

Product Overview

NB7VPQ904M: 1.8V USB Type-C™ DisplayPort™ ALT Mode 10Gbps Linear Redriver

For complete documentation, see the data sheet.

The NB7VPQ904M is a 1.8 V USB Type-C™ DisplayPort™ Alternate Mode Linear redriver fully supporting DisplayPort 1.4 (8.1 Gbps) and USB 3.1 Gen 1/Gen 2 (5/10 Gbps) protocols. Signal integrity degrades from PCB traces, transmission cables, and inter-symbol interference (ISI). The NB7VPQ904M compensates for these losses by engaging varying levels of user selectable flat gain & equalization to create the best eye opening for the outgoing data signals.

Features

- 1.8 V +/- 5% Power Supply
- 4 channel linear redriver supporting data rates up to 10Gbps
- Supports USB Type-C USB3.1 Gen 1/ Gen 2 and DP1.4 as an Alternate Mode with device operation modes
- Supports SOC's that have integrated USB3.1 & DP1.4 MUX over USB Type-C
- Can be utilized in USB Type-C cables to reduce cable losses
- Integrated switch for USB Type-C SBU Signals used for DP AUX Channel
- Chip Enable Pin for Deep Power-Saving Mode
- Hot-Plug Capable
- ESD Protection \pm 4kV HBM

Applications

- Mobile Phones
- Computing: Desktop, Notebook & Tablet's
- Docking Stations with USB-C, USB or DP Connectors
- Gaming Console & Smart TV's
- USB Type-C Active Cables

End Products

- Mobile Phones
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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} CI Typ (MHz)	f _{max} D ata Typ (Mbps)	Package Type
NB7VPQ904MMUTWG		Pb-free Halide free	Active	Signal Driver	4	1:1	CML	CML	1.8	N/A	N/A	0.11	50	N/A	10000	X2QFN-32

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

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