

13 Absolute maximum ratings

Maximum ratings are the extreme limits to which the chip can be exposed for a limited amount of time without permanently damaging it. Exposure to absolute maximum ratings for prolonged periods of time may affect the reliability of the device.

For accelerated lifetime testing (HTOL, etc.), supply voltage should not exceed the recommended operating conditions max value, see [Recommended operating conditions](#) on page 923.

	Parameter	Min.	Max.	Unit
VDD	VDD supply voltage	-0.3	3.9	V
VDD _{EXT}	VDD supply voltage under extended operating temperature	-0.3	3.7	V

Table 93: Supply voltage

	Parameter	Min.	Max.	Unit
V _{I/O} , VDD ≤ 3.6 V	IO voltage	-0.3	VDD + 0.3	V
V _{I/O} , VDD > 3.6 V	IO voltage	-0.3	3.9	V
V _{I/O,EXT} , VDD _{EXT} ≤ 3.4 V	IO voltage under extended operating temperature	-0.3	VDD + 0.3	V
V _{I/O,EXT} , VDD _{EXT} > 3.4 V	IO voltage under extended operating temperature	-0.3	3.7	V

Table 94: I/O pin voltage

	Min.	Max.	Unit
RF input level		10	dBm

Table 95: Radio

	Note	Min.	Max.	Unit
Storage temperature		-40	+125	°C
Reflow soldering temperature	Reflow cycle time is 30 seconds with 3 maximum reflow cycles.		260	°C
Moisture Sensitivity Level (MSL)			2	
ESD Human Body Model (HBM)			1	kV
ESD Charged Device Model (CDM)			500	V

Table 96: Environmental QFN package types