

MODEL SPECIFICATIONS

Project Name: GNSS Antenna

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Revision History

Rev. #	Author	Summary of Changes	Date
0.1	Dennis Huang	New release	2023/10/30

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1. Introduction

This specification covers the FPC antenna for GNSS.

2. Electrical Specifications

Electrical characteristics of antenna. The antenna has the electrical characteristics given in Table 1 under WNC standard installation conditions shown in the figure.

Electrical Characteristics			
GNSS	L1	L2	L5
Freq. (MHz)	1559~1610	1215~1247	1164~1215
V.S.W.R.	<2.0	<2.0	<2.0
Peak Gain	3.9dBi	3.8dBi	3.9dBi
Eff.%(max./avg.)	77/77	81/79	81/80
Impedance	50 Ohm		
Cable type	ϕ 1.37		
Cable length	200mm		
Connector	IPEX MHF		
Dimension	27mm x 79mm (FPC)		

3. Environmental conditions

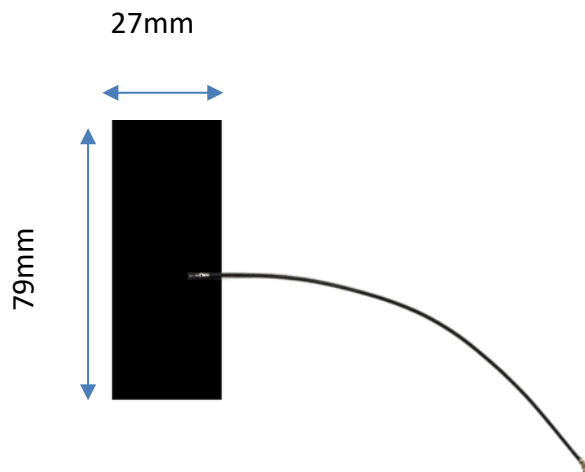
3.1 Operating conditions

The antenna has the electrical characteristics given in Tables 1 in the temperature range of -40°C to +105°C and under the environmental conditions of +40°C and 0-95% R.H.

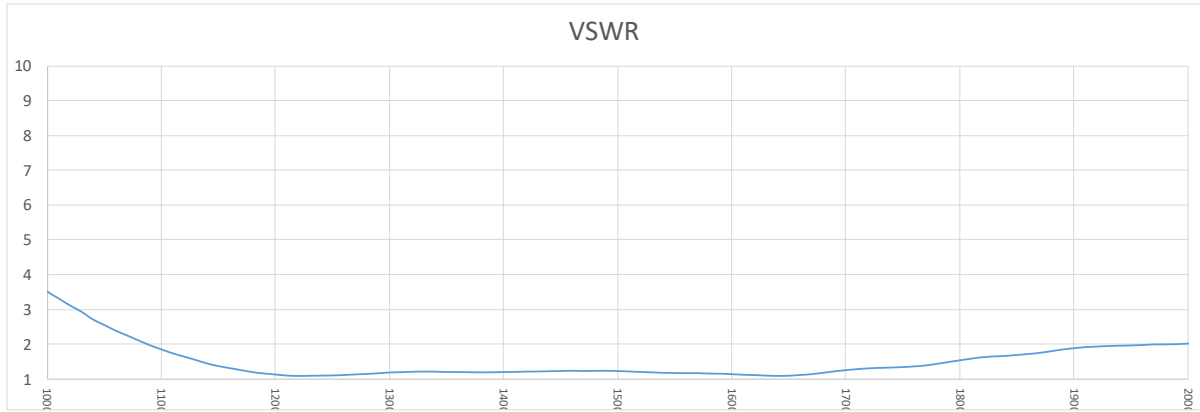
3.2 Storage temperature range

The storage temperature range of product is -40°C to +105°C.

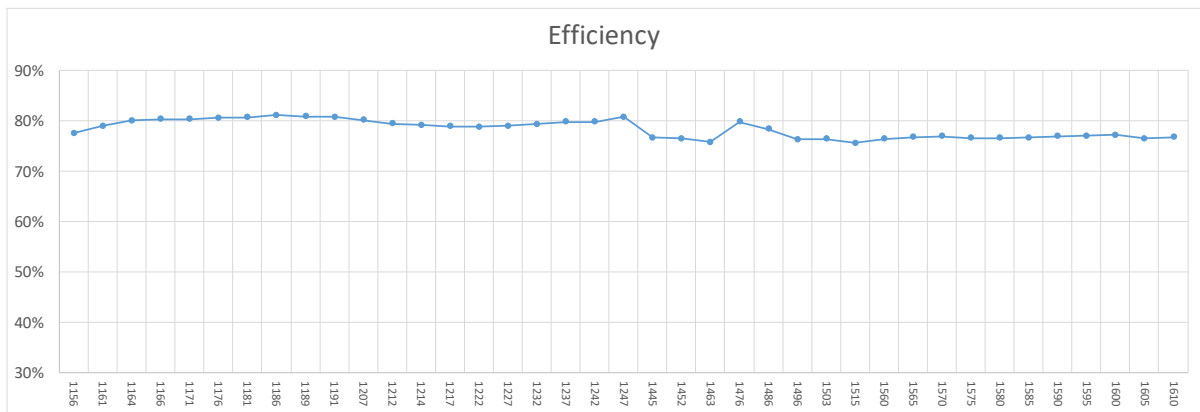
4. Shape and Dimension



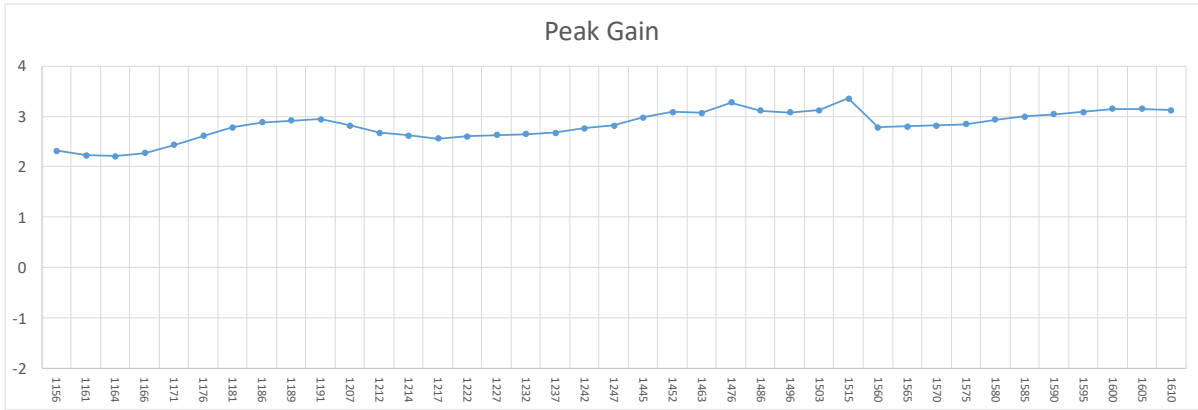
5. VSWR



6. Efficiency



7. Peak Gain



8. Raw Data

Freq. (MHz)	Efficiency	Avg. Gain	Peak Gain
1156	78%	-1.1	2.8
1161	79%	-1.0	3.0
1164	80%	-1.0	3.2
1166	80%	-0.9	3.3
1171	80%	-1.0	3.5
1176	81%	-0.9	3.7
1181	81%	-0.9	3.7
1186	81%	-0.9	3.8
1189	81%	-0.9	3.8
1191	81%	-0.9	3.8
1207	80%	-1.0	3.9
1212	79%	-1.0	3.8
1214	79%	-1.0	3.8
1217	79%	-1.0	3.7
1222	79%	-1.0	3.7
1227	79%	-1.0	3.6
1232	79%	-1.0	3.5
1237	80%	-1.0	3.4
1242	80%	-1.0	3.4
1247	81%	-0.9	3.4
1445	77%	-1.2	3.9
1452	77%	-1.2	4.0
1463	76%	-1.2	3.9
1476	80%	-1.0	4.2
1486	78%	-1.1	3.9
1496	76%	-1.2	3.7
1503	76%	-1.2	3.6
1515	76%	-1.2	3.6
1560	76%	-1.2	3.9
1565	77%	-1.1	3.9
1570	77%	-1.1	3.8
1575	77%	-1.2	3.7
1580	77%	-1.2	3.7
1585	77%	-1.2	3.7
1590	77%	-1.1	3.7
1595	77%	-1.1	3.6
1600	77%	-1.1	3.6
1605	77%	-1.2	3.5
1610	77%	-1.2	3.4

9. Radiation Pattern

