

Customer Code : _____

DATASHEET

DAPU P/N: **DPBF1600001**

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2018.03.21 | | | |

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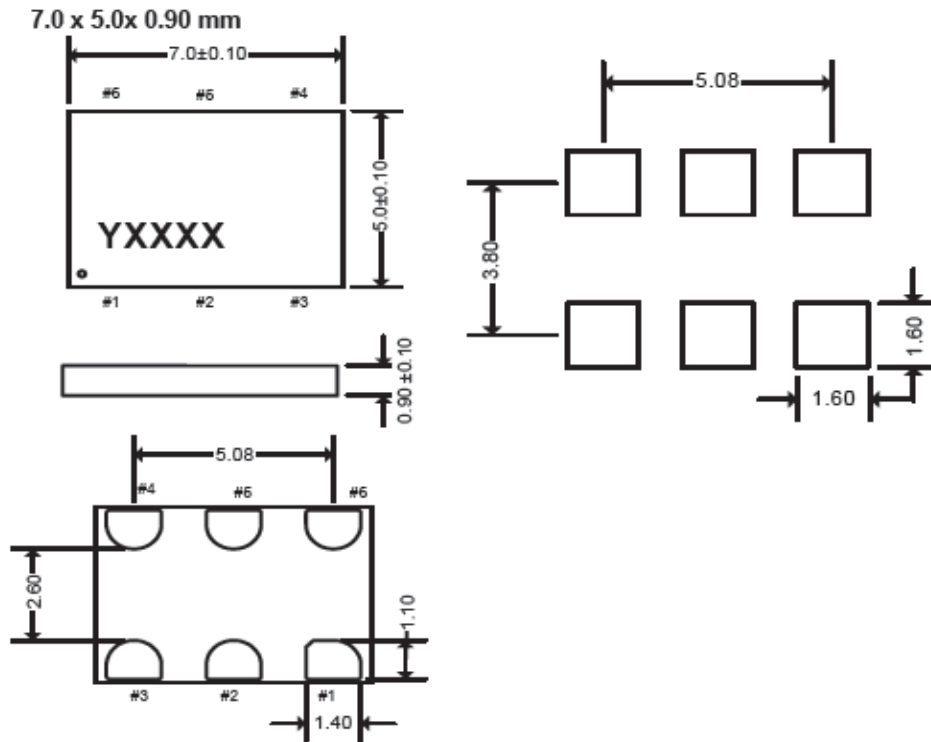
1、Electrical Parameters

| MODEL: DPBF1600001 | | | | | | | |
|--------------------|----------------------------------|----------------------|------------------|------|-------|--------------------|--|
| No. | Parameters | SYM. | Electrical Spec. | | | | Notes |
| | | | Min. | Typ. | Max. | Units | |
| 1 | Nominal Frequency | FL | 160.00 | | | MHz | |
| 2 | Output Waveform | | LVDS | | | | |
| 3 | Vdd | | -0.5 | | 4 | V | |
| 4 | Supply Voltage | | 2.97 | 3.3 | 3.63 | V | |
| 5 | Frequency Stability | F-stab | -25 | | +25 | $\times 10^{-6}$ | Inclusive of initial tolerance, operating temperature, rated power supply voltage, and load variations |
| 6 | Operating Temperature | T-opr | -40 | ~ | +85 | $^{\circ}\text{C}$ | |
| 7 | Storage Temperature | T-stg | -65 | ~ | +150 | $^{\circ}\text{C}$ | |
| 8 | Current Consumption | I _{dd} | - | 47 | 55 | mA | |
| 9 | OE Disable Current | I _{OE} | | | 35 | mA | |
| 10 | Output Disable Leakage Current | I _{leak} | | | 1 | μA | |
| 11 | Standby Current | I _{std} | | | 100 | μA | |
| 12 | Rise/Full Time | Tr, Tf | | 495 | 600 | ps | 20%~80% |
| 13 | Duty Cycle | DC | 45 | | 55 | % | |
| 14 | First Year Aging | F _{aging1} | -2 | - | +2 | $\times 10^{-6}$ | 25 $^{\circ}\text{C}$ |
| 15 | 10-year Aging | F _{aging10} | -5 | - | +5 | $\times 10^{-6}$ | 25 $^{\circ}\text{C}$ |
| 16 | Input Voltage High | V _{IH} | 70% | - | - | V _{dd} | Pin 1, ST |
| 17 | Input Voltage Low | V _{IL} | - | - | 30% | V _{dd} | Pin 1, ST |
| 18 | Input Pull-up Impedence | Z _{in} | | 100 | 250 | K Ω | Pin 1, OE logic high or logic low, or ST logic high |
| 19 | Start up Time | T _{start} | - | 6 | 10 | ms | Measured from the time V _{dd} reaches its rated minimum value |
| 20 | OE Enable/Disable Time | T _{oe} | - | - | 115 | ns | |
| 21 | Differential Output Voltage | V _{OD} | 250 | 350 | 450 | mA | |
| 22 | V _{OD} Magnitude Change | | | | 50 | mV | |
| 23 | Offset Voltage | V _{OS} | 1.125 | 1.2 | 1.375 | V | |
| 24 | V _{OS} Magnitude Change | | | | 50 | mV | |
| 25 | Resume Time | T _{resume} | | 6 | 10 | ms | In Standby mode, measured from the time ST pin crosses 50% threshold. |
| 26 | RMS Period Jitter | T _{jitt} | - | 1.4 | 1.7 | ps | |
| 27 | RMS Phase Jitter (random) | T _{phj} | | 0.6 | 0.85 | ps | Integration bandwidth =12kHz to 20MHz |



| | | |
|----|----------------------------|--------------------------|
| 28 | Mechanical Shock | MIL-STD-883F,Method 2002 |
| | Mechanical Vibration | MIL-STD-883F,Method 2007 |
| | Temperature Cycle | JESD22, Method A104 |
| | Solderability | MIL-STD-883F,Method 2003 |
| | Moisture Sensitivity Level | MSL1 @260°C |

2、 Mechanical Structure(mm)



unit:mm

Pin Description

| Pin | Map | | Functionality |
|-----|-----------------|--------|---|
| 1 | OE | Input | H or Open: specified frequency output L: output is high impedance |
| | \overline{ST} | Input | H or Open: specified frequency output L: Device goes to sleep mode. Supply current reduces to I _{std} . |
| 2 | NC | NA | No Connect; Leave it floating or connect to GND for better heat dissipation |
| 3 | GND | Power | VDD Power Supply Ground |
| 4 | OUT+ | Output | Oscillator output |
| 5 | OUT- | Output | Complementary oscillator output |
| 6 | VDD | Power | Power supply voltage |

Note1:Tolerance ± 0.2 mm without mark

Note2: Referential weight 0.2g

Note3: Y denotes manufacturing origin and XXXX denotes manufacturing lot number. The value of “Y” will depend on the assembly location of the device

Note4: A capacitor of value 0.1 μ F or higher between Vdd and GND is required.



3、 Waveform Diagrams

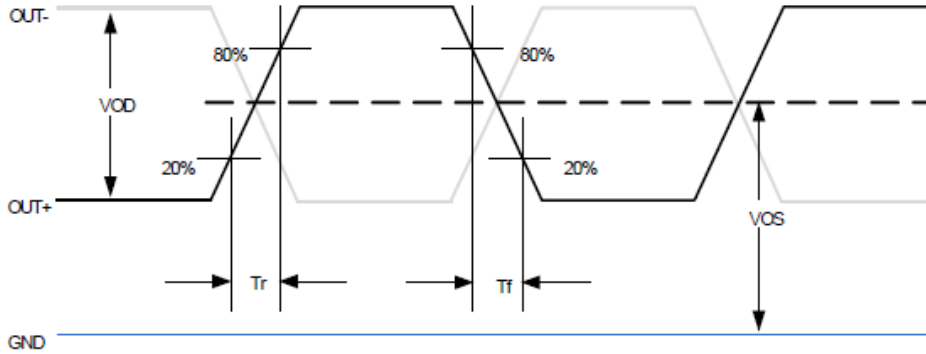


Figure 2. LVDS Voltage Levels per Differential Pin (OUT+/OUT-)

4、 Termination Diagrams

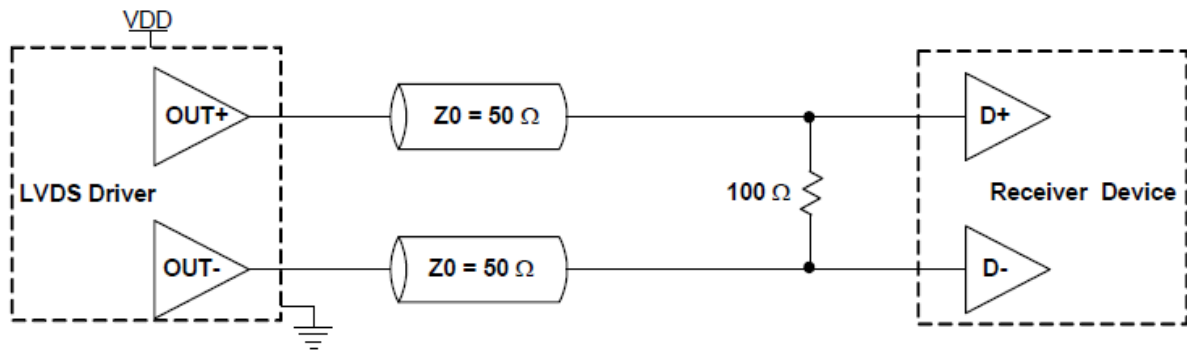


Figure 6. LVDS Single Termination (Load Terminated)

5、 Package: Tape & Reel (mm)

