

Si47971-72 Data Short

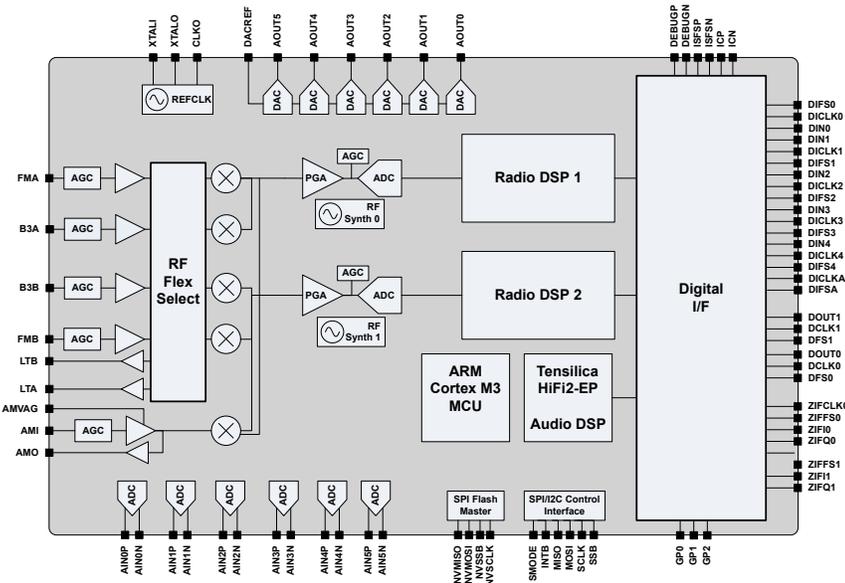
High-Performance Automotive AM/FM Radio Receiver and HD Radio™/DAB/DAB+/DMB/DRM Tuner with Audio System

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 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 IO 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

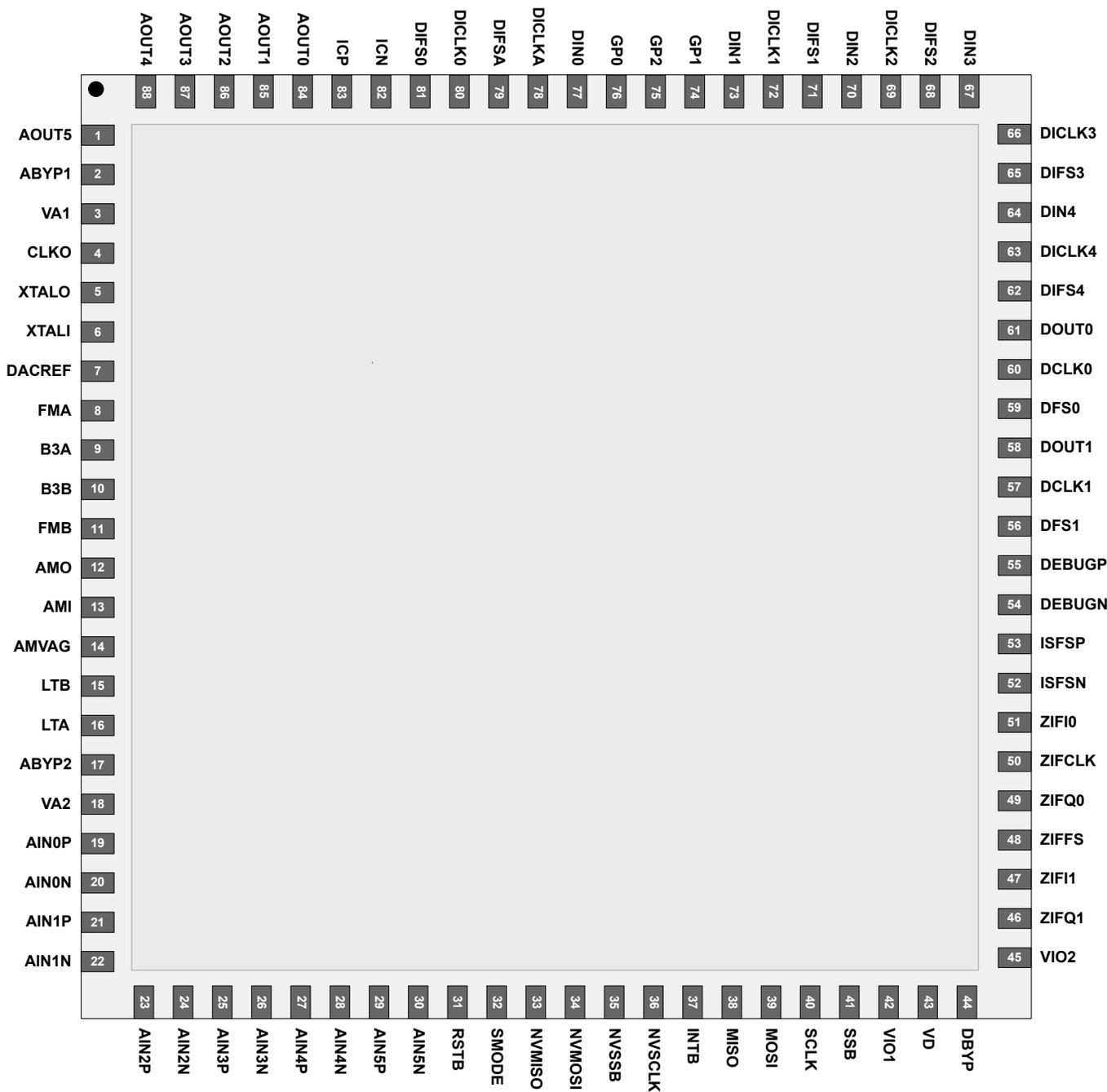


Figure 1.1. Si47971-72 Pinout Diagram

2. Package Outline

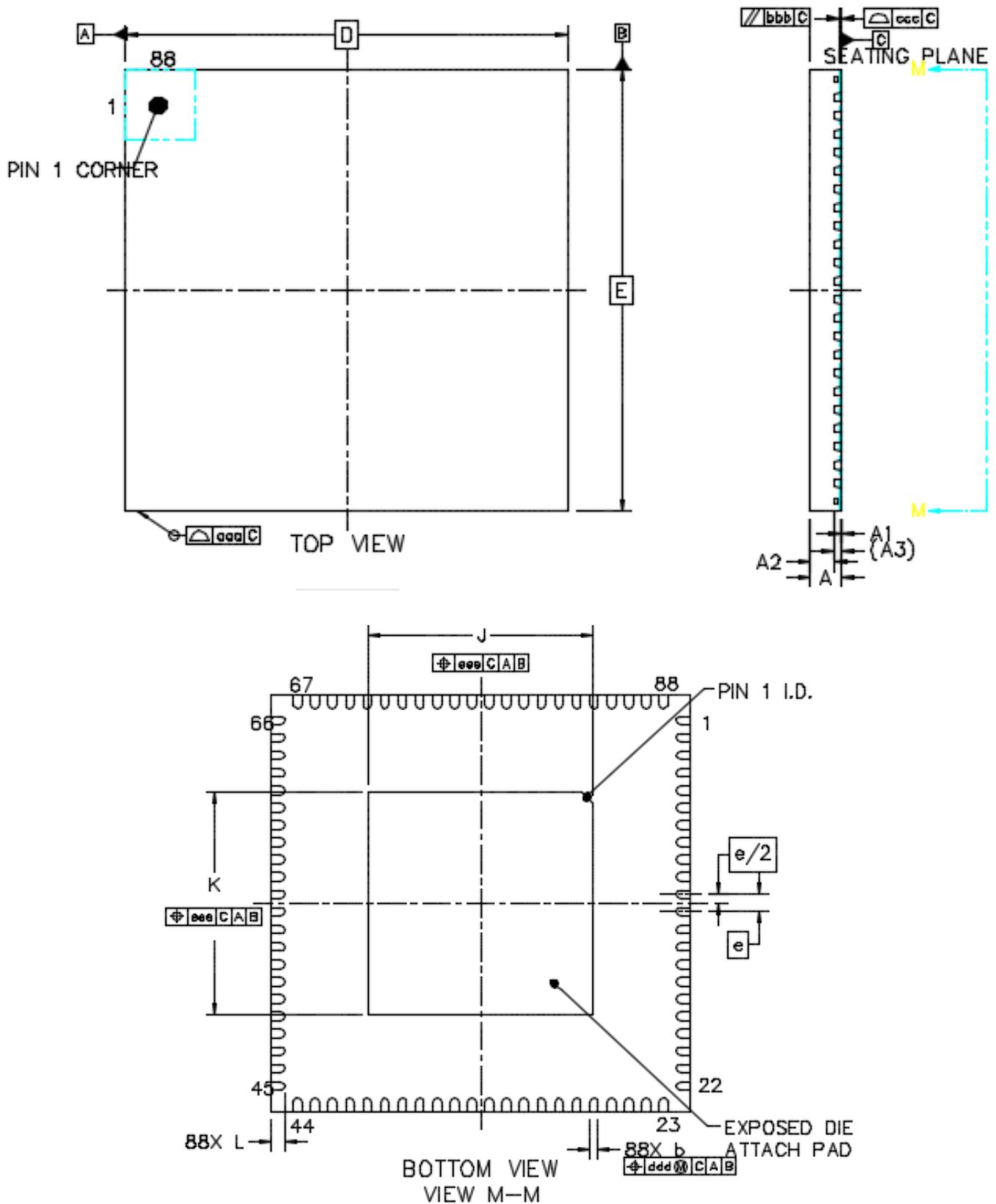


Figure 2.2. 88-Pin QFN

Table 2.1. Package Dimensions

| Dimensions | Min | Nom | Max |
|------------|------------|-------|------|
| A | 0.80 | 0.85 | 0.90 |
| A1 | 0.00 | 0.035 | 0.05 |
| b | 0.20 | 0.25 | 0.30 |
| A3 | 0.203 REF | | |
| D | 12.00 BSC | | |
| e | 0.5 BSC | | |
| E | 12.00 BSC. | | |
| D2 | 6.30 | 6.40 | 6.50 |
| E2 | 6.30 | 6.40 | 6.50 |
| L | 0.35 | 0.40 | 0.45 |
| K | 0.20 | — | — |
| aaa | 0.10 | | |
| bbb | 0.10 | | |
| ccc | 0.08 | | |
| ddd | 0.10 | | |
| eee | 0.10 | | |

Note:

1. All dimensions shown are in millimeters (mm) unless otherwise noted.
2. Dimensioning and Tolerancing per ANSI Y14.5M-1994.
3. Recommended card reflow profile is per the JEDEC/IPC J-STD-020 specification for Small Body Components.



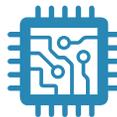
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