



Product Overview

NB2872A: 3.3 V Low Power, Reduced EMI Clock Synthesizer

For complete documentation, see the [data sheet](#)

Product Description

The NB2872A is a versatile spread spectrum frequency modulator designed specifically for a wide range of clock frequencies. The NB2872A reduces ElectroMagnetic Interference (EMI) at the clock source, allowing system wide reduction of EMI of all clock dependent signals. The NB2872A allows significant system cost savings by reducing the number of circuit board layers, ferrite beads and shielding that are traditionally required to pass EMI regulations.

The NB2872A uses the most efficient and optimized modulation profile approved by the FCC and is implemented by using a proprietary all digital method.

The NB2872A modulates the output of a single PLL in order to "spread" the bandwidth of a synthesized clock, and more importantly, decreases the peak amplitudes of its harmonics. This results in

significantly lower system EMI compared to the typical narrow band signal produced by oscillators and most frequency generators. Lowering EMI by increasing a signal's bandwidth is called 'spread spectrum clock generation'.

The NB2872A is targeted towards all portable devices with very low power requirements like MP3 players, Notebooks and digital still cameras.

Features

- Generates an EMI Optimized Clocking Signal at the Output
- Integrated Loop Filter Components
- Operates with a 3.3 V ± 0.3 V Supply
- Operating Current less than 6.0 mA
- Low Power CMOS Design
- Input Frequency Range: 15 MHz to 30 MHz
- Generates a 1X Low EMI Spread Spectrum clock of the Input Frequency
- Frequency Deviation -1.25%
- Available in TSOP-6 Package (TSOT-23-6)
- Pb-Free Package is Available

Applications

- ElectroMagnetic Interference reduction in portable and consumer applications.
- Reduction of system clock noise to meet FCC regulations.

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

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