

SMD Antenna

Type: WXA-N1SF

Technical data

No.	Item	Page
1	Dimension/Terminal array/Recommended land pattern.	2
2	Evaluation Board Condition.	3
3	VSWR Measurement Data.	4
4	Radiation Pattern Measurement Data.	5-6

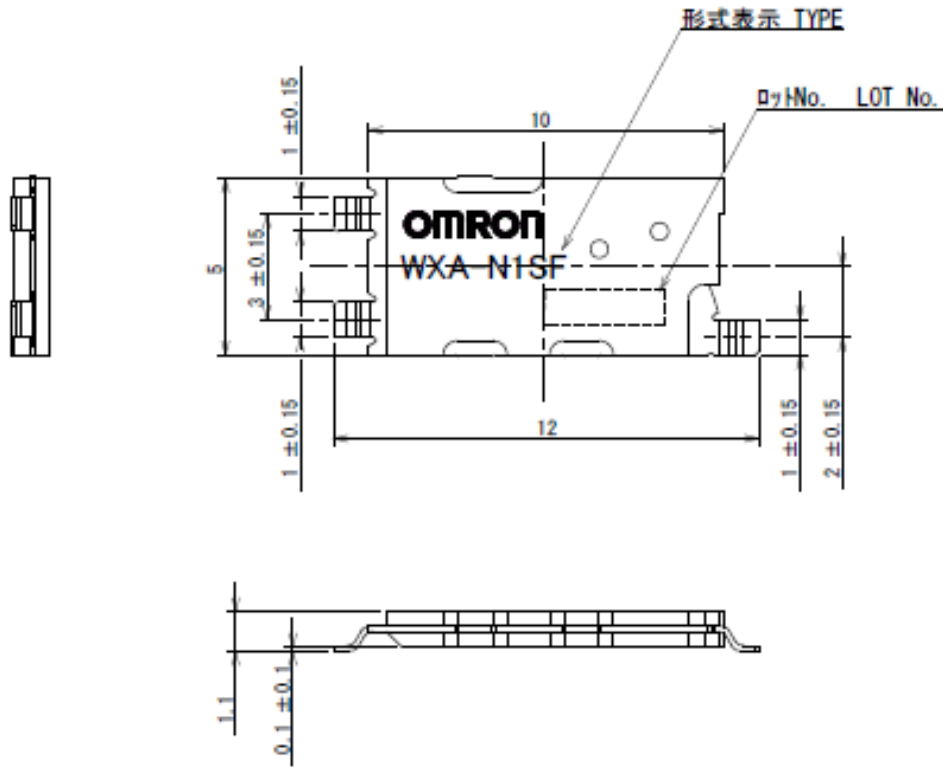
NOTES

The information contain in this document is confidential. Please do not present to anyone outside of your company.

All measurements represented have been made in ideal circumstances and without warranties. Real-world situations are less than ideal circumstances and performances vary according to the design as well as the use of the product in environment it is used in.

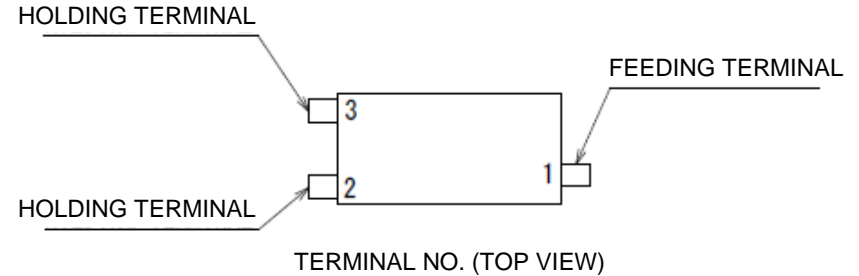
1. Dimension/Terminal Array/Recommended Land Pattern.

· Dimension (in mm)

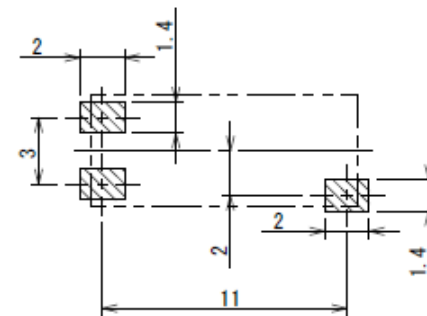


NOTE. TOLERANCE ±0.3 mm

· Terminal array



· Recommended land pattern

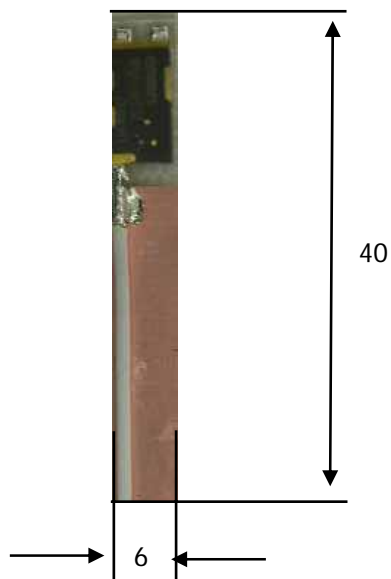


Recommended land pattern SCALE 3:1 TOLERANCE ±0.05

2. Evaluation Board Condition.

· Dimensions of top side (Board and land dimensions) (in mm)

(No GND on bottom side)

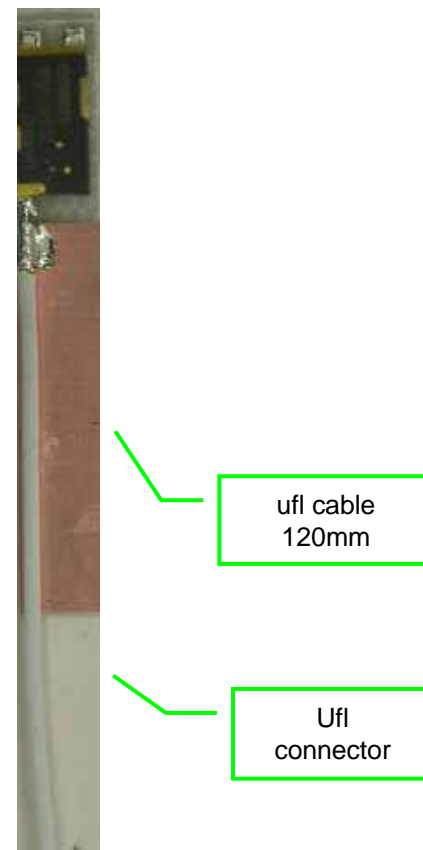


Item	Value
Transmission line	Ufl cable
Transmission connector	Ufl connector
Board material	FR4
Board thickness	1.0 mm
Signaling line, GND thickness	0.035mm

Notes:

This standard evaluation board is connected by the semi-rigid coaxial cable which has a characteristic impedance of 50 Ω and a radiation pattern is measured in the Omron's anechoic chamber with a power feeding cable connected to the semi-rigid coaxial cable connector of the evaluation board.

· Appearance (photo)

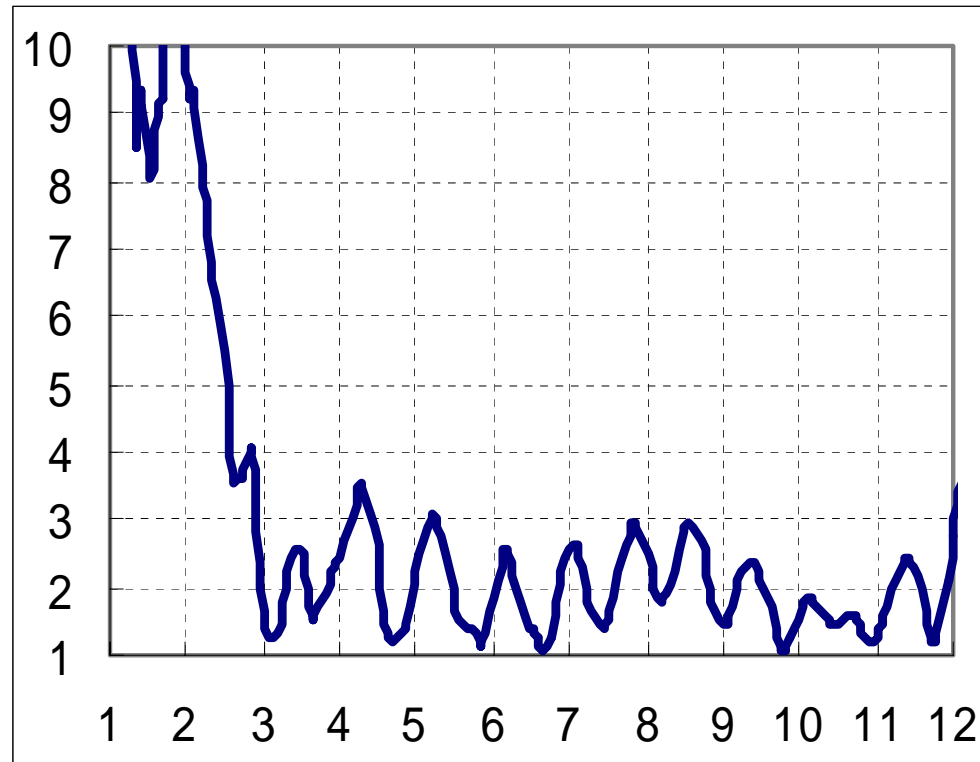


3. VSWR Measurement Data.

· Electrical Characteristics

· VSWR

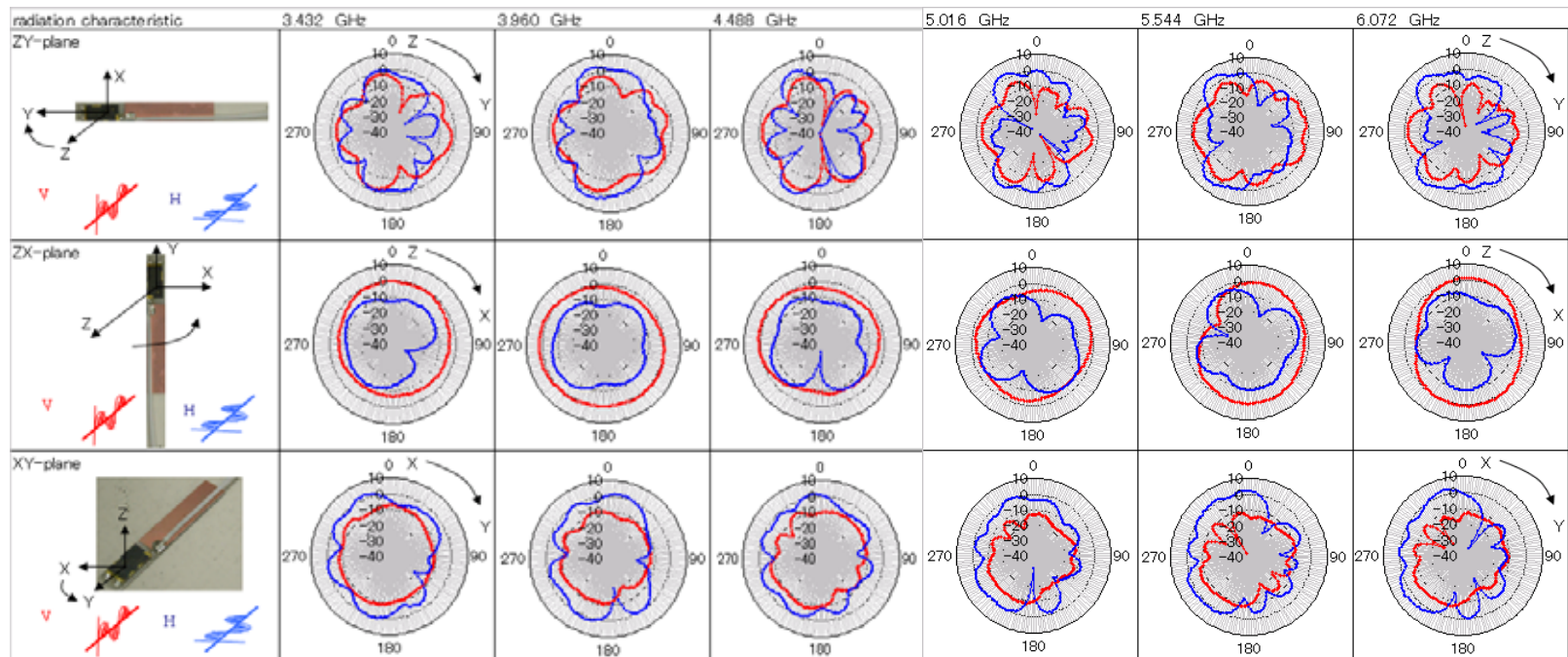
Item	Value
Range of frequency (GHz)	3.1 to 9.6
VSWR	3.6 (Max)
Input impedance (Ω)	50
Polarization	Linear



VSWR is 3.6 at maximum in a frequency band from 3.1 to 9.6 GHz.

4. Radiation Pattern Measurement Data (VSWR BG1-BG2).

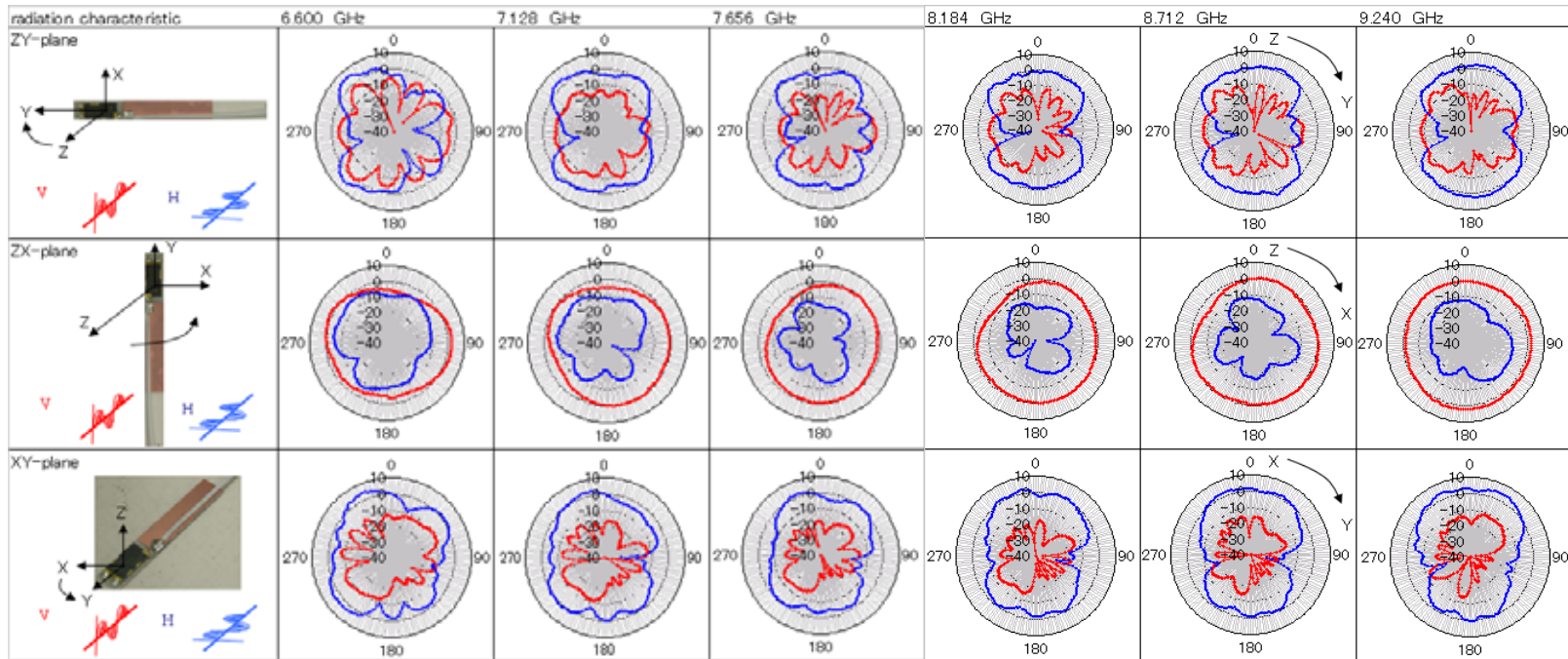
Unit[dBi]



Average gain(dBi)							
freq(GHz)		3.432	3.960	4.488	5.016	5.544	6.072
ZY-plane	V	-5.8	-5.4	-5.8	-7.8	-4.5	-4.5
	H	-5.4	-2.6	-4.4	-3.9	-2.9	-2.9
ZX-plane	V	-3.9	-0.4	-3.1	-3.8	-2.8	-2.8
	H	-11.7	-9.7	-9.5	-8.7	-8.6	-8.6
XY-plane	V	-9.3	-11.9	-10.1	-12.8	-11.5	-11.5
	H	-3.3	-3.0	-3.8	-4.2	-2.4	-2.4

4. Radiation Pattern Measurement Data (VSWR BG3-BG4).

Unit[dBi]



Average gain(dBi)							
freq(GHz)		6.600	7.128	7.656	8.184	8.712	9.240
ZY-plane	V	-6.2	-11.4	-13.4	-12.8	-11.6	-11.2
	H	-1.7	-2.3	-4.2	-2.6	-1.9	-0.9
ZX-plane	V	-1.9	-2.3	-2.9	-2.1	-0.9	0.5
	H	-8.7	-12.4	-16.4	-18.0	-15.9	-13.8
XY-plane	V	-13.0	-16.5	-18.5	-19.3	-19.2	-17.6
	H	-0.9	-2.5	-3.4	-2.9	-2.4	-1.0