

Product Overview

NB4N527S: Translator, 3.3 V, 2.5 Gb/s Dual AnyLevel™; to LVDS Receiver/Driver/Buffer, with Internal Termination

For complete documentation, see the data sheet.

NB4N527S is a clock or data Receiver/Driver/Buffer/Translator capable of translating AnyLevel™ input signal (LVPECL, CML, HSTL, LVDS, or LVTTTL/LVCMOS) to LVDS. Depending on the distance, noise immunity of the system design, and transmission line media, this device will receive, drive or translate data or clock signals up to 2.5 Gb/s or 1.25 GHz, respectively. The NB4N527S has a wide input common mode range of GND+50 mV to VCC-50 mV combined with two 50 Ω internal termination resistors is ideal for translating differential or single-ended data or clock signals to 350 mV typical LVDS output levels without use of any additional external components. The device is offered in a small 3 mm x 3 mm QFN-16 package. NB4N527S is targeted for data, wireless and telecom applications as well as high speed logic interface where jitter and package size are main requirements.

Features

- Maximum Input Clock Frequency up to 1.25 GHz
- Maximum Input Data Rate up to 2.5 Gb/s
- 500 ps Maximum Propagation Delay
- 2 ps Maximum RMS Jitter
- 300 ps Maximum Rise/Fall Times
- Single Power Supply; VCC = 3.3 V +/- 10%
- Temperature Compensated TIA/EIA644 Compliant LVDS Outputs
- Internal 50 Termination Resistor per Input Pin
- GND + 50 mV to VCC - 50 mV VCMR Range

Applications

- OC-3 to OC-48 SDH/SONET Clock & Data Applications
- 1 GbE, 1G & 2G Fibrechannel Clock & Data Applications
- Precision LVDS Clock Buffering & Translation

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Channels	Input / Output Ratio	Input Level	Output Level	V _{CC} Typ (V)	t _{jitter} ^R MS 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
NB4N527SMNG		Pb-free Halide free non AEC-Q and PPAP	Active	Signal Driver	2	1:1	CM L CM OS ECL HST L LVD S	LVDS	3.3	0.5	25	0.37	140	1500	2500	QFN-16
NB4N527SMNR2G		Pb-free Halide free non AEC-Q and PPAP	Active	Signal Driver	2	1:1	CM L CM OS ECL HST L LVD S	LVDS	3.3	0.5	25	0.37	140	1500	2500	QFN-16

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

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