



## Product Overview

### NB3N3020: Clock Multiplier, LVPECL / LVCMOS, Programmable, 3.3 V



For complete documentation, see the data sheet.

The NB3N3020 is a high precision, low phase noise selectable clock multiplier. The device takes a 5.0-27 MHz fundamental mode parallel resonant crystal or a 2.0-210 MHz LVCMOS single ended clock source and generates a differential LVPECL output and a single ended LVCMOS/LVTTL output at a selectable clock output frequency which is a multiple of the input clock frequency. Three tri-level LVCMOS/LVTTL single ended select pins set one of 26 possible clock multipliers. LVCMOS/LVTTL output enable (OE) tri-states clock outputs when low. This device is housed in 5.0 x 4.4 mm TSSOP-16.

#### Features

- Period Jitter RMS of 5.0 ps
- Selectable Clock Multiplier
- 1 LV-PECL Differential Output and 1 LVCMOS/LVTTL single ended output
- Operating Range - 3.3V +/- 10%
- Industrial Temperature Range -40C to +85C

#### Benefits

- Best in Class jitter performance
- Capability to generate upto 26 different clocks from single input clock source.

#### Applications

- Routers, Consumer Networking, Set Top Box, Digital TV, Home Gateways, Servers, Consumer Electronics

#### End Products

- Servers, Routers, DTV, Set Top Box

Part Electrical Specifications																
Product	Pricing (\$/Unit)	Compliance	Status	Input Level	Output Level	V <sub>s</sub> Typ (V)	f <sub>in</sub> Typ (MHz)	f <sub>out</sub> Typ (MHz)	t <sub>jitter</sub> (Cy-Cy) Typ (ps)	t <sub>jitter</sub> (Period) Typ (ps)	t <sub>jitter</sub> (Φ) Typ (ps)	t <sub>R</sub> & t <sub>F</sub> Typ (ps)	t <sub>R</sub> & t <sub>F</sub> Max (ps)	T <sub>A</sub> Min (°C)	T <sub>A</sub> Max (°C)	Package Type
NB3N3020DTG		Pb-free Halide free non AEC-Q and PPAP	Active	CM L CM OS ECL	ECL TTL	3.3	5-27	8-210	20	15		340	700	-40	85	TSS OP-16
NB3N3020DTR2G		Pb-free Halide free non AEC-Q and PPAP	Active	CM L CM OS ECL	ECL TTL	3.3	5-27	8-210	20	15		340	700	-40	85	TSS OP-16

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