New Product Announcement

PI7C9X762Q

Automotive-Compliant I2C/SPI-to-Dual UART Bridge Improves Robustness in Automotive Connectivity

The PI7C9X762Q is an automotive compliant* I2C/SPI-bus-to-dual-channel high-performance UART bridge. It supports applications operating at -40ºC to +105ºC temperature range.

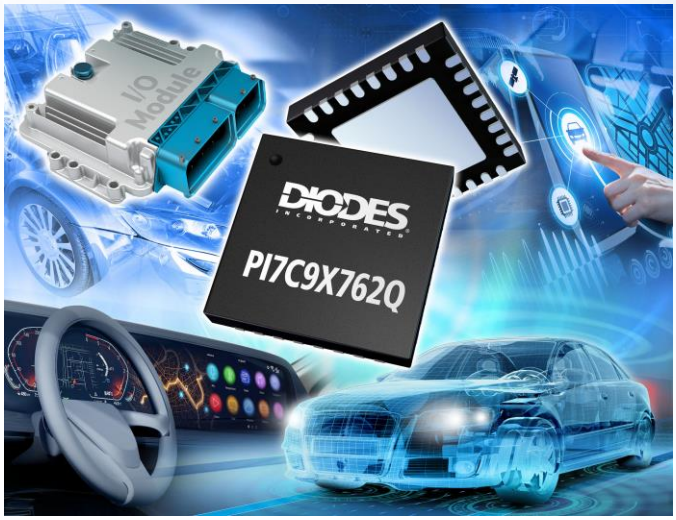
The PI7C9X762Q offers full bi-directional protocol conversion from an I2C or SPI-bus to UART and supports SPI clock speeds up to 33Mbps. The UART includes 64 bytes of TX/RX FIFOs with programmable trigger levels and is backward compatible to the 16C450. It has up to eight additional programmable, general-purpose I/O [GPIO] pins.

The PI7C9X762Q's advanced features, including auto-hardware and software flow control, deliver a very stable, safe, and cost-effective solution for robust automotive interconnectivity.

Its additional features include support for fractional baud rates, and its software reset function allows the UART to be reset at any instant, independent of a hardware reset signal.

The PI7C9X762Q is available in the small-footprint W-QFN5050-32 (ZH32). A standard compliance version, PI7C9X762, is available and is suitable for industrial and commercial applications.

**Automotive-compliant - AEC qualified, manufactured in sites certified to IATF 16949 supporting PPAP documents.*



The DIODES Advantage

The PI7C9X762Q provides a stable, safe, and cost-effective solution for automotive interconnectivity.

- **AEC-Q100 Grade 2 Qualified**
  Meets the requirements of automotive applications
- **Backward Compatible with 16C450 UART**
  Eases software development and migration
- **Advanced Features Include Auto-Hardware, Software Flow Control, and Software Reset**
  Minimizes development time while providing a robust solution
- **Low Power with Small Footprint Solution**
  Saves battery power, making it ideal for EV designs
- **Provides Additional 8 GPIO Pins**
  Improves design flexibility

Applications

- Smart cockpits
- Central controllers
- I/O module controllers
- ADAS
- Telematics
- Zonal gateways

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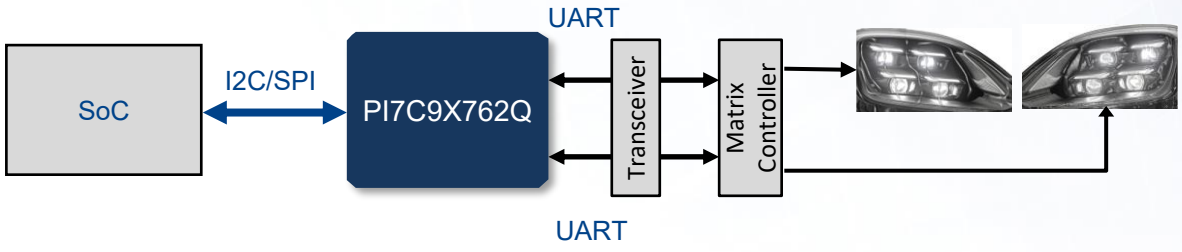
Typical Application

PI7C9X762Q in Automotive Matrix Headlights/Taillights



Product Portfolio

Part Number	UART Ports	Data Rate	FIFO	TX/RX FIFO Control	TX/RX FIFO INT Trigger	Auto RTS/CTS	Interface	Ambient Temperature	Package
		Mbps	Bytes					°C	
PI7C9X762Q	2	33 (SPI) 1.152 (I2C)	64	Yes	Yes	Yes	I2C/SPI	-40 to +105	W-QFN5050-32 (ZH32)

Ordering Information

Orderable Part Number	Compliance (Only Automotive Supports PPAP)	Package Code	Package	Moisture Sensitivity	Packing	
					Quantity	Carrier
PI7C9X762Q2ZHEX	Automotive	ZH32	W-QFN5050-32	MSL-1	2,500	13” Tape & Reel