# **Antenna Reports**

Main Antenna vendor: Speed Communication Tech Co.,Ltd.

Diversity antenna vendor: Innowave Tech Co., Ltd.

Test lab: GTS Rayzonel 1800

Test instrument: Keysight E5071C

Calibration time: 2022/7/22

Antenna model name: FPC

Issue date: 2022/10/27

## Peak Gain

#### ANT0

Antenna model name: FPC

# Antenna type: Fixed Internal Antenna

| BAND               | Peak Gain(dBi) |
|--------------------|----------------|
| GSM 850 824-894    | -4.3           |
| GSM 900 880-960    | -4.3           |
| GSM 1800 1710-1880 | -0.3           |
| GSM 1900 1850-1990 | -0.3           |

|          | BAND      | Peak Gain(dBi) |
|----------|-----------|----------------|
| WCDMA B1 | 1920-2170 | -0.3           |
| WCDMA B2 | 1850-1990 | -0.3           |
| WCDMA B4 | 1710-2155 | -0.3           |
| WCDMA B5 | 824-894   | -4.3           |
| WCDMA B8 | 880-960   | -4.3           |

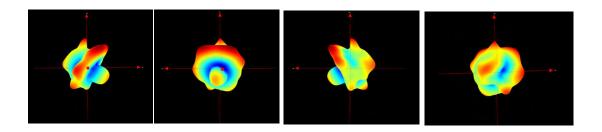
|         | LTE BAND  | Peak Gain(dBi) |
|---------|-----------|----------------|
| LTE B1  | 1920-2170 | -0.3           |
| LTE B2  | 1850-1990 | -0.3           |
| LTE B3  | 1710-1880 | -0.3           |
| LTE B4  | 1710-2155 | -0.4           |
| LTE B5  | 824-894   | -4.3           |
| LTE B8  | 880-960   | -4.3           |
| LTE B12 | 699-746   | -5.7           |
| LTE B13 | 746-787   | -5.8           |
| LTE B14 | 758-798   | -5.8           |
| LTE B17 | 704-746   | -5.8           |
| LTE B20 | 791-862   | -5.5           |
| LTE B25 | 1850-1995 | -0.3           |
| LTE B26 | 814-894   | -3.6           |
| LTE B39 | 1880-1920 | 0.1            |
| LTE B66 | 1710-2000 | -0.4           |
| LTE B71 | 617-698   | -5.8           |

|     | NR FR1 BAND | Peak Gain(dBi) |
|-----|-------------|----------------|
| N2  | 1850-1990   | -0.3           |
| N5  | 824-894     | -4.3           |
| N12 | 699-746     | -5.7           |
| N14 | 758-798     | -5.8           |
| N25 | 1850-1995   | -0.3           |
| N26 | 814-894     | -3.6           |
| N29 | 717-728     | -3.3           |
| N66 | 1710-2200   | -0.4           |
| N70 | 1695-2020   | -0.5           |
| N71 | 617-698     | -5.8           |

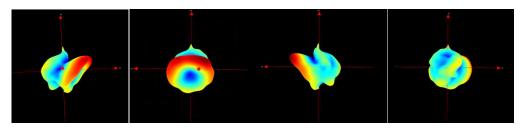
Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document

# (Right view – Rear view – Left view – Front view)

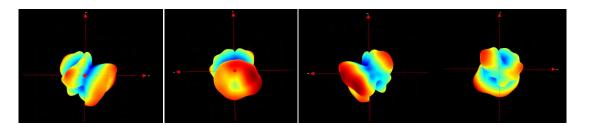
WCDMA B1/LTE B1



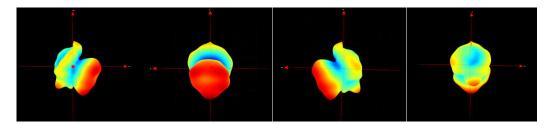
GSM1900/WCDMA B2/LTE B2/LTE B39/NR N2



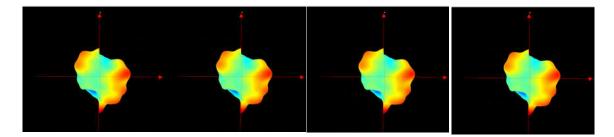
GSM1800/LTE B3



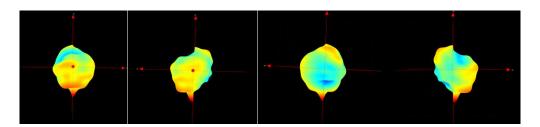
WCDMA B4/LTE B4/LTE B66/NR N66



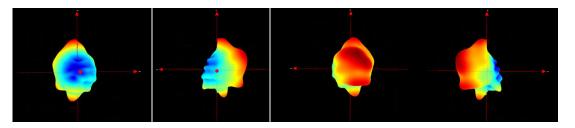
GSM850/WCDMA B5/LTE B5/ NR N5



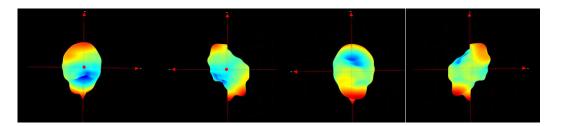
# GSM900/WCDMA B8/LTE B8



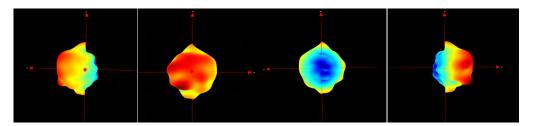
LTE B12/ NR N12



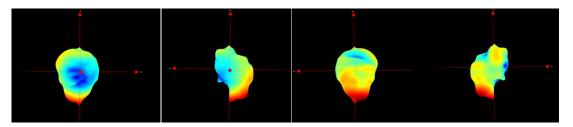
LTE B13



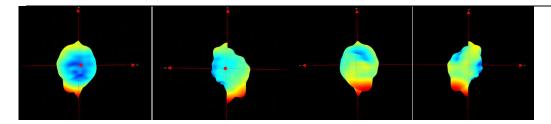
LTE B14/NR N14



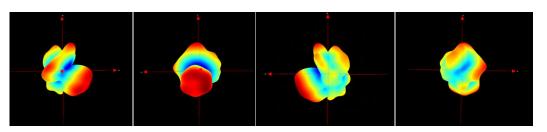
LTE B17



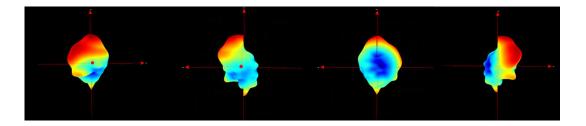
LTE B20



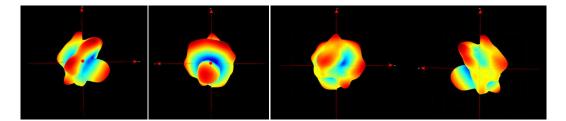
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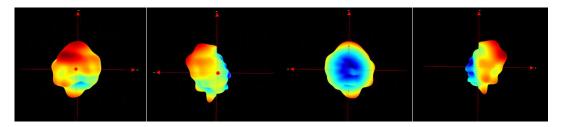
# LTE B26/ NR N26



NR N70



# LTE B71/NR N71



Antenna model name: FPC

## Antenna type: Fixed Internal Antenna

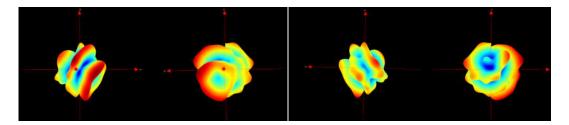
|         | LTE BAND  | Peak Gain(dBi) |
|---------|-----------|----------------|
| LTE B7  | 2500-2700 | 0.1            |
| LTE B30 | 2305-2360 | 0.2            |
| LTE B38 | 2570-2620 | -0.1           |
| LTE B40 | 2300-2400 | 0.3            |
| LTE B41 | 2496-2690 | 0.1            |

|     | NR FR1 BAND | Peak Gain(dBi) |
|-----|-------------|----------------|
| N7  | 2500-2690   | 0.1            |
| N30 | 2305-2360   | 0.2            |
| N41 | 2496-2690   | 0.1            |
| N77 | 3300-4200   | -2.2           |
| N78 | 3300-3800   | -2.2           |

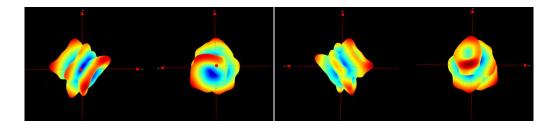
Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document

(Right view – Rear view – Left view – Front view)

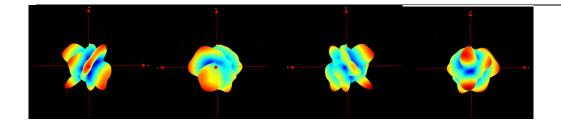
## LTE B7/ NR N7



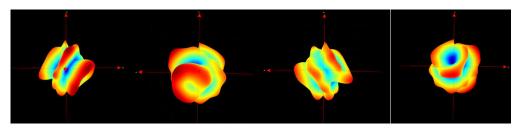
## LTE B30/NR N30



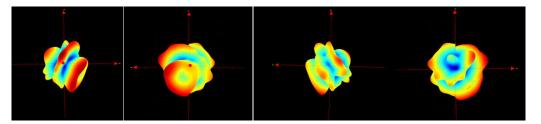
#### LTE B38



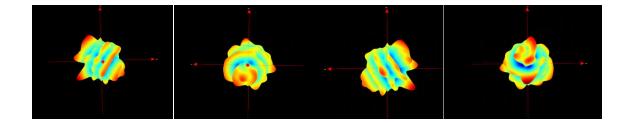
## LTE B40



# LTE B41/NR N41



NR N77/NR N78



Antenna model name: FPC

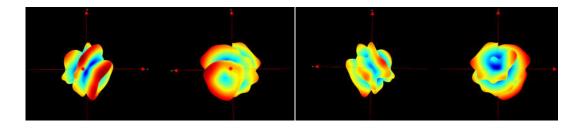
# Antenna type: Fixed Internal Antenna

| NR FR1 BAND | Peak Gain(dBi) |
|-------------|----------------|
| N41         | -1.8           |
| N77         | -3.1           |
| N78         | -3.1           |

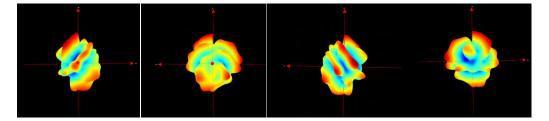
Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document

(Right view – Rear view – Left view – Front view)

## LTE B41/NR N41



#### NR N77



Antenna model name: FPC

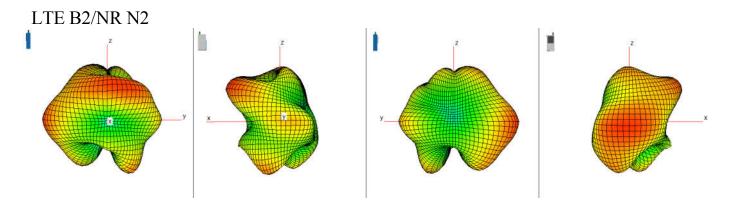
## Antenna type: Fixed Internal Antenna

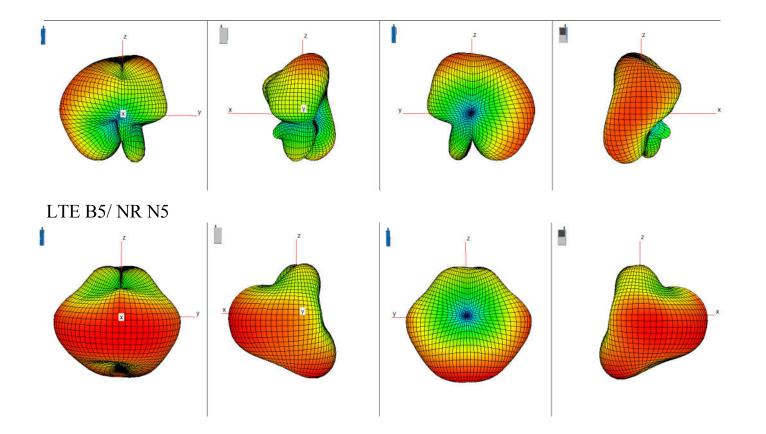
| LTE BAND | Peak Gain(dBi) |
|----------|----------------|
| LTE B2   | -0.8           |
| LTE B4   | -0.6           |
| LTE B5   | -5.7           |
| LTE B7   | -0.2           |
| LTE B12  | -5.9           |
| LTE B13  | -6             |
| LTE B14  | -6             |
| LTE B25  | -0.7           |
| LTE B26  | -5.7           |
| LTE B30  | -0.2           |
| LTE B66  | -0.6           |
| LTE B71  | -6             |

| NR FR1 BAND | Peak Gain(dBi) |
|-------------|----------------|
| N2          | -0.8           |
| N5          | -5.7           |
| N7          | -0.2           |
| N12         | -5.9           |
| N25         | -0.7           |
| N26         | -5.7           |
| N30         | -0.2           |
| N41         | -1.2           |
| N66         | -0.6           |
| N71         | -6             |

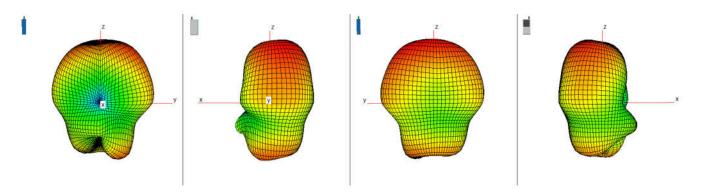
Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document

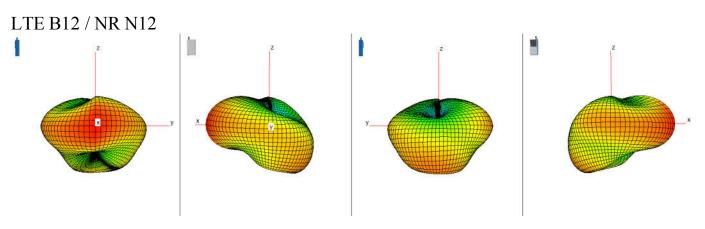
(Right view – Rear view – Left view – Front view)



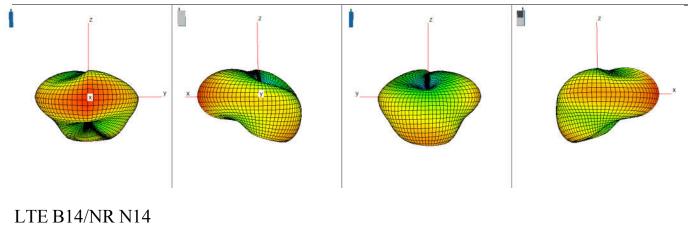


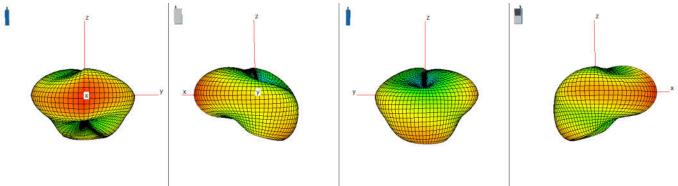
LTE B7 / NR N7 41

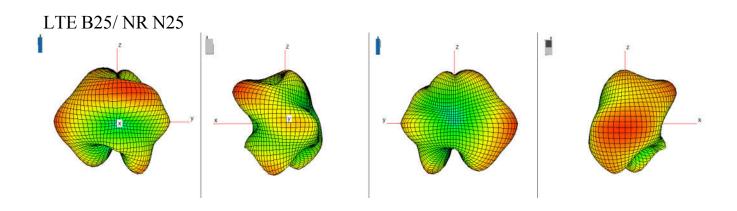


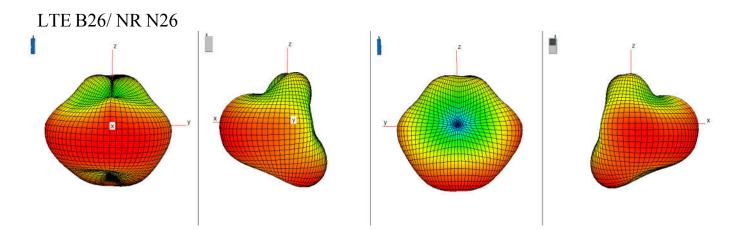


LTE B13

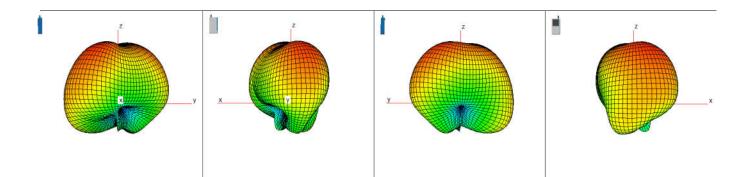


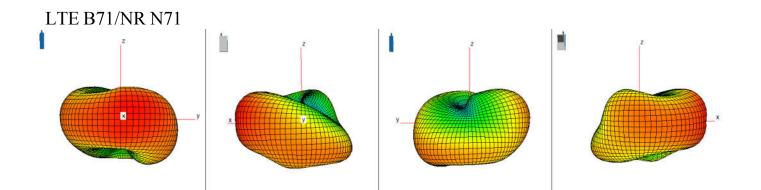






LTE B30/ NR N30





Antenna model name: FPC

# Antenna type:Fixed Internal Antenna

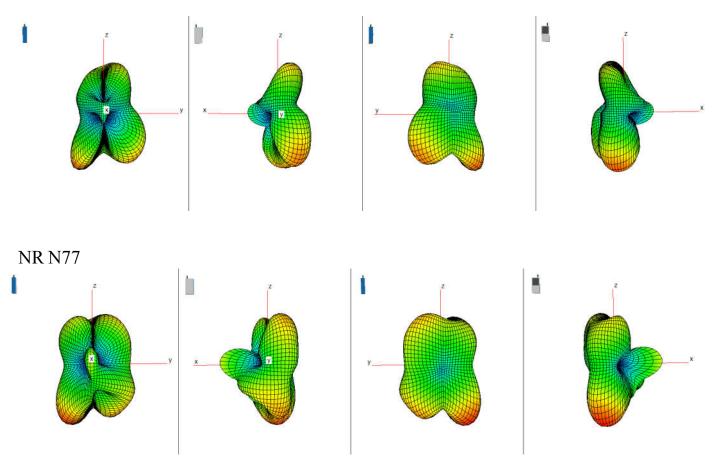
| LTE BAND | Peak Gain(dBi) |
|----------|----------------|
| LTE B48  | -2.4           |

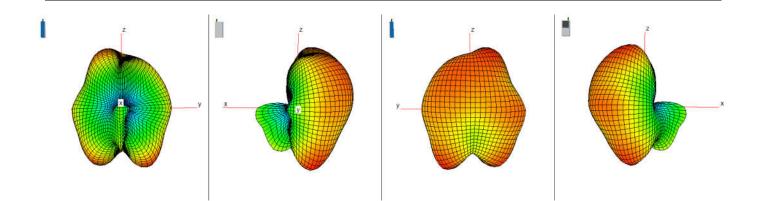
| NR FR1 BAND | Peak Gain(dBi) |
|-------------|----------------|
| N48         | -2.4           |
| N77         | -2.5           |
| N78         | -2.5           |

Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document

# (Right view – Rear view – Left view – Front view)

## LTE B48/ NR N48





Antenna model name: FPC

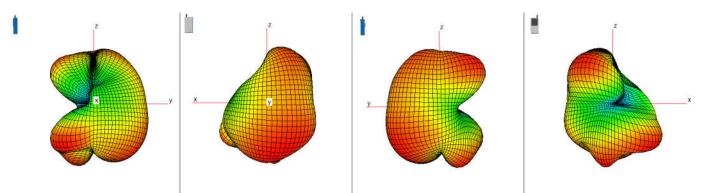
# Antenna type: Fixed Internal Antenna

| NR FR1 BAND | Peak Gain(dBi) |
|-------------|----------------|
| N41         | -2.5           |

Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document

(Right view - Rear view - Left view - Front view)

NR N41



Antenna model name:FPC

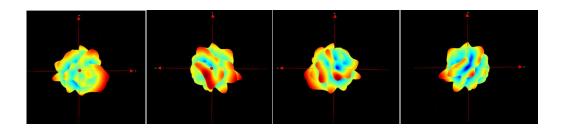
# Antenna type: Fixed Internal Antenna

| NR FR1 BAND | Peak Gain(dBi) |  |
|-------------|----------------|--|
| N77         | -2.9           |  |
| N78         | -2.9           |  |

Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document

(Right view – Rear view – Left view – Front view)

NR N77/78

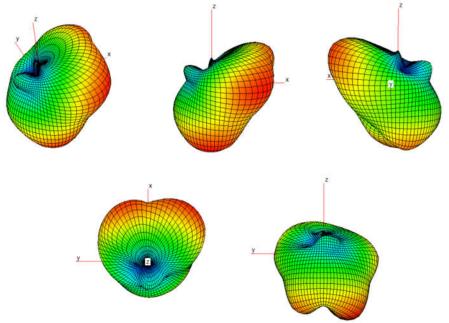


## Antenna model name: FPC

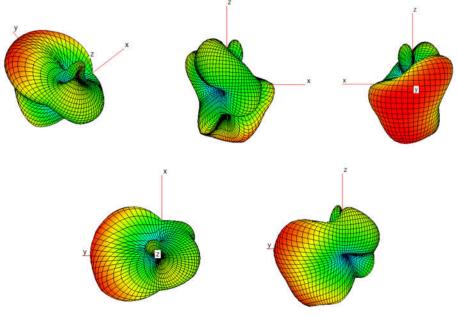
Antenna type: IFA Antenna

| BT/WLAN CH0 Peak Gain (dBi) |          |              |          |
|-----------------------------|----------|--------------|----------|
| 2400~2483.5MHz              | -3.1 dBi | 5470~5725MHz | -5.2 dBi |
| 5150~5250MHz                | -5.5 dBi | 5725~5850MHz | -5.3 dBi |
| 5250~5350MHz                | -5.8 dBi |              |          |

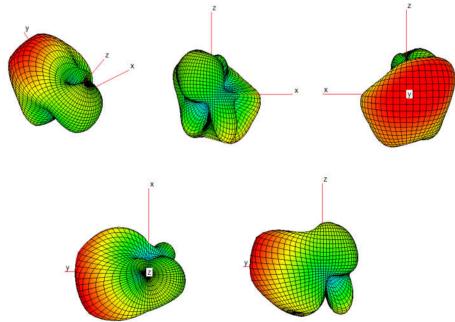
#### ANT8- WiFI 2.4G CH0



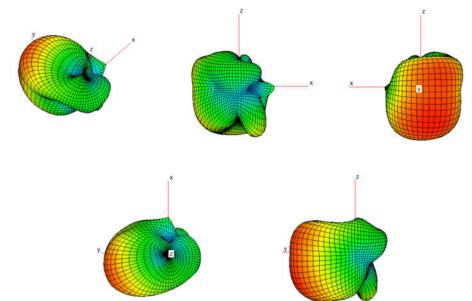
ANT8-WIFI 5G CH1 5200MHz



#### ANT8-WIFI 5G CH1 5300MHz



#### ANT8-WIFI 5G CH1 5500MHz



#### ANT8-WIFI 5G CH1 5800MHz

