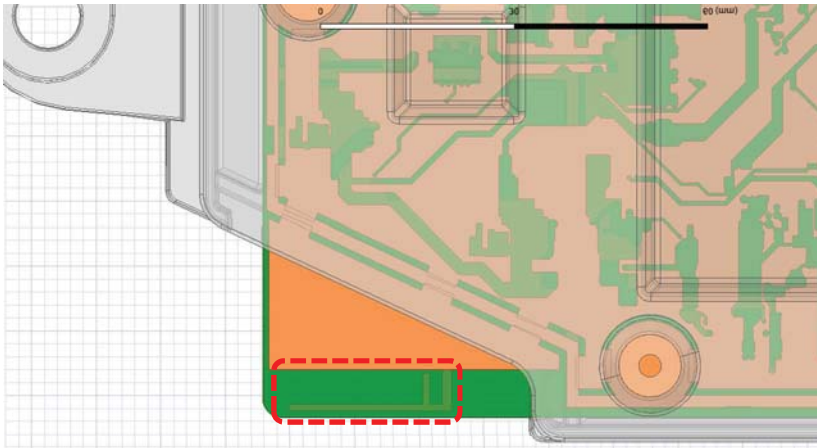
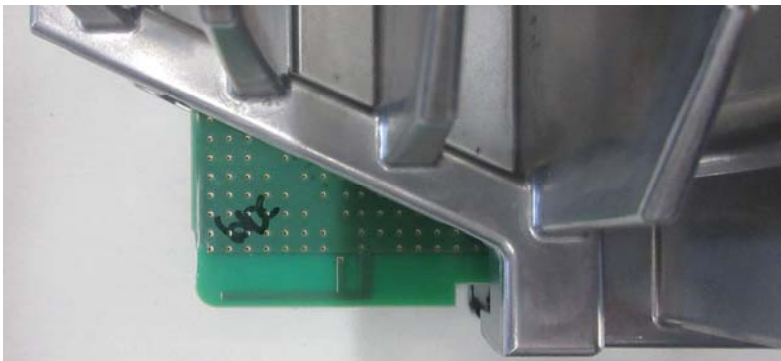


# PCB Inverted-F $\lambda/4$ Antenna

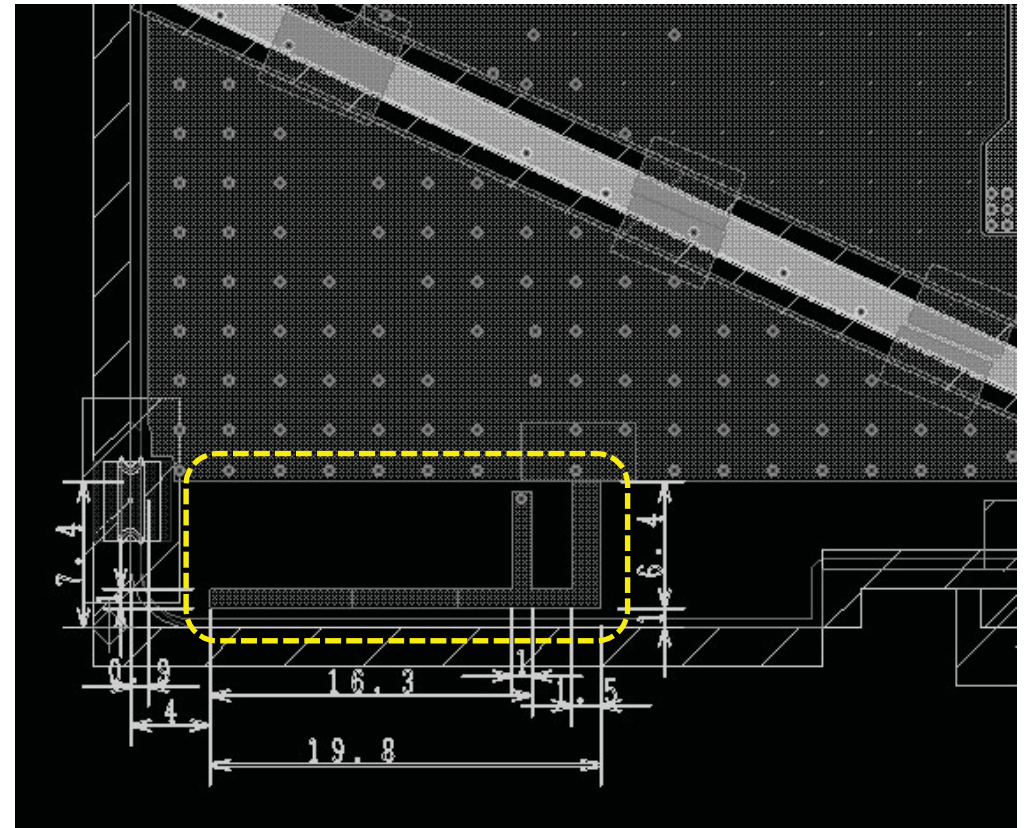
## Outline



## Appearance

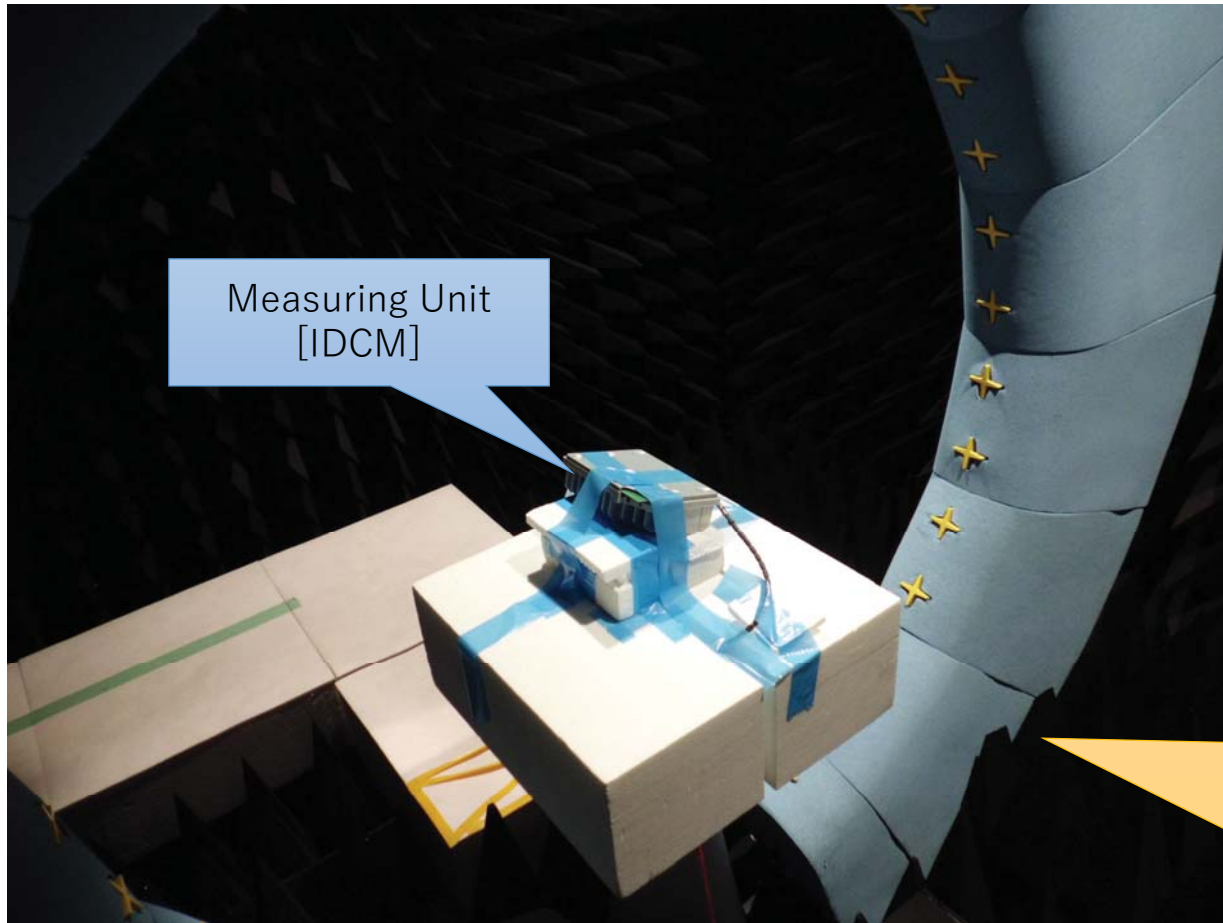


## Dimensions (Unit [mm])



# PCB Inverted-F $\lambda/4$ Antenna

## Measurement setup of Antenna gain performance



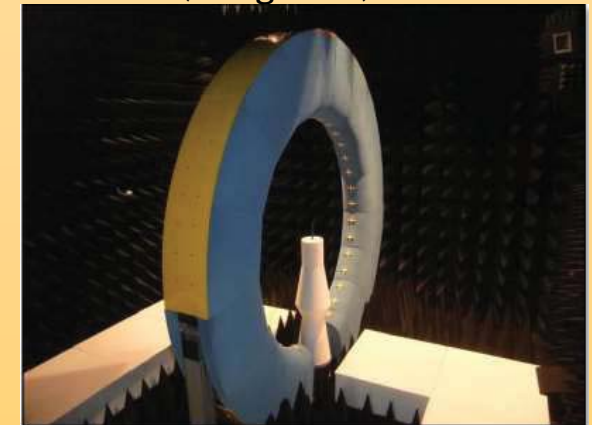
Measuring Unit  
[IDCM]

## Performance

(Assuming the vehicle mounting state)

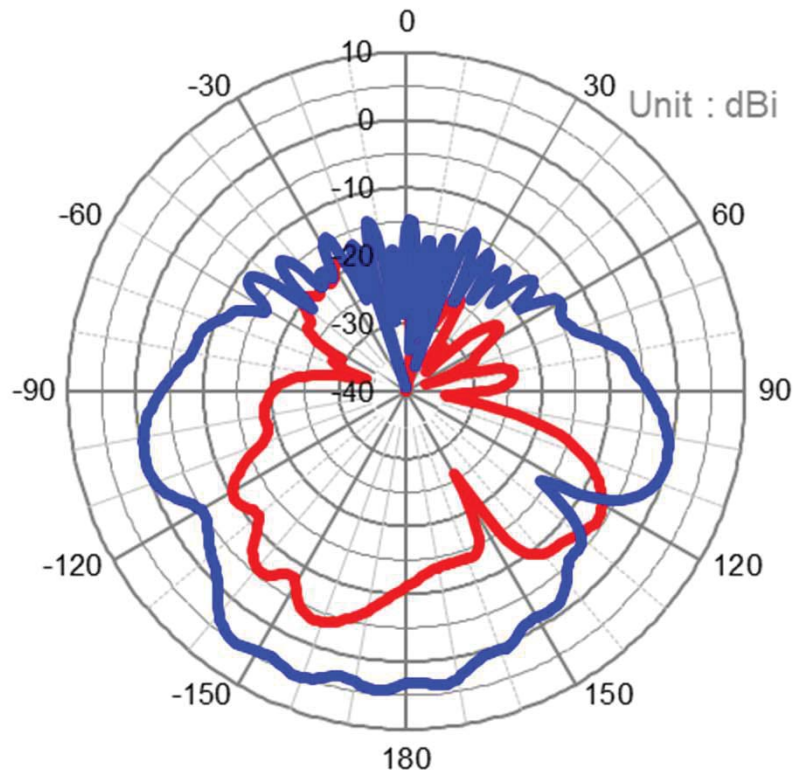
Characteristic	Measured value
VSWR	1.18 to 1.69
Average gain	-1.5dBi
Average gain (Hemisphere of end user side)	+1.3dBi
Peak gain	+5.2dBi

## NEAR FIELD MEASUREMENT SYSTEM (Stargate32)



# PCB Inverted-F $\lambda/4$ Antenna

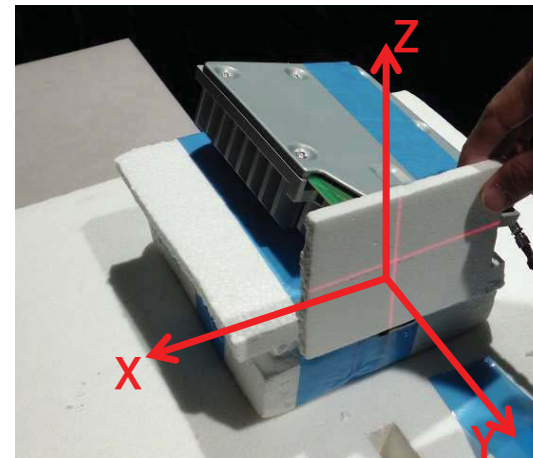
## Detail of antenna gain



## Performance

(Assuming the vehicle mounting state)

Characteristic	Measured value
VSWR	1.18 to 1.69
Average gain	-1.5dBi
Average gain (Hemisphere of end user side)	+1.3dBi
Peak gain	+5.2dBi



## Other information

<b>Company name and address of antenna supplier</b>	ALPS ALPINE CO., LTD 20-1 Yoshima Industrial Park,Iwaki,Fukushima Japan 970-1192 * It's pattern antenna(inverted-F antenna) designed by ALPSALPINE.
<b>Model name</b>	IDCM
<b>Frequency range</b>	2.4GHz ~ 2.48GHz
<b>Antenna gain</b>	See page 2
<b>Antenna type</b>	See page 1
<b>Connector type</b>	N/A
<b>Antenna pattern</b>	See page 1
<b>Outline drawing or Appearance picture</b>	See page 1
<b>Cable length (if antenna cable is connected)</b>	N/A
<b>Cable loss (if antenna cable is connected)</b>	N/A
<b>Explanation whether antenna gain includes cable loss (if antenna cable is connected)</b>	N/A
<b>Detail of Antenna gain</b>	See page 3
<b>Performance specification</b>	See page 2
<b>List of calibrated equipment</b>	*Model name/Device name/Calibration date/Serial number* • SG32/Multi-probe system/2019.8.2/TYO0016S/Microwave Vision Group(MVG)
<b>Test date</b>	2021/4/27
<b>Name of tester</b>	Kodai Sasaki
<b>Test software</b>	SatEnv
<b>Picture of test setup</b>	See page 2
<b>Explanation of measurement procedure</b>	See page 2