

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

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)
- DAB/DAB+/DMB support (170–240 MHz, 1452–1492 MHz) (Si47905/06 Only)
- NOAA Weather Band support (Si47904/06 Only)
- On-chip soft-decision RDS/RDSB demodulator/decoder
- AM/FM:
 - Comprehensive AM/FM signal processing firmware
 - Integrated active AM/FM buffers for background/data tuners
 - Analog FM phase diversity with two, three or four tuners
 - Fully integrated AGC for AM and FM inputs
- HD Radio (Si47904/06 only):
 - Digital I/Q interface to HD Radio Processor
 - HD Radio MRC with two, three, or four tuners
 - AM/FM HD Radio IBOC blend
 - Fast FM HD Radio band scan
- DAB/DAB+/DMB (Si47905/06 only):
 - Digital I/Q interface to DAB/DAB+/DMB processor
 - DAB/DAB+/DMB MRC with two, three, or four tuners
 - Integrated active Band III/L-band buffers for background/data tuners
 - Fast DAB/DAB+/DMB band scan
 - Fully integrated AGC for Band III and L-Band inputs
- Two analog audio outputs
- Two digital audio ports (I²S)
- Frequency synthesizer with fully integrated PLL-VCO
- 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 48-pin, 7x7x0.85 mm
- Pb-free/RoHS compliant
- AEQ-Q100 qualified

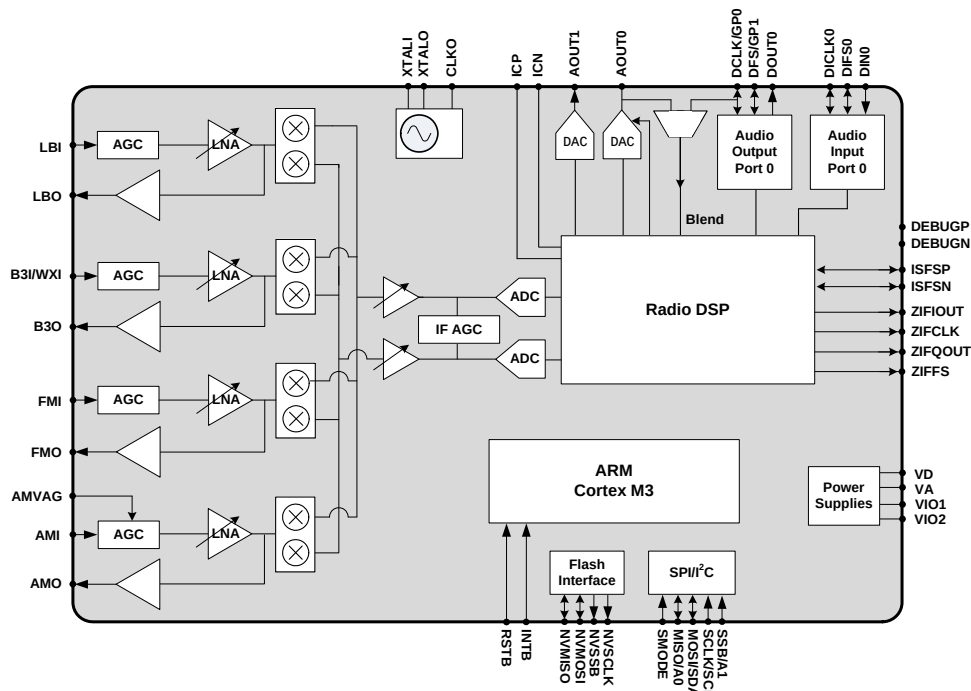
Description

The Si4790x analog AM/FM receiver and digital radio tuner sets a new standard for automotive broadcast reception.

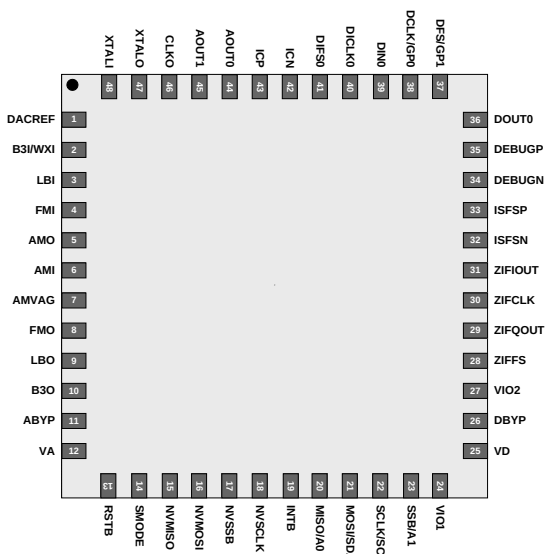
The Si4790x is the most integrated monolithic IC in the industry with the smallest external bill of materials. Si4790x based systems can scale from low-cost single tuner AM/FM radio to highest performance systems with multiple tuners and multiple antennas, enabling the radio suppliers to reuse their R&D across multiple product lines, all with a common software API. The Si4790x meets rigorous automotive quality standards.

Applications

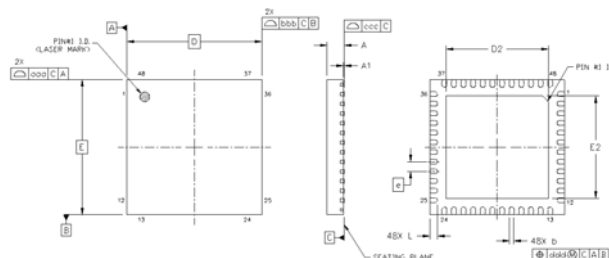
- Automotive OEM infotainment systems
- Aftermarket car radio systems



Pin Assignments



Package Information



Dimensions	Min	Nom	Max
A	0.80	0.85	0.90
A1	0.00	0.03	0.05
b	0.20	0.25	0.30
D	7.00 BSC.		
D2	5.20	5.30	5.40
e	0.50 BSC.		
E	7.00 BSC.		
E2	5.20	5.30	5.40
L	0.35	0.40	0.45
aaa	—	—	0.10
bbb	—	—	0.10
ccc	—	—	0.08
ddd	—	—	0.10

Notes:

1. All dimensions shown are in millimeters (mm) unless otherwise noted.
2. Dimensioning and Tolerancing per ANSI Y14.5M-1994.
3. This drawing conforms to JEDEC outline MO-220, Variation VJJD-2
4. Recommended card reflow profile is per the JEDEC/IPC J-STD-020 specification for Small Body Components.