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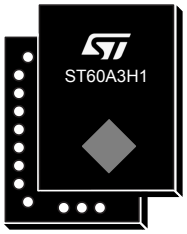
ST60A3H1

Data brief

60 GHz V-band contactless connectivity transceiver with linear polarization integrated antenna, and tunneling eUSB2, UART, GPIO or I²C



VFBGA23 AiP LP
(2.9 mm x 4.1 mm x 0.8 mm)

Product status link
ST60A3H1

Features

- 60 GHz V-Band transceiver for short range contactless connectivity up to 480 Mbit/s
- Compact solution integrating full RF transceiver and linear polarization antenna, operating in Half-Duplex mode
- 42 dB typical total link budget, up to 5 cm free-space propagation loss
- eUSB2, UART, GPIO, or I²C RF tunneling
- Single 1.8 V supply
- Low power consumption (typical values):
  - eUSB2 Rx/Tx - 110/130 mW
  - UART/GPIO/I²C - 90 mW
  - Standby - 23 µW
- Optimized BOM without external matching network and clock references. A reference clock may be used at one end of the RF link to comply with specific regional regulation
- Package: VFBGA 2.9 mm x 4.1 mm x 0.8 mm, 23 balls, 0.4 mm pitch

Description

The ST60A3H1 is an RF millimeter-wave transceiver product, with linear polarization integrated antenna, operating in the 60 GHz V-band. The ST60A3H1 has a miniature form factor, optimized bill of materials and low power operation. The ST60A3H1 is a high-speed RF transceiver compliant with eUSB2, UART, and I²C protocols. The transceiver module contains general-purpose input/outputs (GPIOs) that are also available in tunneling mode. The ST60A3H1 meets the requirements of applications by virtue of its compactness, low power operation, ease of use and its innovative architecture design for optimized system bill of materials.

Applications

- Contactless test factory automation and after sales services
- Life proof hole-less personal devices
- Contactless accessories
- Contactless personal equipment docking hub and data transfer
- Industrial contactless connectors
- Board-to-board connection and flex cable replacement

Revision history

Table 1. **Document revision history**

Date	Revision	Changes
11-Dec-2023	1	Initial release.

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