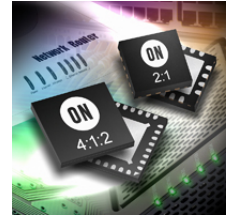


Product Overview

NB6LQ572M: 2.5 / 3.3 V Differential 4:1 Mux w/Input Equalizer to 1:2 CML Clock/Data Fanout / Translator

For complete documentation, see the data sheet.



The NB6LQ572M 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. Each INx/INxb input pair incorporates a fixed Equalizer Receiver, which when placed in series with a Clock / Data path, will enhance the degraded signal transmitted across an FR4 backplane or cable interconnect. For applications that do not require Equalization, consider the NB6L572M, which is pin-compatible to the NB6LQ572M. The differential Clock / Data inputs have internal 50-ohm termination resistors and will accept differential LVPECL, CML, or LVDS logic levels. The NB6LQ572M 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 NB6LQ572M 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 NB6LQ572M is offered in a low profile 5x5mm 32-pin QFN Pb-Free package. The NB6LQ572M 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
- Input EQ for Backplane and Cable Interconnect Compensation
- 150 ps Typical Propagation Delay
- 45 ps Typical Rise and Fall Times
- Differential CML Outputs, 400 mV Peak-to-Peak, Typical

For more features, see the data sheet

Applications

- Switch/Router
- Servers
- Backplanes
- DSLAM

End Products

- Networking
- Workstations
- ATE

Part Electrical Specifications

Product	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
NB6LQ572MMNR4G	Pb-free	Active	4:1	1	CML	CML	3.3	6000	0.2	15	0.2	QFN-32
	Halide free				ECL		2.5					
					LVDS							

For more information please contact your local sales support at www.onsemi.com.

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