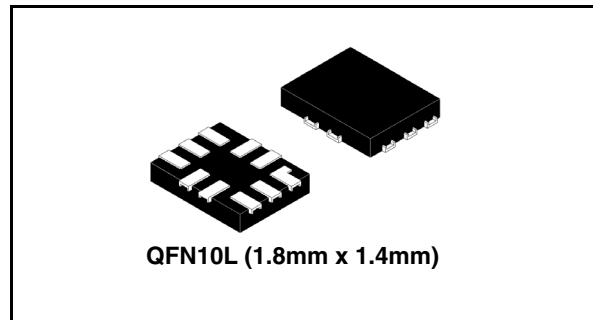


### Features

- 100 Mbps (typ.) data rate when driven by a totem pole driver
- 4 Mbps (typ.) data rate when driven by a Open Drain pole driver
- Bidirectional level translation, without direction pin
- Wide VL voltage range of 1.65V to 3.6V
- Wide V<sub>CC</sub> voltage range of 1.80V to 5.5V
- Power down mode feature – when either supply is off, all I/Os are in High Impedance.
- Low quiescent current (max 10μA)
- Suitable to be driven by Totem Pole and Open Drain driver.
- 5.5V tolerant enable pin
- ESD Performance on all Pins : ±2kv HBM
- Small package and footprint  
QFN10 ( 1.8 x 1.4 mm ) package

### Application

- Low voltage system level translation
- Mobile phone
- Other mobile devices
- I<sup>2</sup>C level translation
- UART level translation



### Description

ST2329 is a level translator providing level shifting necessary to allow data transfer in a multi-voltage system. Externally applied voltages, V<sub>CC</sub> and V<sub>L</sub>, set the logic levels on either side of the device. It utilizes transmission gate based design that allows bidirectional level translation without control pin.

The ST2329 accepts VL from 1.65V to 3.6V and V<sub>CC</sub> from 1.80V to 5.5V, making it ideal for data transfer between low-voltage ASICs /PLD and higher voltage system. This device has three-state output mode that disables all I/Os.

ST2329 supports power-down mode at either of its supply (V<sub>L</sub> or V<sub>CC</sub>) where it will disable all I/Os when one of the supply is off. This feature will protect the device from current backflow through the device.

**Table 1. Device summary**

Part number	Package	Packaging
ST2329QTR	QFN10L (1.8mm x 1.4mm)	Tape and Reel (3000 parts per reel)

## Package mechanical data

In order to meet environmental requirements, ST offers these devices in ECOPACK® packages. These packages have a Lead-free second level interconnect. The category of second level interconnect is marked on the package and on the inner box label, in compliance with JEDEC Standard JESD97. The maximum ratings related to soldering conditions are also marked on the inner box label. ECOPACK is an ST trademark. ECOPACK specifications are available at: [www.st.com](http://www.st.com)

Table 2. QFN10L(1.8x1.4) Mechanical data

ref.	mm			inch		
	Nom	Min	Max	Nom	Min	Max
A	0.50	0.45	0.55	0.020	0.017	0.021
A1	0.02	0	0.05	0.001	0	0.002
A3	0.127			0.005	0	0
b	0.20	0.15	0.25	0.007	0.006	0.010
D	1.80	1.70	1.90	0.070	0.066	0.074
E	1.40	1.30	1.50	0.055	0.051	0.059
e	0.40			0.015		
L	0.40	0.30	0.50	0.015	0.011	0.020

Figure 1. Package dimension

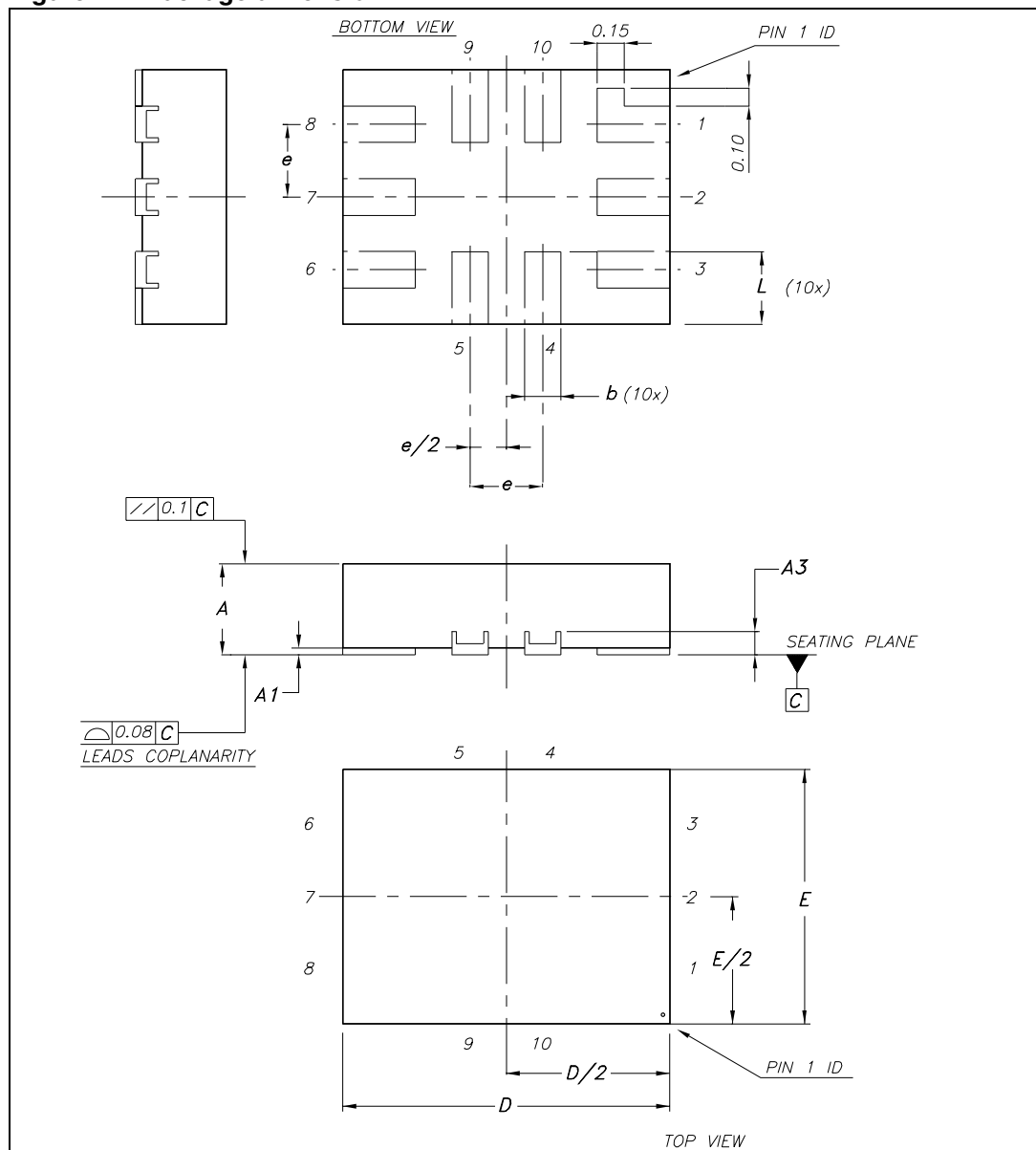


Figure 2. QFN10L(1.8x1.4) Foot print recommendation

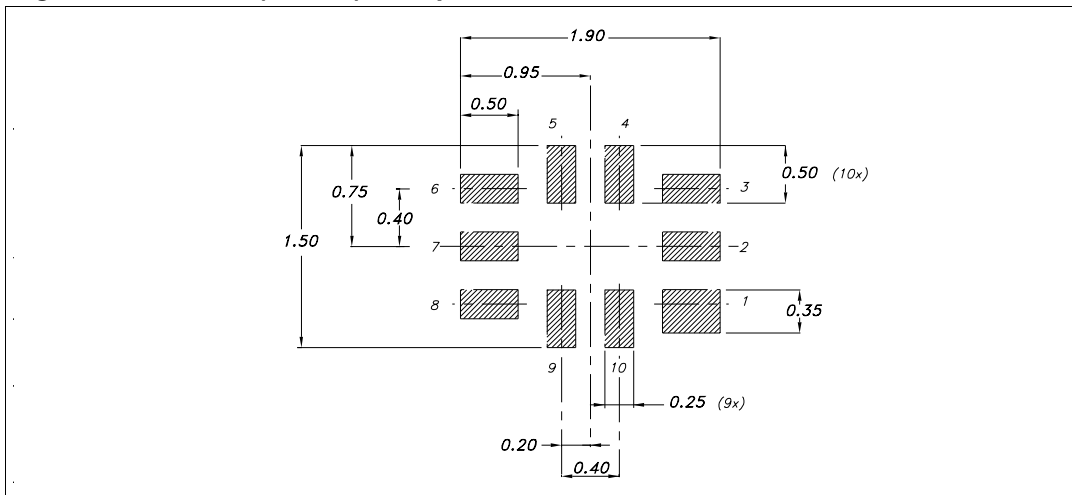


Figure 3. QFN10L(1.8x1.4) carrier type

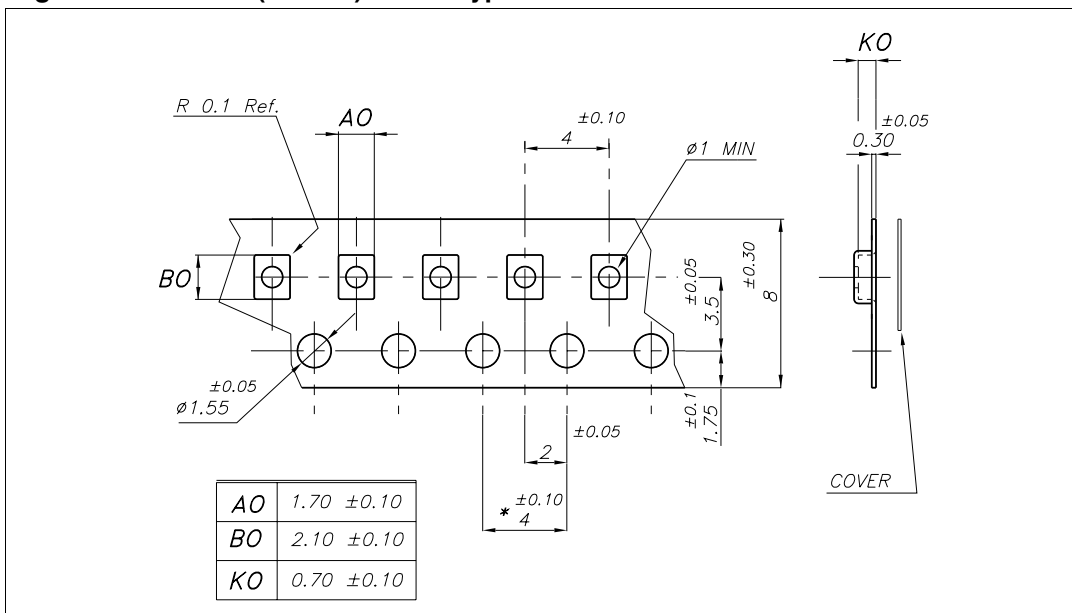


Figure 4. QFN10L(1.8x1.4) Reel information

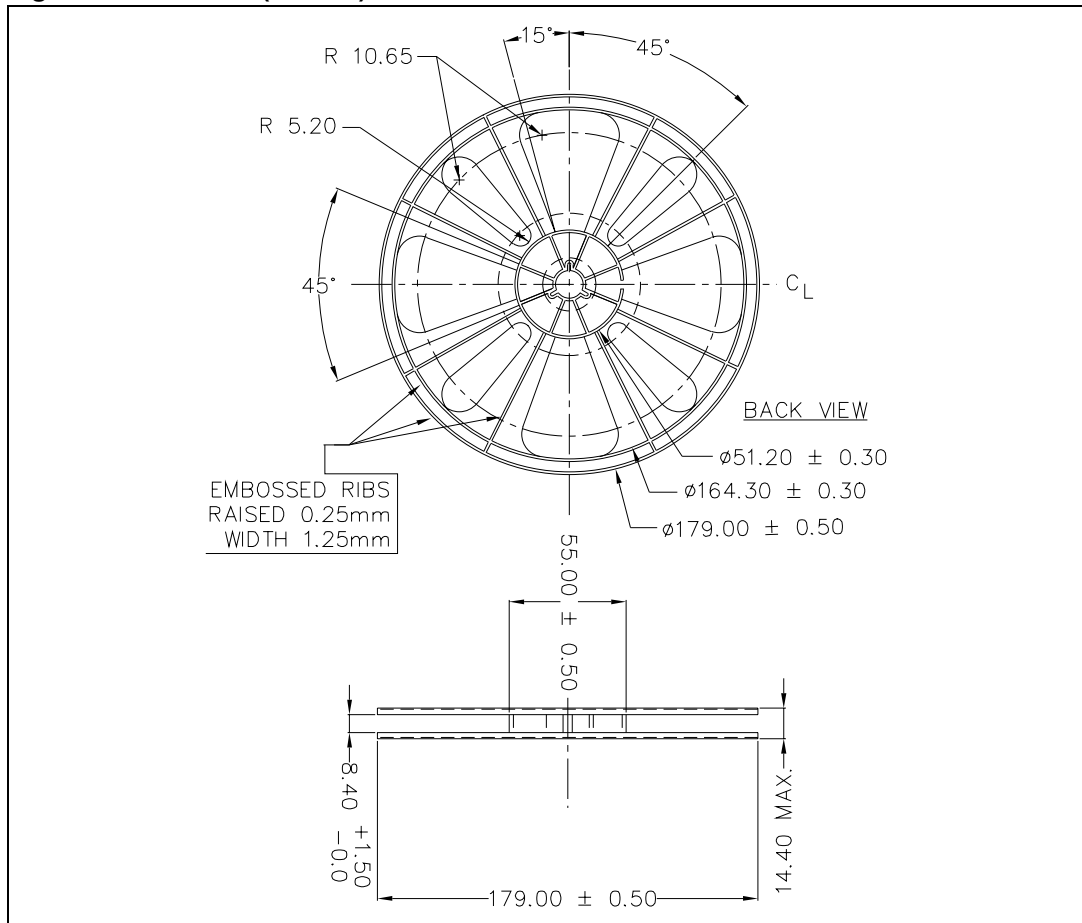
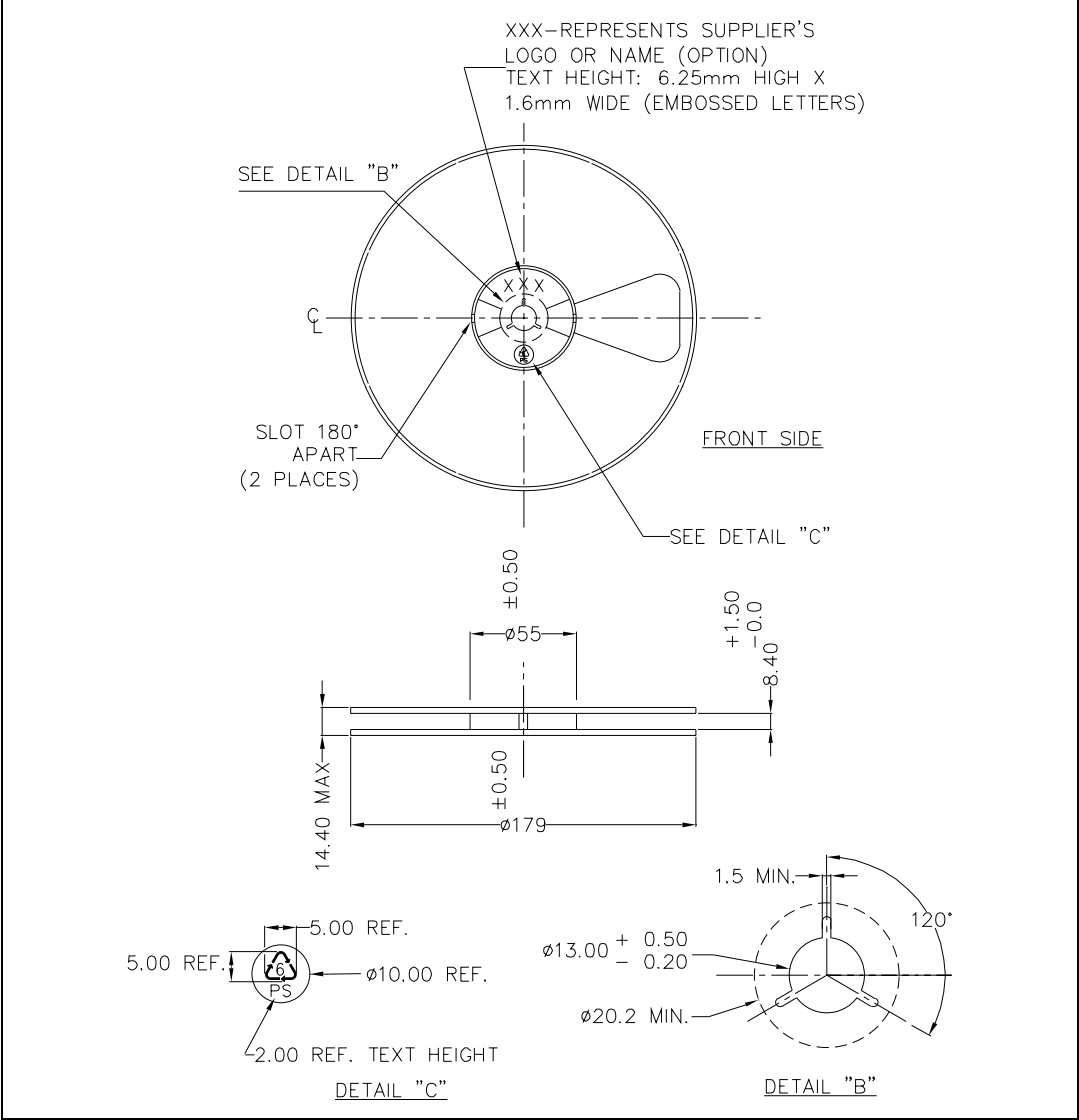


Figure 5. QFN10L(1.8x1.4) Reel information



# 1 Revision history

**Table 2. Revision history**

Date	Revision	Changes
05-May-2007	1	First release

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