

NB6L572M

2.5 V / 3.3 V Differential 4:1 Mux to 1:2 CML Clock/Data Fanout / Translator



Product Overview

For complete documentation, see the data sheet.

The NB6L572M is a high performance differential 4:1 Clock / Data input multiplexer and a 1:2 CML Clock / Data fanout buffer that operates up to 6GHz / 8Gbps respectively with a 2.5V or 3.3V power supply. The differential Clock / Data inputs have internal 50-ohm termination resistors and will accept differential LVPECL, CML, or LVDS logic levels. The NB6L572M incorporates a pair of Select pins that will choose one of four differential inputs and will produce two identical CML output copies of Clock or Data. As such, the NB6L572M is ideal for SONET, GigE, Fiber Channel, Backplane and other Clock/Data distribution applications. The two differential CML outputs will swing 400mV when externally loaded and terminated with a 50-ohm resistor to VCC and are optimized for low skew and minimal jitter. The NB6L572M is offered in a low profile 5x5mm 32-pin QFN Pb-Free package. Application notes, models, and support documentation are available at www.onsemi.com. The NB6L572M is a member of the ECLinPS MAX family of high performance clock products.

Features

- Input Data Rate > 8 Gb/s Typical
 - Data Dependent Jitter < 10 ps
 - Maximum Input Clock Frequency > 6 GHz Typical
 - Random Clock Jitter < 0.8 ps RMS
 - Low Skew 1:2 CML Outputs, < 15 ps max
 - 4:1 Multi-Level Mux Inputs, accepts LVPECL, CML, LVDS
 - 200 ps Typical Propagation Delay
 - 35 ps Typical Rise and Fall Times
 - Differential CML Outputs, 400 mV Peak-to-Peak, Typical
 - Operating Range: VCC = 2.375 V to 3.6 V with GND = 0 V
- For more features, see the data sheet

Applications

- Switch/Router
- Servers
- Backplanes
- DSLAM

End Products

- Networking
- Workstations
- ATE

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Input/Output Ratio	Channels	Input Level	Output Level	V _{CC} Typ (V)	f _{Max} Typ (MHz)	t _{Jitter} Typ (ps)	t _{skew(OO) Max} (ps)	t _{pd} Typ (ns)	Package Type
NB6L572MMNG			Active	4:1	1		CML		6000	0.2	15	200	QFN-32
NB6L572MMNR 4G			Active	4:1	1		CML		6000	0.2	15	200	QFN-32