

AFBR-FS50B00

Transceiver for Optical Wireless Communications

Overview

The Broadcom® AFBR-FS50B00 is a transceiver that communicates data over free space and thereby allows connector-less/cable-less communication in a variety of applications.

Full-duplex bidirectional communication, together with a small form factor, allows a compact system design. The device keeps full functionality over a 360° rotation around the optical axis, which reduces the complexity of alignment on the system level and allows the use in rotating systems.

The component is designed to operate over a wide temperature range and with a potential data rate up to 5 Gb/s and a variable distance from 20 mm up to 100 mm.

The AFBR-FS50B00, a Laser Class 1 product, is RoHS-compliant and is designed for SMT solderability standard processes.



Key Features

- Wide data rate range: 25 Mb/s to 5 Gb/s
- From 20 mm up to 100 mm distance
- Full-duplex bidirectionality
- Full function over 360° rotation device to device
- Small form factor
- Single 3.3V power supply
- SMT solderability
- RoHS compliant
- Laser Class 1

Applications

- Through window
- Docking station
- Rotational feedthrough
- Board-to-board

Ordering Information

Part Number	Description	Max. Data Rate	Max. Distance
AFBR-FS50B00	Transceiver component	5 Gb/s	100 mm
AFBR-FSEK50B00S	Evaluation kit for AFBR-FS50B00 with SMA connectivity	5 Gb/s	100 mm
AFBR-FSEK50B00E	Evaluation kit for AFBR-FS50B00 with GbE connectivity	1 Gb/s	100 mm

Figure 1: AFBR-FSEK50B00E Evaluation Kit

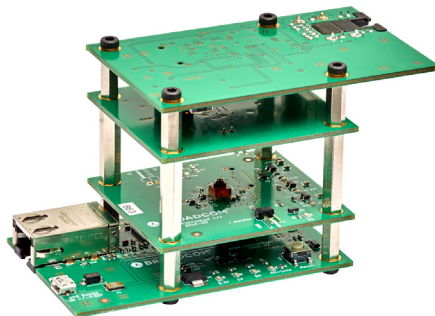


Figure 2: AFBR-FSEK50B00S Evaluation Kit

