

Si47951-52 Data Short

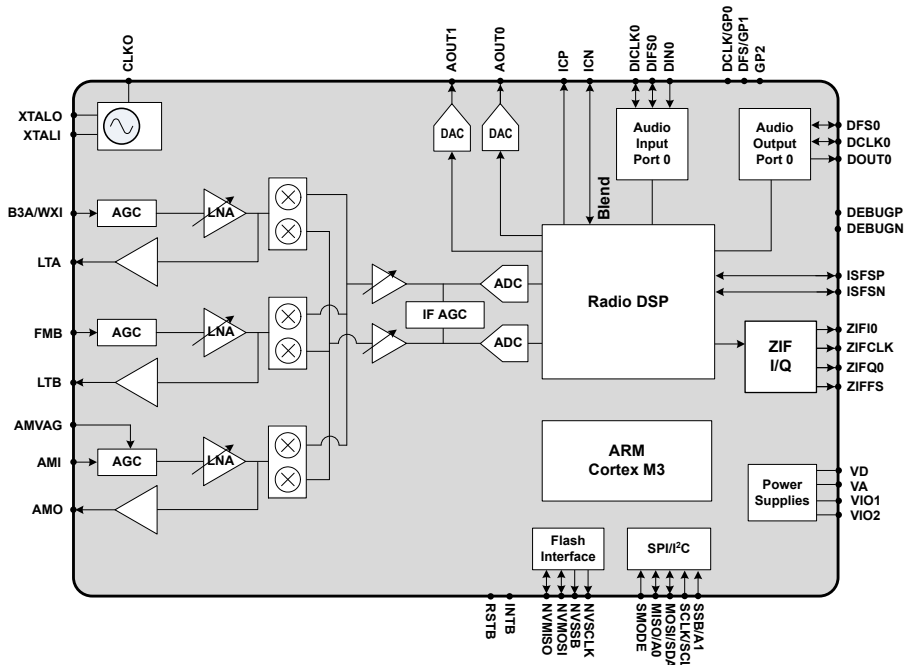
High-Performance Automotive AM/FM Radio Receiver and HD Radio™/DAB/DAB+/DMB/DRM Tuner

The Si47951/52 analog AM/FM receiver and digital radio tuner sets a new standard for automotive broadcast reception.

The Si47951/52 is the most integrated automotive tuner in the industry with the smallest external bill of materials. Si47951/52 based systems can scale from a low-cost single 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 Si47951/52 A-grade parts meet rigorous automotive quality standards.

Applications

- OEM automotive infotainment systems
- Aftermarket car radio systems



KEY FEATURES

- Worldwide FM band support (64–108 MHz)
- Worldwide AM band support (520–1710 kHz)
- LW band support (144–288 kHz)
- DAB/DAB+/DMB support (Si47952 only) (170–240 MHz)
- SW band support (2.3–30 MHz)
- NOAA Weather band support
- On-chip soft-decision RDS/RDBS demodulator/decoder
- AM/FM
 - Comprehensive AM/FM signal processing firmware
 - Integrated active AM/FM buffers
 - Fully integrated AGC
- HD Radio
 - Digital I/Q interface to HD Radio Processor
 - Fast FM HD Radio band scan
- DRM30/DRM+ (Si47952 only)
 - DRM detect
 - Digital I/Q interface to DRM processor
 - Fully integrated AGC
- DAB/DAB+/DMB (Si47952 only)
 - Digital I/Q interface to DAB/DAB+/DMB processor
 - Integrated active Band III buffer
 - Fast DAB/DAB+/DMB band scan
 - Fully integrated AGC for Band III
- Two analog audio outputs
- Two digital audio ports (I²S)
- Integrated clock oscillator
- 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 56-pin, 8x8x0.85 mm
- Pb-free/RoHS compliant
- AEC-Q100 qualified (A-grade parts)

1. Pin Descriptions

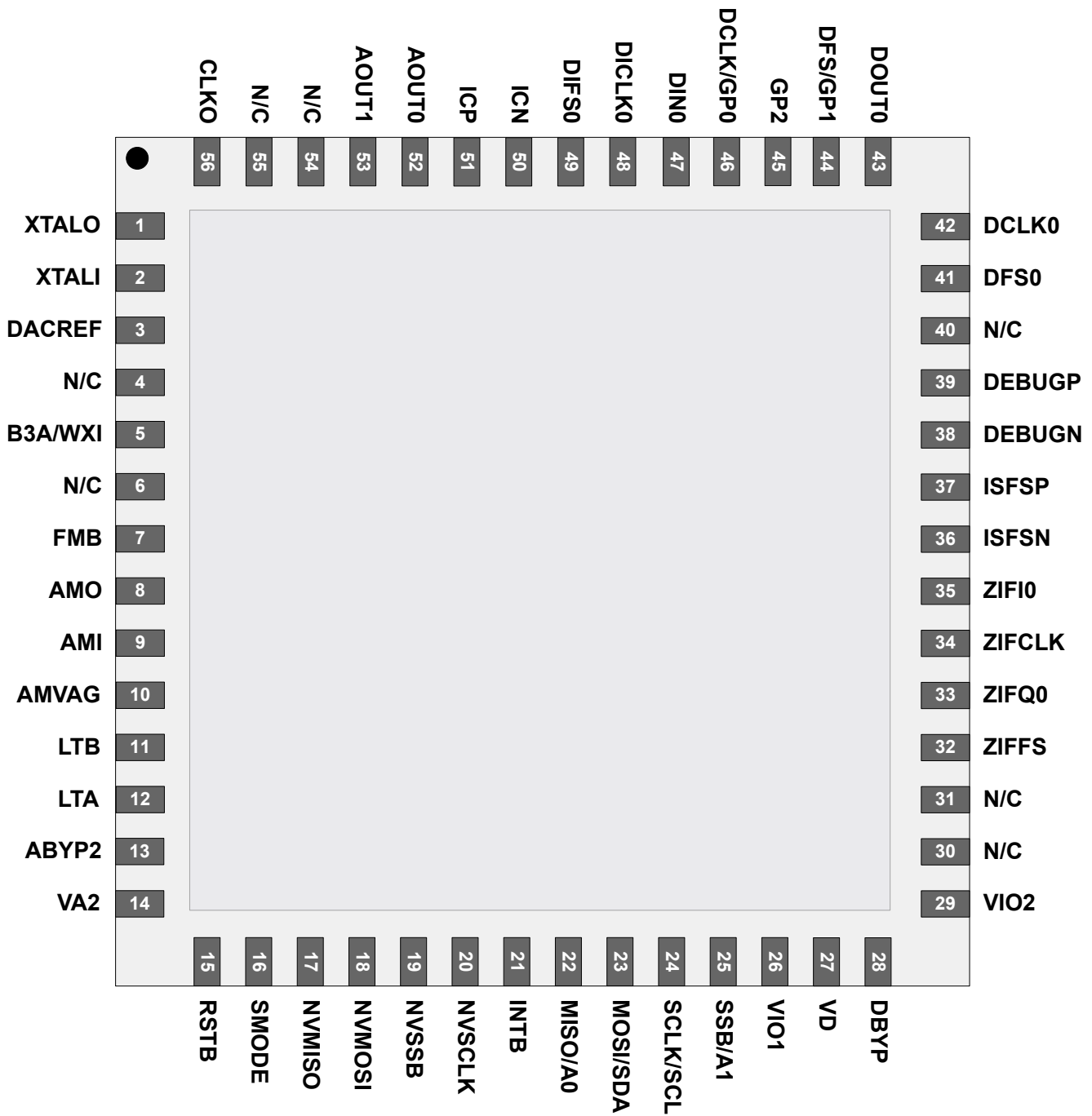


Figure 1.1. Si47951-52 Pinout Diagram

2. Package Outline

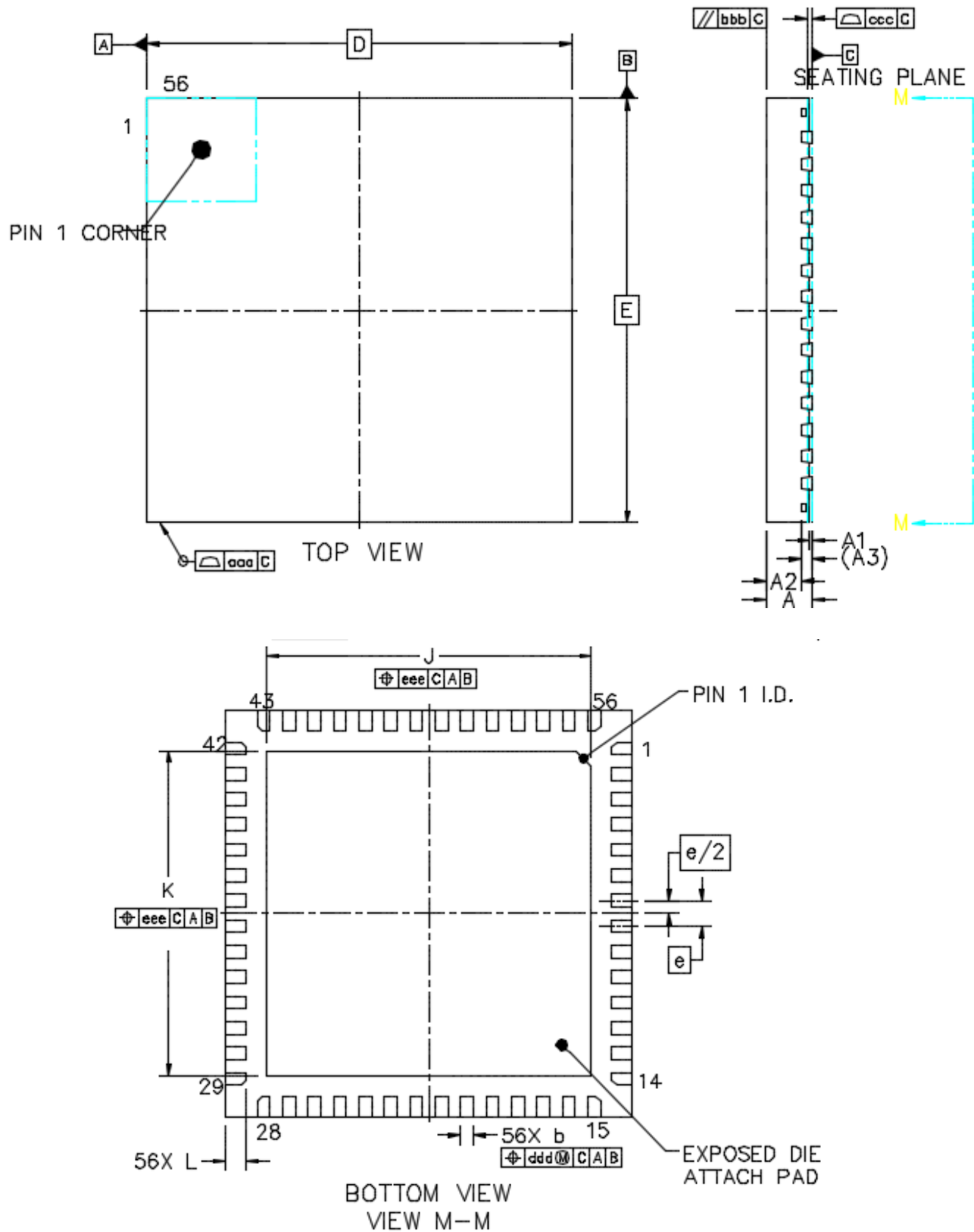


Table 2.1. Package Dimensions

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	8.00 BSC		
e	0.5 BSC		
E	8.00 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.			