

## Product Overview

### NB7L1008: 2.5 V / 3.3 V 1:8 LVPECL Fanout Buffer

For complete documentation, see the data sheet.

2.5V / 3.3V 1:8 LVPECL high performance differential 1:8 Clock/Data fanout buffer. The NB7L1008 produces eight identical output copies of Clock or Data operating up to 7 GHz or 12 Gb/s, respectively.

#### Features

- Typical Maximum Input Data Rate > 12 Gb/s Typical
- Data Dependent Jitter < 15 ps
- Low Skew 1:8 LVPECL Outputs, < 20 ps max
- 160 ps Typical Propagation Delay
- Multi-Level Inputs, accepts LVPECL, CML, LVDS
- Internal Input Termination Resistors, 50 ohm
- VREFAC Reference Output

#### Benefits

- High speed clock and data fanout
- Extremely low jitter when transmitting data.
- Very accurate edge placement from output to output
- Provides a 1:8 fanout with almost 0 delay
- Also can provide a level translation function.
- fewer external components needed to provide termination.
- Provides reference voltage for Single Ended Input Capabilities

#### Applications

- Computer server - Data Redundancy
- Line card clocking

#### End Products

- Cloud Servers
- Mini Servers

### Part Electrical Specifications

| Product       | Compliance | Status | Type   | Channels | Input / Output Ratio | Input Level | Output Level | V <sub>CC</sub> Typ (V) | t <sub>jitter, RMS</sub> Typ (ps) | t <sub>skew, o-p</sub> Max (ps) | t <sub>pd</sub> Typ (ns) | t <sub>R</sub> & t <sub>F</sub> Max (ps) | f <sub>max, Clock</sub> Typ (MHz) | f <sub>max, Data</sub> Typ (Mbps) | Package Type |
|---------------|------------|--------|--------|----------|----------------------|-------------|--------------|-------------------------|-----------------------------------|---------------------------------|--------------------------|--|-----------------------------------|-----------------------------------|--------------|
| NB7L1008MNG   | Pb-free    | Active | Buffer | 1        | 1:8                  | LVD         | ECL          | 3.3                     | 0.2                               | 20                              | 0.16                     | 80                                       | 7000                              | 12000                             | QFN-32       |
|               | S          |        |        |          |                      | 2.5         |              |                         |                                   |                                 |                          |  |                                   |                                   |              |
|               | ECL        |        |        |          |                      |             |              |                         |                                   |                                 |                          |  |                                   |                                   |              |
| NB7L1008MNTXG | Pb-free    | Active | Buffer | 1        | 1:8                  | CML         | ECL          | 2.5                     | 0.2                               | 20                              | 0.16                     | 80                                       | 7000                              | 12000                             | QFN-32       |
|               | S          |        |        |          |                      | 3.3         |              |                         |                                   |                                 |                          |  |                                   |                                   |              |
|               | ECL        |        |        |          |                      |             |              |                         |                                   |                                 |                          |  |                                   |                                   |              |

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