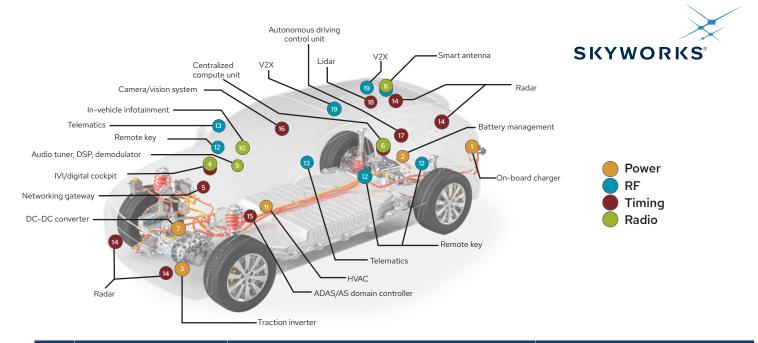


# **Automotive Solutions**

## Enhance Automotive Safety, Efficiency, and Convenience

Multi-function, multi-chip modules and solutions from Skyworks reduce part count and simplify essential circuits in a wide variety of applications. From RF front-end modules for diversity receivers and navigation, and reference clocks for central computers, to isolated gate drivers, amplifiers and data transceivers for power management and traction controls, the solutions are available in various packages and qualifications.

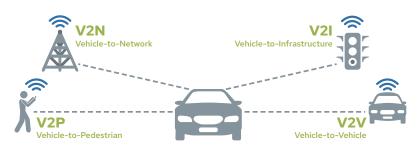


| Ref        | Function                        | Product Type   | Typical Part Numbers                                       |
|------------|---------------------------------|--|--|
| Powertrain |                                 |  |  |
| 1          | On-board charger                | Digital isolators, isolated amplifiers   | Si892x/3x/4x   |
| 2          | Battery management              | Digital isolators, isolated amplifiers   | Si892x/3x/4x   |
| 3          | Traction inverter               | Isolated gate drivers, digital isolators, isolated amplifiers                    | XM3 Si828x GDB (Wolfspeed), Si893x                         |
| Vehic      | le Management                   |  |  |
| 4          | IVI/digital cockpit             | Automotive PCI Express (PCIe) clock buffers, clock generators, automotive tuners | Si53258/4, Si5332A-D-AM1/2/3, Si46xx,<br>Si479xx           |
| 5          | Networking gateway              | Automotive PCI Express (PCIe) clock buffers, clock generators, automotive tuners | Si53258/4, Si5332A-D-AM1/2/3                               |
| 6          | Centralized compute unit        | Automotive PCI Express (PCIe) clock buffers, clock generators, automotive tuners | Si53258/4, Si5332A-D-AM1/2/3, Si46xx,<br>Si479xx           |
| 7          | DC-DC converter                 | Digital isolators, isolated amplifiers   | Si892x/3x/4x   |
| Infota     | inment                          |  |  |
| 8          | Smart antenna                   | Automotive tuners, RF front-end modules, low noise amplifiers, GPS/GNSS          | Si46xx, Si479xx, SKY5A2105, SKY5A108, SKY5A5109, SKY5A5110 |
| 9          | Audio tuner, DSP, demodulator   | USB drivers, automotive tuners   | Si46xx and Si479xx   |
| 10         | In-vehicle infotainment         | USB drivers, automotive tuners   | Si46xx, Si479xx  |
| Drive      | Convenience                     |  |  |
| 11         | HVAC                            | Digital isolators, isolated amplifiers   | Si892x/3x/4x   |
| 12         | Remote key                      | Switches   | SKY5A1007, SKY5A21001, SKY5A21003                          |
| 13         | Telematics                      | Front-end modules including power amplifiers, integrated filters, and LNAs       | SKY5A2203/04/05/06, SKY5A3048/37,<br>SKY5A5002/05/09/12/11 |
| Autor      | omous Driving                   |  |  |
| 14         | Radar                           |  |  |
| 15         | ADAS/AS domain controller       |  |  |
| 16         | Camera/vision system            | Automotive PCI Express (PCIe) clock buffers, clock generators                    | Si53258/4, Si5332A-D-AM1/2/3                               |
| 17         | Autonomous driving control unit |  |  |
| 18         | Lidar                           |  |  |
| 19         | V2X                             | RF front-end modules   | SKY5A2105  |

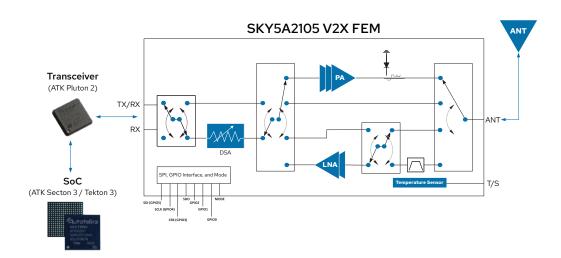
#### **Featured Parts**

#### SKY5A2105 RF Front-end Module for V2X Applications

- Enables 5G/4G/Wi-Fi® V2X-equipped vehicles to communicate with other vehicles and infrastructure
- Compact multi-chip-module (MCM) design contains a complete RF system in one package
- Compliant with 3GPP and IEEE V2X standards, meets emissions requirements from US (FCC) and EU (CE)



- · High transmit power ensures maximum legal range of communication
  - » C-V2X (LTE): +29 dBm typical
  - » C-V2X (5G NR): +26.5 dBm typical (2.5 dB MPR)
  - » 802.11p DSRC: +26 dBm typical
- AEC-Q104 Grade 2 qualified (-40 °C to +105 °C). Developed under full IATF-16949 compliant design flow.



### Sky5® 5G Value Automotive Telematics RF Front-end Solutions

- Flexible, cost-effective total RF front-end solutions for mid-price automotive 5G NAD or TCU
- Balance of discrete TX and integrated RX offers ideal performance vs. price balance, flexibility, and simplification vs full discrete RF designs
- Sky5® 5G Value FEMs
  - » SKY5A2206 (LMHB Multi-band PA)
- » SKY5A5010 (LMHB DRx Module)
- » SKY5A2205 (Tx-Rx Front-end Module)
- » SKY5A5005 (MHB MIMO Module)
- » SKY5A22O3 (LMHB LNA Module)
- » SKY5A5009 (UHB DRx Module)
- » SKY5A3048 (UHB DB L-PAMiF)
- Integrated MIPI RFFE interface
- Full automotive support:
  - » AEC-Q104 Grade 2 qualified (-40 °C to +105 °C)
  - » PPAP and IMDS material declaration





#### **Tuners and Digital Radio Coprocessors**

Skyworks partitioning of separate tuners and digital radio coprocessors combined with pin/package and API compatibility results in unmatched scalability and regional configurability. Our tuners and coprocessors are designed to interface seamlessly to achieve a complete digital radio receiver.

- Si46922 High-performance Dual Digital Radio Co-processor for DAB/DAB+/DMB
- Si47962 High-performance Dual AM/FM Radio Receiver and HD Radio™/DAB/DAB+/DMB/DRM Tuner
- Si47951 High-performance AM/FM Radio Receiver and HD Radio™ Tuner



Copyright © 2024 Skyworks Solutions, Inc. All Rights Reserved.

Skyworks, the Skyworks logo and others are trademarks or registered trademarks of Skyworks Solutions, Inc. or its subsidiaries in the United States and other countries. Third-party brands and names are for identification purposes only and are the property of their respective owners.