

# Clockless Link Interface LSI

## 24bit Clockless Link Receiver

### BU17102AKV-M

#### ●General Description

BU17101AKV-M is a differential serial interface IC that expect further low power consumption and low EMI by ROHM's original CDR(Clock Data Recovery) technology.

The BU17102AKV-M receiver deserializes 24-bit CMOS level signals, and transfer by the differential lines of 1 pair. There is no return path. Reset line and link synchronous control line are unnecessary. The BU17102AKV-M links automatically.

#### ●Features

- High-speed differential serial interface (Maximum 1.6Gbps)
- Embedded clock interface
- No lock condition signal and no reset signal between transmitter and receiver. (Only differential signals)
- Low EMI transmission by original DC balance protocol and scrambling.
- Selectable 2 modes of CMOS parallel output current.

#### ●Applications

- Car navigation display interface
- Printer display interface

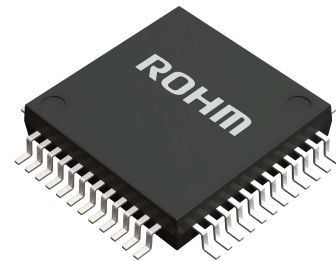
#### ●Key Specifications

- I/O voltage range: 2.3 to 3.6 V
- 3.3V voltage range: 2.3 to 3.6 V
- Clock frequency range: 30M to 51M Hz
- Transmission data rate: 0.960G to 1.630 Gbps
- Effective throughput: 0.720G to 1.224 Gbps
- Operating temperature range: -40 to +85 °C

#### ●Package

VQFP48

W(Typ.) x D(Typ.) x H(Max.)  
 9.00mm x 9.00mm x 1.63mm



●Block Diagram

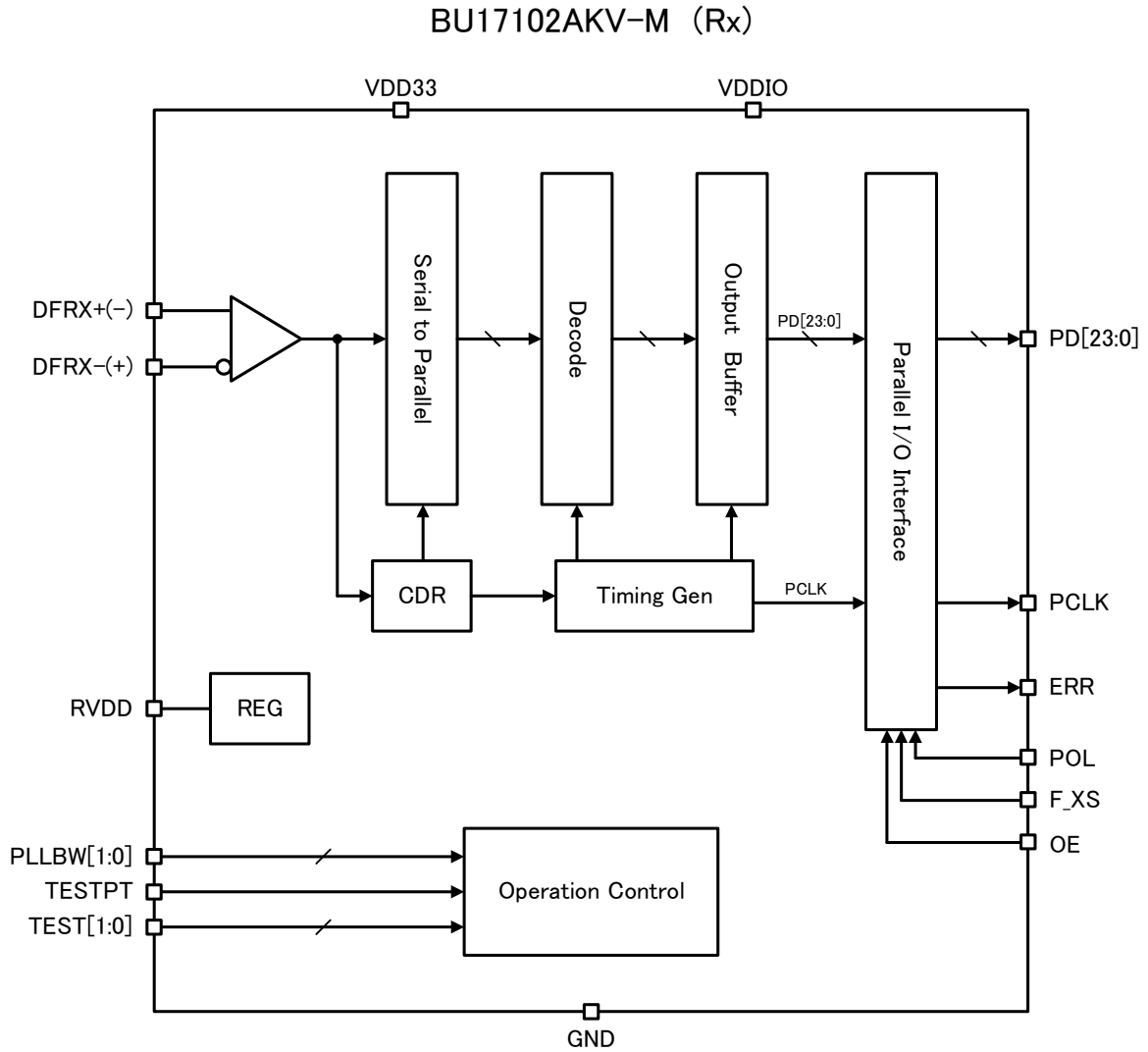


Figure 1. Block Diagram

●Typical Application Circuit

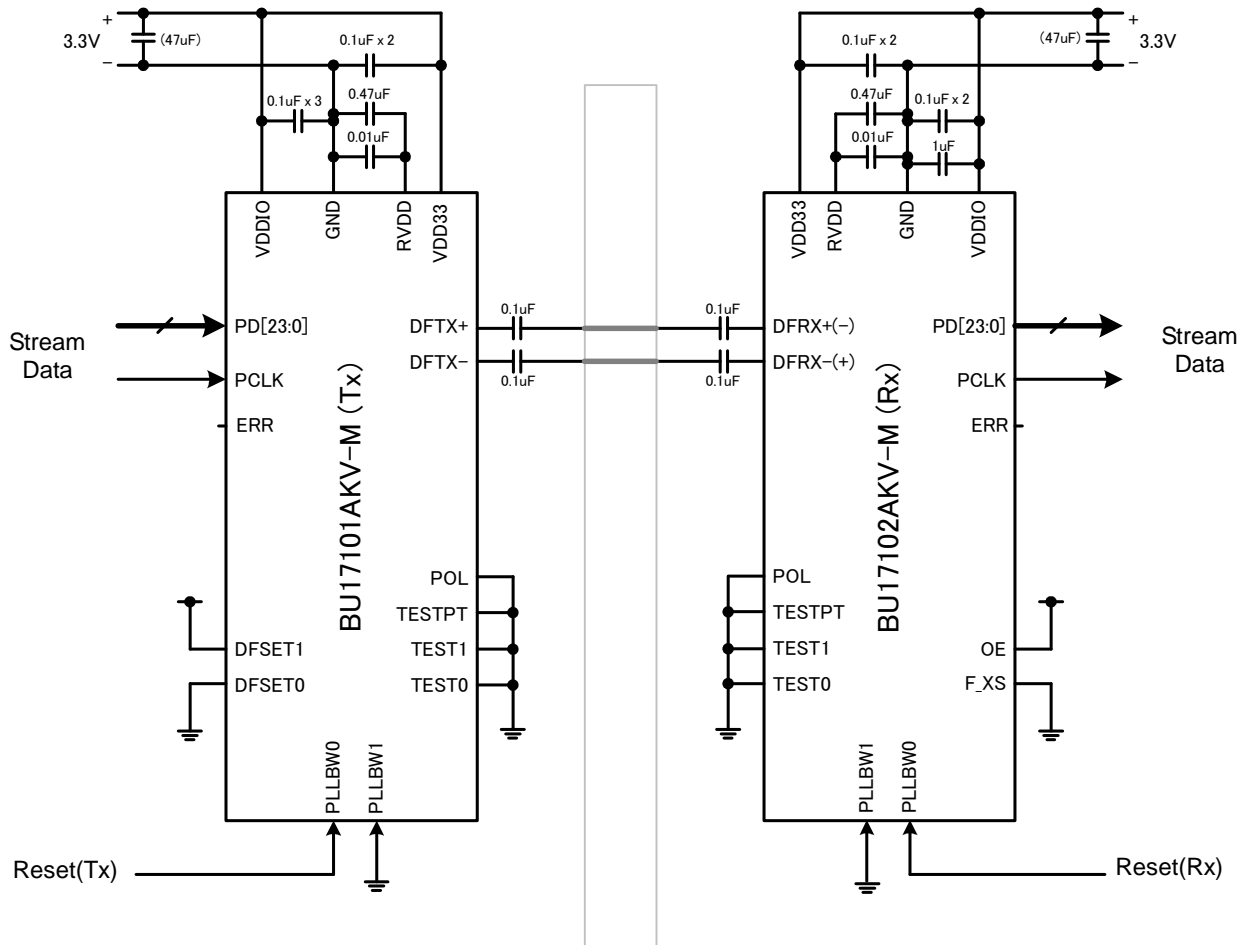
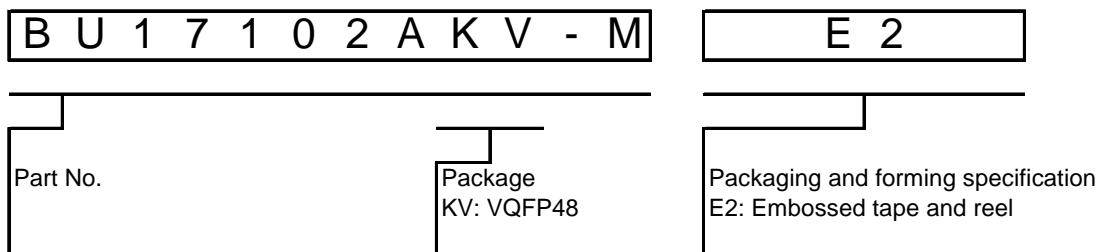
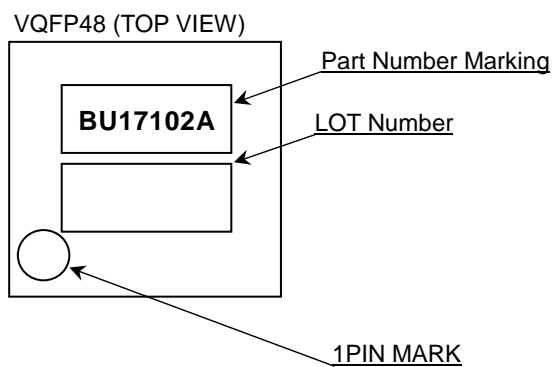


Figure 2. Typical Application Circuit

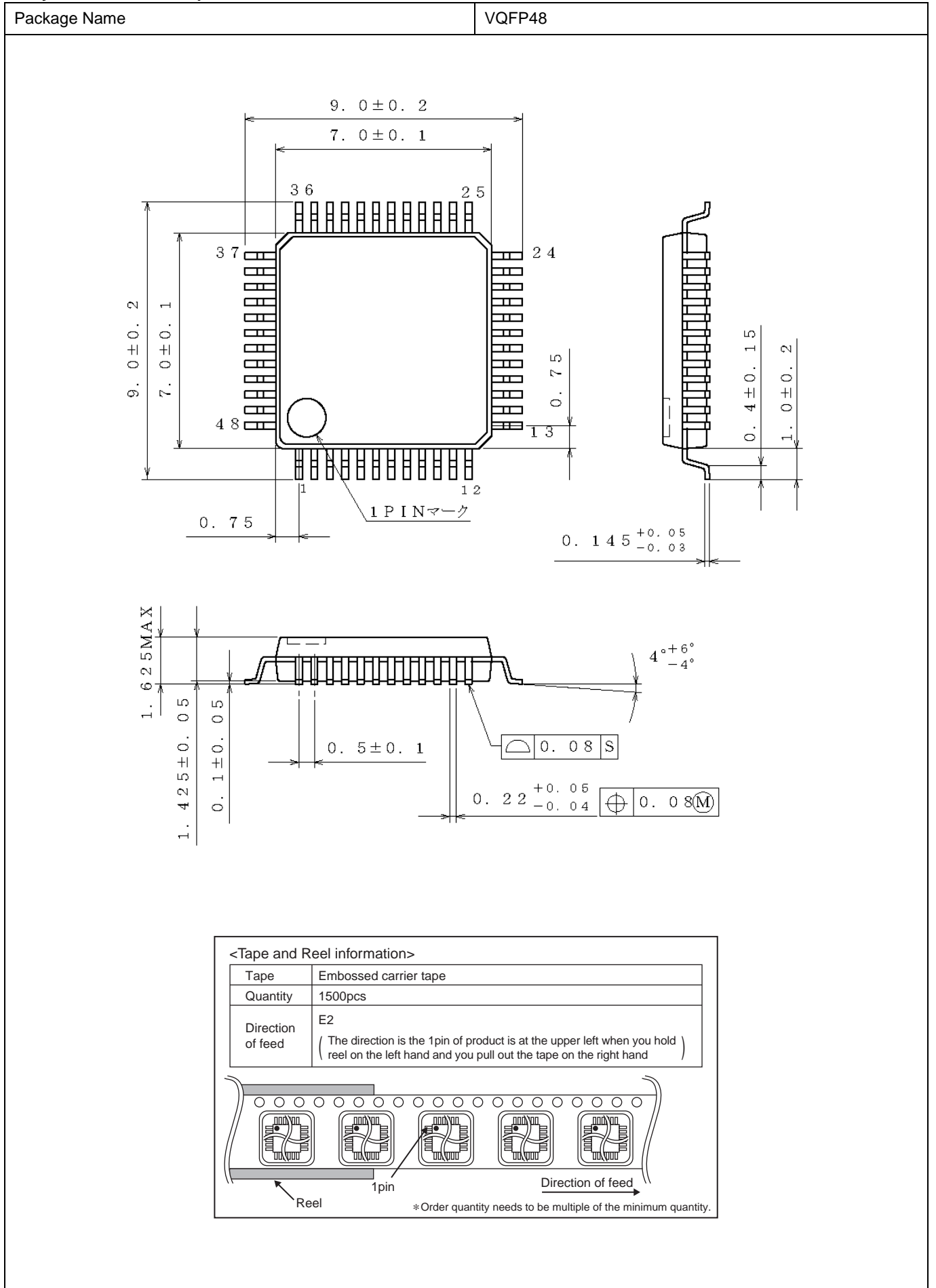
●Ordering Information



●Marking Diagram



●Physical Dimension Tape and Reel Information



## ●Revision History

| Date        | Revision | Changes     |
|-------------|----------|-------------|
| 16.Jan.2013 | 001      | New Release |

# Notice

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| JAPAN     | USA       | EU         | CHINA     |
|-----------|-----------|------------|-----------|
| CLASS III | CLASS III | CLASS II b | CLASS III |
| CLASS IV  |           | CLASS III  |           |

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2. In principle, the reflow soldering method must be used on a surface-mount products, the flow soldering method must be used on a through hole mount products. If the flow soldering method is preferred on a surface-mount products, please consult with the ROHM representative in advance.

For details, please refer to ROHM Mounting specification

### Precautions Regarding Application Examples and External Circuits

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This Product is electrostatic sensitive product, which may be damaged due to electrostatic discharge. Please take proper caution in your manufacturing process and storage so that voltage exceeding the Products maximum rating will not be applied to Products. Please take special care under dry condition (e.g. Grounding of human body / equipment / solder iron, isolation from charged objects, setting of Ionizer, friction prevention and temperature / humidity control).

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