



Product Overview

NB3N106K: Clock Fanout Buffer, 1:6 Differential, 3.3 V, with HCSL Outputs

For complete documentation, see the data sheet

Product Description

The NB3N106K is a differential 1:6 Clock and Data fanout buffer with High-speed Current Steering Logic (HCSL) outputs optimized for ultra low propagation delay variation. The NB3N106K is designed with HCSL clock distribution and FBDIMM applications in mind.

| Features | Benefits |
|--|---|
| <ul style="list-style-type: none"> 0.1 ps Typical RMS Phase Jitter Operating Range: VCC = 3.0 V to 3.6 V with VEE = 0 V Typical Input Clock Frequency 100, 133, 166, 200, 266, 333, and 400 MHz 220 ps Typical Rise and Fall Times 800 ps Typical Propagation Delay 100 ps Maximum t_{pd} Propagation Delay Variation per Diff Pair Differential HCSL Output Levels | <ul style="list-style-type: none"> Best in class for jitter performance Conforms to Industry Standards Wide range of clock frequencies |

| Applications | End Products |
|---|---|
| <ul style="list-style-type: none"> Clock Distribution PCIe I, II, III Networking and Communications High End Computing General High Performance HCSL Fanout buffer | <ul style="list-style-type: none"> Servers Ethernet Switchers / Routers FBDIMM Memory Card |

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-g)} Max (ps) | t _{pd} Typ (ns) | t _R & t _F Max (ps) | f _{max} Clock Typ (MHz) | f _{max} Data Typ (Mbps) | Package Type |
|---------------|------------------------|--------|--------|----------|----------------------|------------------------------------|--------------|-------------------------|----------------------------------|---------------------------------|--------------------------|--|----------------------------------|----------------------------------|--------------|
| NB3N106KMNG | Pb-free Halide free | Active | Buffer | 1 | 1:6 | CMOS ECL HCSL LVDS TTL | HCSL | 3.3 | 0.1 | 100 | 0.8 | 400 | 400 | 400 | QFN-24 |
| NB3N106KMNR2G | Pb-free Halide free | Active | Buffer | 1 | 1:6 | CMOS ECL HCSL LVDS TTL | HCSL | 3.3 | 0.1 | 100 | 0.8 | 400 | 400 | 400 | QFN-24 |

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

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