



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Description

The Si4622 single-chip digital receiver is a 100% CMOS digital radio broadcast receiver IC from Silicon Labs. It provides significant advances in size, power consumption, and performance to enable HD Radio data services reception in automotive infotainment systems and car radios.

The Si4622 HD Radio data receiver offers a complete and cost-effective solution to support HD Radio data services reception by integrating a multiband RF tuner, demodulator, and channel decoder on a single die. The high level of integration and complete system production test simplifies design-in, increases system quality, and improves reliability and manufacturability.

The Si4622 also supports worldwide FM radio reception and incorporates a fully-integrated decoder for the European Radio Data System (RDS) and the North American Radio Broadcast Data System (RBDS), including all required symbol decoding, block synchronization, error detection, and error correction functions.

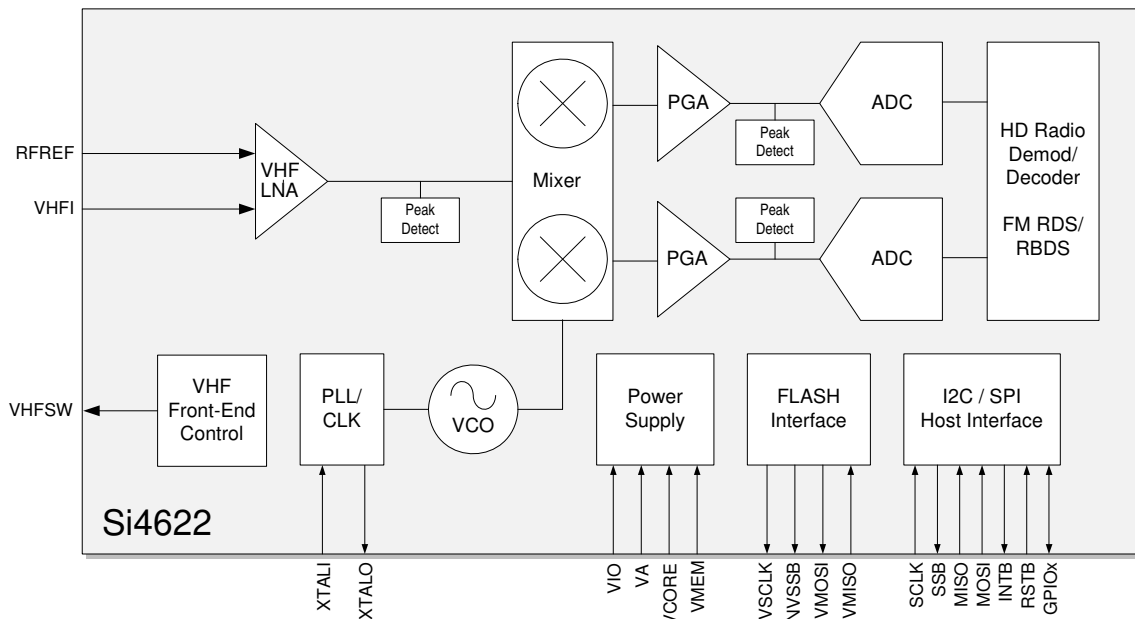
Leveraging Silicon Laboratories' proven and patented digital low-intermediate-frequency (Low-IF) receiver architecture, the Si4622 delivers superior RF performance and interference rejection. The solution offers dynamic FM channel bandwidth control, auto-calibrated digital tuning, and proven FM seek functionality based on multiple signal quality and band parameters. In addition, the Si4622 provides an integrated clock oscillator or accepts a reference clock and supports a selectable control interface (SPI or I²C). The Si4622 receiver system specifies a minimal bill of materials and requires less than 100 mm² of PCB space, excluding the antenna inputs, making the solution ideal for today's infotainment systems.

Features

- Worldwide FM band support (76–108 MHz)
- Advanced RDS / RBDS decoder
- FM HD Radio channel decoder
- Advanced seek functionality
- Complete on-chip channel decode
- Station Information Service (SIS) and Program Service Data (PSD) support
- Advanced Application Services (AAS) Payload for data applications
- Full range of analog and digital signal quality metrics
- Fully-integrated VCO/PLL synthesizer
- Fully-integrated advanced AGC and alignment
- SPI, I²C control interfaces
- No external RAM required for channel decoding
- Flash memory interface for application program load
- 7x7 mm 48-pin QFN package
- Pb-free/RoHS compliant
- AEC-Q100 qualified

Applications

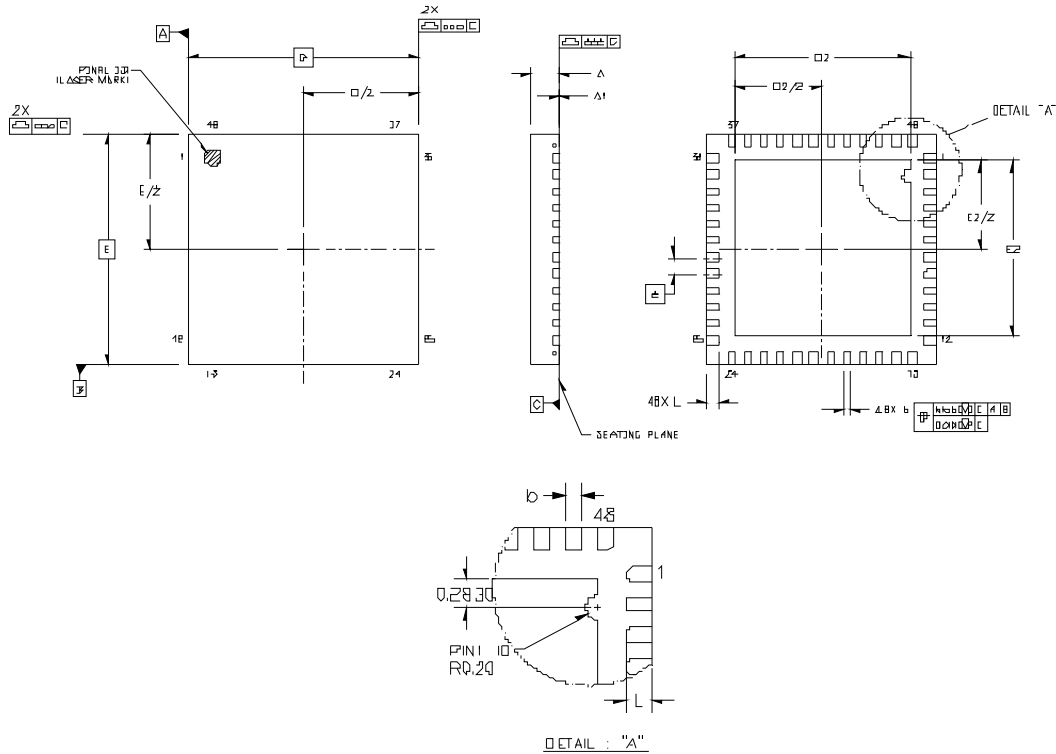
- OEM automotive infotainment systems
- Aftermarket car radio systems
- OEM automotive PND docking systems



Selected Electrical Specifications

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Input Frequency	F_{rf}	—	76	—	108	MHz
Analog Supply Voltage	V_A	—	1.71	1.8	2.0	V
Interface Supply Voltage	V_{IO}	—	1.62	1.8	3.6	V
Core Digital Supply Voltage	V_{CORE}	—	1.62	1.8	2.0	V
Memory Supply Voltage	V_{MEM}	—	1.62	1.8	2.0	V

Si4622-A10



Dimension	Min	Nom	Max
A	0.80	0.85	0.90
A1	0.00	0.02	0.05
b	0.18	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	0.30	0.40	0.50
aaa		0.15	
bbb		0.10	
ddd		0.05	
eee		0.08	

Notes:

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