High-Performance Automotive AM/FM Radio Receiver and HD Radio™/DAB/DAB+/DMB/DRM Tuner with Audio System

The Si47971/72 integrates two global radio receivers with audio processing. The analog AM/FM receivers and digital radio tuners set a new standard for automotive broadcast reception. The integrated audio processing subsystem provides a complete solution to synchronize, process, aggregate, and distribute digital and analog audio signals in the head unit.

The Si47971/72 is the most integrated automotive tuner in the industry with the smallest external bill of materials. Si47971/72 based systems can scale from a low-cost dual tuner AM/FM radio to the highest performance systems with multiple tuners and multiple antennas, enabling the radio suppliers to reuse their R&D across multiple product lines, all with a common software API. The Si47971/72 A-grade parts meet rigorous automotive quality standards.

Applications
- OEM automotive infotainment systems
- Aftermarket car radio systems

KEY FEATURES
- Dual worldwide FM band support (64–108 MHz)
- Dual worldwide AM band support (520–1710 kHz)
- Dual LW band support (144–288 kHz)
- Dual SW band support (2.3–30 MHz)
- Dual DAB/DAB+/DMB support (Si47972 only) (168–240 MHz)
- NOAA Weather Band support
- On-chip RDS/RDBS
- AM/FM:
  - Comprehensive AM/FM signal processing firmware
  - Integrated active AM/FM buffers
  - Analog FM phase diversity
- HD Radio:
  - Digital I/Q interface to HD Radio Processor
  - HD Radio MRC
- DRM30/DRM+:
  - Digital I/Q interface to DRM processor
  - Dual DAB/DAB+/DMB (Si47972 only):
    - Digital I/Q interface to DAB/DAB+/DMB processor
    - DAB/DAB+/DMB MRC
  - Integrated active Band III buffer
- Audio
  - S/PDIF Digital Audio Interface
  - 1.8 V or 3.3 V digital I/O power supplies
  - 3.3 V analog power supply and 1.8 V digital power supply
  - QFN 88-pin, 12x12x0.85 mm
  - Pb-free/RoHS compliant
  - AEC-Q100 qualified (A-grade parts)
1. Pin Descriptions

Figure 1.1. Si47971-72 Pinout Diagram
2. Package Outline

Figure 2.2. 88-Pin QFN
### Table 2.1. Package Dimensions

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<td>E</td>
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**Note:**
1. All dimensions shown are in millimeters (mm) unless otherwise noted.
3. Recommended card reflow profile is per the JEDEC/IPC J-STD-020 specification for Small Body Components.
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