

## NB7L572

# Input Mux - 4:1 Differential, 2.5 V / 3.3 V, Clock / Data Fanout Buffer - 1:2 LVPECL



## Product Overview

For complete documentation, see the data sheet.

The NB7L572 is a high performance differential 4:1 Clock/Data input multiplexer and a 1:2 LVPECL Clock/Data fanout buffer. The INx/INxb inputs include internal 50-ohm termination resistors and will accept differential LVPECL, CML or LVDS logic levels. The NB7L572 incorporates a pair of Select pins that will choose one of four differential inputs and will produce two identical LVPECL output copies of Clock or Data operating up to 7GHz or 10Gb/s, respectively. As such, NB7L572 is ideal for SONET, GigE, Fiber Channel, Backplane and other Clock/Data distribution applications. The NB7L572 INx/INxb inputs, outputs and core logic are powered by a 2.5 V +/-5% or 3.3V +/-10% power supply. The two differential LVPECL outputs will swing 750mV when externally terminated with a 50-ohm resistor to VCC - 2V, and are optimized for low skew and minimal jitter. The NB7L572 is offered in a low profile 5mm x5mm 32-pin QFN Pb-free package. Application notes, models, and support documentation are available at [www.onsemi.com](http://www.onsemi.com). The NB7L572 is a member of the GigaComm family of high performance clock products.

## Features

- Input Data Rate > 11 Gb/s Typical
  - Data Dependent Jitter < 15 ps
  - Maximum Input Clock Frequency > 8 GHz Typical
  - Random Clock Jitter < 0.8 ps RMS
  - Low Skew 1:2 LVPECL Outputs, < 10 ps max
  - 4:1 MultiLevel Mux Inputs, Accepts LVPECL, CML LVDS
  - 150 ps Typical Propagation Delay
  - Differential LVPECL Outputs, 750 mV Peak-to-Peak, Typical
  - Operating Range: VCC = 2.375 V to 3.6 V
  - Internal 50-ohm Input Termination Resistors
- For more features, see the data sheet

## Applications

- Redundant Clock / Data distribution
- SONET/SDH/Fibre Channel/Gigabit Ethernet Clock / Data distribution

## End Products

- Servers and Routers

## Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Input/Output Ratio	Channels	Input Level	Output Level	V <sub>CC</sub> Typ (V)	f <sub>Max</sub> Typ (MHz)	t <sub>Jitter</sub> Typ (ps)	t <sub>skew(OO)</sub> Max (ps)	t <sub>pd</sub> Typ (ns)	Package Type
NB7L572MNG	7.15		Active	4:2	1		ECL		8000	0.5	10	0.175	QFN-32
NB7L572MNR4G	7.15		Active	4:2	1		ECL		8000	0.5	10	0.175	QFN-32