



# New Product Announcement

PI7C9X2G404EVQ  
PI7C9X2G304EVQ

## Low-Power Automotive PCI Express 2.1 Packet Switches Extend Telematics/ADAS/Infotainment Operating Temperatures

The PI7C9X2G404EVQ and PI7C9X2G304EVQ are automotive-compliant PCI Express® 2.1, 4-port/4-lane and 3-port/4-lane, respectively, packet switches. They are specifically designed to meet the requirements of automotive applications. Their new lower power operation allows them to be used at up to +105°C ambient temperature

The family is a high-performance, cost-effective solution that can be implemented in automotive systems, such as infotainment, telematics ADAS, and security.

The PI7C9X2G404EVQ offers one x1 PCIe2 upstream port and three x1 PCIe2 downstream ports.

The PI7C9X2G304EVQ offers one x1/x2 PCIe2 upstream port and two x1 PCIe2 downstream ports.

The PI7C9X2G404EVQ and the PI7C9X2G304EVQ are AEC-Q100 qualified, have a grade 2 -40°C to +105°C temperature rating, are PPAP capable, and are manufactured in IATF16949:2016 certified facilities. They are available in a 136-pin 10mm x 10mm aQFN.

*PCI Express is a registered trademark of PCI-SIG Corporation.*



### DIODES Advantage

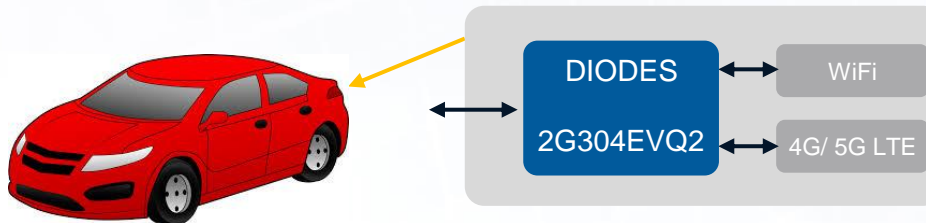
- **Low Power Consumption**  
Better thermal solution and improved fit for power sensitive applications
- **Qualified to AEC-Q100 Grade 2**  
Meets the requirements of automotive infotainment, telematics, and ADAS applications
- **Integrated Clock Buffer**  
Simplifies design and lowers the BOM cost
- **Compliant to PCISIG PCIe rev 2.1**  
Ensures good interoperability
- **Supports Peer-to-Peer Traffic**  
Enhanced system performance

### Applications

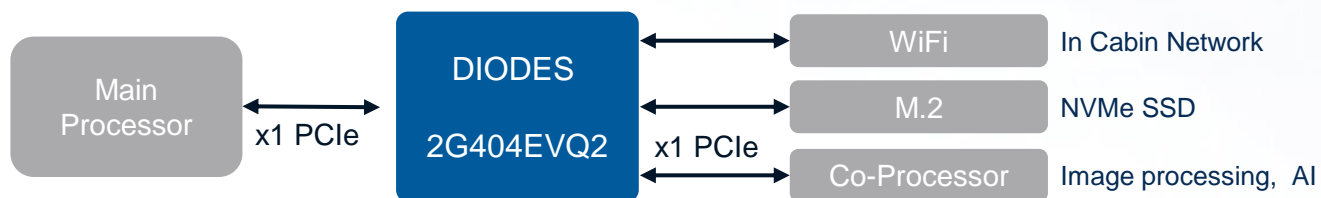
- Telematics
- In-Vehicle Wireless AP/Router
- V2V
- V2X
- Infotainment
- ADAS
- Navigation
- V2G

## Typical Application Example

### Telematics Module:



### Main Control Unit:



## Automotive-Compliant Packet Switch Portfolio

| Part Number    | PCIe Specification | Ports | Lanes | Power L0 (mw) | AEC-Q100 | Operating Temperature (°C) | Package  |
|----------------|--------------------|-------|-------|---------------|----------|----------------------------|----------|
| PI7C9X2G304EVQ | 2.1                | 3     | 4     | 300           | Grade 2  | -40~ +105                  | 136 aQFN |
| PI7C9X2G404EVQ | 2.1                | 4     | 4     | 300           | Grade 2  | -40~ +105                  | 136 aQFN |
| PI7C9X2G304ELQ | 2.1                | 3     | 4     | 700           | Grade 3  | -40~ +85                   | 136 aQFN |
| PI7C9X2G404ELQ | 2.1                | 4     | 4     | 700           | Grade 3  | -40~ +85                   | 136 aQFN |
| PI7C9X2G304SLQ | 2.1                | 3     | 4     | 700           | Grade 3  | -40~ +85                   | 128 LQFP |
| PI7C9X2G404SLQ | 2.1                | 4     | 4     | 700           | Grade 3  | -40~ +85                   | 128 LQFP |

## Further Information

<https://www.diodes.com/products/connectivity-and-timing/pcie-packet-switchbridges/pcie-switch/>

## Ordering Information

| Orderable Part Number              | Base Part Number | Package Code | Package          | Pin Count | Quantity per Tape & Reel |
|------------------------------------|------------------|--------------|------------------|-----------|--------------------------|
| PI7C9X2G404EVAQ2ZXAEX <sup>†</sup> | PI7C9X2G404EVQ2  | ZXA          | 10x10mm 136 aQFN | 136       | 3000                     |
| PI7C9X2G304EVAQ2ZXAEX <sup>†</sup> | PI7C9X2G304EVQ2  | ZXA          | 10x10mm 136 aQFN | 136       | 3000                     |

<sup>†</sup> Note: X suffix denotes Tape and Reel