

## Product Overview

### NB7L1008M: Clock / Data Fanout Buffer, 1:8 Differential, with CML Outputs

For complete documentation, see the data sheet.

The NB7L1008M is a high performance differential 1:8 Clock/Data fanout buffer. The NB7L1008M produces eight identical output copies of Clock or Data operating up to 6 GHz or 10.7 Gb/s, respectively. As such, the NB7L1008M is ideal for SONET, GigE, Fiber Channel, Backplane and other Clock/Data distribution applications. The differential inputs incorporate internal 50-ohm termination resistors that are accessed through the VT pin. This feature allows the NB7L1008M to accept various logic standards, such as LVPECL, CML, LVDS, LVCMOS or LVTTTL logic levels. The VREFAC reference output can be used to rebias capacitor-coupled differential or single-ended input signals. The 1:8 fanout design was optimized for low output skew applications. The NB7L1008M is a member of the GigaComm family of high performance clock products.

### Features

- Input Data Rate > 12 Gb/s Typical
- Data Dependent Jitter < 20 ps
- Maximum Input Clock Frequency > 8 GHz Typical
- Random Clock Jitter < 0.8 ps RMS
- Low Skew 1:8 CML Outputs, < 25 ps max
- Multi-Level Inputs, accepts LVPECL, CML, LVDS
- Differential CML Outputs, 400 mV Peak-to-Peak, Typical
- Operating Range: VCC = 2.375 V to 3.6 V, GND = 0 V
- Internal Input Termination Resistors, 50-ohm
- VREFAC Reference Output

For more features, see the data sheet

### Applications

- Clock distribution for SONET, Gigabit Ethernet and Fibre Channel
- Network routers and multiprocessor synchronous Clock distribution

### End Products

- Network routers

### Part Electrical Specifications

Product	Compliance	Status	Type	Channels	Input / Output Ratio	Input Level	Output Level	V <sub>CC</sub> Typ (V)	t <sub>jitter</sub> RMS Typ (ps)	t <sub>skew</sub> (o-ol) Max (ps)	t <sub>pd</sub> Typ (ns)	t <sub>R</sub> & t <sub>F</sub> Max (ps)	f <sub>max</sub> Clock Typ (MHz)	f <sub>max</sub> Data Typ (Mbps)	Package Type
NB7L1008MMNG	Pb-free	Active	Buffer	1	1:8	ECL	CML	3.3	0.2	25	0.16	70	8000	12000	QFN-32
	Halide free					CML		2.5							
						LVDS									
NB7L1008MMNR4G	Pb-free	Active	Buffer	1	1:8	ECL	CML	3.3	0.2	25	0.16	70	8000	12000	QFN-32
	Halide free					LVDS		2.5							
						CML									

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