

Selected Electrical Specifications

($V_{DD_H}=3.3\text{ V}$, $V_{DD_L}=1.8\text{ V}$, $V_{DD_D}=1.8\text{ V}$, $T_A=25\text{ }^\circ\text{C}$)

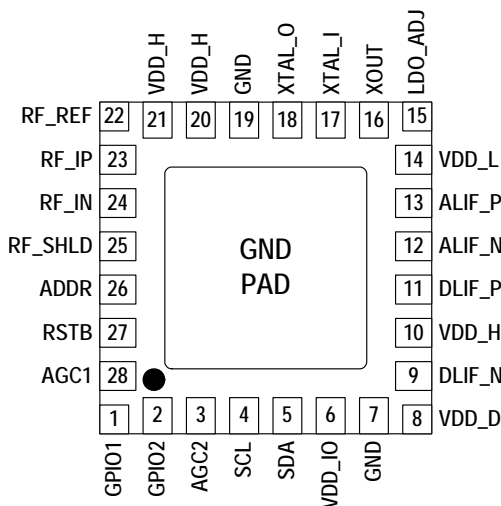
| Parameter | Test Condition | Typ | Unit |
|---------------------------------------|----------------------------------|------------------------------|-----------------------|
| Supply voltage | | 1.8 and 3.3, or only 3.3 | V |
| Total Power Consumption | ATV Mode, XOUT Disabled | 496 | mW |
| RF Input Frequency Range | | 42 to 870 | MHz |
| NF, terrestrial* | VHF-L | 4.0 | dB |
| | VHF-H | 3.7 | dB |
| | UHF | 3.8 | dB |
| Return Loss* | Terrestrial mode | 3 | dB |
| | Cable mode | 9 | dB |
| Wideband IIP3* | VHF-H, $N\pm 18, \pm 36$ | +5 | dBm |
| Inband IIP3* | VHF-H, $N\pm 1, \pm 2$ | -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 | 0.25 (-47) | $^\circ$ rms (dBc) |
| Analog IF Spurious Distortion | S=P | -72 | dB |
| ALIF/DLIF Output Center Frequency | channel BW=6 MHz 7 MHz 8 MHz | 4 to 7 4.5 to 6.5 5 to 6 | MHz |
| ALIF/DLIF Differential Output Voltage | Programmable | 0.5 to 2.0 | Vppd |

*Note: Measured at the F-connector input of the Si2157 EVB and includes all connector, PCB, and front-end circuit losses.

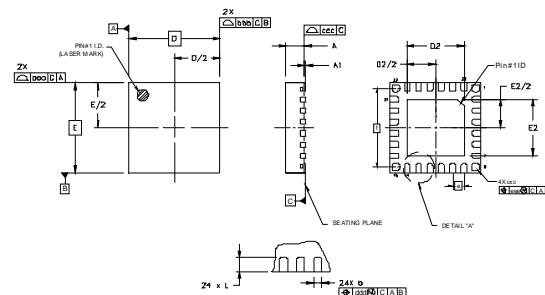
Selection Guide

| Part # | Description |
|--------|--|
| Si2157 | Worldwide hybrid TV tuner for NTSC, PAL/SECAM, ATSC/QAM, DVB-T2/T/C2/C, ISDB-T/C, DTMB |

Pin Assignments



4x4 mm QFN-28 Package Information



| Symbol | Min | Nom | Max | Unit |
|--------|----------|------|------|------|
| A | 0.80 | 0.85 | 0.90 | mm |
| D, E | 4.00 BSC | | | mm |
| e | 0.50 BSC | | | mm |
| f | 3.50 BSC | | | mm |