

# SN9380M1

## Onboard ANT Specification

### Revision History

Revision	Summary	Release Date
0.1	Internal release	2022-06-22
1.0	Official release	2023-02-23

Antenna Name: SN9380M1 Onboard ANT	
Frequency: 2.4~2.5GHz	
Revision: V1.0	
Customer Approval:	
Company:	
Title:	
Signature:	Date:

Antenna area



## 1. Introduction

SN9380M1 module's onboard printed antenna support 2.4GHz frequency band. Designed by IFA antenna, theory almost Omni-directional radiation for far field. Good port matching ,low return loss ,high efficiency can make communication more easily.

## Features

- Operating Frequencies: 2400~2500MHz
- Polarization: Linear
- Antenna Type: Onboard printed PCB antenna

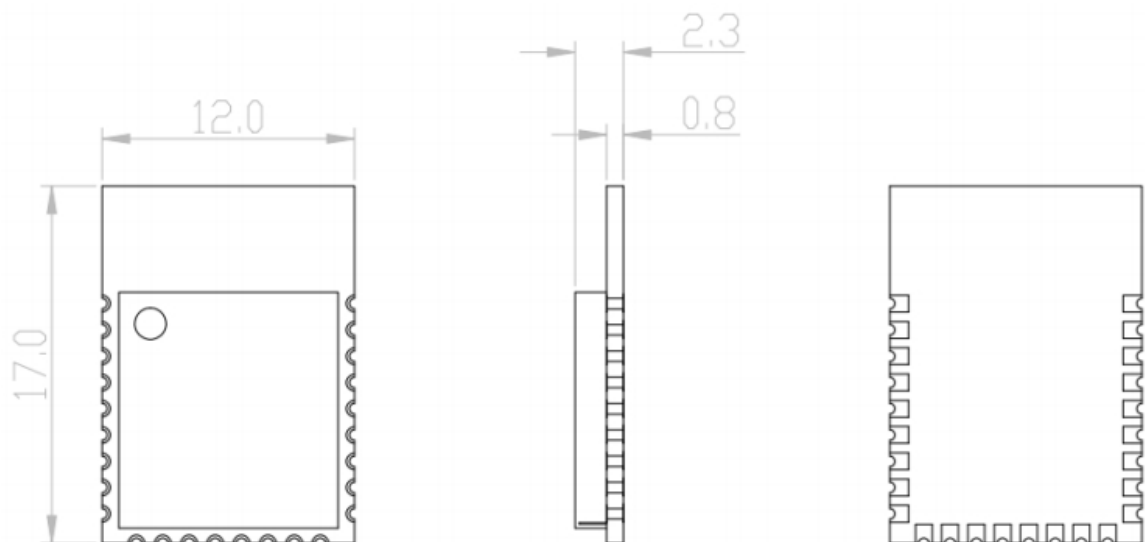
## Applications

- Smart Toy
- Remote monitoring and control
- Smart home
- Indoor positioning

## General Specifications

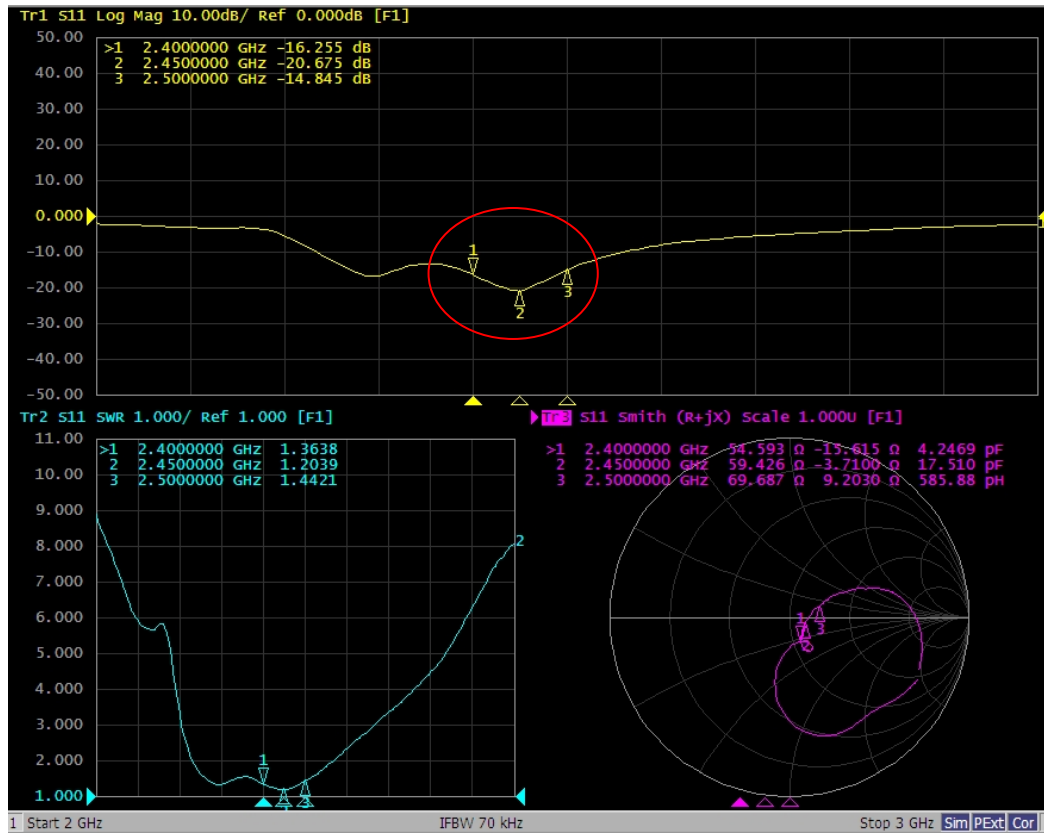
Antenna Name	SN9380M1 Onboard ANT
Frequency	2400~2500MHz
Module Name	SN9380M1
VSWR	$\leq 2$
Return loss	$\leq -8\text{dB}$
Radiation	Omni-directional
Gain (peak)	2dBi
Polarization	Linear
Admitted Power	2W
Connector	NI
Efficiency	50%~60%
Cable	NI

## Mechanical Specifications



Antenna onboard design, and size:12\*5.2mm

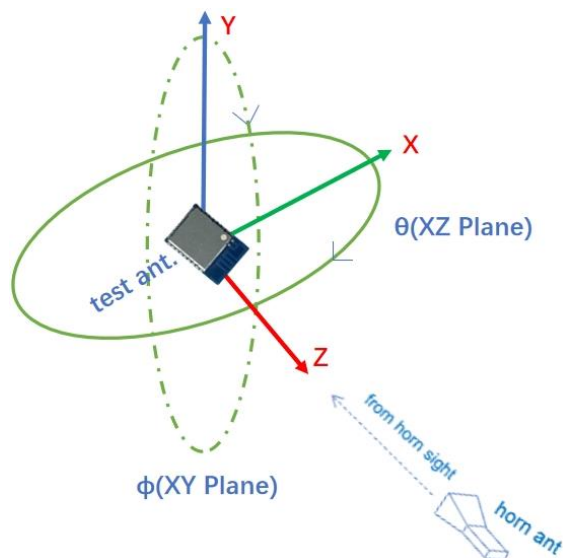
## S-parameter



Return loss: < -8dB

VSWR: < 2

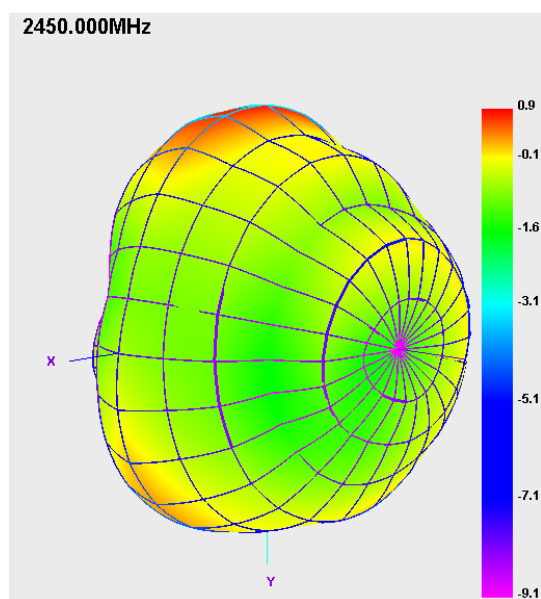
## Radiation parameter



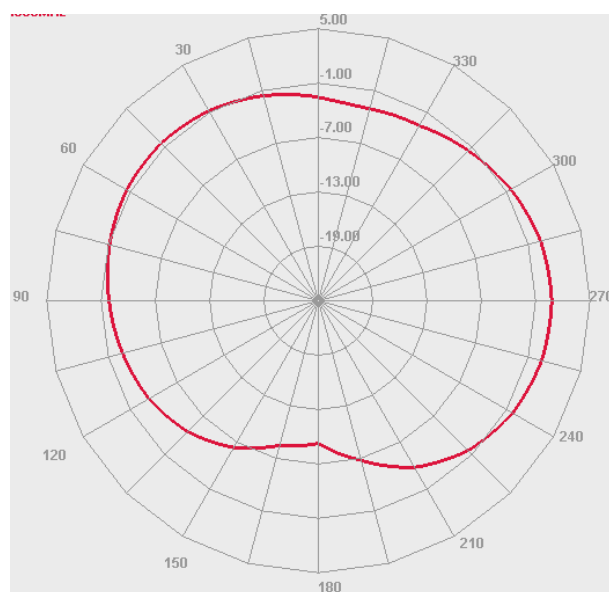
## Antenna Gain and efficiency

Frequency	Gain	efficiency
2400~2500MHz	0~2dBi	50%~60%

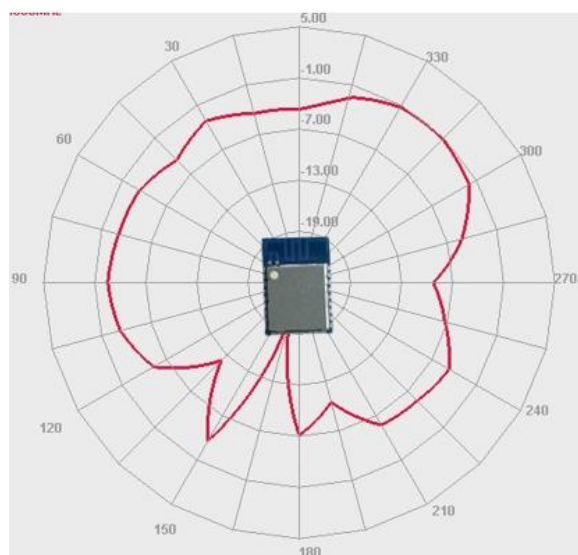
### 2.45GHz Radiation Pattern



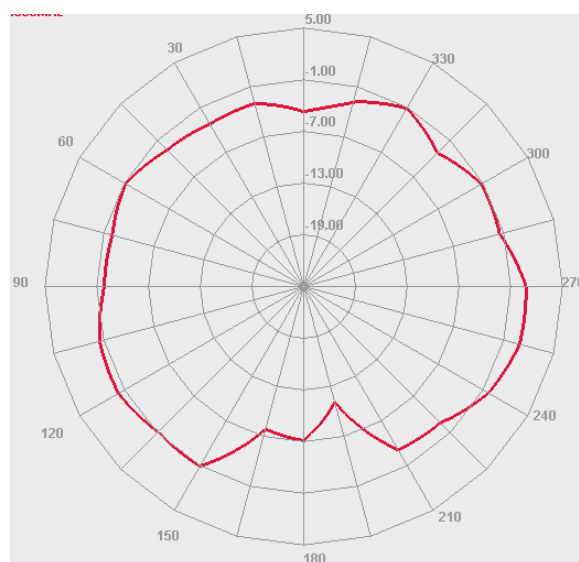
3D radiation



XY plane



XZ plane



YZ plane