

Selected Electrical Specifications

($V_{DDH} = 3.3\text{ V}$, $V_{DDL} = 1.8\text{ V}$, $T_A = 25\text{ }^{\circ}\text{C}$)

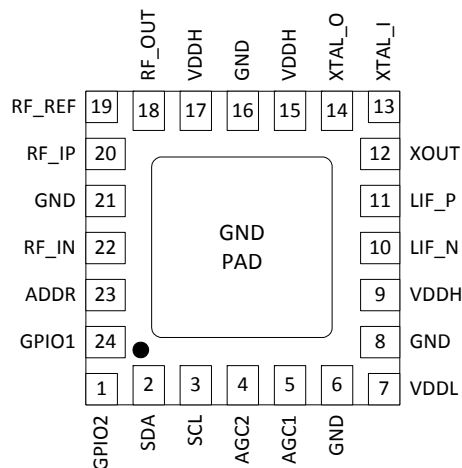
Parameter	Test Condition	Typ	Unit
Supply voltage		1.8 and 3.3, or only 3.3	V
Total Power Consumption	External 1.8 V supply, LT disabled	486	mW
RF Input Frequency Range		42 to 870	MHz
NF, cable mode	VHF-L1 (42–106 MHz)	4.8	dB
	VHF-L2 (107–247 MHz)	2.8	dB
	VHF-H (248–470 MHz)	3.5	dB
	UHF (471–870 MHz)	4.8	dB
Input Return Loss*	Cable mode	8	dB
Composite Triple Beat		–56	dBc
Composite Second Order		–68	dBc
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	0.25 (–47)	$^{\circ}\text{rms}$ (dBc)
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	V_{ppd}
Loop-Through Output (China DVB-C Mode)			
RF Frequency Range (LT only)		42 to 870	MHz
LT Output Return Loss (Active)		8	dB
LT Noise Figure (Active)	Max gain	7.1	dB
LT Gain	Active mode	2.9	dB
	Zero-power mode	–2.2	dB

***Note:** Includes all connector, PCB and front-end circuit losses at the F-connector input of the Si2144 EVB.

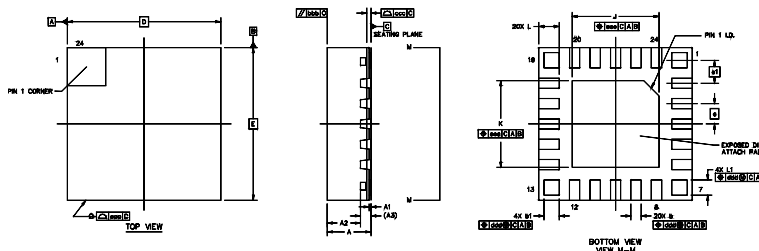
Selection Guide

Part #	Description
Si2144	Worldwide digital Set Top Box tuner for 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		3.00 BSC		mm
e		0.40 BSC		mm
e1		0.45 BSC		mm
J, K	1.60	1.70	1.80	mm