

Si47957 Data Short

High-Performance Automotive AM/FM Radio Receiver and DRM Tuner

The Si47957 analog AM/FM receiver and digital radio tuner sets a new standard for automotive broadcast reception.

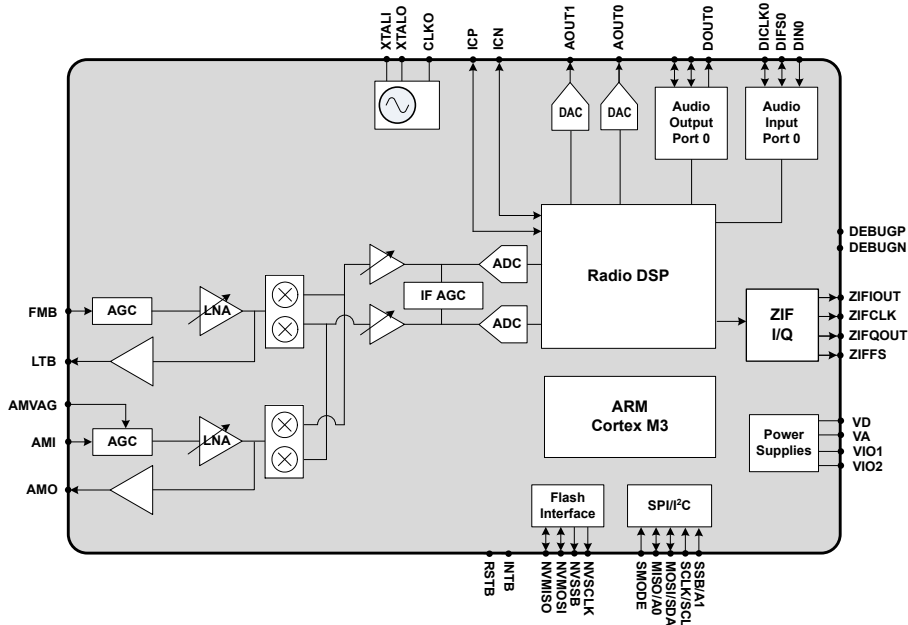
The Si47957 is the most integrated automotive hybrid SDR DRM tuner in the industry with the smallest external bill of materials. Si47957-based systems can scale from a low-cost single tuner AM/FM radio to the highest performance systems with multiple tuners and multiple antennas, enabling radio suppliers to reuse their R&D across multiple product lines, all with a common software API. The Si47957 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)
- SW band support (2.3–30 MHz)
- On-chip soft-decision RDS/RDBS demodulator/decoder
- AM/FM:
 - Comprehensive AM/FM signal processing firmware
 - Integrated active AM/FM buffers
 - Analog FM phase diversity
 - Fully integrated AGC
- DRM30/DRM+:
 - Digital I/Q interface to DRM processor
 - Fully integrated AGC
 - DRM detect
- 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, 8 x 8 x 0.85 mm
- Pb-free/RoHS compliant
- AEC-Q100 qualified (A-grade parts)



1. Pin Descriptions

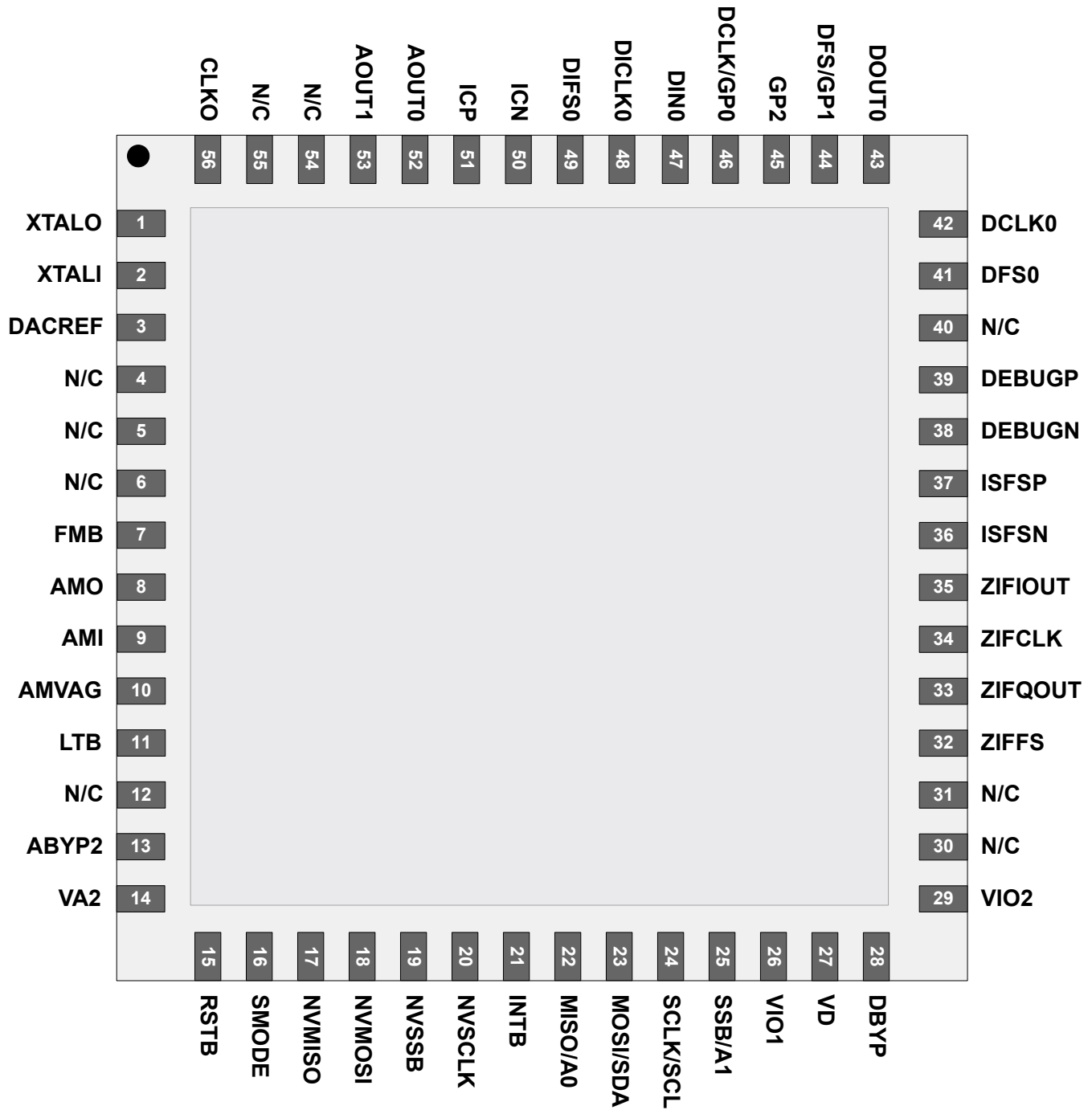


Figure 1.1. Si47957 Pinout Diagram

2. Package Outline

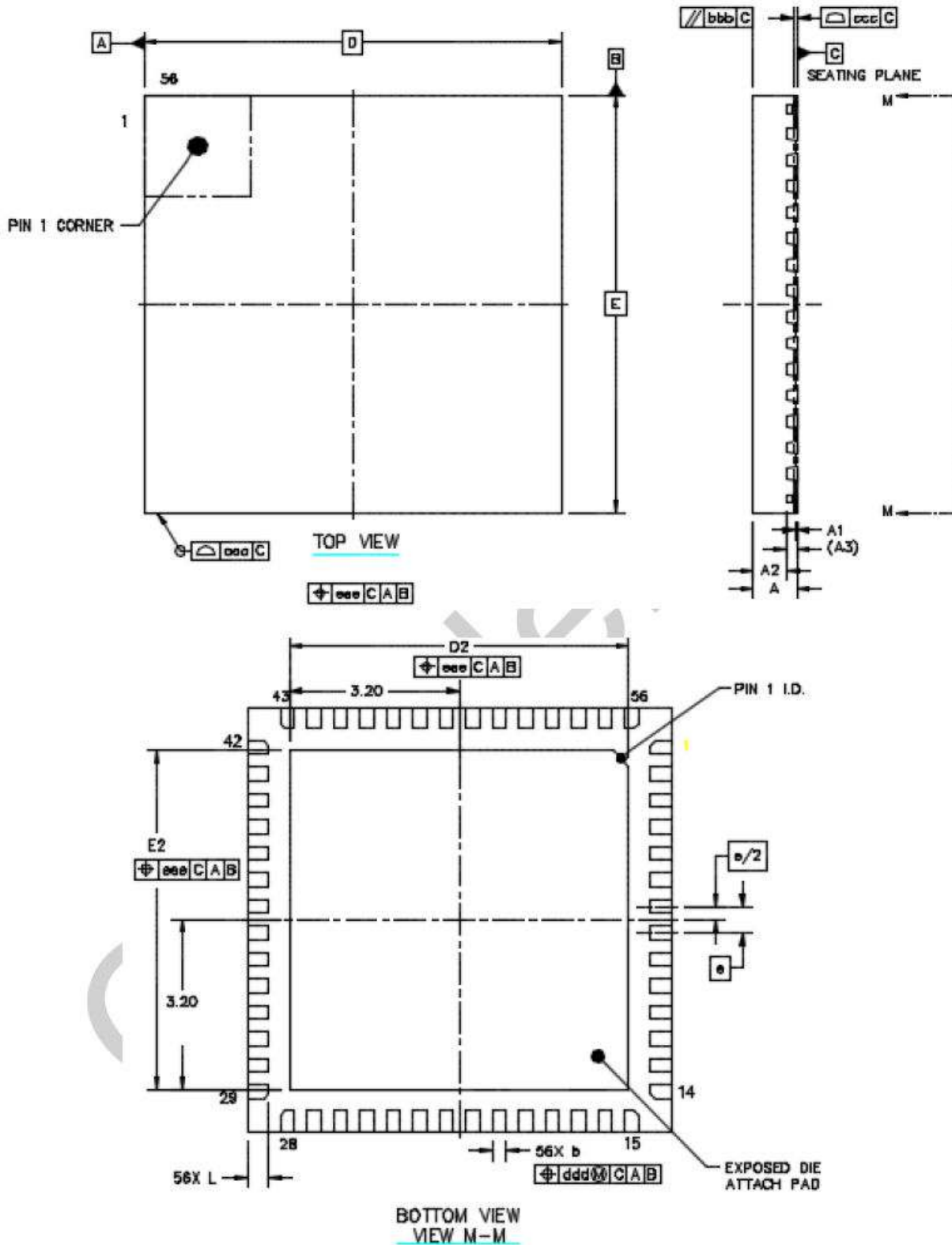


Figure 2.1. 56-Pin QFN

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	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.



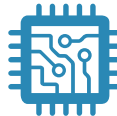
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