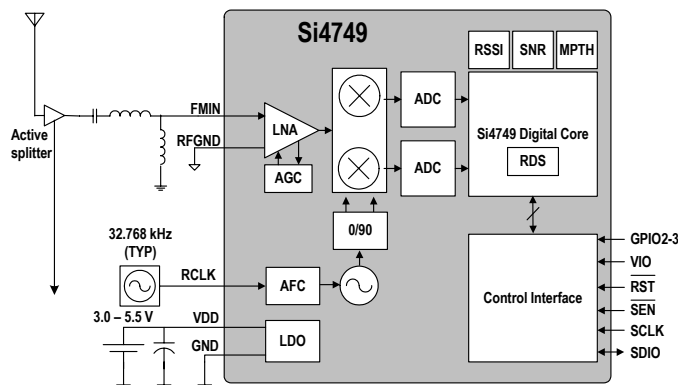




The Si4749 is feature-rich, providing both highly automated performance, according to Silicon Laboratories' recommended settings, or extensive programmability and flexibility for customized system performance. The part accepts programmable reference clock values. The Si4749 offers several modes of operation for various applications which

- Worldwide FM band support (76–108 MHz)
- Advanced patented RDS/RBDS Forward Error Correction (FEC) engine
 - Highest RDS Decoder Reliability
 - Robust synchronization at high BLER
- RDS reception with FM mono broadcast
- Fully configurable RDS data quality visibility and associated interrupts
- On-chip memory for up to 25 RDS groups
- Multi-path interference detection
- Received signal quality indicators (RSSI, SNR, wideband AM)
- Automatic frequency control (AFC)
- Automatic gain control (AGC)
- Image-rejection mixer
- Frequency synthesizer with integrated VCO
- Low-IF direct conversion; no external ceramic filters
- 3.0 to 5.5 V supply voltage
- Programmable reference clock
- AECQ-100 qualified
 - –40 to 85 °C operation
- 24-pin 4 x 4 mm QFN package
 - Pb-free/RoHS compliant

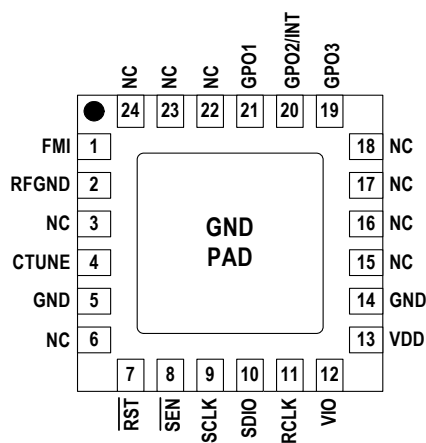
- OEM car audio systems
- After-market car audio systems
- Telematics
- Personal navigation system (PND)
- GPS-enabled devices



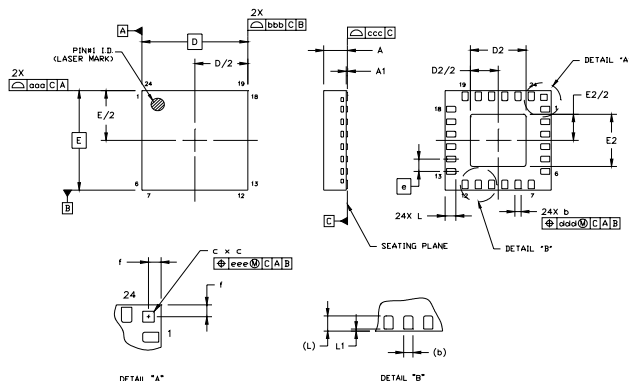
Selected Electrical Specifications

Parameter	Test Conditions	Min	Typ	Max	Units
Input Frequency		76	—	108	MHz
Frequency Steps		10	—	200	kHz
RDS Sensitivity	$\Delta f = 2 \text{ kHz}$, RDS BLER < 5%	—	8	—	$\mu\text{V emf}$
Input IP3	400 and 800 kHz blockers	—	105	—	$\text{dB}\mu\text{V emf}$
Image Rejection		—	55	—	dB
Adjacent Channel Selectivity	$\pm 200 \text{ kHz}$	—	50	—	dB
Alternate Channel Selectivity	$\pm 400 \text{ kHz}$	—	70	—	dB
RCLK Frequency		31.13	32.768	40,000	kHz
RCLK Tolerance		-100	—	100	ppm
Supply Voltage		3	—	5.5	V
Interface Supply Voltage		1.5	—	3.6	V
Supply Current		—	24	—	mA
Ambient Temperature		-40	—	85	C
Seek/Tune Time	RCLK tolerance = 100 ppm	—	40	60	ms/channel
Powerup Time	From powerdown	—	—	110	ms

Pin Assignments



Package Information



Symbol	Millimeters		
	Min	Nom	Max
A	0.80	0.85	0.90
A1	0.00	0.02	0.05
b	0.18	0.25	0.30
c	0.19	0.24	0.29
D	4.00 BSC		
D2	2.00	2.10	2.20
e	0.50 BSC		
f	0.27 BSC		
E	4.00 BSC		

Symbol	Millimeters		
	Min	Nom	Max
E2	2.00	2.10	2.20
L	0.30	0.40	0.50
L1	0.03	0.05	0.08
aaa	—	—	0.10
bbb	—	—	0.10
ccc	—	—	0.08
ddd	—	—	0.10
eee	—	—	0.10

Notes:

1. All dimensions are shown in millimeters unless otherwise noted.
2. Dimensioning and tolerancing per ANSI Y14.5M-1994.
3. This drawing conforms to the JEDEC Solid State Outline MO-220, Variation VGGD-8.
4. Recommended card reflow profile is per the JEDEC/IPC J-STD-020C specification for Small Body Components.
5. Lead-free/RoHS compliant.