

Product Overview

NB4N507A: PECL Clock Synthesizer, 3.3 V / 5 V, 50 - 200 MHz

For complete documentation, see the data sheet.

The NB4N507A is a precision clock synthesizer which generates a very low jitter differential PECL output clock. It produces a clock output based on an integer multiple of an input reference frequency. The NB4N507A accepts a standard fundamental mode crystal, using Phase-Locked-Loop (PLL) techniques, will produce output clocks up to 200 MHz. In addition, the PLL circuitry will produce a 50% duty cycle square-wave clock output. The NB4N507A can be programmed to generate a selection of input reference frequency multiples. An exact 155.52 MHz output clock can be generated from a 19.44 MHz crystal and the x8 multiplier selection. The NB4N507A is intended for low output jitter clock generation.

Features

- Input Crystal Frequency of 10 - 27 MHz
- Enable Usage of Common Low-Cost Crystal
- Differential PECL Output Clock Frequencies up to 200 MHz
- Duty Cycle of 48%/52%
- Operating Range: VCC = 3.0 V to 5.5 V
- Ideal for SONET Applications and Oscillator Manufacturers
- Available in Die Form
- Pb-Free Packages are Available

Applications

- PECL clock generation in networking, communications and computing.
- Crystal oscillator replacement.
- General purpose PECL clock generation.

Part Electrical Specifications																
Product	Pricing (\$/Unit)	Compliance	Status	Input Level	Output Level	V _S Typ (V)	f _{in} Typ (MHz)	f _{out} Typ (MHz)	t _{jitter} (Cy-Cy) Typ (ps)	t _{jitter} (Period) Typ (ps)	t _{jitter} (Φ) Typ (ps)	t _R & t _F Typ (ps)	t _R & t _F Max (ps)	T _A Min (°C)	T _A Max (°C)	Package Type
NB4N507ADG		Pb-free	Active	CM	ECL	3.3	5-52	50-200		20		270	500	-40	85	SOIC-16
		Halide free non AEC-Q and PPAP		OS		5										
NB4N507ADR2G		Pb-free	Active	CM	ECL	3.3	5-52	50-200		20		270	500	-40	85	SOIC-16
		Halide free non AEC-Q and PPAP		OS		5										

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

Created on: 1/23/2021