



## Product Overview

### NB3N551: Clock / Data Fanout Buffer, 1:4, 3.3 V, with CMOS Outputs

For complete documentation, see the data sheet

#### Product Description

The NB3N551 is a low skew 1-to 4 clock fanout buffer, designed for clock distribution in mind. The NB3N551 specifically guarantees low output-to-output skew. Optimal design, layout and processing minimize skew within a device and from device to device. The output enable (OE) pin three-states the outputs when low.

#### Features

- Input/Output clock frequency up to 180 MHz
- Low Skew Outputs (50ps)
- Output Enable puts device in three-state mode
- Operating Range:  $V_{DD} = 3.0\text{ V to }5.25\text{ V}$
- Full Industrial Temperature Range 8-pin SOIC
- Full RoHS certification

#### Benefits

- Multiply the low frequency output of inexpensive crystals to the full system frequency
- Minimize timing deviations and synchronization issues
- Creates a high impedance output with no logic low or logic high value
- Ensures operation in the majority of designs
- Small package with robust thermal capability
- Meets all green international materials standards

#### Applications

- Clock fan out in routers, switches and other networking applications

#### Part Electrical Specifications

Product	Compliance	Status	Type	Channels	Input / Output Ratio	Input Level	Output Level	$V_{CC}$ Typ (V)	$t_{jitter}^{RMS}$ Typ (ps)	$t_{skew(o-q)}$ Max (ps)	$t_{pd}$ Typ (ns)	$t_R$ & $t_F$ Max (ps)	$f_{max}^{Clock}$ Typ (MHz)	$f_{max}^{Data}$ Typ (Mbps)	Package Type
NB3N551DG	Pb-free Halide free	Active	Buffer	1	1:4	CMOS	CMOS	3.3 5	2	160	3	1000	180		SOIC-8
NB3N551DR2G	Pb-free Halide free	Active	Buffer	1	1:4	CMOS	CMOS	3.3 5	2	160	3	1000	180		SOIC-8
NB3N551MNR4G	Pb-free Halide free	Active	Buffer	1	1:4	CMOS	CMOS	3.3 5	2	160	3	1000	180		DFN-8

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