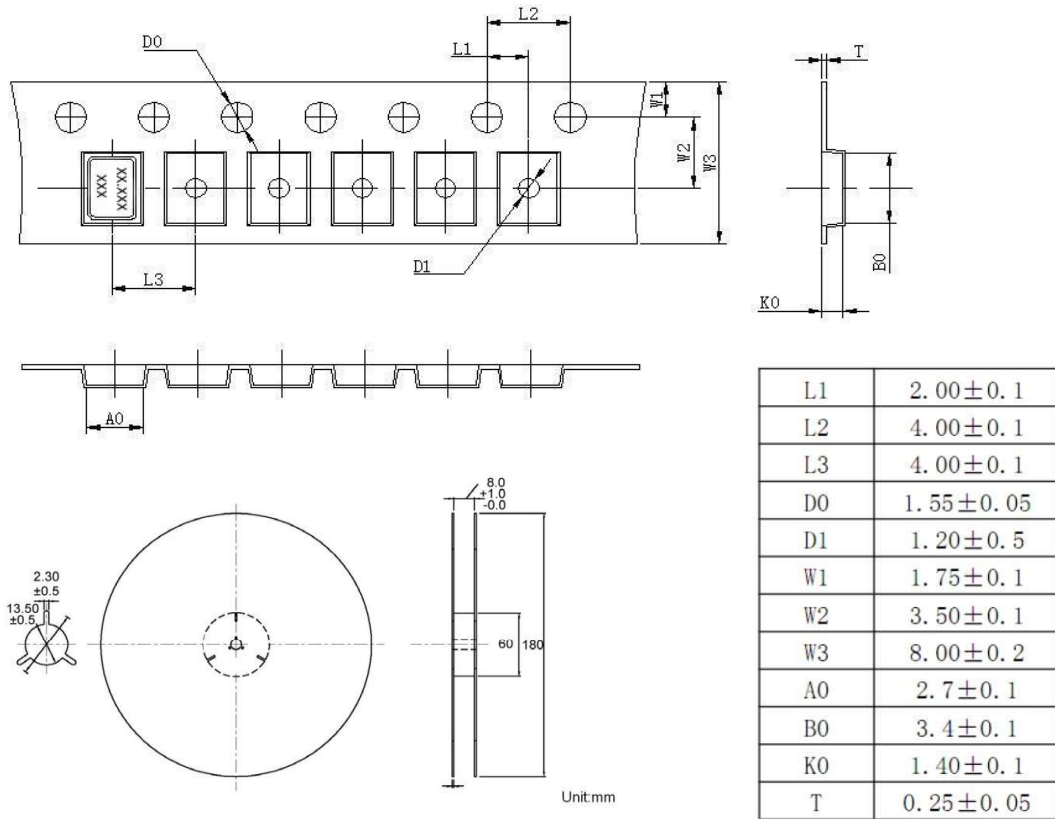


AC-Coupled LVPECL – VTT Bias

6、 Reflow Soldering Curve (RoHS)



7、 Package: Tape & Reel (mm)



8、 Reliability Test Specification

| NO. | Test Items | Test Standard | Test Condition | Standard |
|-----|------------------|---------------|---|----------|
| 1 | Drop test | GB/T2423.8 | Drop from 150cm height on 3cm hard wooden board for 3 times | A、 C |
| 2 | Mechanical shock | GB/T2423.5 | Peak: 100g; Waveform: Half-sine; Velocity Change: 1000m/s ² ; Duration: 0.5ms; 3 times/direction, Direction: +X, -X, +Y, -Y, +Z, -Z. | A、 C |
| 3 | Vibration | GB/T2423.10 | Frequency: 10~2000Hz ; Vibration:20min, 1.52mm; Direction: X, Y, Z; Duration: 2 hours/direction. | A、 C |
| 4 | Solderability | IEC60068-2-58 | Soldering temperature:245°C±5°C Immersion time:5 seconds ± 0.5 seconds Flux:Rosin Resin Methanol Solvent (1 : 4) | E |

| NO. | Test Items | Test Standard | Test Condition | Standard |
|-----|--|---------------|--|----------|
| 5 | Resistance to soldering heat | IEC60068-2-58 | Reflow soldering: Solder temperature 260±5°C, Immersion time:10±1S | A、 C、 D |
| 6 | High temperature storage | GB/T2423.2 | Temperature: 125°C±2°C; Duration: 500±12hours; | A、 C、 D |
| 7 | Low temperature storage | GB/T2423.1 | Temperature: -40°C±2°C; Duration: 500±12hours; | A、 C、 D |
| 8 | Temperature Shock | GB/T2423.22 | Do 10 cycles at the following temperature | A、 C、 D |
| | | | <p>The diagram illustrates a temperature shock cycle. The temperature starts at 25 °C, drops to -55 ± 3 °C, stays there for 30 minutes, then rises to +125 ± 3 °C, stays there for 30 minutes, and returns to 25 °C. The transition times are limited to a maximum of 10 minutes. The entire sequence is labeled as '1 cycle'.</p> | |
| 9 | High temperature high humidity storage | GB/T2423.3 | Temperature: 85°C±3°C; Humidity: 85%; Duration: 500hours; | A、 C、 D |