FEATURES
Continuous time linear equalizer (CTLE) with up to 18 dB equalization
Loss of signal (LOS) detection with programmable threshold and hysteresis
Driver performance
  - Programmable differential swing: 400 mV p-p differential to 900 mV p-p differential
  - Programmable driver output with up to 12 dB de-emphasis
Automatic electrical idle and receiver detection
Output polarity inversion and automatic output squelch
Single supply (2.5 V or 3.3 V)
Low power operation: 80 mW per channel
  - Per lane power-down options
Flexible configuration interface: pin strap, 2-wire interface, or EEPROM

APPLICATIONS
QSFP+ direct attach active copper modules
10 Gb, 40 Gb Ethernet and OTN line cards
10 Gb, 40 Gb backplane drivers
8 Gb, 16 Gb Fibre Channel and InfiniBand® EDR line cards and backplane drivers
8 Gb, 10 Gb, 16 Gb active optical modules
8 Gb, 10 Gb, 16 Gb active copper cable assemblies
1.5 Gb, 3 Gb, 6 Gb, 12 Gb SAS/SATA PCIe 1.x, 2.0, 3.0
Broadband and automatic test and measurement

GENERAL DESCRIPTION
The HMC7545 is a unidirectional, quad-channel, protocol and data rate agnostic, asynchronous signal conditioner, designed for short and intermediate range optical modules, line cards, and backplane applications operating at up to 14.2 Gbps.
Each channel provides programmable input equalization, LOS and receiver detection, automatic output squelch, programmable output swing and output de-emphasis.
All high speed differential inputs and outputs of the HMC7545 are current mode logic (CML), terminated on-chip with 50 Ω to the positive supply, and can be dc-coupled or ac-coupled.
The device uses a single supply, 2.5 V or 3.5 V, and its typical power dissipation is less than 80 mW per channel.
The HMC7545 is packaged in a 36-lead, 4 mm × 7 mm LFCSP package and operates from −40°C to +85°C.

For more information about the HMC7545, contact Analog Devices, Inc., at RFMG-HSL@analog.com.
HMC7545* PRODUCT PAGE QUICK LINKS

Last Content Update: 02/23/2017

COMPARABLE PARTS
View a parametric search of comparable parts.

EVALUATION KITS
• HMC7545 Evaluation Board

DESIGN RESOURCES
• HMC7545 Material Declaration
• PCN-PDN Information
• Quality And Reliability
• Symbols and Footprints

DISCUSSIONS
View all HMC7545 EngineerZone Discussions.

SAMPLE AND BUY
Visit the product page to see pricing options.

TECHNICAL SUPPORT
Submit a technical question or find your regional support number.

DOCUMENT FEEDBACK
Submit feedback for this data sheet.

---

This page is dynamically generated by Analog Devices, Inc., and inserted into this data sheet. A dynamic change to the content on this page will not trigger a change to either the revision number or the content of the product data sheet. This dynamic page may be frequently modified.