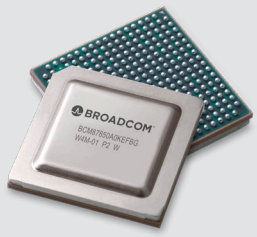
Product Brief

# BCM87850

## 7-nm 8 x 100G PHY for Active Copper Cable Applications



## Features

- Single chip for 800GbE active copper cable QSFP112
- Auto-negotiation and link training on the line side
- VSR+ capable up to 22-dB loss
- Continuous auto-adaptive equalizers
- Integrated AC-coupling capacitors on the host-side and line-side receiver
- Line-side and host-side loopbacks
- PRBS generators and checkers
- Low-power 7-nm CMOS design
- Supports QSFP112 copper modules
- Power consumption <6W

## Applications

- Supports 800G active electrical cable and 800G active copper cable applications

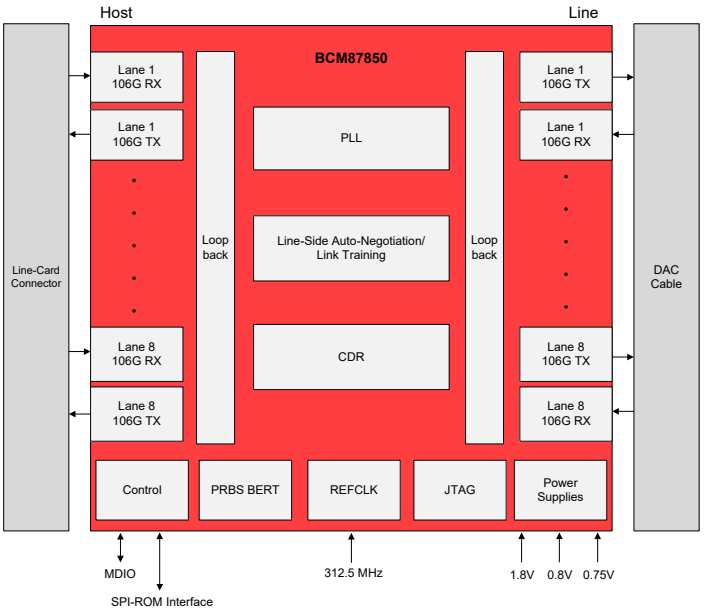
## Overview

The Broadcom® BCM87850 is a single-chip, eight-lane, ultra-low power, ultra-low latency PHY that integrates retimer and equalizer to support active cable applications. The BCM87850 is capable of equalizing 22 dB of loss on both the client-side and line-side interfaces. Each lane is capable of multiple data rates, including 106.25 Gb/s.

The on-chip clock synthesis is performed by a low-cost 312.5-MHz reference clock through high-frequency, low jitter phase-locked loops (PLLs).

The BCM87850 is fabricated in low-power 7-nm CMOS technology and is available in a 12 mm × 12 mm, 0.5-mm pitch, 485-ball BGA, RoHS-compliant package.

### Functional Block Diagram




### Ordering Information

| Part Number | Package |
|---|---|
| BCM87850A0KEFBG | 12 mm × 12 mm, 485-ball BGA, RoHS-6 compliant |

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