

Digital Crosspoint Single 40x40 4.25Gbps 352-Pin BGA Tray

Manufacturer: [Analog Devices, Inc](#)

Package/Case: BGA

Product Type: Switches

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active



Images are for reference only

[Inquiry](#)

General Description

The ADN4605 is a 40 × 40 asynchronous, protocol agnostic, digital crosspoint switch, with 40 differential PECL/CML-compatible inputs and 40 differential programmable CML outputs.

The ADN4605 is optimized for NRZ signaling with data rates of up to 4.25 Gbps per port. Each port offers adjustable levels of input equalization, programmable output swing, and output preemphasis/deemphasis.

The ADN4605 nonblocking switch core implements a 40 × 40 crossbar and supports independent channel switching through serial and parallel control interfaces. The ADN4605 has low latency and very low channel-to-channel skew.

An I2C, SPI, or parallel interface is used to communicate with the device for control of connectivity and other features.

The ADN4605 is assembled in a 35 mm × 35 mm, 352 BGA package and operates over a temperature range of -40°C to +85°C.

Key Features

DC to 4.25 Gbps per port NRZ data rate

Adjustable receive equalization

3 dB, 6 dB, or 12 dB boost

Compensates over 40 inches of FR4 at 4.25 Gbps

Adjustable transmit preemphasis/deemphasis

Programmable boost and output level

Compensates over 40 inches of FR4 at 4.25 Gbps

Low Power

105 mW per channel at 2.5 V (400 mV p-p differential output level swing)

40 × 40, fully differential, nonblocking array

Double rank connection programming with dual maps

Low jitter, typically <25 ps

Flexible 2.5 V to 3.3 V supply range

DC- or ac-coupled differential PECL/CML inputs

Differential CML outputs

Per-lane polarity inversion for routing ease

50 Ω on-chip I/O termination with disable feature

Supports 8b10b, scrambled or uncoded NRZ data

Serial (I2C slave or SPI) control interface

Parallel control interface

Application

Digital video (HDMI, DVI, DisplayPort, 3G/HD/SD-SDI)

Fiber optic network switching

High-speed serial backplane routing to OC-48 with FEC

XAUI, 4x Fibre Channel, Infiniband®, and GbE over backplane

Data storage networks

Recommended For You

AD1803JRU

Analog Devices, Inc
TSSOP24

AD1847JP

Analog Devices, Inc
PLCC

AD8109ASTZ

Analog Devices, Inc
QFP

AD8115ASTZ

Analog Devices, Inc
QFP

AD1980JST-REEL

Analog Devices, Inc
QFP48

AD1836AAS

Analog Devices, Inc
QFP52

AD1843JS

Analog Devices, Inc

QFP

AD1888JCPZ-REEL

Analog Devices, Inc

LFCSP-48

AD8116JSTZ

Analog Devices, Inc

QFP128

ADV601LCJST

Analog Devices, Inc

QFP

ADV611JST

Analog Devices, Inc

QFP

ADN4600ACPZ

Analog Devices, Inc

QFN

AD8152JBPZ

Analog Devices, Inc

BGA

AD8113JSTZ

Analog Devices, Inc

QFP

ADN4612ACPZ

Analog Devices, Inc

LFCSP-88