

Product Overview

NB7L14: Clock / Data Fanout Buffer, 7 GHz, 1:4 Differential, LVPECL, 2.5 V, 3.3 V

For complete documentation, see the data sheet.

The NB7L14 is a differential 1:4 LVPECL fanout buffer. The NB7L14 produces four identical LVPECL output copies of Clock or Data operating up to 7 GHz or 10.7 Gb/s, respectively. As such, the NB7L14 is ideal for SONET, GigE, Fiber Channel, Backplane and other Clock or Data distribution applications. The differential inputs incorporate internal 50-ohm termination resistors that are accessed through the VT Pin. This feature allows the NB7L14 to accept various logic standards, such as LVPECL, CML, LVDS, LVC MOS or LVTTTL logic levels. The VREFAC reference output can be used to rebias capacitor-coupled differential or single-ended input signals. The 1:4 fanout design was optimized for low output skew applications.

Features

- Maximum Input Clock Frequency up to 7 GHz Typical
- Maximum Input Data Rate up to 10 Gb/s Typical
- < 0.8 ps of RMS Clock Jitter
- < 15 ps of Data Dependent Jitter
- 45 ps Typical Rise and Fall Times
- 165 ps Typical Propagation Delay
- 3 ps Typical Within Device Skew
- Operating Range: $V_{CC} = 2.375 \text{ V to } 3.6 \text{ V}$
- LVPECL Output Level, 720 mV Peak-to-Peak
- 50-ohm Internal Input Termination Resistors

For more features, see the data sheet

Applications

- OC-48 and OC-192 SONET/SDH Data Buffering applications
- ATE High Speed Communications Links

Part Electrical Specifications

Product	Compliance	Status	Type	Channels	Input / Output Ratio	Input Level	Output Level	V _{CC} Typ (V)	t _{jitter} MS Typ (ps)	t _{skew(0-1)} Max (ps)	t _{pd} Typ (ns)	t _R & t _F Max (ps)	f _{max} Clock Typ (MHz)	f _{max} Data Typ (Mbps)	Package Type
NB7L14MN1TWG	Pb-free Halide free	Active	Buffer	1	1:4	LVD S	LVPE CL	2.5	0.5	15	0.165	60	8000	11000	QFN-16
						3.3									
						LVTT L									
						LVC MOS									
						LVP ECL									
CML															
NB7L14MNG	Pb-free Halide free	Active	Buffer	1	1:4	LVTT L	LVPE CL	3.3	0.5	15	0.165	60	8000	11000	QFN-16
						2.5									
						CML									
						LVC MOS									
						LVP ECL									
LVD S															
NB7L14MNHTBG	Pb-free Halide free	Active	Buffer	1	1:4	LVC MOS	LVPE CL	2.5	0.5	15	0.165	60	8000	11000	QFN-16
						3.3									
						CML									
						LVP ECL									
						LVD S									
LVTT L															
NB7L14MNTXG	Pb-free Halide free	Active	Buffer	1	1:4	LVTT L	LVPE CL	2.5	0.5	15	0.165	60	8000	11000	QFN-16
						3.3									
						LVD S									
						LVP ECL									
						CML									
LVC MOS															

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

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