

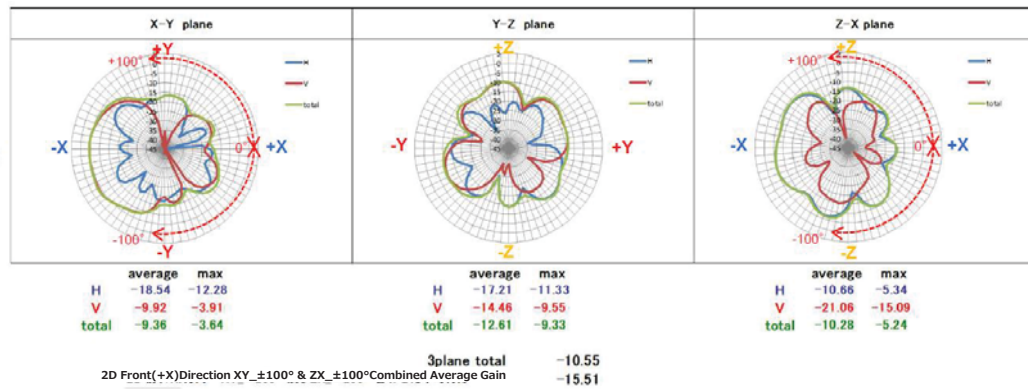
| ■Antenna Specifications |                                                                   |
|-------------------------|-------------------------------------------------------------------|
| Model name              | PCB Antenna                                                       |
| Frequency range         | WLAN : 2.4 - 2.5 GHz / 5.0 - 5.8 GHz<br>Bluetooth : 2.4 - 2.5 GHz |
| Antenna Type            | Monopole Type PCB Antenna                                         |
| Connector Type          | UFL (internal connector)                                          |
| Antenna Gain(Peak)      | WLAN : -1.40dBi (2.4GHz)/0.81dBi(5GHz)<br>Bluetooth : -1.01dBi    |
| Length of coaxial cable | WLAN : 75mm (White)<br>Bluetooth : 115mm (Black)                  |
| Coaxial Cable Loss      | WLAN : 0.32dB (2.4GHz)/0.57dB (5GHz)<br>Bluetooth : 0.58dB        |
| (Note)                  | Value of each antenna gain also includes coaxial cable loss.      |

|                     | Bluetooth    | WLAN                             | WLAN                                                                                                   |
|---------------------|--------------|----------------------------------|--------------------------------------------------------------------------------------------------------|
| Operating frequency | 2402-2480MHz | 2412-2462MHz<br>IEEE802.11.b/g/n | 20MHz :<br>149(5745MHz)<br>40MHz :<br>151(5755MHz)<br>80MHz :<br>155(5775MHz)<br><br>IEEE802.11.a/n/ac |

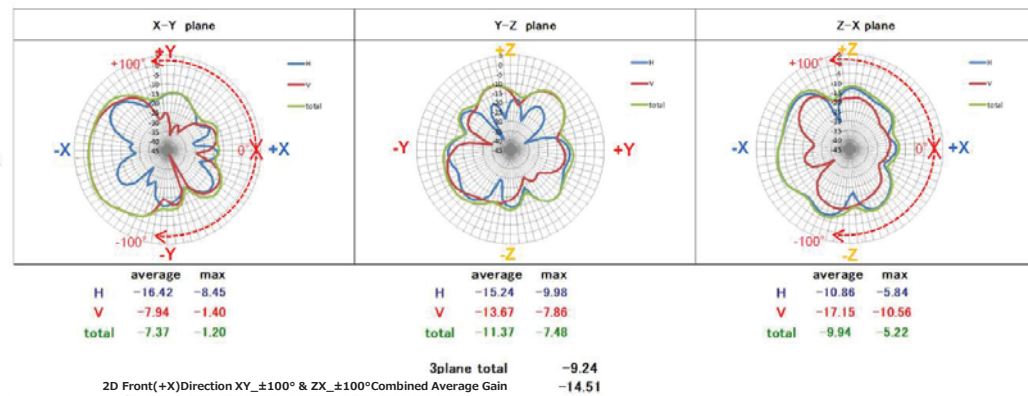
|                                    |                                         |
|------------------------------------|-----------------------------------------|
| • Calibrated measuring instrument  | Network Analyzer: E5071C (Keysight)     |
| • Test day                         | 17th - 20th December 2021               |
| • Name of the examiner             | MinebeaMitsumi Inc. Mr. Mamoru Matsuo   |
| • Name of commercial test software | We do not use commercial test software. |

## ■ Antenna gain

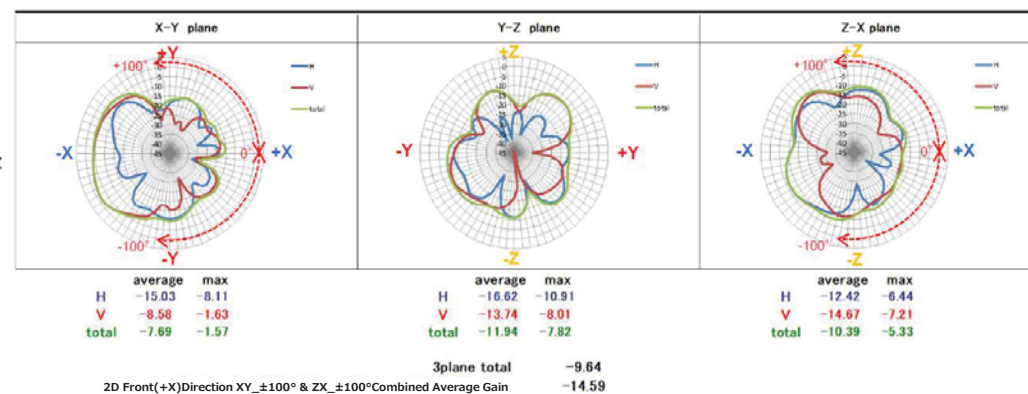
Wi-Fi  
2.40GHz



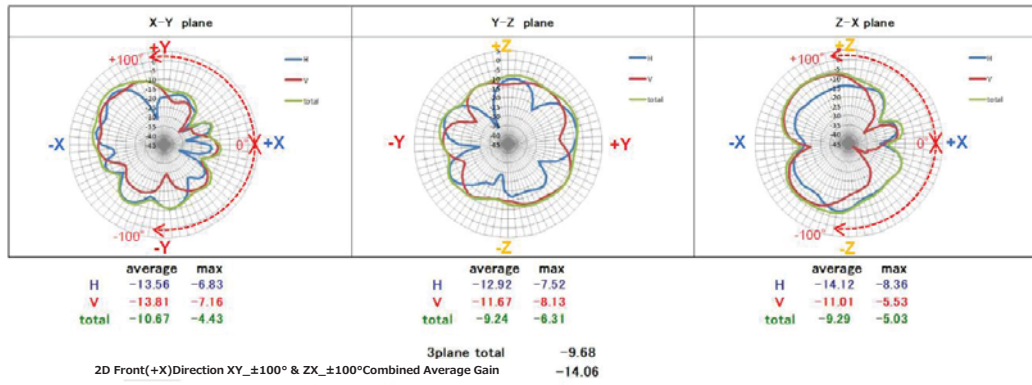
Wi-Fi  
2.45GHz



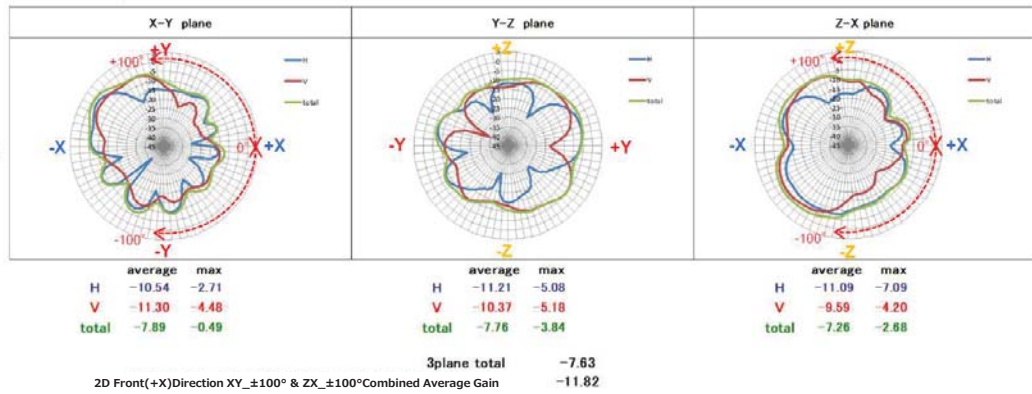
Wi-Fi  
2.50GHz



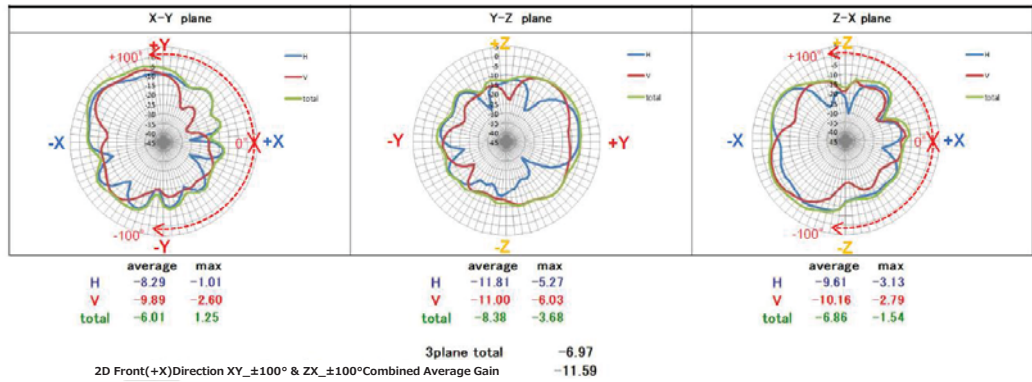
BT  
2.40GHz



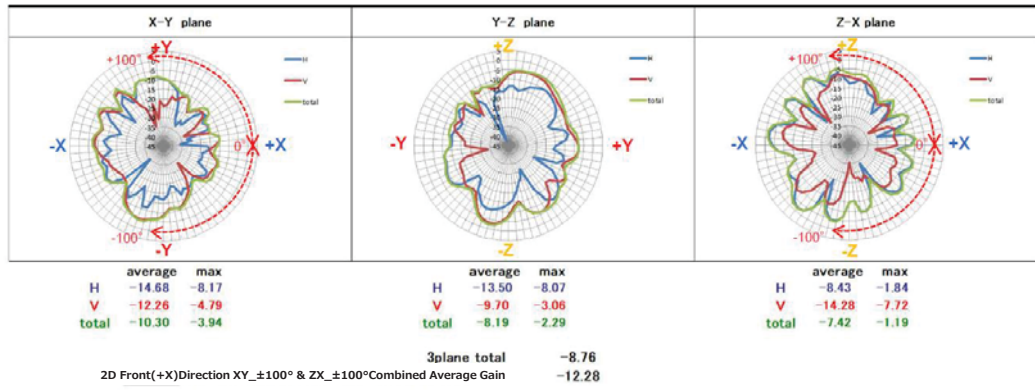
BT  
2.45GHz



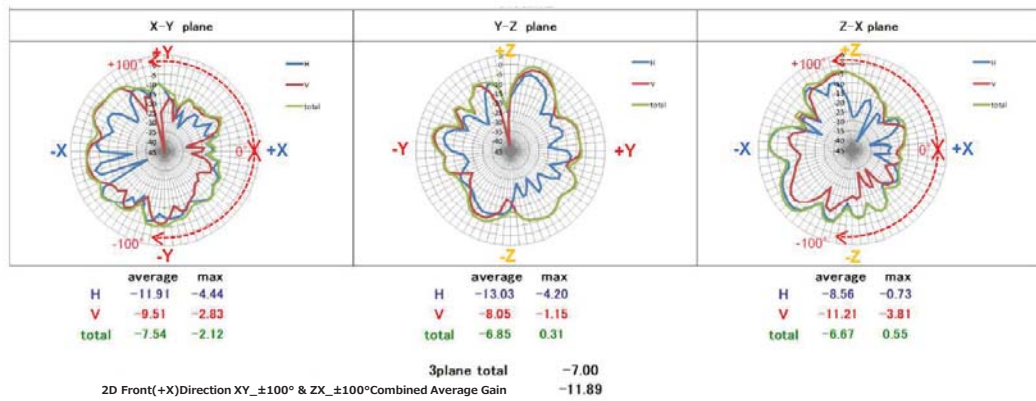
BT  
2.50GHz



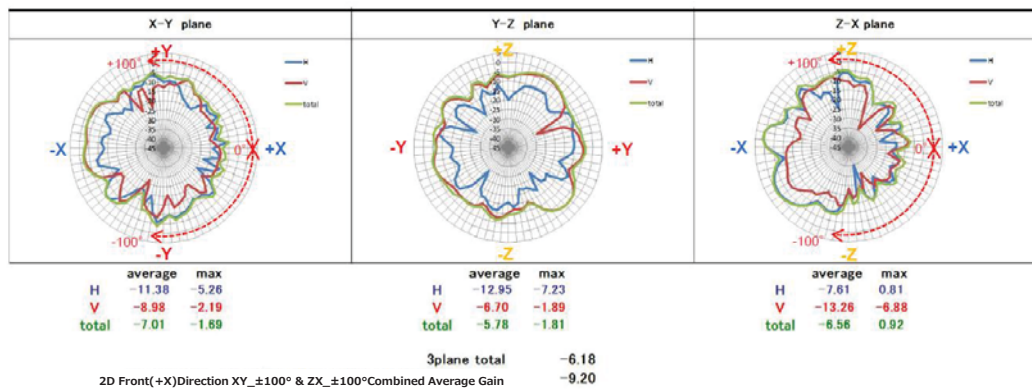
Wi-Fi  
5.0GHz



Wi-Fi  
5.4GHz



Wi-Fi  
5.8GHz



| Type           | ANT   | Peak Gain[dBi] |           |          |          |          |          |
|----------------|-------|----------------|-----------|----------|----------|----------|----------|
|                |       | 2.4 GH z       | 2.45 GH z | 2.5 GH z | 5.0 GH z | 5.4 GH z | 5.8 GH z |
| All directions | Wi-Fi | -3.91          | -1.40     | -1.63    | -1.84    | -0.73    | 0.81     |
|                | BT    | -5.53          | -2.71     | -1.01    | ---      | ---      | ---      |

