

SCORCHED ICE

Scorched Ice SMSK Antenna Specification

Revision – Draft

Dec 13, 2022

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1 Revision History

Revision	Date	Description
Draft	Dec 13, 2022	Initial release

The details of each revision are captured in Revision Details Section 6.

2 Abbreviations

Abbreviation	Description
ATTN	A ttenuator
FCC	F ederal C ommunications C ommissions
IC	I ndustry C anada
LNA	L ow N oise A mplifier
PA	P ower A mplifier
PCB	P rinted C ircuit B oard
RBW	R esolution B andwidth
RF	R adio F requency
Rx	R ecieve
SMSK	S Mart S Kate
TBC	T o B e C onfirmed
TBD	T o B e D etermined
TRP	T otal R adiated P ower
Tx	T ransmit

3 Reference Documents

1. SMSK Functional Circuit Description Rev 1.1, July 25, 2022
2. Smart Skate (SMSK) Sensor Module Hardware Block Diagrams – July 25, 2022 - Rev 1.1
3. Schematics (Schematic, Scorched Ice SMSK, Rev 5, Apr 27, 2022.PDF)
4. Bill of Materials (Bill of Materials, Scorched Ice SMSK, Rev 5, Apr 27, 2022.xlsx)
5. Pictures (SMSK PCBA Photos.pdf, SMSK on a skate.png)
6. Fractus Antennas User Manual Compact Reach Xtend™ (FR05-S1-N-0-102) - Jan 2019
7. RS9116 n-Link™ and WiSeConnect™ Wi-Fi and Dual-Mode Bluetooth 5 Wireless Connectivity B00 Module Solution - V1.0.8, June 2021

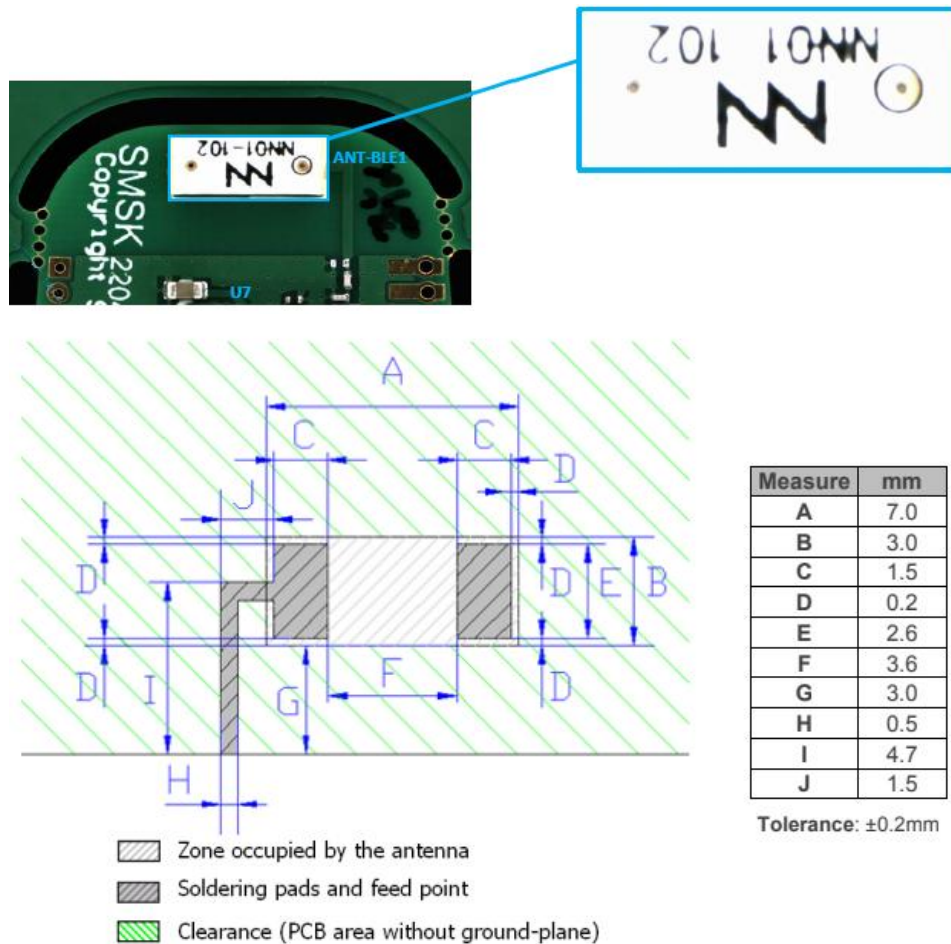
4 Introduction

This document contains details about the antenna used in the Smart Skate (SMSK) Sensor Module for Scorched Ice as part of the FCC & IC submission.

5 Antenna

The SMSK is using the Fractus FR05-S1-N-0-102 antenna which was qualified with the Silicon Lab Modular Grant (FCC ID: XF6-M4SB and IC: 8407A-M4SB).

A picture of the antenna is shown below, along with the dimensions from the Fractus Antenna FR05-S1-N-0-102 datasheet (Ref 6).



The peak antenna gain from the Fractus Antennas FR05-S1-N-0-102 datasheet is 1.7 dBi (Ref 6).

6 Revisions