

Product Overview

NB7L11M: Clock / Data Fanout Buffer / Translator, 2.5 V / 3.3 V, with CML Outputs and Internal Termination

For complete documentation, see the data sheet.

The NB7L11M is a differential 1-to-2 clock/data distribution chip with internal source termination and CML output structure, optimized for low skew and minimal jitter. The device produces two identical output copies of clock or data operating up to 8 GHz or 12 Gb/s, respectively.

Inputs incorporate internal 50 Ohm termination resistors and accept NECL (Negative ECL), PECL (Positive ECL), CML, LVCMOS, LVTTTL, or LVDS. Differential 16mA CML (Current Mode Logic) output provides matching 50 Ohm terminations, and 400 mV output swings when externally terminated, 50 Ohm to V_{CC} .

Features

- Maximum Input Clock up to 8 GHz Typical
- Maximum Input Data Rate up to 12Gb/s Typical
- < 0.5 ps of RMS Clock Jitter
- < 10 ps of Data Dependent Jitter
- 30 ps Typical Rise and Fall Times
- 110 ps Typical Propagation Delay
- 3 ps Typical Within Device Skew
- Operating Range: $V_{CC} = 2.375V$ to $3.465V$ with $V_{EE} = 0V$
- CML Output Level (400 mV Peak-to-Peak Output) Differential Output Only
- 50 Ω Internal Input and Output Termination Resistors

For more features, see the data sheet

Applications

- OC-48 & OC-192 SONET/SDH data routing
- Serial Digital HDTV Video Routing
- ATE High Speed Data Communications Links

Part Electrical Specifications

Product	Compliance	Status	Type	Channels	Input / Output Ratio	Input Level	Output Level	V_{CC} Typ (V)	t_{jitter}^{RMS} Typ (ps)	$t_{skew}^{(o)}$ Max (ps)	t_{pd} Typ (ns)	t_R & t_F Max (ps)	$f_{max,Clock}$ Typ (MHz)	$f_{max,Data}$ Typ (Mbps)	Package Type
NB7L11MMNG	Pb-free	Active	Buffer	1	1:2	CML	CML	3.3	0.2	15	0.11	60	8000	12000	QFN-16
	Halide free					TTL		2.5							
						LVDS									
						CMOS									
						ECL									
NB7L11MMNR2G	Pb-free	Active	Buffer	1	1:2	CML	CML	3.3	0.2	15	0.11	60	8000	12000	QFN-16
	Halide free					CMOS		2.5							
						LVDS									
						ECL									
						TTL									

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

Created on: 4/19/2019