

## 4.2 Operating conditions



All specifications are at an ambient temperature of 25°C. Extreme operating temperatures can significantly impact specification values. Applications operating near the temperature limits should be tested to ensure the specification.

Parameter	Symbol	Min	Typical	Max	Units	Condition
Power supply voltage	VCC	2.7	3.0	3.6	V	
Supply voltage USB	VDDUSB	3.0	3.3	3.6	V	
Backup battery voltage	V_BCKP	1.4		3.6	V	
Backup battery current	I_BCKP		15		µA	V_BCKP = 1.8 V, VCC = 0 V
SW backup current	I_SWBCKP		30		µA	VCC = 3 V
Input pin voltage range	V <sub>in</sub>	0		VCC	V	
Digital IO Pin Low level input voltage	V <sub>il</sub>	0		0.2*VCC	V	
Digital IO Pin High level input voltage	V <sub>ih</sub>	0.7*VCC		VCC	V	
Digital IO Pin Low level output voltage	V <sub>ol</sub>			0.4	V	I <sub>ol</sub> = 4mA
Digital IO Pin High level output voltage	V <sub>oh</sub>	VCC-0.4			V	I <sub>oh</sub> = 4mA
Pull-up resistor for RESET_N (internal)	R <sub>pu</sub>		11		kΩ	
USB_DM, USB_DP	V <sub>inU</sub>	Compatible with USB with 27 Ω series resistance				
VCC_RF voltage	VCC_RF		VCC-0.1		V	
VCC_RF output current	ICC_RF			50	mA	
Receiver Chain Noise Figure <sup>13</sup>	NF <sub>tot</sub>		2.0		dB	
Operating temperature	T <sub>opr</sub>	-40		85	°C	

**Table 10: Operating conditions**



Operation beyond the specified operating conditions can affect device reliability.