

GX28E17

1-Wire-to-I²C Master Communication Bridge

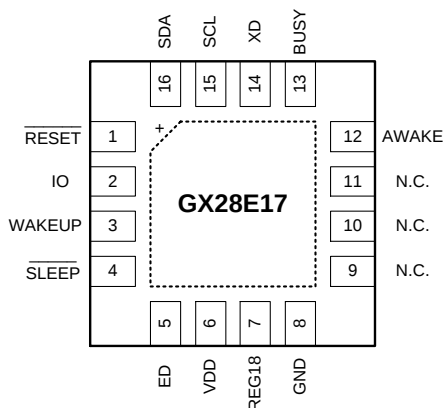
Features

- Extending I²C Communication Distance via 1-Wire Protocol (Typically 100 meters)
- Pre-programmed unique 64-bit 1-Wire ROM ID at the factory
- 1-Wire interface supports communication speeds of 15kbps and 77kbps
- I²C interface supports communication speeds of 100kHz, 400kHz, and 1MHz
- I²C interface supports clock stretching function
- Chip package: 16-Pin TQFN
- Temperature range: -40°C to +125°C
- Power supply range: 2.4V to 5.5V
- Low static current
 - Normal operation: 250 μ A (typ)
 - Sleep mode: 0.3 μ A (typ)

Applications

- Remote Peripheral Identification and Control
- I²C Sensors
- Display Controllers
- Digital-to-Analog, Analog-to-Digital Converters

Pin Configurations



Description

GX28E17 is a communication bridge that serves as a 1-Wire slave to I²C master interface. Communication data is serialized through the 1-Wire protocol and converted into corresponding I²C output. The 1-Wire protocol requires only a single signal line, effectively conserving GPIO resources.

Within the 1-Wire bus, GX28E17 possesses a unique ROM ID used as a node address, ensuring the chip can coexist with other devices on the 1-Wire bus and can be individually accessed without affecting other devices.

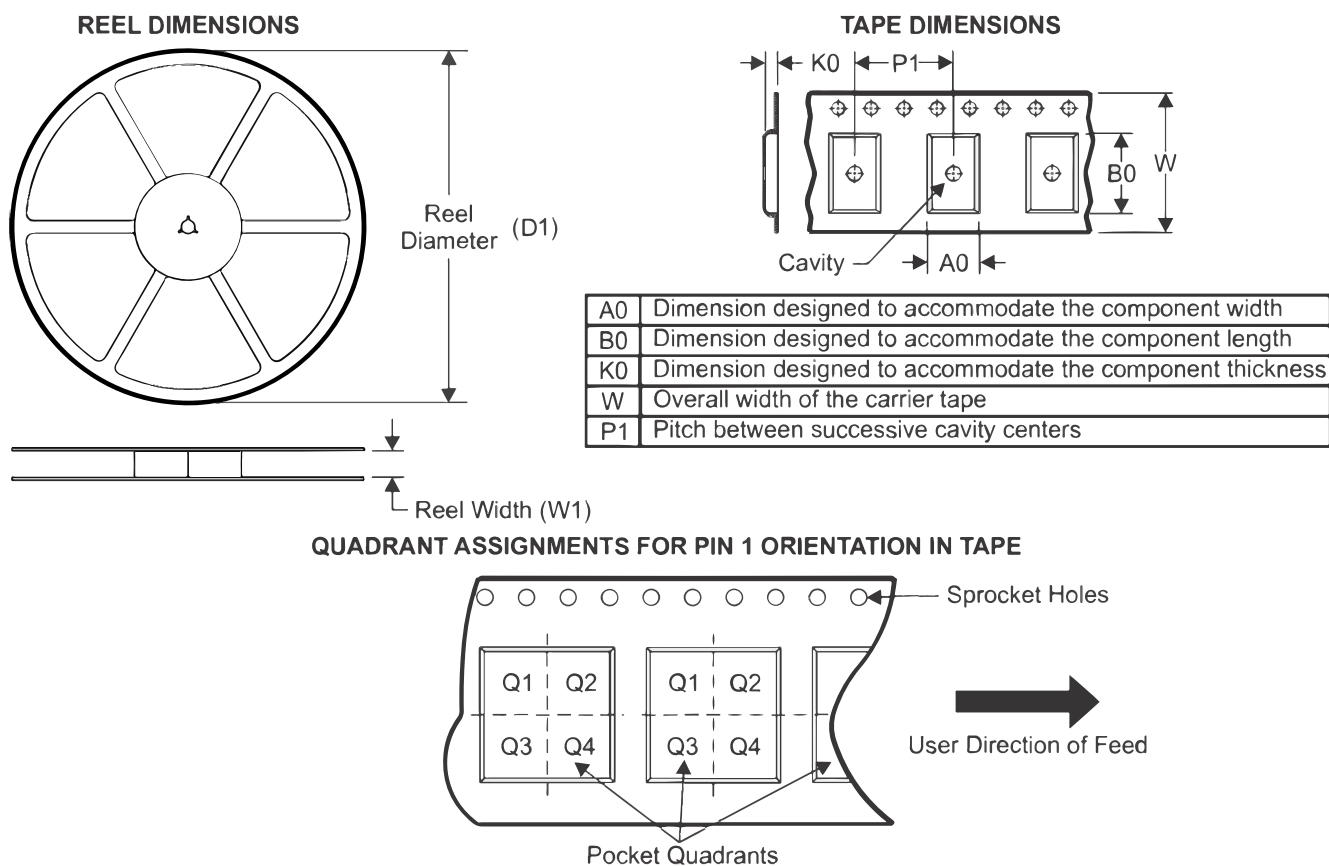
GX28E17 offers flexibility by supporting various 1-Wire and I²C speed modes, making it suitable for multiple complex I²C slave scenarios such as display controllers, ADC, DAC, I²C sensors, and more.

GX28E17 is designed for low-power applications. By utilizing the Sleep pin or a 1-Wire command, it can enter sleep mode, reducing power consumption to 0.3uA. The independent Sleep pin, Wakeup pin, and Awake pin offer flexible options to meet user requirements, with the Awake pin capable of controlling remote power supply.

Device Information

TYPE	Package	Package Size
GX28E17	TQFN (16)	4.0mm × 4.0mm

Tape and Reel Information



PACKAGE	D1 (mm)	W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1
TQFN (16)	329	12.4	4.25	4.25	0.95	8.00	12.00	Q1

Note: All dimensions mentioned above are in millimeters.

订购信息

ORDER CODE	DEVICE	PACKAGE	QUANTITY	NOTES
GX28E17Q-T&R	GX28E17Q	TQFN (16)	4000	Tape&Reel