

## Switch ICs

# 2:1 MIPI D-PHY (2.5Gbps) 4-Data Lane Switch



## AS3645

### ● General Description

The AS3645 is a four data lane D-PHY or three data lane C-PHY, MIPI switch. This single pole, double throw (SPDT) switch is optimized for switching between two high speed or low power MIPI sources. The AS3645 is designed for the MIPI specification and allows connection to a CSI or DSI module.

The AS3645 is compatible with the requirements of Mobile Industry Processor Interface (MIPI). The low-capacitance design allows the AS3645 to switch signals that exceed 2.5Gbps in frequency. Superior channel-to-channel crosstalk immunity minimizes interference and allows the transmission of high-speed differential signals and single-ended signals, as described by the MIPI specification, pin Compatible with FSA646.

The AS3645 is offered in Green 36-ball WLCSP package and is specified over an ambient temperature range of -40°C to 85°C.

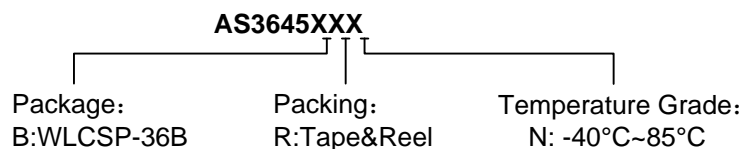
### ● Features

- Switch Type: SPDT (10x)
- Signal Types: --MIPI, D-PHY & C-PHY
- Wide V<sub>CC</sub> Range: 1.5V to 5.0V
- Input Signals: 0 to 1.3V
- R<sub>ON</sub>:
  - 6.0Ω Typical LP & HS MIPI
- ΔR<sub>ON</sub> : 0.1Ω Typical LP & HS MIPI
- ΔR<sub>ON\_FLAT</sub>: 0.5Ω Typical LP & HS MIPI
- I<sub>CCZ</sub>: 1uA Maximum
- I<sub>CC</sub>: 30uA Typical
- O<sub>IRR</sub>: -28dB Typical
- **-3dB Bandwidth: 4.0GHz (Typical)**
- Data Rate: 2.0Gbps
- Xtalk: -30dB Typical
- C<sub>ON</sub>: 1.5pF Typical
- Skew of Opposite Transitions of the Same Output: 6ps Typical
- RoHS and Green Compliant
- 36B, 2.38mm X 2.38mm WLCSP Packages
- -40°C to +85 °C Temperature Range

### ● Applications

- Dual Camera for Smart Phones
- Dual LCD Monitor, Digital Camera Displays
- Tablet PCs & Laptops & Displays

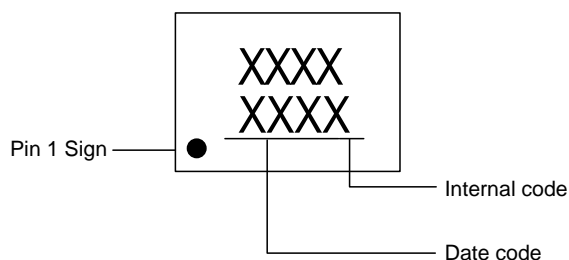
### ● Ordering Information



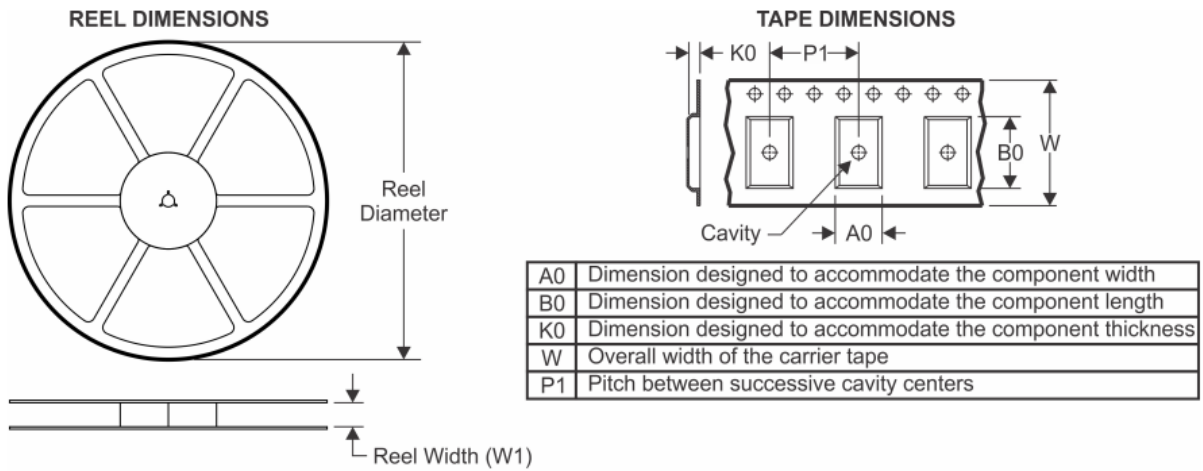
Part Number	Data	Package Type	Package Qty	Temperature	Eco Plan
AS3645BRN	2:1 SPDT (2.5Gbps)	WLCSP-36B	7-in reel 3000pcs/reel	-40~85°C	Green

### ● Marking Information

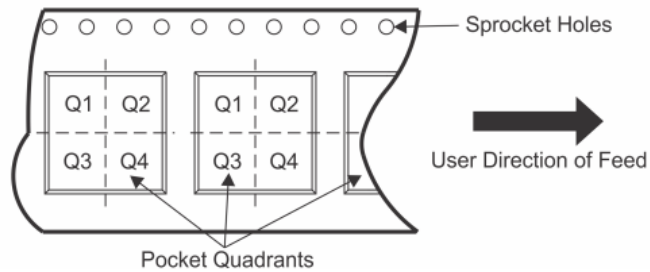
WLCSP-36B:



■ **Tape and Reel Information**



**QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE**



Device	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
AS3645BRN	180.0	8.5	2.60	2.60	0.8	4.0	8.0	Q1

\*All dimensions are nominal