

Si47961-62 Data Short

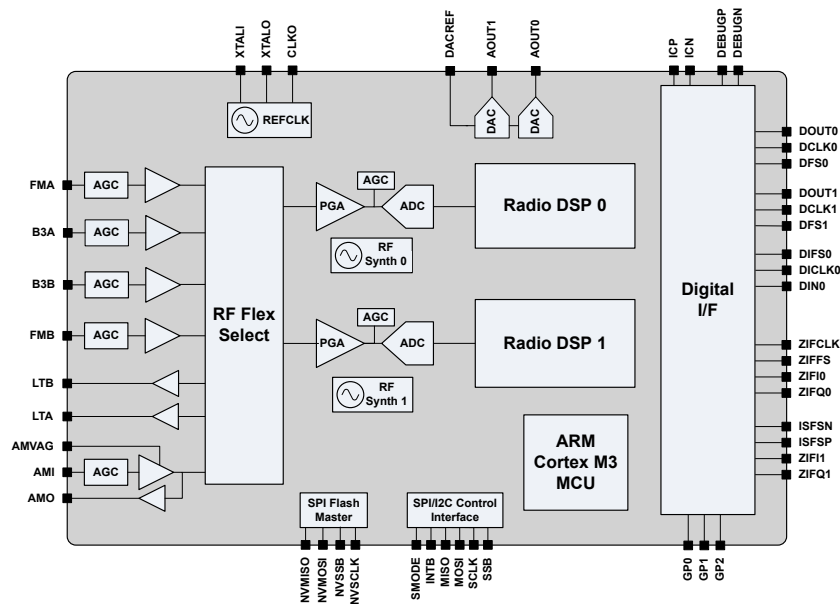
High-Performance Automotive Dual AM/FM Radio Receiver and HD Radio™/DAB/DAB+/DMB/DRM Tuner

The Si47961/62 integrates two global radio receivers. The analog AM/FM receivers and digital radio tuners set a new standard for automotive broadcast reception.

The Si47961/62 is the most integrated automotive tuner in the industry with the smallest external bill of materials. Si47961/62 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 Si47961/62 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 (Si47962 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 for background/data tuners
 - Analog FM phase diversity with two tuners
- HD Radio
 - Digital I/Q interface to HD Radio Processor
 - HD Radio MRC with two tuners
- DRM30/DRM+ (Si47962 only)
 - Digital I/Q interface to DRM processor
 - Fully integrated AGC
 - DRM detect
- Dual DAB/DAB+/DMB (Si47962 only)
 - Digital I/Q interface to DAB/DAB+/DMB processor
 - DAB/DAB+/DMB MRC with two tuners
 - Integrated active Band III buffers for background/data tuners
- Audio
 - Two analog audio outputs
 - Three digital audio ports (I²S)
- 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 devices)

1. Pin Descriptions

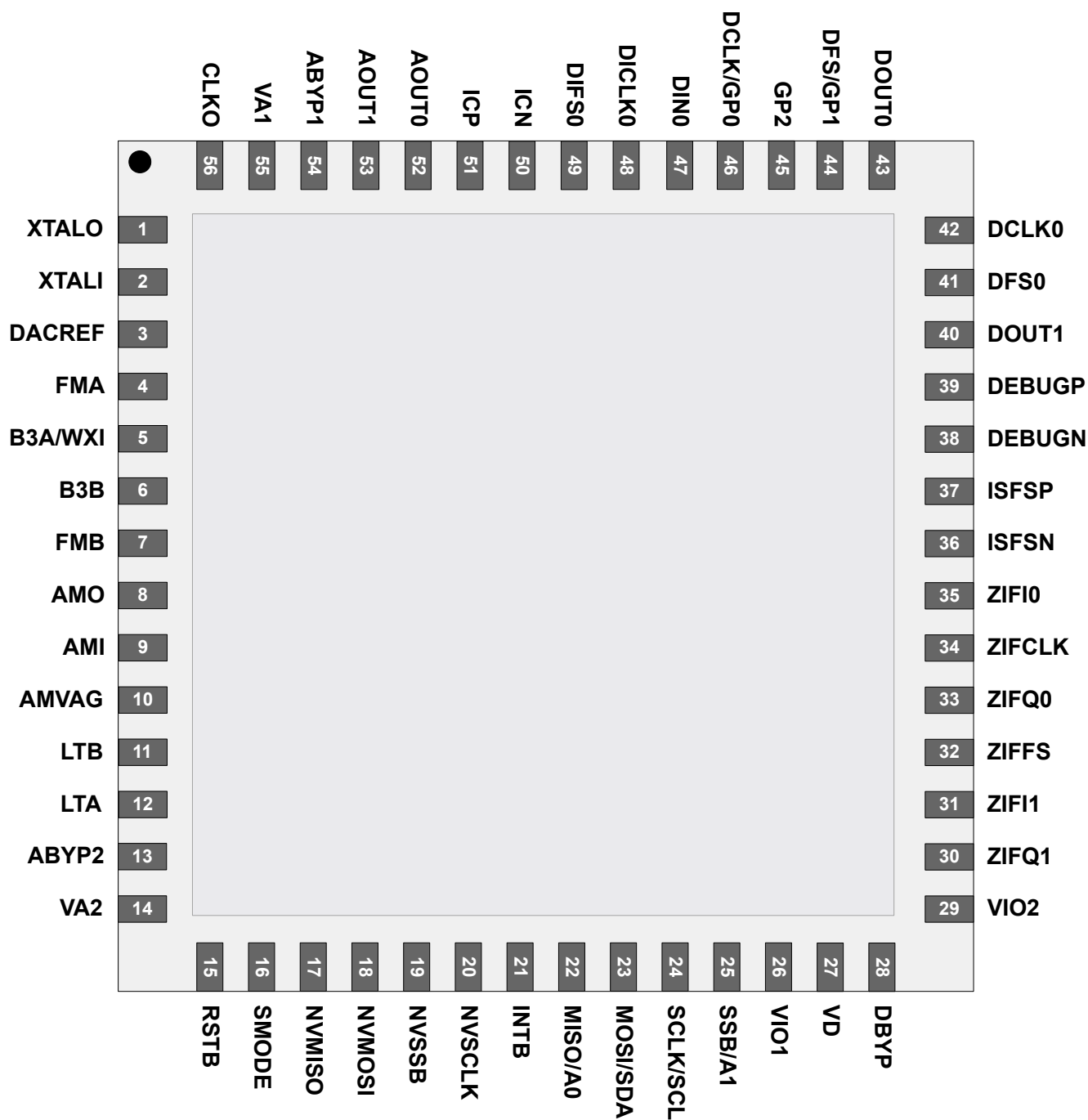


Figure 1.1. Si47961-62 Pinout Diagram

2. Package Outline

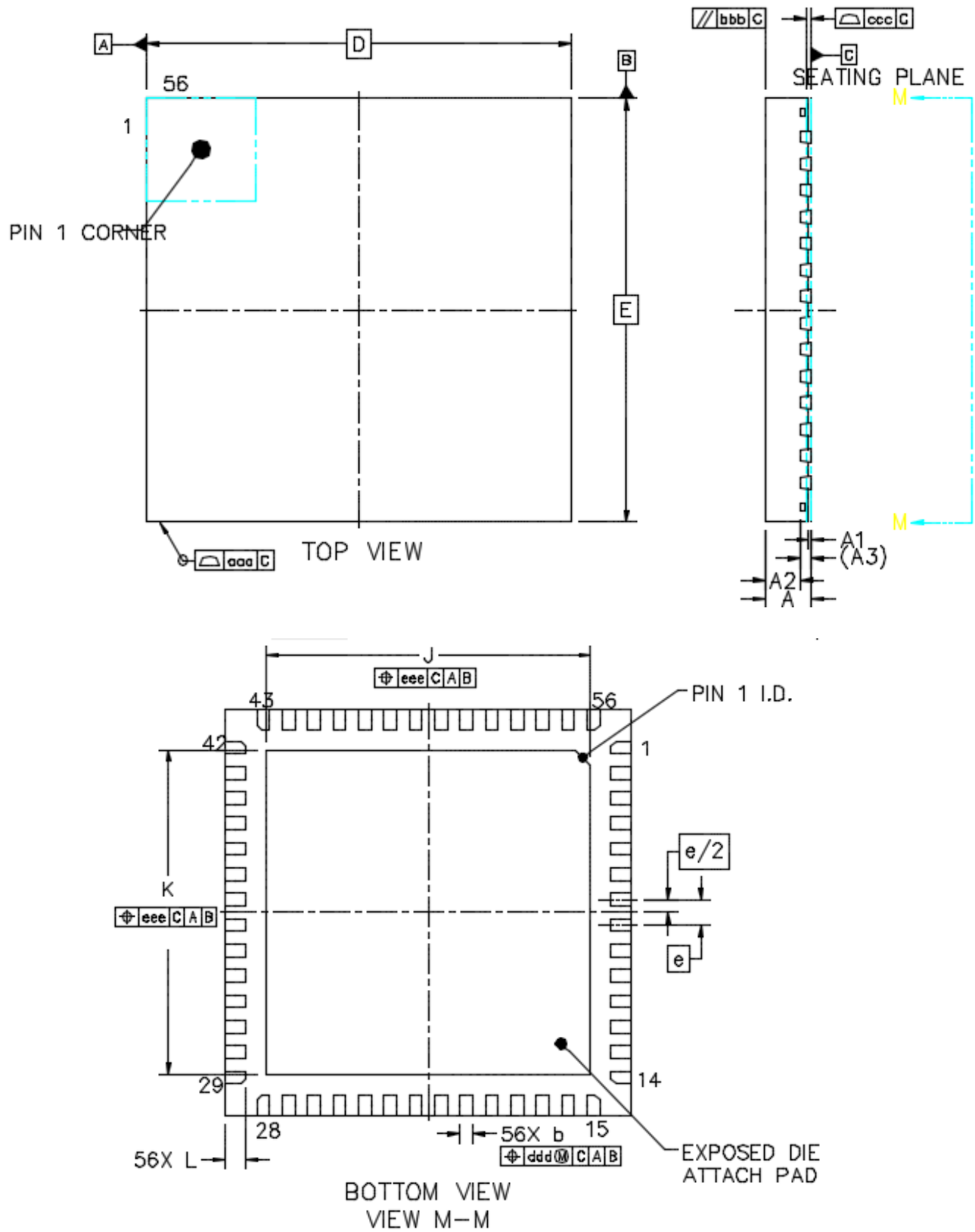


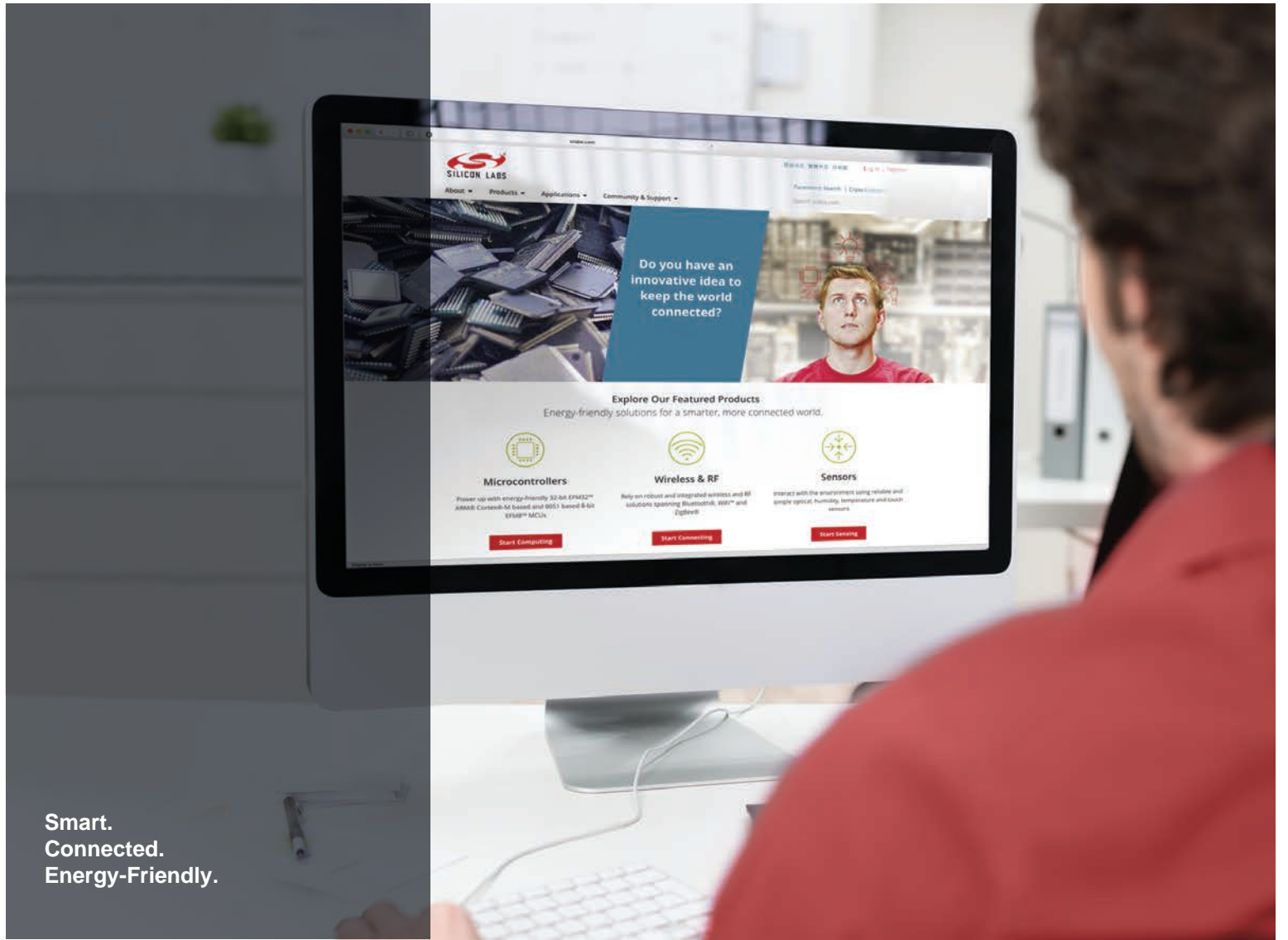
Figure 2.2. 56-Pin QFN

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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