

2.4. Power Consumption

Parameter	Typ / LL variant	Typ / HT variant	Unit
Radio current, Receiver active ⁽¹⁾	6.1	6	mA
Radio current, Transmitter active -40 dBm Output Power ⁽¹⁾	3.4	3.5	mA
Peak current, Transmitter active 0 dBm Output Power ⁽¹⁾	5.8	6.1	mA
System OFF, no RAM retention, wake on reset	0.3	0.6	µA
System ON, full RAM retention, wake on any event	0.8	1.8	µA

(1) DCDC enable, Power supply 3V, 1 Mbps

2.5. Clock Sources

Parameter	Max	Unit
Internal High Frequency Clock for RF Stability: 32 MHz Crystal Frequency Tolerance ⁽¹⁾	+/- 40	ppm
Internal Low Frequency Clock for BLE Synchronization: 32.768 kHz Crystal Frequency Tolerance ⁽¹⁾	+/- 40	ppm
Internal Low Frequency Clock for BLE Synchronization: RC Oscillator ⁽²⁾	+/- 500	ppm
RF Frequency tolerance: For BLE operation Channels0 to 39	+/- 40	ppm

(1) including initial tolerance, drift, aging, and frequency pulling

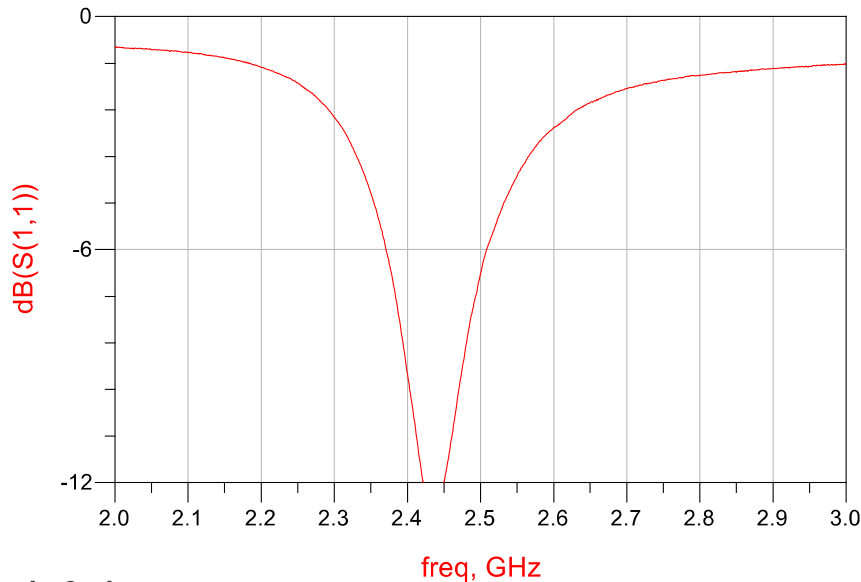
(2) Frequency tolerance after calibration

2.6. Radio Specifications

Parameter	Min	Typ	Max	Unit
Operating Frequencies	2360		2500	MHz
RF Channel spacing		1		MHz
Data Rate	125		2000	kbps
RF Output Power, LL variant	-20		+4	dBm
RF Output Power, HT variant	-20		+8	dBm
Rx sensitivity Level 1 Mbps BLE mode, ideal Tx		-94		dBm
Rx sensitivity Level 125 kbps Long Range mode, ideal Tx		-104		dBm
Antenna Gain		0.6		dBi
Range Open field, BLE mode @1m height		100		m
Range Open field, Long Range mode +4 dBm @1m height		400		m

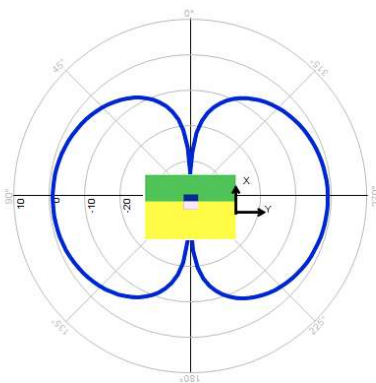
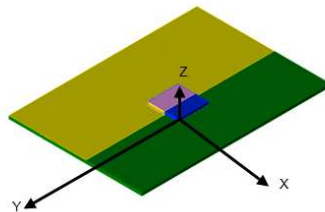
Typical Antenna Return Loss

Module mounted on a USB dongle ground plane



Radiation Pattern in 3 planes

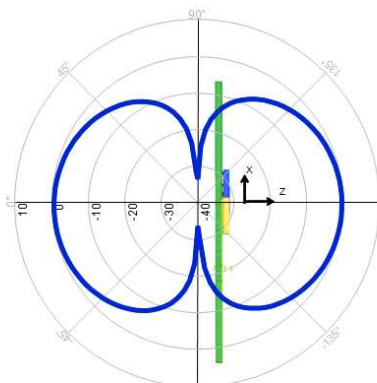
Module mounted on a USB dongle ground plane



Phi (0.000 to 360.000)

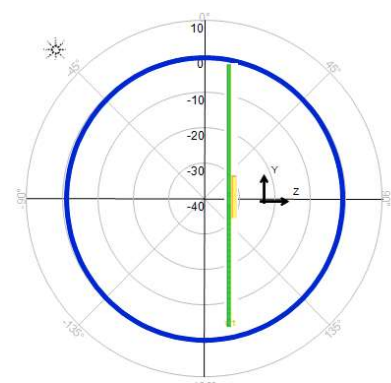
MaX Gain 0dbi

Gain measurement in dBi @ 2.45 GHz



Thêta (-180.000 to 180.000)

MaX Gain 0dbi



Thêta (-180.000 to 180.000)

MaX Gain 0.6dbi

