

Product Overview

NB4N11M: Multi Level Clock / Data Input to CML Receiver / Buffer / Translator, 2.5 Gbps, 3.3 V

For complete documentation, see the data sheet.

The NB4N11M is a differential 1-to-2 clock/data distribution/translation chip with CML output structure, targeted for high-speed clock/data applications. The device is functionally equivalent to the EP11, LVEP11, SG11 or 7L11M devices. The device produces two identical differential output copies of clock or data signal operating up to 2.5 GHz or 2.5 Gb/s, respectively. As such, NB4N11M is ideal for SONET, GigE, Fiber Channel, Backplane and other clock/data distribution applications. Inputs accept LVPECL, CML, LVCMOS, LVTTTL, or LVDS. The CML outputs are 16 mA open collector which requires resistor (RL) load path to VTT termination voltage. The open collector CML outputs must be terminated to VTT at power up. Differential outputs produces current mode logic (CML) compatible levels when receiver loaded with 50 Ω or 25 Ω loads connected to 1.8 V, 2.5 V or 3.3 V supplies. This simplifies device interface by eliminating a need for coupling capacitors.

Features

- Maximum Input Clock Frequency > 2.5 GHz
- Maximum Input Data Rate > 2.5 Gb/s
- Typically 1 ps of RMS Clock Jitter
- Typically 10 ps of Data Dependent Jitter @ 2.5 Gb/s, RL = 25 Ω
- 420 ps Typical Propagation Delay
- 150 ps Typical Rise and Fall Times
- Operating Range: VCC = 3.0 V to 3.6 V with VEE = 0 V and VTT = 1.8 V to 3.6 V
- Functionally Compatible with Existing 2.5 V / 3.3 V LVEL, LVEP, EP, and GigaComm Devices
- These are Pb-Free Devices

Applications

- Clock distribution in high speed networking and Automated Test Equipment.

Part Electrical Specifications

Product	Pricing (\$/Unit)	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
NB4N11MDTR2G		Pb-free Halide free	Active	Buffer	1	1:2	LVP ECL LVC MOS CML LVT TL LVDS	CML	3.3	1	25	0.42	300	2500	2500	TSS OP-8

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

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