

Product Overview

NBA3N206S: M-LVDS Driver Receiver Automotive Grade 3.3V

For complete documentation, see the data sheet.

The NBA3N206S is a 3.3 V supply differential Multipoint Low Voltage (M-LVDS) line Driver and Receiver for automotive applications. NBA3N206S offers the Type 2 receiver threshold at 0.1 V.

The NBA3N206S has Type-2 receivers that detect the bus state with as little as 50 mV of differential input voltage over a common-mode voltage range of -1 V to 3.4 V. Type-2 receivers include an offset threshold to provide a detectable voltage under open-circuit, idle-bus, and other faults conditions.

NBA3N206S supports Simplex or Half Duplex bus configurations.

Features

- Low-Voltage Differential 30Ω to 55Ω Line Drivers and Receivers for Signaling Rates Up to 200 Mbps
 - Type-2 Receivers Provide an Offset (100 mV) Threshold to Detect Open-Circuit and Idle-Bus Conditions
 - Controlled Driver Output Voltage Transition Times for Improved Signal Quality
 - -1 V to 3.4 V Common-Mode Voltage Range Allows Data Transfer With up to 2 V of Ground Noise
 - Bus Pins High Impedance When Disabled or VCC 3/4 1.5 V
 - M-LVDS Bus Power Up/Down Glitch Free
 - Operating range: VCC = 3.3 ±10% V (3.0 to 3.6 V)
 - Operation from -40°C to +125°C.
 - AEC-Q100 Qualified and PPAP Capable
 - These are Pb-Free Devices
- For more features, see the data sheet

Applications

- Low-Power High-Speed Short-Reach Alternative to TIA/EIA-485
- Backplane or Cabled Multipoint Data and Clock Transmission
- Telecom
- Networking
- Automotive

End Products

- Cellular Base Stations
- Central-Office Switches
- Network Switches and Routers
- Automotive

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Type	Channels	Input / Output Ratio	Input Level	Output Level	V _{CC} Typ (V)	t _{jitter} MS Typ (ps)	t _{skew(o-)} Max (ps)	t _{pd} Typ (ns)	t _{R & t_F} Max (ps)	f _{max} Cl Typ (MHz)	f _{max} D Typ (Mbps)	Package Type
NBA3N206SDG		AEC Qualified PPAP Capable Pb-free Halide free	Active	Signal Driver	1	1:1	LVC MO S M-LVDS	M-LVDS LVC MO S	3.3	4 2		4 1.5	160 0 230 0	100	200	SOIC-8
NBA3N206SDR2G		AEC Qualified PPAP Capable Pb-free Halide free	Active	Signal Driver	1	1:1	M-LVDS LVC MO S	M-LVDS LVC MO S	3.3	2 4		4 1.5	160 0 230 0	100	200	SOIC-8

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

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