

Infrared Data Communication Transceivers, Encoder/Decoder



FEATURES

- IrDA® technology
- I/O voltage flexibility (1.5 V to 1.8 V)

APPLICATIONS

- Data collection
- Medical
- Vending
- POS
- Access control

RESOURCES

- IrDA transceivers product portfolio: <http://www.vishay.com/ir-transceivers/>
- Complete optoelectronics product portfolio: <http://www.vishay.com/optoelectronics/>
- Technical support: irdc@vishay.com
- Sales contacts: <http://www.vishay.com/doc?99914>



Vishay's infrared data transceivers enable short-distance wireless communication. Design engineers in the handheld market trust in their performance and rely on the worldwide, local sales, and application engineering support that only Vishay provides. Vishay offers a transceiver for every application. For samples, please contact us at irdc@vishay.com or through our website at www.vishay.com/ir-transceivers.

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RoHS-Compliant and Lead (Pb)-Free

All our transceivers are lead (Pb)-free and capable of lead-free processing. In addition, the transceivers are in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC. Please see the datasheets for recommended reflow profiles.



I/O Voltage

To eliminate the need for voltage level converters and to enable direct connection to a microcontroller, many of Vishay's transceivers feature I/O voltage levels equal to 1.8 V. For further I/O voltage flexibility, some of Vishay's transceivers feature I/O voltage levels that are dependent on the voltage of an external power supply connected to the transceivers. These support I/O voltage levels down to 1.5 V.

RoHS
COMPLIANT

IrDA Transceivers

Part Number	Size H x L x W (mm x mm x mm)	Link Distance (m)	Operating Voltage (V)	Idle Supply Current (mA)	Shutdown Current (µA)	Pins	Pad Pitch (mm)	I/O Voltage Supply (V)	TXD - Echo
115 kbit/s SIR									
TFDU4101	4.0 x 9.7 x 4.7	0 to \geq 1.0	2.4 to 5.5	0.07	0.01	8	1.0	—	On
TFDU4301	2.5 x 8.3 x 3.0	0 to \geq 0.7	2.4 to 5.5	0.07	0.01	8	0.95	—	On
TFBS4711	1.9 x 6.0 x 3.1	0 to \geq 0.5	2.4 to 5.5	0.07	0.01	6	0.95	—	On
TFBS4650	1.6 x 6.8 x 2.8	0 to \geq 0.3	2.4 to 3.6	0.07	0.01	7	0.95	—	On
TFBS4652	1.6 x 6.8 x 2.8	0 to \geq 0.3	2.4 to 3.6	0.07	0.01	7	0.95	\geq 1.5	On



SIR Encoder/Decoder

Part Number	Size H x L x W (mm x mm x mm)	Operating Voltage (V)	Operating Temperature (°C)	Internal Clock	Baud Rates	Package	Pulse Width
TOIM4232	2.7 x 10.3 x 10.4	2.7 to 3.6	-25 to +85	Yes	1.2 kbit/s to 115.2 kbit/s (13 rates)	SO16	Selectable: 3/16 bit duration or 1.6 μ s
TOIM5232	4.0 x 4.0 x 0.75	2.7 to 3.6	-25 to +85	Yes	1.2 kbit/s to 115.2 kbit/s (13 rates)	QFN-20	Selectable: 3/16 bit duration or 1.6 μ s



Data Collection



Medical



Vending



POS



Access Control