

FEATURES

- DC to 11.3 Gbps per port NRZ data rate**
- Multitime constant, programmable receive equalization**
 - Compensates 25 inches of FR408 at 10.3125 Gbps
 - Compensates 15 inches of FR408 at 11.3 Gbps
- 6-tap programmable transmit feedforward equalization (FFE)**
 - Compensates 15 inches of FR408 at 10.3125 Gbps
 - Compensate 10 inches of FR408 at 11.3 Gbps
- Low power**
 - 150 mW per channel at 2.5 V (outputs enabled)
- 12 × 12, fully differential, nonblocking array**
- Double rank connection programming**
- 2-pins, selectable connection maps**
- Per lane loss-of-signal detection**
- Flexible output termination supply range (1.8 V to 3.3 V)**
- DC- or ac-coupled differential CML inputs and outputs**
- Programmable CML output levels**
- Load from EPROM for automatic power-on ready operation**
- Per lane input and output P/N pair inversion for routing ease**
- 50 Ω on-chip input/output termination**
- Supports 64-bit/66-bit, scrambled or not coded NRZ data up to 11.3 Gbps**
- Serial (I²C or SPI slave) control interface**
- 88-lead LFCSP, 12 mm × 12mm, Pb-free package**
- 40°C to +85°C operating temperature range**

APPLICATIONS

- Fiber optic network switching**
- 10 Gigabit Ethernet over backplane 10GBASE-KR 802.3ap XLAUI/CAUI (802.3ba)**
- SONET OC-192/STM-64x**
- 1x, 2x, 4x, 8x, and 10x Fibre channel**

GENERAL DESCRIPTION

The **ADN4612** is a 12 × 12 asynchronous, protocol agnostic, digital crosspoint switch with 12 differential PECL-/CML-compatible inputs and 12 differential CML outputs.

The **ADN4612** is optimized for nonreturn-to-zero (NRZ) signaling with data rates of up to 11.3 Gbps per port. Each port offers programmable input equalization, loss-of-signal detection, programmable output swing, and output preemphasis/deemphasis.

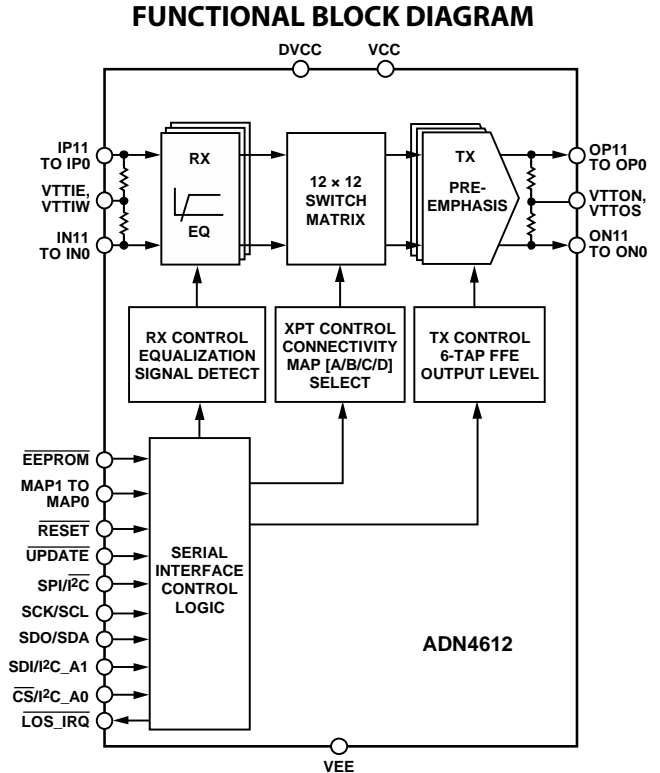


Figure 1.

The **ADN4612** nonblocking switch core implements a 12 × 12 crossbar and supports independent channel switching through the serial control interface. The **ADN4612** has low latency and very low channel-to-channel skew.

The **ADN4612** is packaged in an 88-lead LFCSP package and operates from –40°C to +85°C.

For more information about **ADN4612**, contact Analog Devices, Inc., at xstream@analog.com.

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