

# ARSDP256-DVT-2

## Test Report



Version 3

2026/08/18



Version Controller

| Version name | Remark                                      | Date       |
|--------------|---------------------------------------------|------------|
| 1            | Initial version                             | 2026/04/07 |
| 2            | Coordinate system aligned with ARSDP256-PVT | 2026/07/01 |
| 3            | Added manufacturer and brand name           | 2026/08/18 |

## Product Information

**Product / Model:** ARSDP256

**Brand / Trade Name:** ADANT

**Manufacturer:** Adant Technologies Inc

**Manufacturer Address:** 6200 Stoneridge Mall Road, Suite 300, Pleasanton, CA 94588

## Contents

- 1. Antenna Pictures ..... 5**
  - 1.1 Top View ..... 5
  - 1.2 Bottom View..... 5
- 2. Antenna Table Summary ..... 6**
- 3. Setup for antenna radiation characterization ..... 7**
- 4. Antenna Summary ..... 8**
  - 4.1 Antenna Peak Gain..... 9
  - 4.2 Antenna Composite Gain ..... 11
    - 4.2.1 Accesso Radio ..... 11
    - 4.2.2 MFR Radio..... 11
  - 4.3 Antenna Return Loss ..... 12
  - 4.4 Isolation..... 14
  - 4.5 Antenna Patterns (Aggregated)..... 17

## 2. Antenna Table Summary

| Port | Antenna Name | Band [GHz]                  | Mode | Antenna Type |
|------|--------------|-----------------------------|------|--------------|
| P1   | 2G1          | 2.4 – 2.5                   | -    | Directional  |
|      | 5G1          | 5.15 – 5.85                 | M1   |              |
|      | 5G3          | 5.15 – 5.85                 | M2   |              |
| P2   | 2G2          | 2.4 – 2.5                   | -    | Directional  |
|      | 5G1          | 5.15 – 5.85                 | M1   |              |
|      | 5G4          | 5.15 – 5.85                 | M2   |              |
| P3   | 2G3          | 2.4 – 2.5                   | -    | Directional  |
|      | 5G2          | 5.15 – 5.85                 | M1   |              |
|      | 5G5          | 5.15 – 5.85                 | M2   |              |
| P4   | 2G4          | 2.4 – 2.5                   | -    | Directional  |
|      | 5G2          | 5.15 – 5.85                 | M1   |              |
|      | 5G6          | 5.15 – 5.85                 | M2   |              |
| P5   | 2G6          | 2.4 – 2.5                   | -    | Directional  |
|      | DB1          | 5.15 – 5.85 / 5.925 – 7.125 | M1   |              |
|      | DB3          | 5.15 – 5.85 / 5.925 – 7.125 | M2   |              |
| P6   | 2G5          | 2.4 – 2.5                   | -    | Directional  |
|      | DB1          | 5.15 – 5.85 / 5.925 – 7.125 | M1   |              |
|      | DB2          | 5.15 – 5.85 / 5.925 – 7.125 | M2   |              |
| P7   | 6G1          | 5.925 – 7.125               | M1   | Directional  |
|      | 6G3          | 5.925 – 7.125               | M2   |              |
| P8   | 6G1          | 5.925 – 7.125               | M1   | Directional  |
|      | 6G4          | 5.925 – 7.125               | M2   |              |
| P9   | 6G2          | 5.925 – 7.125               | M1   | Directional  |
|      | 6G5          | 5.925 – 7.125               | M2   |              |
| P10  | 6G2          | 5.925 – 7.125               | M1   | Directional  |
|      | 6G6          | 5.925 – 7.125               | M2   |              |
| P11  | BLE          | 2.4 – 2.5                   | -    | PIFA         |
| P12  | GPS          | 1.17645 / 1.57542           | -    | PIFA         |

## 4. Antenna Summary

|                 |     |    | Average<br>Peak<br>Gain*<br>[dBi] | Max<br>Peak<br>Gain<br>[dBi] | Min<br>Peak<br>Gain<br>[dBi] | Delta<br>Peak<br>Gain<br>[dB] | HPBW<br>[degrees] | F/B<br>[dB] | In-band<br>Isolation<br>[dB] | VSWR |
|-----------------|-----|----|-----------------------------------|------------------------------|------------------------------|-------------------------------|-------------------|-------------|------------------------------|------|
| P1<br>(Access)  | 2G1 | -  | 3.6                               | 4.7                          | 2.5                          | 2.2                           | 70                | 18          | < 20                         | < 2  |
|                 | 5G1 | M1 | 4.6                               | 5.0                          | 4.3                          | 0.7                           | 45                | 26          | < 20                         | < 2  |
|                 | 5G3 | M2 | 2.3                               | 2.7                          | 1.6                          | 1.1                           | 70                | 22          | < 20                         | < 2  |
| P2<br>(Access)  | 2G2 | -  | 2.3                               | 2.8                          | 1.9                          | 0.9                           | 70                | 17          | < 20                         | < 2  |
|                 | 5G1 | M1 | 3.6                               | 4.1                          | 2.6                          | 1.5                           | 45                | 30          | < 20                         | < 2  |
|                 | 5G4 | M2 | 2.6                               | 3.1                          | 2.1                          | 1.0                           | 75                | 23          | < 20                         | < 2  |
| P3<br>(Access)  | 2G3 | -  | 2.9                               | 3.3                          | 2.6                          | 0.7                           | 85                | 17          | < 20                         | < 2  |
|                 | 5G2 | M1 | 4.7                               | 5.2                          | 4.0                          | 1.2                           | 50                | 24          | < 20                         | < 2  |
|                 | 5G5 | M2 | 3.4                               | 4.0                          | 3.0                          | 1.0                           | 70                | 19          | < 20                         | < 2  |
| P4<br>(Access)  | 2G4 | -  | 4.5                               | 4.8                          | 4.4                          | 0.4                           | 75                | 18          | < 20                         | < 2  |
|                 | 5G2 | M1 | 3.9                               | 4.5                          | 3.2                          | 1.3                           | 45                | 26          | < 20                         | < 2  |
|                 | 5G6 | M2 | 2.9                               | 3.0                          | 2.8                          | 0.2                           | 80                | 21          | < 20                         | < 2  |
| P5<br>(MFR)     | 2G6 | -  | 2.8                               | 3.1                          | 2.4                          | 0.7                           | 90                | 25          | < 20                         | < 2  |
|                 | DB1 | M1 | 3.0                               | 5.2                          | 0.7                          | 4.5                           | 50                | 24          | < 20                         | < 2  |
|                 | DB3 | M2 | 2.6                               | 3.2                          | 1.6                          | 1.6                           | 70                | 27          | < 20                         | < 2  |
| P6<br>(MFR)     | 2G5 | -  | 3.8                               | 4.3                          | 2.9                          | 1.4                           | 70                | 18          | < 20                         | < 2  |
|                 | DB1 | M1 | 4.0                               | 5.0                          | 2.2                          | 2.8                           | 45                | 20          | < 20                         | < 2  |
|                 | DB2 | M2 | 3.1                               | 3.8                          | 1.6                          | 2.2                           | 70                | 22          | < 20                         | < 2  |
| P7<br>(Access)  | 6G1 | M1 | 2.7                               | 4.1                          | 1.1                          | 3.0                           | 45                | 27          | < 20                         | < 2  |
|                 | 6G3 | M2 | 3.9                               | 5.0                          | 2.8                          | 2.2                           | 65                | 22          | < 20                         | < 2  |
| P8<br>(Access)  | 6G1 | M1 | 2.5                               | 3.9                          | 1.7                          | 2.2                           | 45                | 23          | < 20                         | < 2  |
|                 | 6G4 | M2 | 2.8                               | 4.3                          | 1.9                          | 2.4                           | 65                | 16          | < 20                         | < 2  |
| P9<br>(Access)  | 6G2 | M1 | 3.9                               | 5.1                          | 2.6                          | 2.5                           | 40                | 24          | < 20                         | < 2  |
|                 | 6G5 | M2 | 4.0                               | 4.5                          | 2.7                          | 1.8                           | 70                | 20          | < 20                         | < 2  |
| P10<br>(Access) | 6G2 | M1 | 3.4                               | 5.1                          | 2.3                          | 2.8                           | 45                | 22          | < 20                         | < 2  |
|                 | 6G6 | M2 | 4.2                               | 5.2                          | 3.5                          | 1.7                           | 80                | 17          | < 20                         | < 2  |

|     |     | Peak Gain<br>[dBi] |
|-----|-----|--------------------|
| P11 | BLE | 1.0                |
| P12 | GPS | 0.9                |

\*Calculated as an average over the frequency band of interest.

Isolation between 5GHz (UNII 1,2a,2b, 2c) and 6GHz band (UNII 6,7,8) is > 30 dB.

Isolation between 5GHz (UNII 3) and 6GHz band (UNII 5) is > 30 dB.

## 4.1 Antenna Peak Gain

| P1 | Frequency [MHZ] |                      | Peak Gain [dBi]      |  |
|----|-----------------|----------------------|----------------------|--|
|    | 2400            |                      | 4.7                  |  |
|    | 2450            |                      | 3.5                  |  |
|    | 2480            |                      | 2.5                  |  |
|    | Frequency [MHZ] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |  |
|    | 5150            | 5.0                  | 2.7                  |  |
|    | 5350            | 4.4                  | 2.6                  |  |
|    | 5500            | 4.3                  | 2.3                  |  |
|    | 5850            | 4.8                  | 1.6                  |  |

| P2 | Frequency [MHZ] |                      | Peak Gain [dBi]      |  |
|----|-----------------|----------------------|----------------------|--|
|    | 2400            |                      | 2.2                  |  |
|    | 2480            |                      | 1.9                  |  |
|    | Frequency [MHZ] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |  |
|    | 5350            | 3.6                  | 2.1                  |  |
|    | 5850            | 3.9                  | 3.1                  |  |

| P3 | Frequency [MHZ] |                      | Peak Gain [dBi]      |  |
|----|-----------------|----------------------|----------------------|--|
|    | 2400            |                      | 2.6                  |  |
|    | 2450            |                      | 3.3                  |  |
|    | 2480            |                      | 2.8                  |  |
|    | Frequency [MHZ] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |  |
|    | 5150            | 4.9                  | 4.0                  |  |
|    | 5350            | 5.2                  | 3.0                  |  |
|    | 5500            | 4.6                  | 3.1                  |  |
|    | 5850            | 4.0                  | 3.3                  |  |

| P4 | Frequency [MHZ] |                      | Peak Gain [dBi]      |  |
|----|-----------------|----------------------|----------------------|--|
|    | 2400            |                      | 4.4                  |  |
|    | 2450            |                      | 4.8                  |  |
|    | 2480            |                      | 4.4                  |  |
|    | Frequency [MHZ] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |  |
|    | 5150            | 3.8                  | 2.8                  |  |
|    | 5350            | 4.0                  | 3.0                  |  |
|    | 5500            | 4.5                  | 2.9                  |  |
|    | 5850            | 3.2                  | 2.8                  |  |

| P5 | Frequency [MHz] |                      | Peak Gain [dBi]      |  |
|----|-----------------|----------------------|----------------------|--|
|    | 2400            |                      | 2.4                  |  |
|    | 2450            |                      | 3.1                  |  |
|    | 2480            |                      | 3.0                  |  |
|    | Frequency [MHz] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |  |
|    | 5150            | 3.2                  | 2.9                  |  |
|    | 5350            | 3.8                  | 3.1                  |  |
|    | 5500            | 5.2                  | 3.1                  |  |
|    | 5850            | 3.2                  | 2.9                  |  |
|    | 5925            | 2.5                  | 3.2                  |  |
|    | 6500            | 2.5                  | 0.9                  |  |
|    | 6550            | 2.8                  | 1.6                  |  |
|    | 6995            | 0.7                  | 2.1                  |  |
|    | 7125            | 1.6                  | 1.6                  |  |

| P6 | Frequency [MHz] |                      | Peak Gain [dBi]      |  |
|----|-----------------|----------------------|----------------------|--|
|    | 2400            |                      | 4.0                  |  |
|    | 2450            |                      | 4.3                  |  |
|    | 2480            |                      | 2.9                  |  |
|    | Frequency [MHz] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |  |
|    | 5150            | 3.9                  | 3.8                  |  |
|    | 5350            | 4.6                  | 3.5                  |  |
|    | 5500            | 4.1                  | 3.3                  |  |
|    | 5850            | 2.2                  | 3.5                  |  |
|    | 5925            | 2.7                  | 1.6                  |  |
|    | 6500            | 4.0                  | 3.0                  |  |
|    | 6550            | 4.4                  | 3.3                  |  |
|    | 6995            | 5.0                  | 2.8                  |  |
|    | 7125            | 4.9                  | 2.4                  |  |

| P7 | Frequency [MHz] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |
|----|-----------------|----------------------|----------------------|
|    | 6500            | 3.8                  | 4.8                  |
|    | 6995            | 1.1                  | 2.8                  |

| P8 | Frequency [MHz] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |
|----|-----------------|----------------------|----------------------|
|    | 6500            | 3.5                  | 3.9                  |
|    | 6995            | 1.7                  | 1.9                  |

|    | Frequency [MHz] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |
|----|-----------------|----------------------|----------------------|
| P9 | 6500            | 5.9                  | 4.1                  |
|    | 6995            | 3.3                  | 4.3                  |

|     | Frequency [MHz] | Peak Gain - M1 [dBi] | Peak Gain - M2 [dBi] |
|-----|-----------------|----------------------|----------------------|
| P10 | 6500            | 4.7                  | 3.9                  |
|     | 6995            | 2.9                  | 3.5                  |

## 4.2 Antenna Composite Gain

### 4.2.1 Accesso Radio

|    | Frequency [MHz]   | 2450 - M1 |            | 2450 - M2 |            |
|----|-------------------|-----------|------------|-----------|------------|
| 2G | Polarization      | Vertical  | Horizontal | Vertical  | Horizontal |
|    | P1 - P2 - P3 - P4 | 7.0 dBi   | 7.0 dBi    | 6.9 dBi   | 6.9 dBi    |
|    | Frequency [MHz]   | 5500 - M1 |            | 5500 - M2 |            |
| 5G | Polarization      | Vertical  | Horizontal | Vertical  | Horizontal |
|    | P1 - P2 - P3 - P4 | 6.9 dBi   | 7.1 dBi    | 5.6 dBi   | 6.0 dBi    |

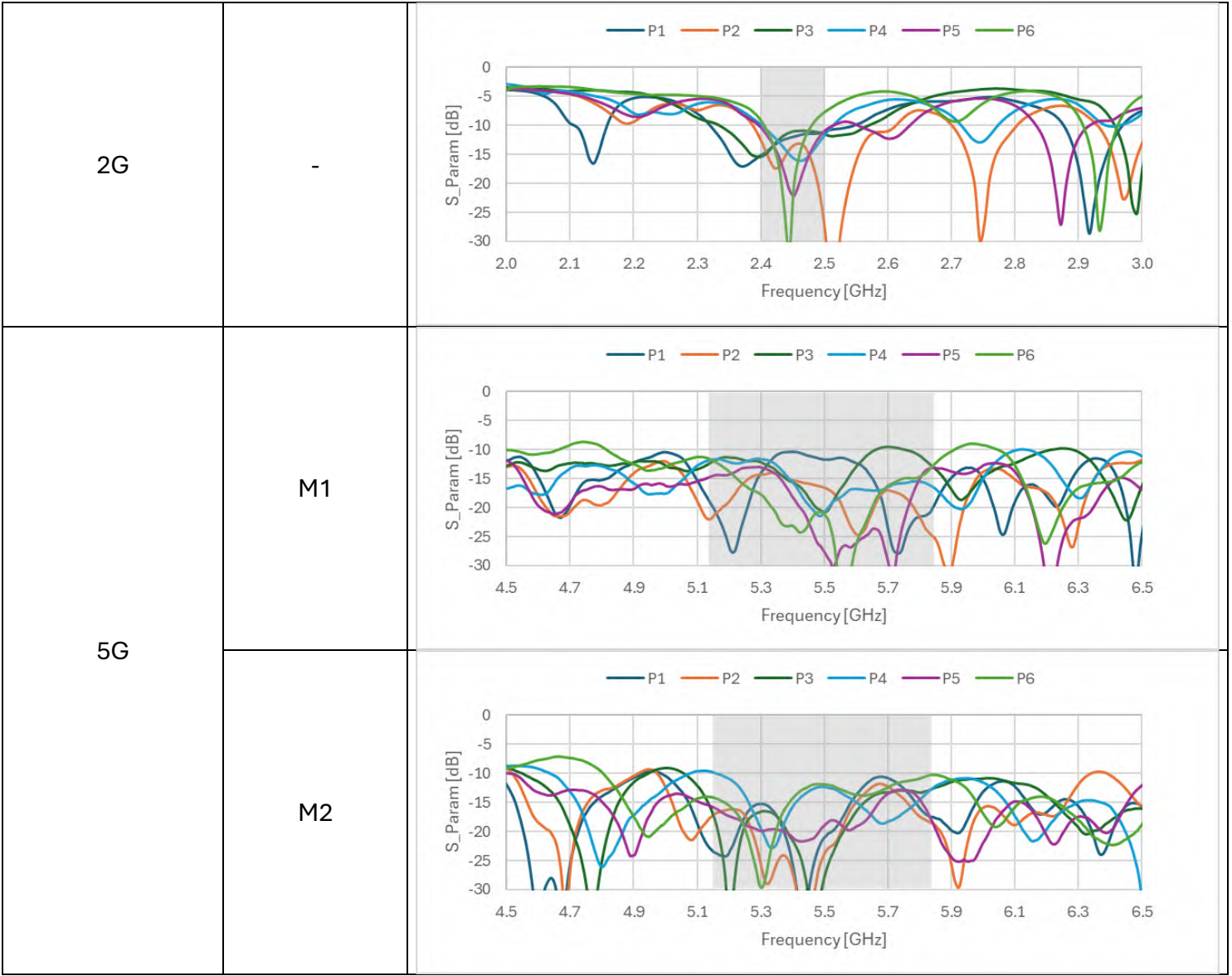
|    | Frequency [MHz]    | 6550 - M1 |            | 6550 - M2 |            |
|----|--------------------|-----------|------------|-----------|------------|
| 6G | Polarization       | Vertical  | Horizontal | Vertical  | Horizontal |
|    | P7 - P8 - P9 - P10 | 7.4 dBi   | 7.2 dBi    | 6.1 dBi   | 7.3 dBi    |

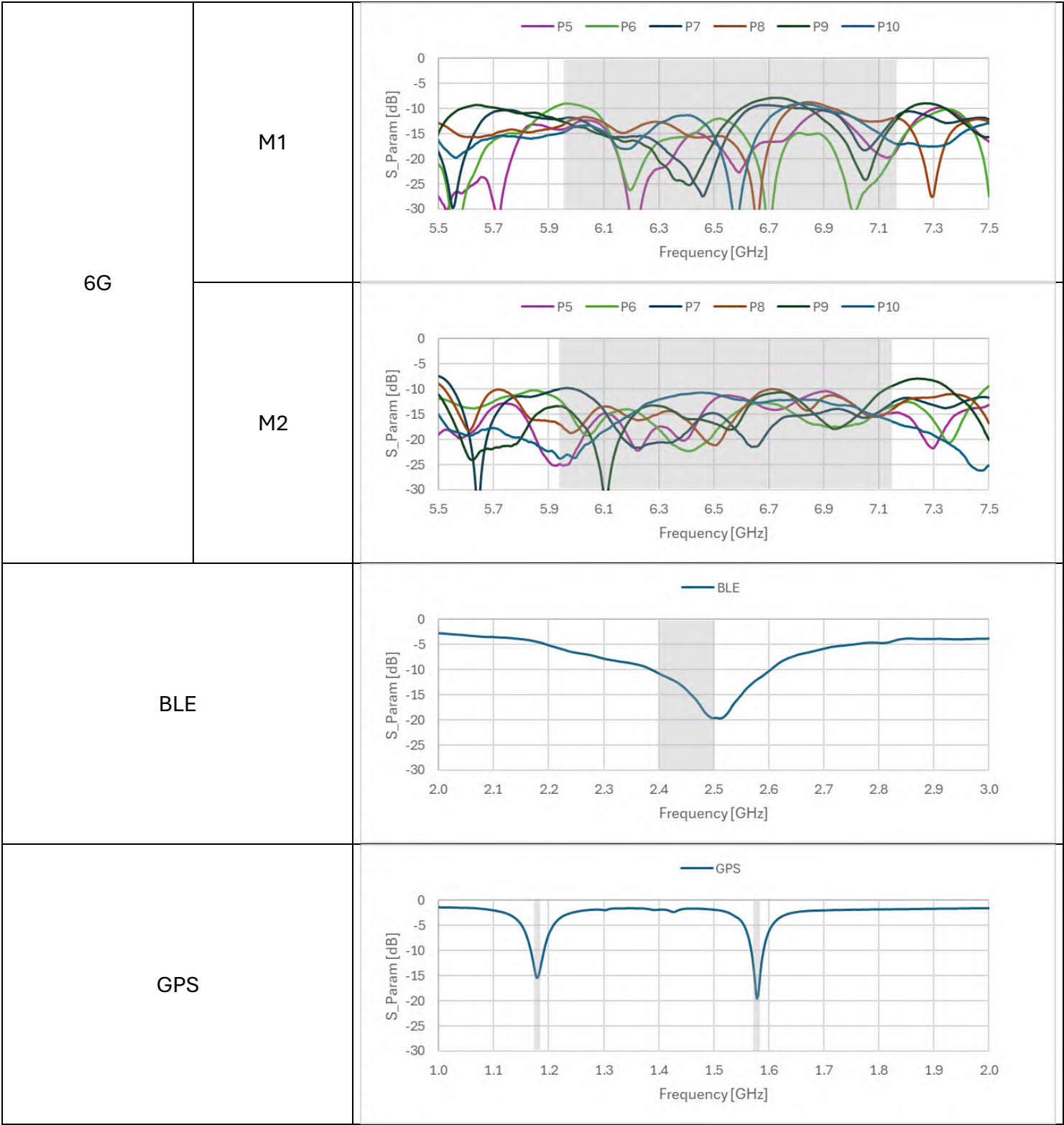
### 4.2.2 MFR Radio

|    | Frequency [MHz] | 2450 - M1 |            | 2450 - M2 |            |
|----|-----------------|-----------|------------|-----------|------------|
| 2G | Polarization    | Vertical  | Horizontal | Vertical  | Horizontal |
|    | P5 - P6         | 3.6 dBi   | 3.9 dBi    | 3.6 dBi   | 3.7 dBi    |
|    | Frequency [MHz] | 5500 - M1 |            | 5500 - M2 |            |
| 5G | Polarization    | Vertical  | Horizontal | Vertical  | Horizontal |
|    | P5 - P6         | 4.5 dBi   | 4.3 dBi    | 3.1 dBi   | 4.2 dBi    |

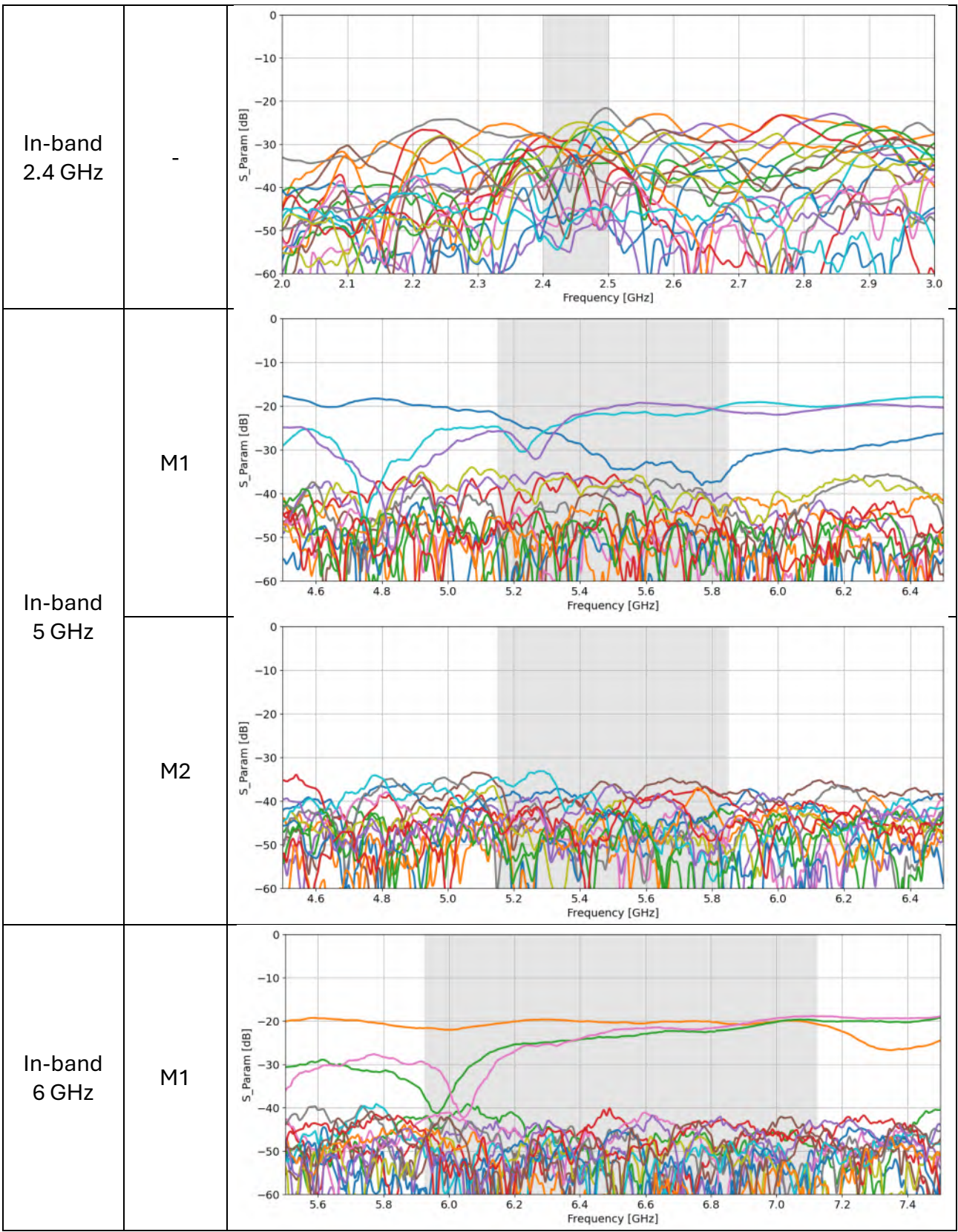
|    | Frequency [MHz] | 6550 - M1 |            | 6550 - M2 |            |
|----|-----------------|-----------|------------|-----------|------------|
| 6G | Polarization    | Vertical  | Horizontal | Vertical  | Horizontal |
|    | P5 - P6         | 4.6 dBi   | 4.6 dBi    | 4.5 dBi   | 4.5 dBi    |

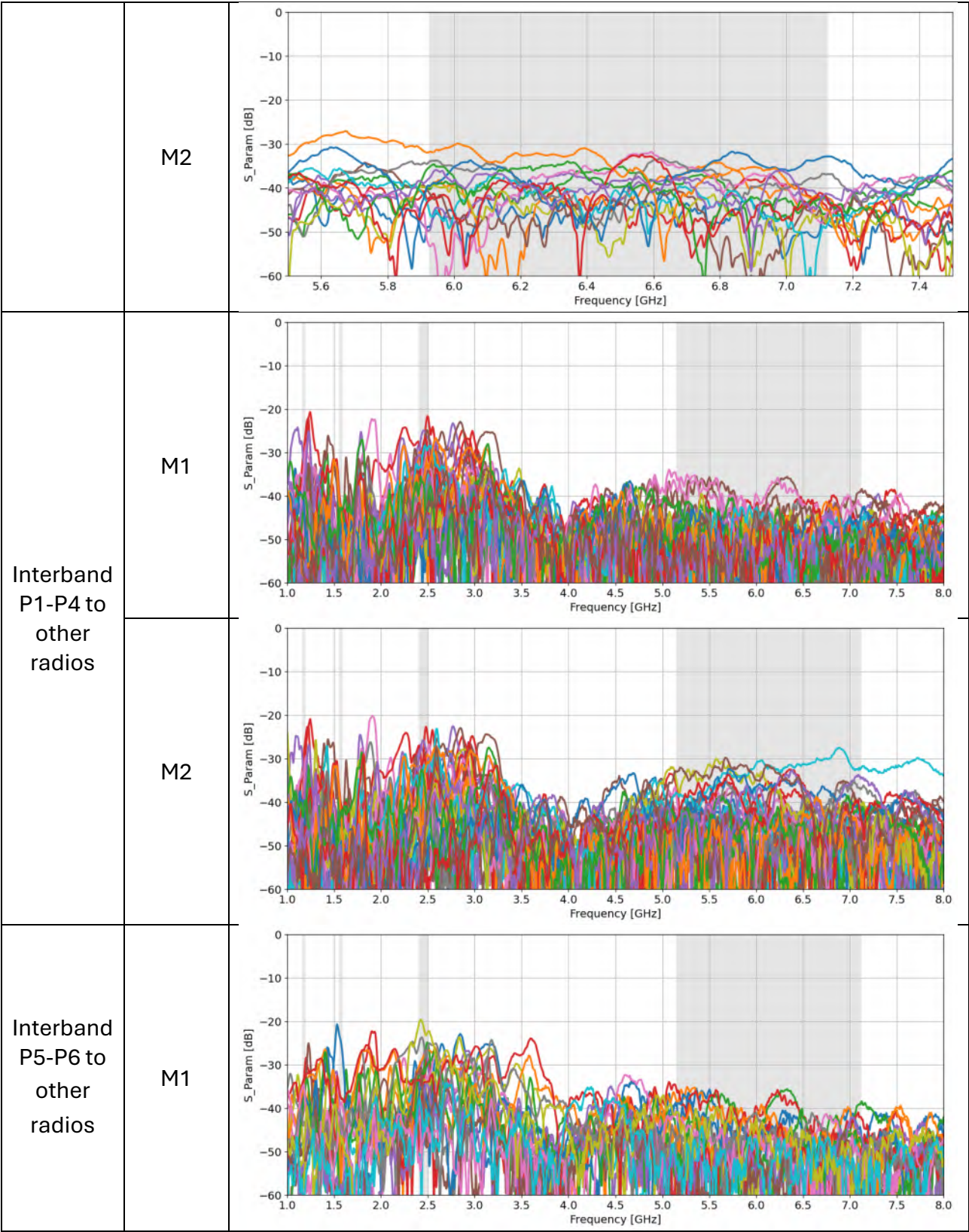
4.3Antenna Return Loss

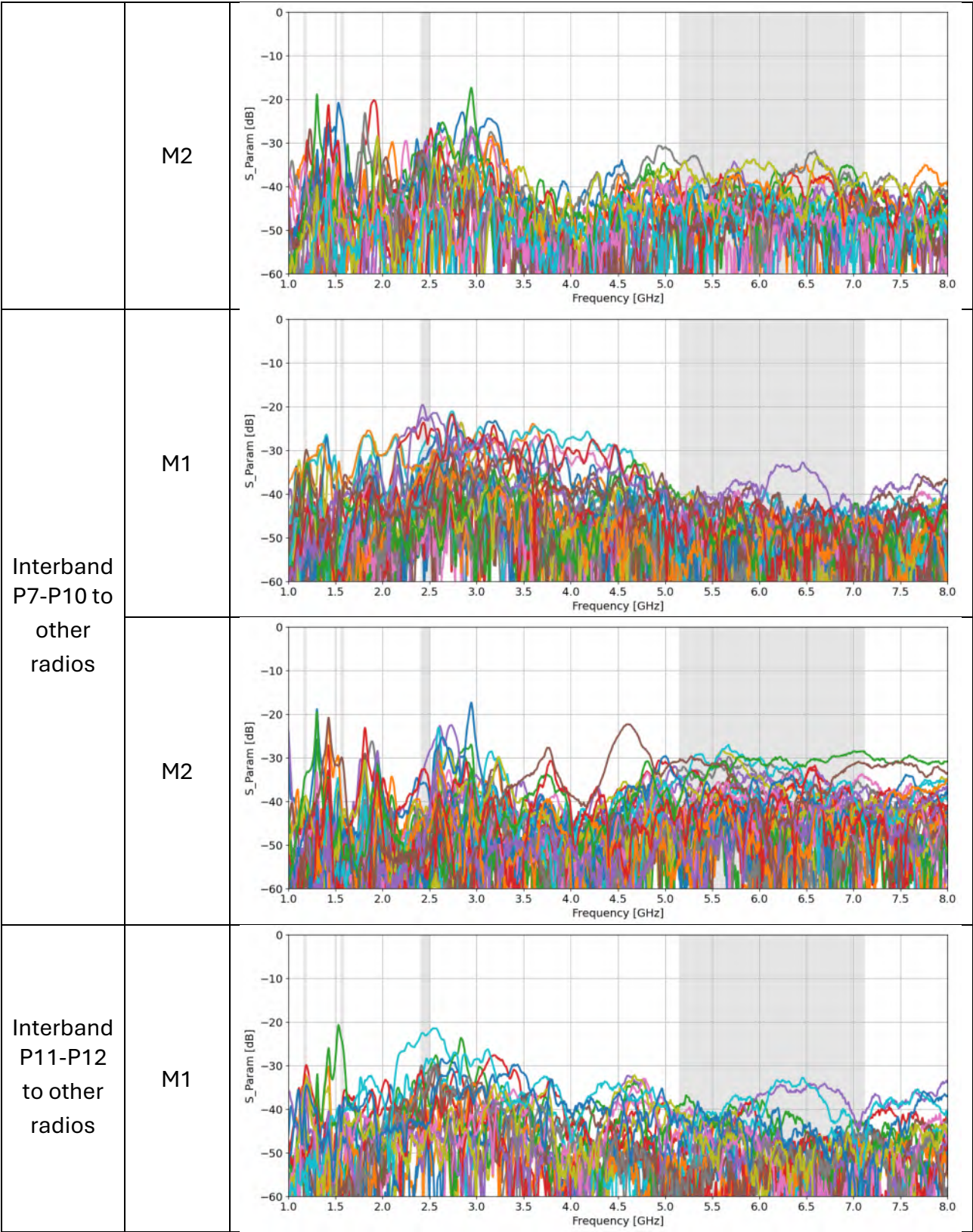


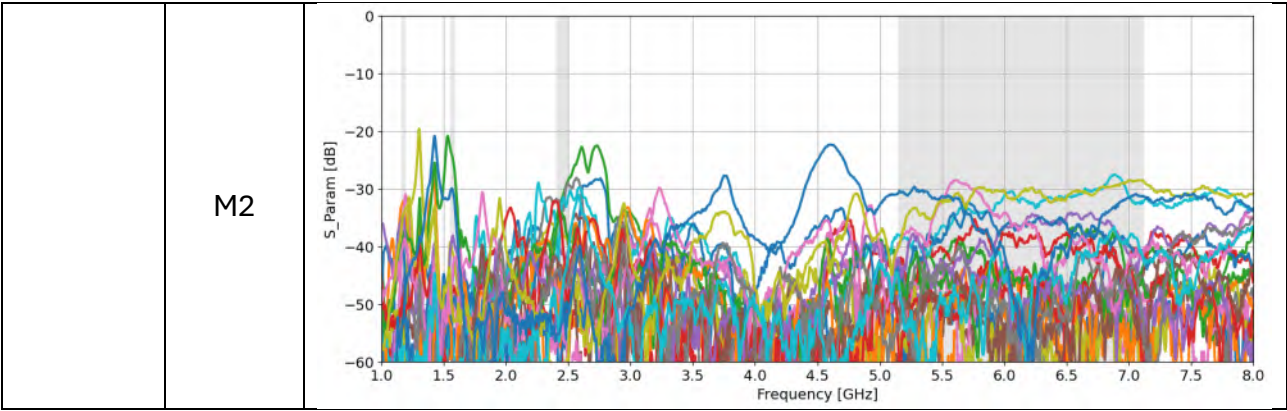


4.4 Isolation

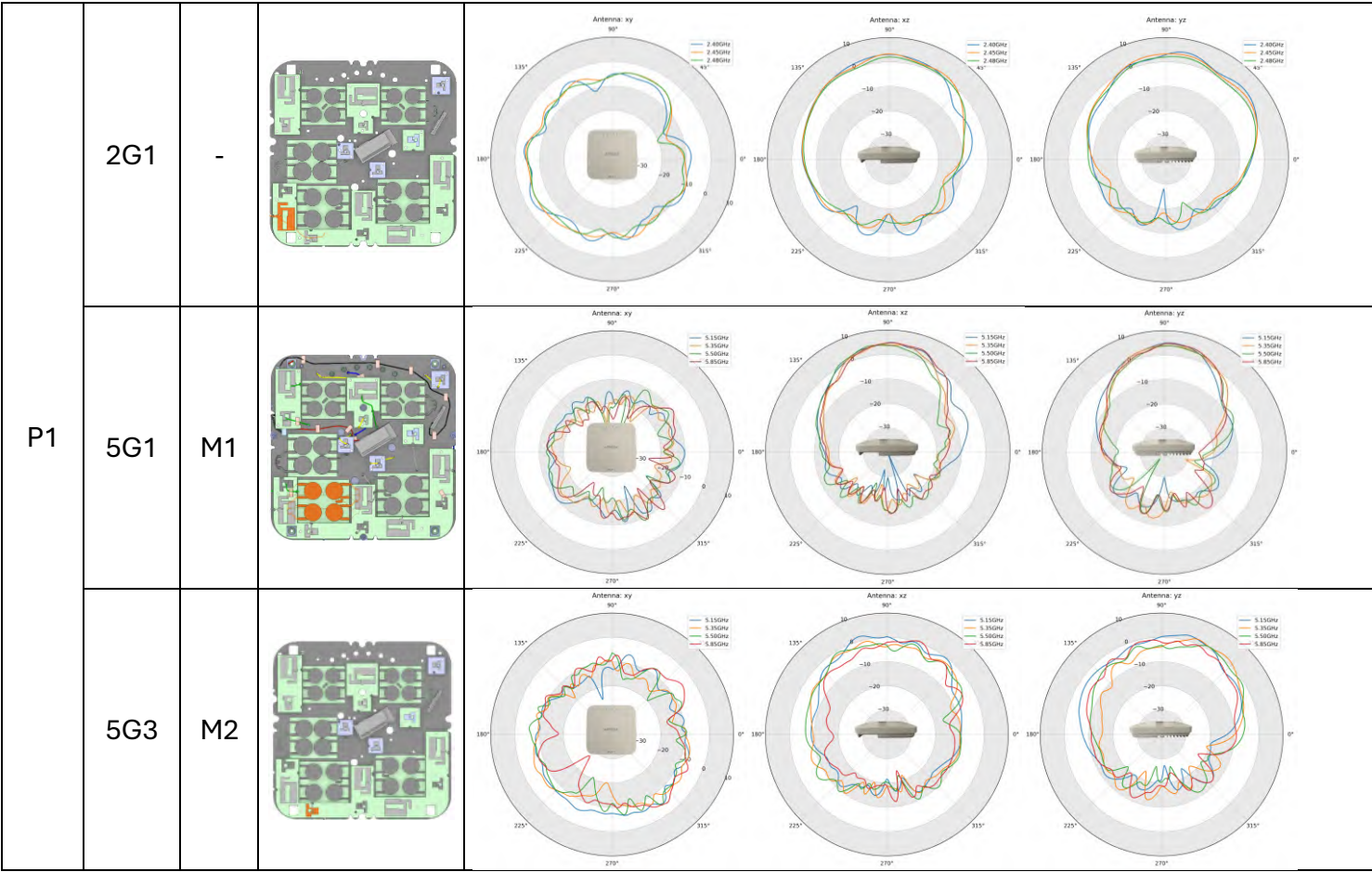


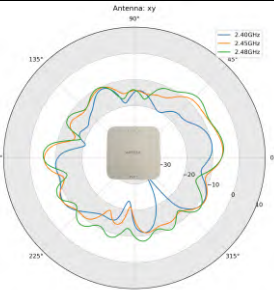
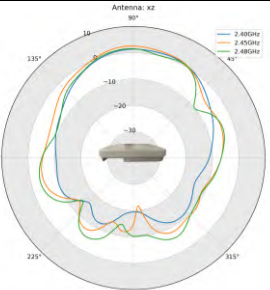
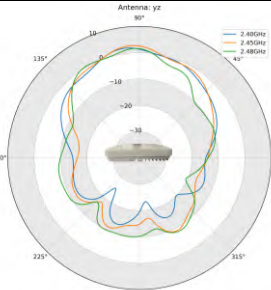
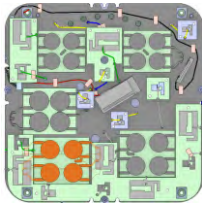
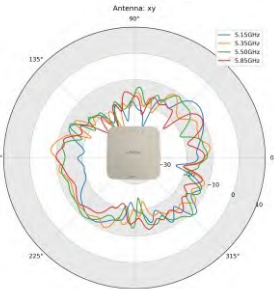
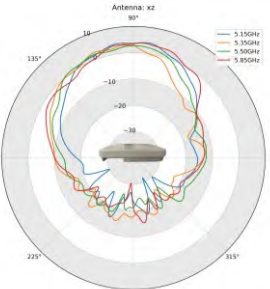
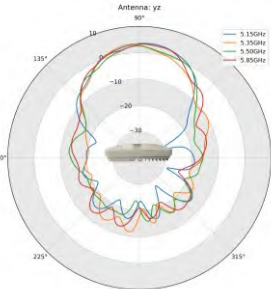
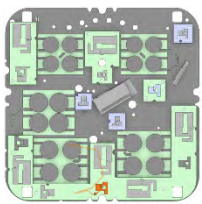
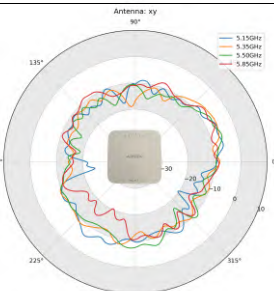
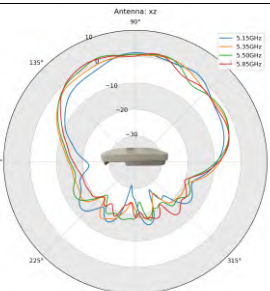
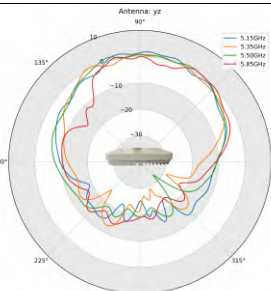
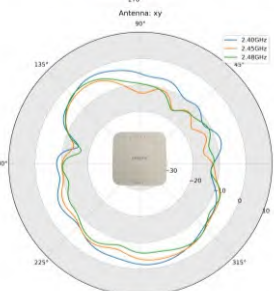
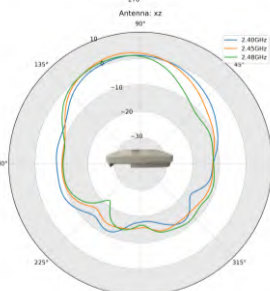
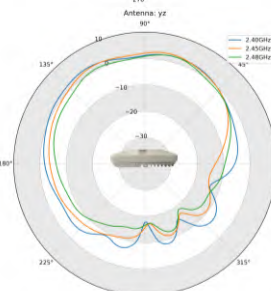
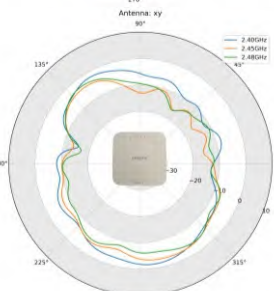
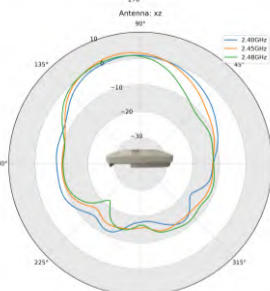
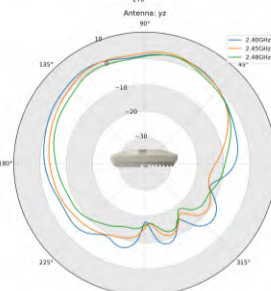
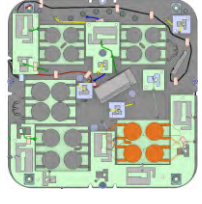
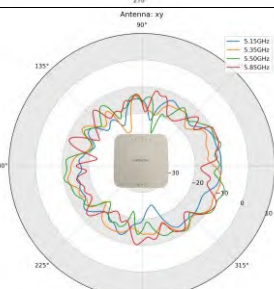
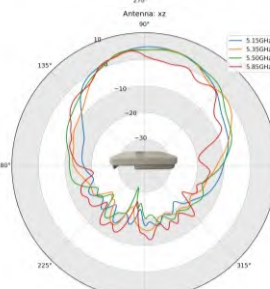
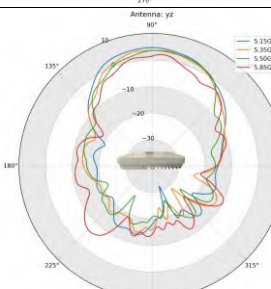


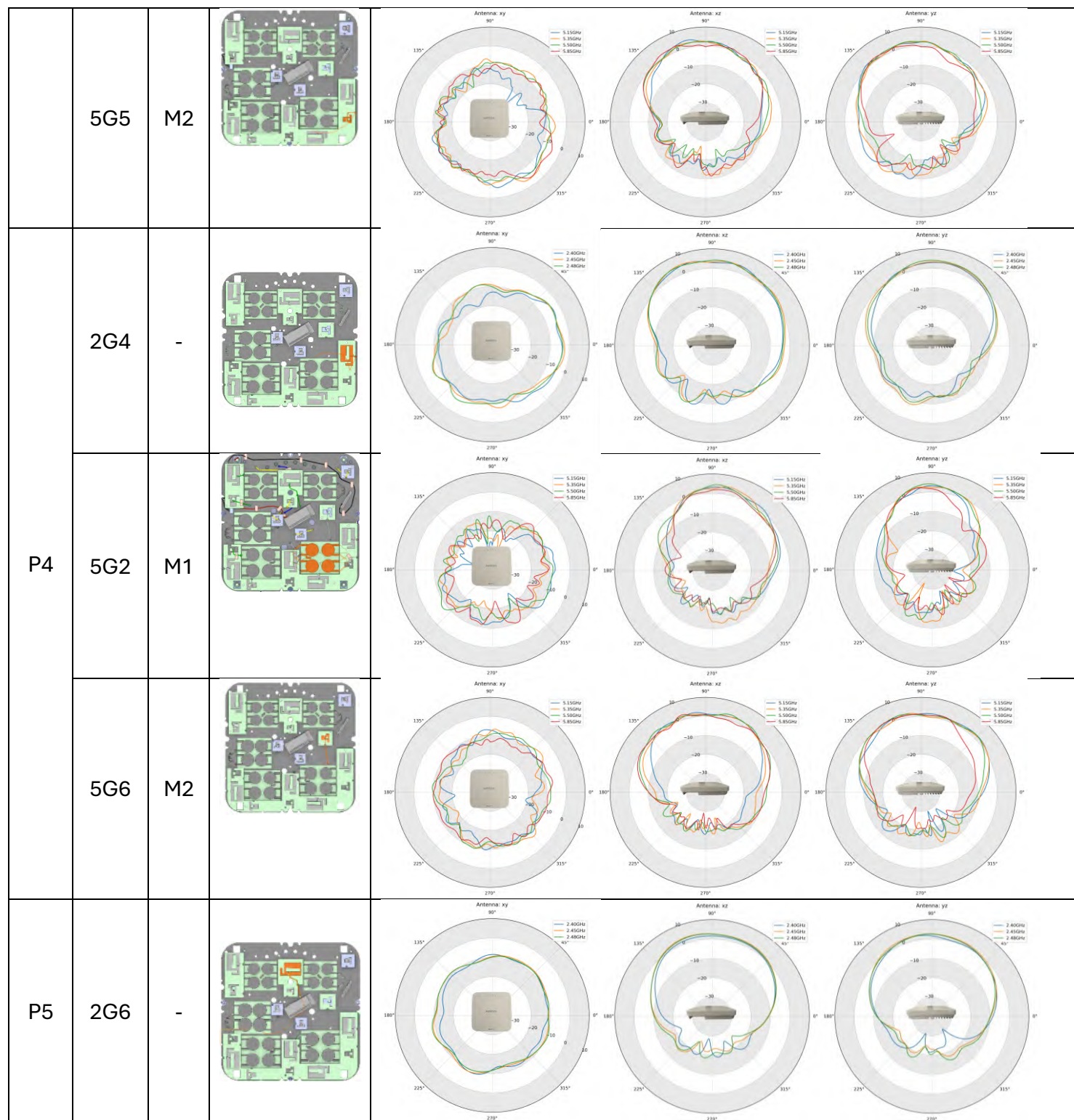


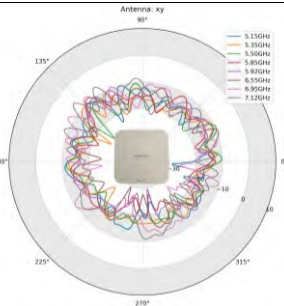
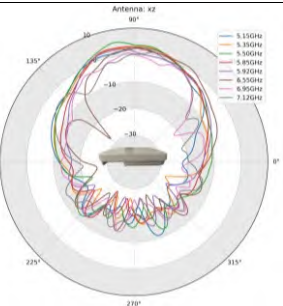
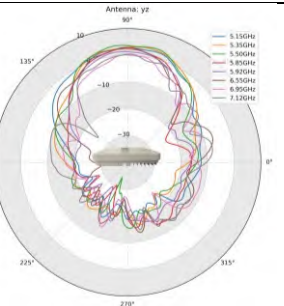
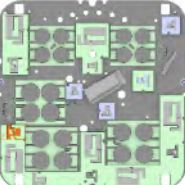
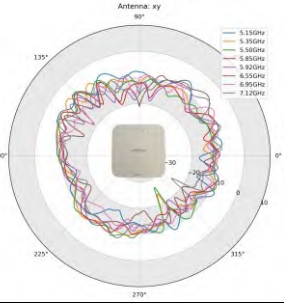
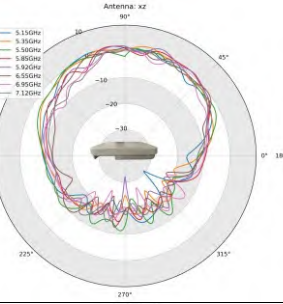
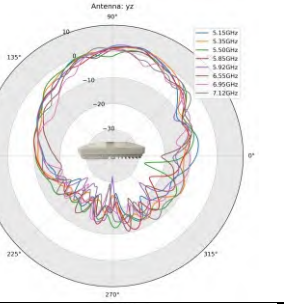
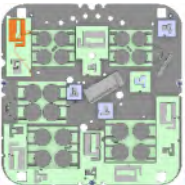
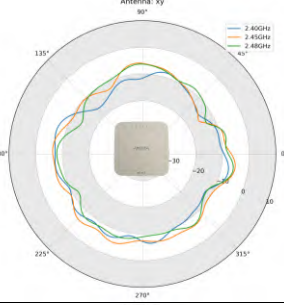
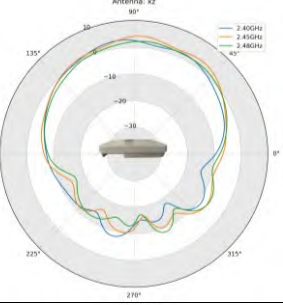
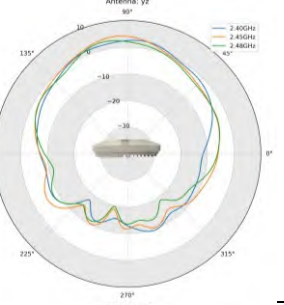
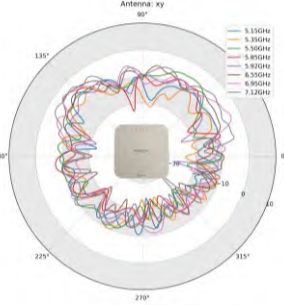
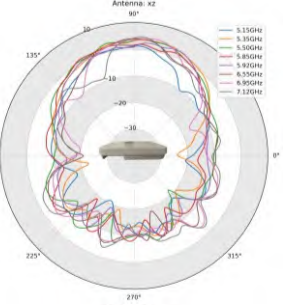
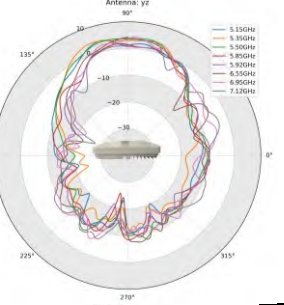
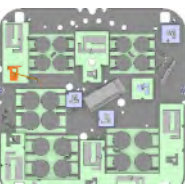
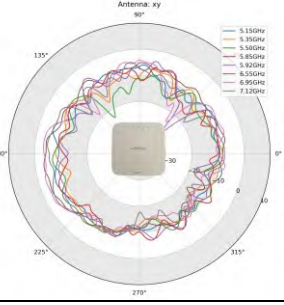
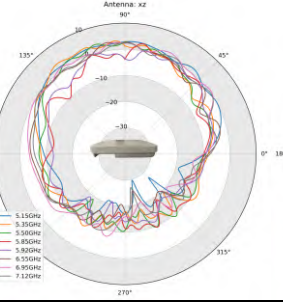
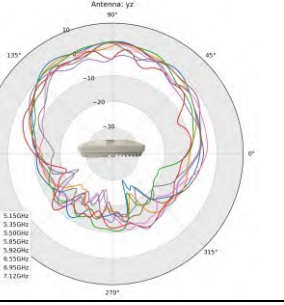


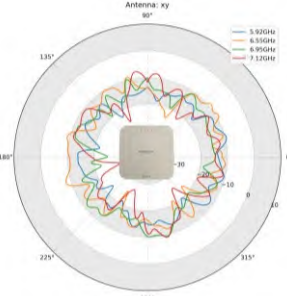
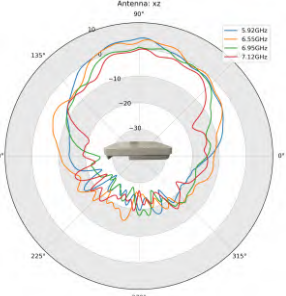
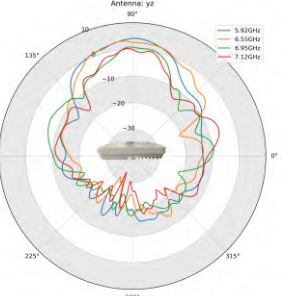
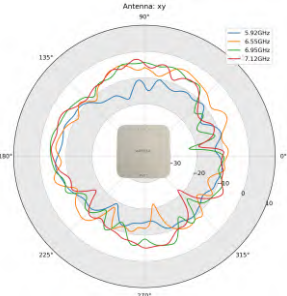
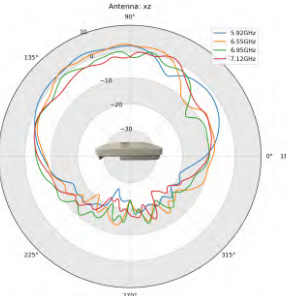
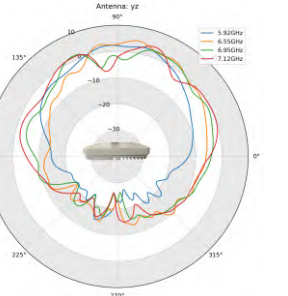
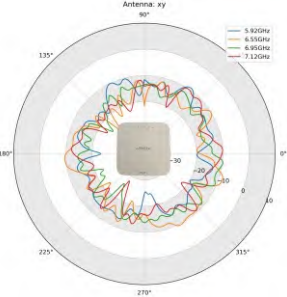
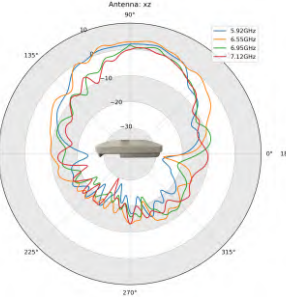
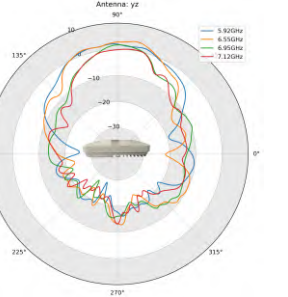
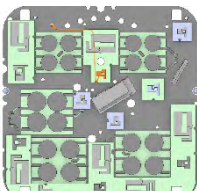
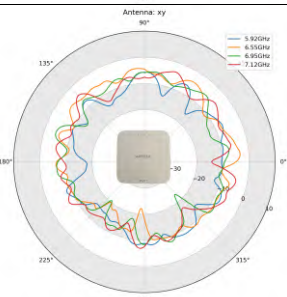
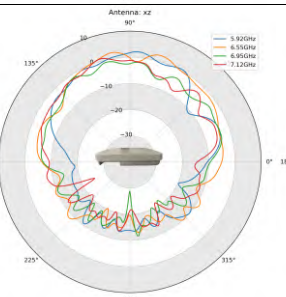
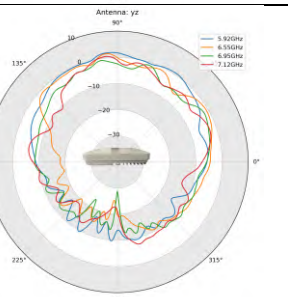
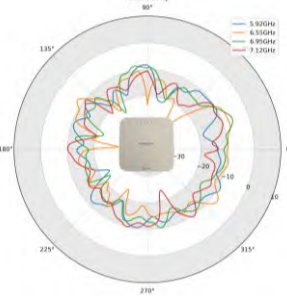
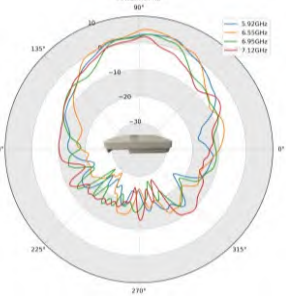
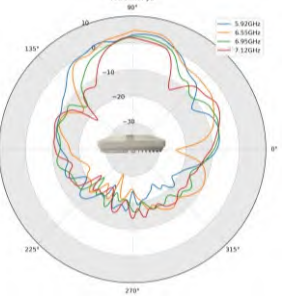
4.5 Antenna Patterns (Aggregated)



|    |     |    |                                                                                     |                                                                                                                                                                                                                                                                |
|----|-----|----|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P2 | 2G2 | -  |    |          |
|    | 5G1 | M1 |    |          |
|    | 5G4 | M2 |   |       |
|    | 2G3 | -  |  |    |
| P3 | 2G3 | -  |  |    |
|    | 5G2 | M1 |  |    |



|    |     |    |                                                                                     |                                                                                                                                                                                                                                                                |
|----|-----|----|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | DB1 | M1 |    |          |
|    | DB3 | M2 |    |          |
| P6 | 2G5 | -  |   |       |
|    | DB1 | M1 |  |    |
|    | DB2 | M2 |  |    |

|    |     |    |                                                                                     |                                                                                                                                                                                                                                                                |
|----|-----|----|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P7 | 6G1 | M1 |    |          |
|    | 6G3 | M2 |    |          |
| P8 | 6G1 | M1 |   |       |
|    | 6G4 | M2 |  |    |
| P9 | 6G2 | M1 |  |    |

