

Upgraded TFBS4xx and TFDU4xx Series IR
Transceiver Modules With New In-House IC and
Surface Emitter Chip Technology Deliver Longer Link
Distance and Improved ESD Robustness; IrDA®Compliant Devices Offer Drop-in Replacements for
Existing Solutions

Product Benefits:

- ESD robustness to 2 kV
- Offered in top- and side-view surface-mount packages
- Compliant with the latest IrDA physical layer specification and backwards-compatible
- Support data rates up to 115.2 kbit/s (SIR)
- Offer link distances of 1 m
- Low power consumption with an idle supply current of < 70 μ A, down to < 1 μ A in shutdown mode
- Offered in a variety of package sizes
- Wide operating voltage range from 2.4 V to 5.5 V
- Operating temperature range from -25 °C to +85 °C
- RoHS-compliant, halogen-free, and Vishay Green



Market Applications:

 Wireless communication and data transmission in energy meters and monitors, industrial automation controls, studio microphones, and medical equipment

The News:

Vishay Intertechnology announces that it has upgraded its TFBS4xx and TFDU4xx series of infrared (IR) transceiver modules for IrDA® applications. Offered in top- and side-view surface-mount packages, the enhanced solutions provide drop-in, plug and play replacements for existing devices in the series, while offering 20 % longer link distance and improved ESD robustness to 2 kV.

- Devices in the TFBS4xxx and TFDU4xxx series each consist of a PIN photodiode, infrared emitter (IRED), and low power control IC in a single package
- By upgrading the IR transceivers with Vishay's latest in-house IC and surface emitter chip technology, the
 company is assuring the long term availability of IRDC products for its customers. And as drop-in replacements
 for existing devices, the modules help save costs by eliminating the need for PCB redesigns
- Low power consumption increases battery life in portable devices



Product Group: Vishay Semiconductors, IRDC Transceivers / March 2024

The Key Specifications:

Part #	Dimensions (mm)	ESD Protection	Date rate	Link distance	Operating voltage	Idle supply current
TFBS4650	1.6 by 6.8 by 2.8	2 kV	115.2 kbit/s	≥ 1 m	2.4 V to 5.5 V	0.07 mA
TFBS4652	1.6 by 6.8 by 2.8					
TFBS4711	1.9 by 6 by 3					
TFDU4101	4 by 9.7 by 4.7					
TFDU4301	3.1 by 8.5 by 2.5					

Availability:

Samples and production quantities of the upgraded IR transceiver modules are available now.

To access the product datasheets on the Vishay Website, go to

http://www.vishay.com/ppg?84672 (TFBS4650)

http://www.vishay.com/ppg?84671 (TFBS4652)

http://www.vishay.com/ppg?82633 (TFBS4711)

http://www.vishay.com/ppg?81288 (TFDU4101)

http://www.vishay.com/ppg?81965 (TFDU4301)

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