Selected Electrical Specifications

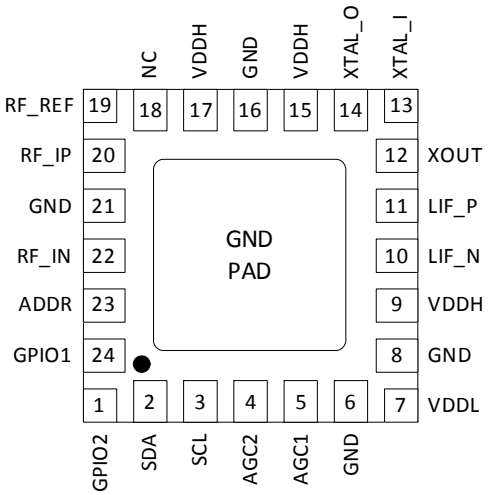
(V_{DDH} = 3.3 V, V_{DDL} = 1.8 V, T_A = 25 °C)

Parameter	Test Condition	Typ	Unit
Supply Voltage		1.8 and 3.3, or only 3.3	V
Total Power Consumption	External 1.8 V supply, ATV Mode	506	mW
RF Input Frequency Range		42 to 1002	MHz
NF, terrestrial*	VHF-L1 (42–103 MHz)	3.6	dB
	VHF-L2 (104–198 MHz)	2.3	dB
	VHF-H (199–470 MHz)	3.0	dB
	UHF (471–870 MHz)	3.2	dB
Return Loss*	Terrestrial mode	3	dB
	Cable mode	8	dB
Out-of-band IIP3*	VHF-H, N±18, ±36	+5	dBm
In-Band IIP3*	VHF-H, N±1, ±2	–6	dBm
LO Phase Noise at 860 MHz	1 kHz | 10 kHz | 100 kHz | 1 MHz	–100 | –100 | –105 | –132	dBc/Hz
LO Integrated Phase Noise at 860 MHz	DSB: 125 Hz to 4 MHz offset	0.25 (–47)	°rms (dBc)
Analog IF Spurious Distortion	S=P	–72	dB
LIF Output Center Frequency	Channel BW = 6 MHz | 7 MHz | 8 MHz	4 to 7 | 4.5 to 6.5 | 5 to 6	MHz
LIF Differential Output Voltage	Programmable	0.5 to 2.0	Vppd
***Note:** Includes all connector, PCB and front-end circuit losses at the F-connector input of the Si2151 EVB.			

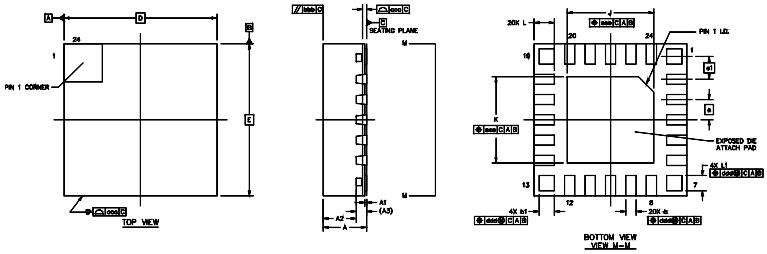
Selection Guide

Part #	Description
Si2151	Worldwide hybrid TV tuner for NTSC, PAL/SECAM, ATSC/QAM, DVB-T2/T/C2/C, ISDB-T/C, DTMB

Pin Assignments



3x3 mm QFN-24 Package Information



Dimension	Min	Nom	Max	Unit
A	0.80	0.85	0.90	mm
D, E		3.00BSC		mm
e		0.40 BSC		mm
e1		0.45 BSC		mm
J, K	1.60	1.70	1.80	mm