

# SPECIFICATION

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## UNIMAX

### 2AUOUC6 Antenna

#### Product approval sheet

|          |                       |        |                                                                                                |
|----------|-----------------------|--------|------------------------------------------------------------------------------------------------|
| Customer | Rhino<br>Mobility LLC | Band   | LTE Band<br>2/4/5/7/12/13/14/17/18/19/25/26/<br>29/30/41/66/71<br>WCDMA B2/4/5<br>GSM 850/1900 |
| FCC ID   | 2AUOUC6               | Colour | Black                                                                                          |

Customer check:

Reach requirement of customer: ☒OK    ☐NG

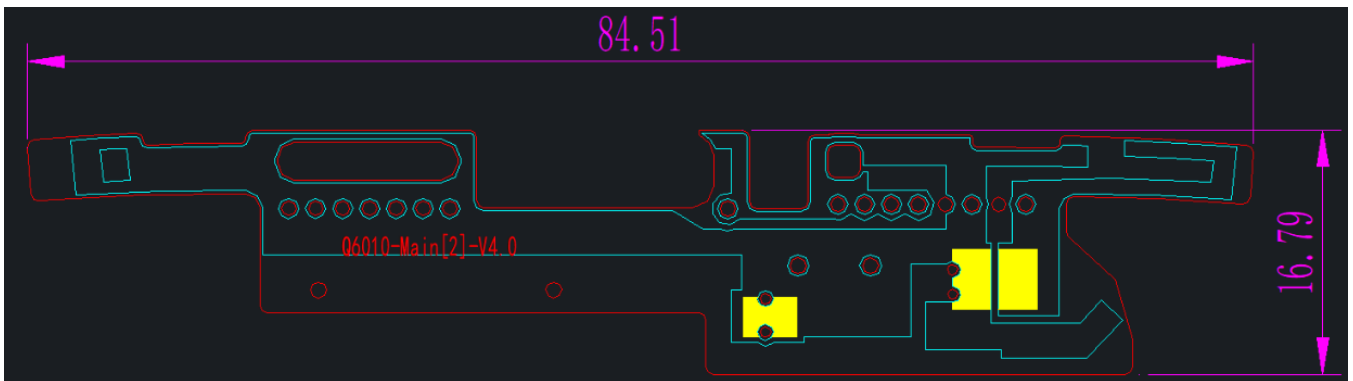
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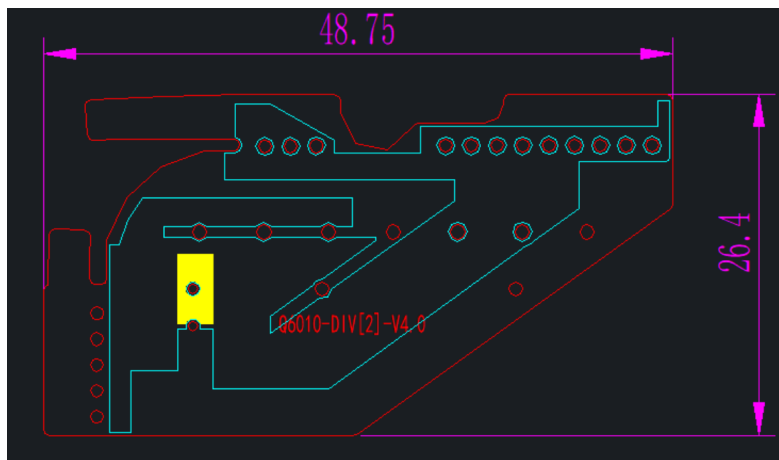
## 1 General description

### 1.1 Antenna appearing diagram

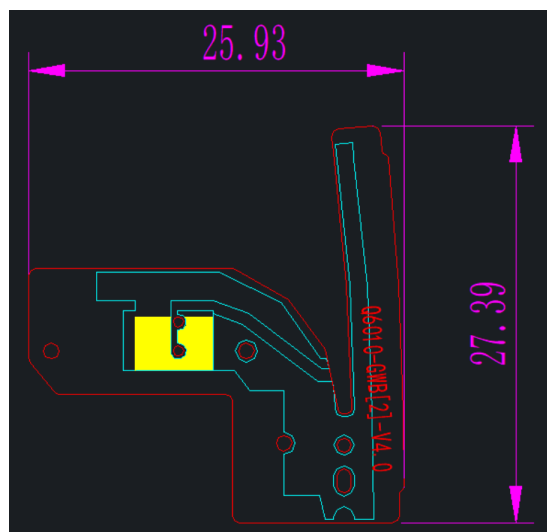
ANT0



ANT1

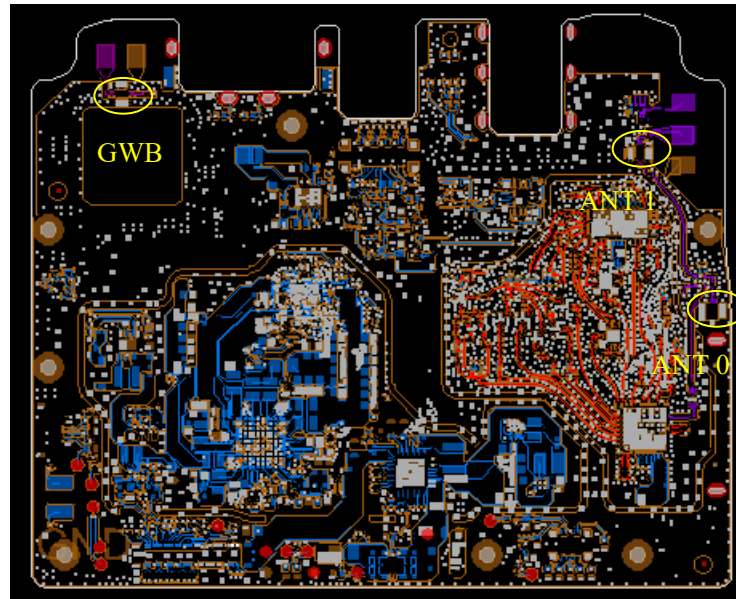


GWB



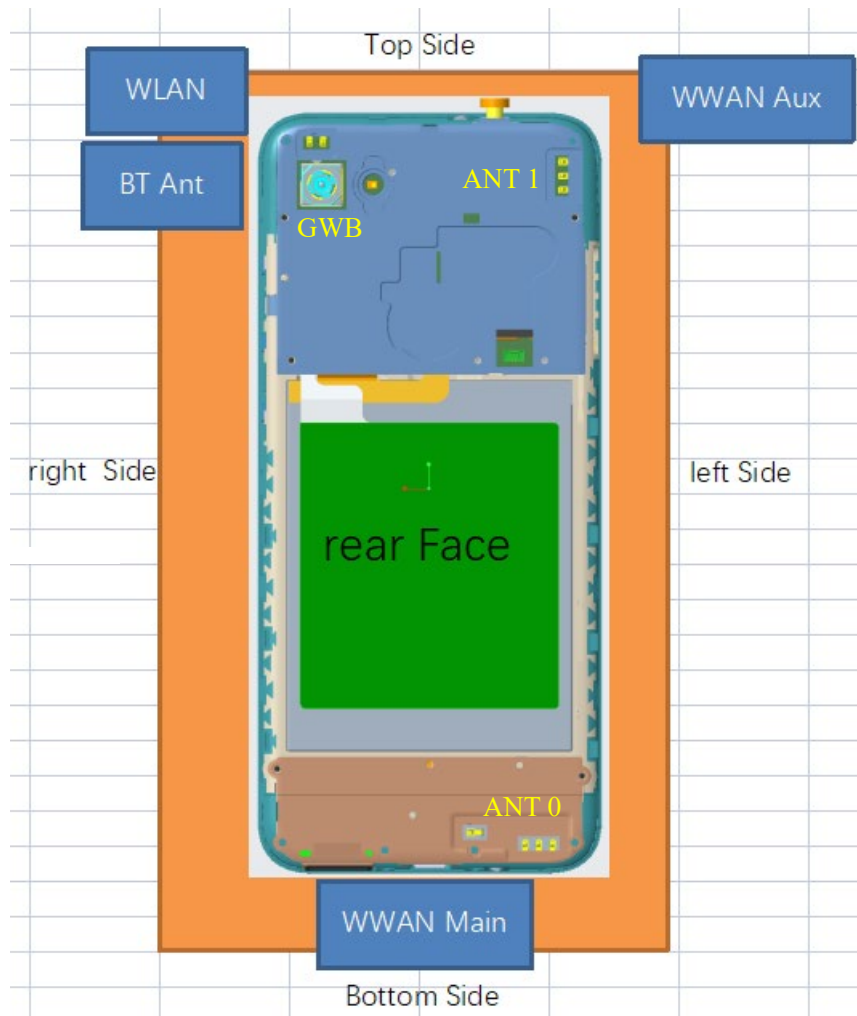


### 1.3 Antenna PORT



|       | LTE                                                                       | WCDMA           | GSM                              | GPS | WiFi                 | BT |
|-------|---------------------------------------------------------------------------|-----------------|----------------------------------|-----|----------------------|----|
| ANT 0 | Band<br>1/2/3/4/5/7/12/13/14/17/<br>18/19/20/25/26/29/30/41/<br>66/71 TRX | Band<br>1/2/4/5 | GSM<br>850/900/<br>1800/<br>1900 |     |                      |    |
| ANT 1 | Band<br>1/2/3/4/5/7/12/13/14/17/<br>18/19/20/25/26/29/30/41/<br>66/71 DRX |                 |                                  |     |                      |    |
| GWB   |                                                                           |                 |                                  | L1  | 2.4G WiFi<br>5G WiFi | BT |

## 1.4 Antenna location



| Antenna Location  | Support Function     | Top Side(mm) | Bottom Side(mm) | Left Side(mm) | Right Side(mm) |
|-------------------|----------------------|--------------|-----------------|---------------|----------------|
| WWAN Main Antenna | TX/RX                | 147.3        | 1.1             | 1.1           | 1.1            |
| WWAN Aux Antenna  | DRX                  | 1.1          | 141.2           | 1.1           | 38.3           |
| WLAN Main Antenna | TX/RX                | 1.1          | 140.7           | 47.6          | 1.1            |
| BT Antenna        | follow WLAN Main ANT |              |                 |               |                |

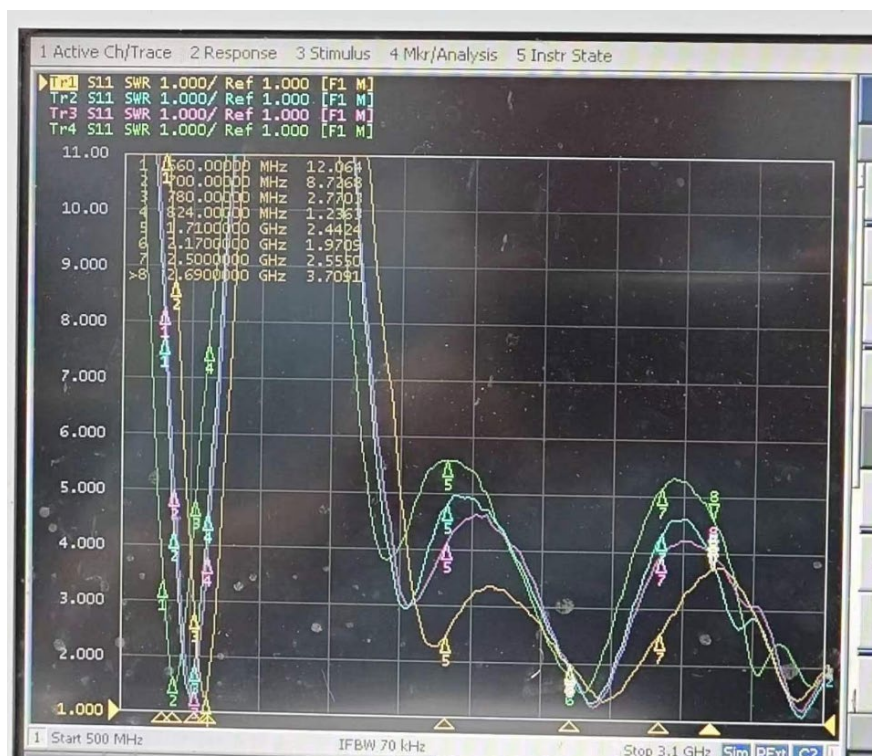
## 2 Electrical performance

### 2.1 VSWR

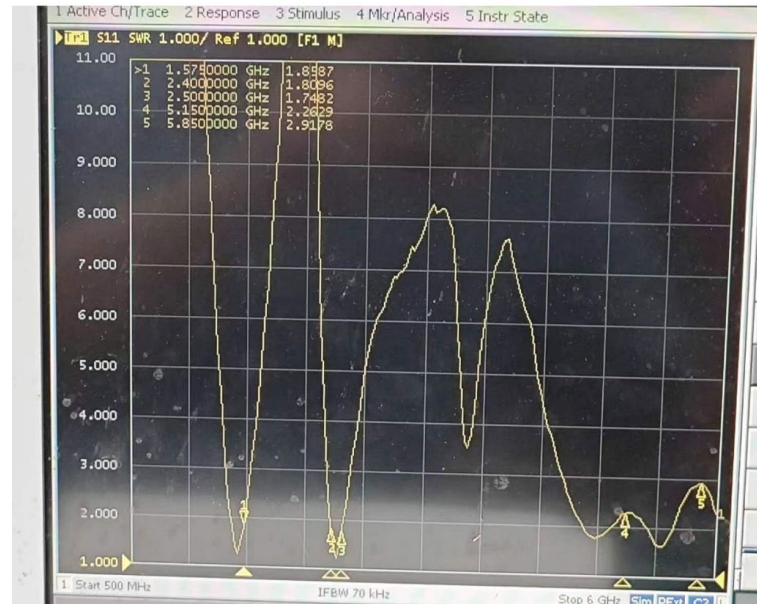
#### ANT0



#### ANT1



## GWB





## 2.2 Efficiency &amp; Gain

## ANT0

## B5

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 780        | 22.63    | -6.45     | -3.66      |
| 790        | 27.27    | -5.64     | -3         |
| 800        | 36.65    | -4.36     | -1.8       |
| 810        | 35.34    | -4.52     | -2.02      |
| 820        | 34.66    | -4.6      | -2.09      |
| 830        | 32.01    | -4.95     | -2.2       |
| 840        | 30.23    | -5.2      | -2.2       |
| 850        | 28.19    | -5.5      | -2.23      |
| 860        | 27.48    | -5.61     | -2.45      |
| 870        | 25.92    | -5.86     | -2.61      |
| 880        | 25.65    | -5.91     | -2.59      |
| 890        | 24.2     | -6.16     | -2.61      |
| 900        | 23.78    | -6.24     | -2.58      |

## B12

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 700        | 17.02    | -7.69     | -4.14      |
| 710        | 22.54    | -6.47     | -2.55      |
| 720        | 24.83    | -6.05     | -2.08      |
| 730        | 27.1     | -5.67     | -1.71      |
| 740        | 29.63    | -5.28     | -1.42      |
| 750        | 32.89    | -4.83     | -1         |
| 760        | 34.42    | -4.63     | -1.01      |
| 770        | 27.55    | -5.6      | -2.08      |
| 780        | 24.93    | -6.03     | -2.78      |
| 790        | 26.72    | -5.73     | -2.64      |
| 800        | 31.6     | -5        | -2.12      |
| 810        | 28.99    | -5.38     | -2.66      |
| 820        | 26.14    | -5.83     | -3.22      |

## B13

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 720        | 21.17    | -6.74     | -2.93      |
| 730        | 23.11    | -6.36     | -2.49      |
| 740        | 26.43    | -5.78     | -2.01      |
| 750        | 29.48    | -5.3      | -1.59      |
| 760        | 32.99    | -4.82     | -1.33      |
| 770        | 28.49    | -5.45     | -2.08      |
| 780        | 28       | -5.53     | -2.42      |
| 790        | 30.68    | -5.13     | -2.17      |
| 800        | 37.4     | -4.27     | -1.6       |
| 810        | 34.78    | -4.59     | -2         |
| 820        | 31.84    | -4.97     | -2.37      |
| 830        | 27.01    | -5.68     | -2.79      |
| 840        | 24.45    | -6.12     | -2.93      |
| 850        | 21.88    | -6.6      | -3.07      |

## B71

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 600        | 5.07     | -12.95    | -11.45     |
| 610        | 6.26     | -12.04    | -10.28     |
| 620        | 8.57     | -10.67    | -8.49      |
| 630        | 12.1     | -9.17     | -6.6       |
| 640        | 15.09    | -8.21     | -5.35      |
| 650        | 16.98    | -7.7      | -4.68      |
| 660        | 19.53    | -7.09     | -4.03      |
| 670        | 20.68    | -6.84     | -3.76      |
| 680        | 19.49    | -7.1      | -4.49      |
| 690        | 18.93    | -7.23     | -4.21      |
| 700        | 18.96    | -7.22     | -3.65      |
| 710        | 24.75    | -6.06     | -2.3       |
| 720        | 24.84    | -6.05     | -2.38      |
| 730        | 25.7     | -5.9      | -2.19      |
| 740        | 26.85    | -5.71     | -2.11      |
| 750        | 28.8     | -5.41     | -1.79      |
| 760        | 29.03    | -5.37     | -1.93      |
| 770        | 22.42    | -6.49     | -3.13      |
| 780        | 19.79    | -7.04     | -3.86      |
| 790        | 21.1     | -6.76     | -3.69      |
| 800        | 24.64    | -6.08     | -3.13      |
| 810        | 21.99    | -6.58     | -3.67      |

Confidential Information

ANT0 1710~2690MHz

| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|---------------|-------------|--------------|---------------|
| 1690          | 27.42       | -5.62        | -1.89         | 2210          | 26.51       | -5.77        | 0.21          |
| 1700          | 27.17       | -5.66        | -1.64         | 2220          | 25.42       | -5.95        | 0.08          |
| 1710          | 26.72       | -5.73        | -1.57         | 2230          | 23.57       | -6.28        | -0.31         |
| 1720          | 26.36       | -5.79        | -1.4          | 2240          | 22.25       | -6.53        | -0.53         |
| 1730          | 25.74       | -5.89        | -1.41         | 2250          | 21.39       | -6.7         | -0.74         |
| 1740          | 24.48       | -6.11        | -1.51         | 2260          | 19.89       | -7.01        | -1.11         |
| 1750          | 24.19       | -6.16        | -1.46         | 2270          | 19.58       | -7.08        | -1.25         |
| 1760          | 24.39       | -6.13        | -1.33         | 2280          | 18.52       | -7.32        | -1.66         |
| 1770          | 23.1        | -6.36        | -1.49         | 2290          | 17.22       | -7.64        | -2.11         |
| 1780          | 23.49       | -6.29        | -1.37         | 2300          | 16.93       | -7.71        | -2.33         |
| 1790          | 23.03       | -6.38        | -1.49         | 2310          | 16.56       | -7.81        | -2.59         |
| 1800          | 22.45       | -6.49        | -1.34         | 2320          | 17.17       | -7.65        | -2.53         |
| 1810          | 22.39       | -6.5         | -1.04         | 2330          | 18.88       | -7.24        | -2.33         |
| 1820          | 22.33       | -6.51        | -0.79         | 2340          | 20.45       | -6.89        | -2.19         |
| 1830          | 22.19       | -6.54        | -0.51         | 2350          | 21.07       | -6.76        | -2.07         |
| 1840          | 24.1        | -6.18        | -0.15         | 2360          | 22.83       | -6.41        | -1.86         |
| 1850          | 26.58       | -5.75        | 0.33          | 2370          | 23.42       | -6.3         | -1.71         |
| 1860          | 27.84       | -5.55        | 0.47          | 2380          | 25.83       | -5.88        | -1.35         |
| 1870          | 28.35       | -5.47        | 0.62          | 2390          | 27.95       | -5.54        | -0.96         |
| 1880          | 29.23       | -5.34        | 0.88          | 2400          | 30.01       | -5.23        | -0.71         |
| 1890          | 30.78       | -5.12        | 1.18          | 2410          | 31.09       | -5.07        | -0.54         |
| 1900          | 32.65       | -4.86        | 1.49          | 2420          | 33.37       | -4.77        | -0.37         |
| 1910          | 32.79       | -4.84        | 1.59          | 2430          | 34.93       | -4.57        | -0.23         |
| 1920          | 32.62       | -4.86        | 1.62          | 2440          | 38.32       | -4.17        | 0.03          |
| 1930          | 33.52       | -4.75        | 1.62          | 2450          | 40.94       | -3.88        | 0.29          |
| 1940          | 33.2        | -4.79        | 1.5           | 2460          | 40.39       | -3.94        | 0.26          |
| 1950          | 34.81       | -4.58        | 1.68          | 2470          | 40.25       | -3.95        | 0.27          |
| 1960          | 35.23       | -4.53        | 1.62          | 2480          | 40.85       | -3.89        | 0.4           |
| 1970          | 35.81       | -4.46        | 1.55          | 2490          | 42.18       | -3.75        | 0.53          |
| 1980          | 37.57       | -4.25        | 1.4           | 2500          | 42.99       | -3.67        | 0.85          |
| 1990          | 39          | -4.09        | 1.27          | 2510          | 43.04       | -3.66        | 0.83          |
| 2000          | 40.72       | -3.9         | 1.1           | 2520          | 43.49       | -3.62        | 1.06          |
| 2010          | 41.31       | -3.84        | 0.91          | 2530          | 44.64       | -3.5         | 1.08          |
| 2020          | 40.67       | -3.91        | 0.76          | 2540          | 44.14       | -3.55        | 1             |
| 2030          | 41.68       | -3.8         | 1.03          | 2550          | 45.3        | -3.44        | 0.99          |
| 2040          | 42.69       | -3.7         | 1.26          | 2560          | 46.32       | -3.34        | 1.02          |
| 2050          | 43.64       | -3.6         | 1.49          | 2570          | 47.72       | -3.21        | 1.14          |
| 2060          | 44.11       | -3.55        | 1.64          | 2580          | 46.17       | -3.36        | 0.98          |
| 2070          | 43.45       | -3.62        | 1.63          | 2590          | 46.19       | -3.35        | 1.07          |
| 2080          | 43.17       | -3.65        | 1.63          | 2600          | 48.01       | -3.19        | 1.33          |
| 2090          | 42.57       | -3.71        | 1.67          | 2610          | 48.04       | -3.18        | 1.45          |
| 2100          | 41.76       | -3.79        | 1.64          | 2620          | 45.57       | -3.41        | 1.31          |
| 2110          | 34.8        | -4.58        | 0.95          | 2630          | 45.02       | -3.47        | 1.34          |
| 2120          | 32.85       | -4.84        | 0.77          | 2640          | 46.43       | -3.33        | 1.61          |
| 2130          | 33.2        | -4.79        | 0.94          | 2650          | 46.6        | -3.32        | 1.67          |
| 2140          | 33.16       | -4.79        | 0.99          | 2660          | 47.29       | -3.25        | 1.82          |
| 2150          | 31.09       | -5.07        | 0.76          | 2670          | 47.63       | -3.22        | 1.72          |
| 2160          | 29.65       | -5.28        | 0.57          | 2680          | 47.75       | -3.21        | 1.75          |
| 2170          | 28.43       | -5.46        | 0.4           | 2690          | 45.26       | -3.44        | 1.5           |
| 2180          | 27.49       | -5.61        | 0.31          |               |             |              |               |
| 2190          | 28.43       | -5.46        | 0.45          |               |             |              |               |
| 2200          | 27.64       | -5.58        | 0.42          |               |             |              |               |

**ANT1****B5**

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) | Gain (dBd) |
|------------|----------|-----------|------------|------------|
| 780        | 10.52    | -9.78     | -7.44      | -9.59      |
| 790        | 13.97    | -8.55     | -6.65      | -8.8       |
| 800        | 20.12    | -6.96     | -5.37      | -7.52      |
| 810        | 19.79    | -7.04     | -5.49      | -7.64      |
| 820        | 19.71    | -7.05     | -5.05      | -7.2       |
| 830        | 18.2     | -7.4      | -5.27      | -7.42      |
| 840        | 16.78    | -7.75     | -5.06      | -7.21      |
| 850        | 15.09    | -8.21     | -5.21      | -7.36      |
| 860        | 13.41    | -8.72     | -5.67      | -7.82      |
| 870        | 11.63    | -9.34     | -6.45      | -8.6       |
| 880        | 9.77     | -10.1     | -7.35      | -9.5       |
| 890        | 8.34     | -10.79    | -8.14      | -10.29     |
| 900        | 6.91     | -11.61    | -8.86      | -11.01     |

**B12**

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 700        | 11.69    | -9.32     | -5.79      |
| 710        | 16.74    | -7.76     | -4.11      |
| 720        | 18.13    | -7.41     | -4.05      |
| 730        | 18.83    | -7.25     | -4.03      |
| 740        | 19.63    | -7.07     | -3.94      |
| 750        | 21.67    | -6.64     | -3.76      |
| 760        | 22.03    | -6.57     | -3.89      |
| 770        | 16.54    | -7.81     | -5.03      |
| 780        | 13.55    | -8.68     | -6.11      |
| 790        | 12.97    | -8.87     | -6.38      |
| 800        | 13.45    | -8.71     | -6.34      |

**B13**

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 740        | 13.33    | -8.75     | -5.29      |
| 750        | 16.44    | -7.84     | -4.69      |
| 760        | 20.94    | -6.79     | -3.81      |
| 770        | 19.69    | -7.06     | -4.34      |
| 780        | 20.49    | -6.88     | -4.38      |
| 790        | 21.79    | -6.62     | -4.09      |
| 800        | 25.24    | -5.98     | -3.77      |
| 810        | 22.07    | -6.56     | -3.9       |
| 820        | 18.02    | -7.44     | -4.4       |

**B71**

| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 620        | 2.02     | -16.95    | -14.28     |
| 630        | 3.31     | -14.8     | -11.74     |
| 640        | 4.7      | -13.28    | -9.94      |
| 650        | 5.97     | -12.24    | -8.82      |
| 660        | 7.78     | -11.09    | -7.83      |
| 670        | 8.63     | -10.64    | -7.69      |
| 680        | 9.18     | -10.37    | -7.96      |
| 690        | 9.95     | -10.02    | -6.86      |
| 700        | 11.54    | -9.38     | -5.8       |
| 710        | 16.46    | -7.84     | -4.18      |
| 720        | 17.75    | -7.51     | -4.19      |
| 730        | 18.37    | -7.36     | -4.2       |
| 740        | 18.98    | -7.22     | -4.01      |
| 750        | 20.91    | -6.8      | -3.82      |
| 760        | 21.26    | -6.72     | -3.91      |
| 770        | 16.08    | -7.94     | -5.19      |
| 780        | 13.27    | -8.77     | -6.23      |
| 790        | 12.81    | -8.92     | -6.53      |
| 800        | 13.4     | -8.73     | -6.28      |
| 810        | 11.1     | -9.55     | -6.63      |

Confidential Information

ANT 1 1710~2690MHz

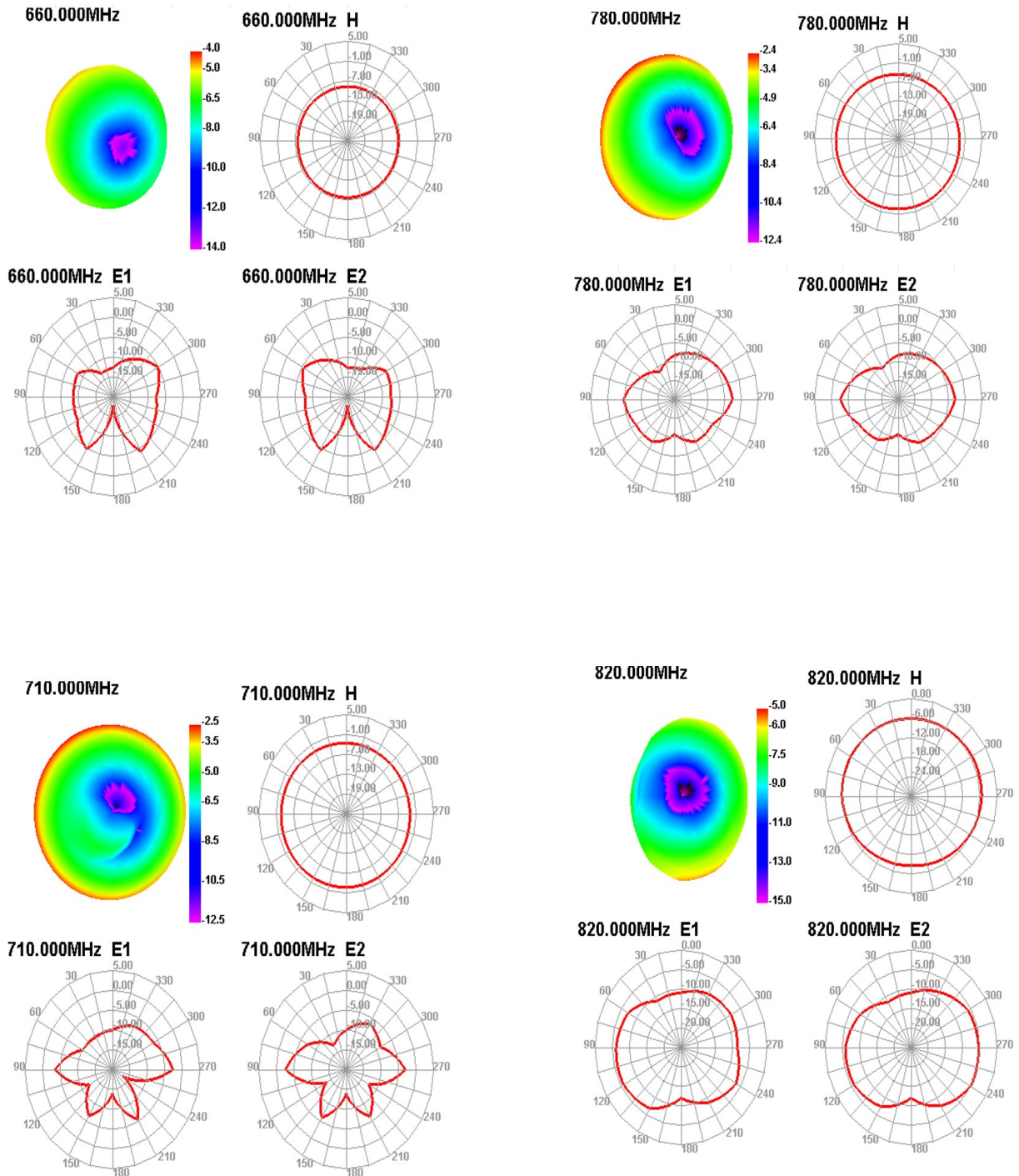
| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|---------------|-------------|--------------|---------------|
| 1710          | 24.99       | -6.02        | -2.16         | 2210          | 38.4        | -4.16        | -0.07         |
| 1720          | 25.34       | -5.96        | -2.07         | 2220          | 39.05       | -4.08        | 0.14          |
| 1730          | 24.89       | -6.04        | -2.06         | 2230          | 40.07       | -3.97        | 0.27          |
| 1740          | 24.25       | -6.15        | -2.09         | 2240          | 40.07       | -3.97        | 0.3           |
| 1750          | 24.5        | -6.11        | -1.97         | 2250          | 40.28       | -3.95        | 0.32          |
| 1760          | 25.3        | -5.97        | -1.69         | 2260          | 40.46       | -3.93        | 0.4           |
| 1770          | 24.5        | -6.11        | -1.66         | 2270          | 41.54       | -3.82        | 0.48          |
| 1780          | 25.45       | -5.94        | -1.37         | 2280          | 39.98       | -3.98        | 0.27          |
| 1790          | 26          | -5.85        | -1.18         | 2290          | 40.51       | -3.92        | 0.22          |
| 1800          | 26.11       | -5.83        | -1.12         | 2300          | 41.55       | -3.81        | 0.31          |
| 1810          | 27.26       | -5.64        | -0.9          | 2310          | 42.45       | -3.72        | 0.51          |
| 1820          | 27.02       | -5.68        | -0.98         | 2320          | 44.38       | -3.53        | 0.81          |
| 1830          | 26.74       | -5.73        | -1.06         | 2330          | 46.29       | -3.34        | 1.03          |
| 1840          | 27.93       | -5.54        | -1.07         | 2340          | 46.35       | -3.34        | 1.22          |
| 1850          | 30.26       | -5.19        | -0.85         | 2350          | 47.73       | -3.21        | 1.32          |
| 1860          | 31.05       | -5.08        | -0.84         | 2360          | 45.84       | -3.39        | 1.31          |
| 1870          | 30.78       | -5.12        | -0.96         | 2370          | 45.17       | -3.45        | 1.21          |
| 1880          | 29.87       | -5.25        | -1.13         | 2380          | 45.5        | -3.42        | 1.39          |
| 1890          | 31.16       | -5.06        | -1.08         | 2390          | 46.25       | -3.35        | 1.49          |
| 1900          | 32.92       | -4.83        | -0.95         | 2400          | 45.3        | -3.44        | 1.46          |
| 1910          | 32.34       | -4.9         | -1.14         | 2410          | 44.89       | -3.48        | 1.47          |
| 1920          | 31.69       | -4.99        | -1.38         | 2420          | 42.56       | -3.71        | 1.29          |
| 1930          | 30.95       | -5.09        | -1.65         | 2430          | 41.33       | -3.84        | 1.13          |
| 1940          | 28.53       | -5.45        | -2.19         | 2440          | 40.68       | -3.91        | 1.07          |
| 1950          | 30.26       | -5.19        | -1.98         | 2450          | 40.35       | -3.94        | 1.05          |
| 1960          | 29.52       | -5.3         | -2.04         | 2460          | 40.49       | -3.93        | 1.16          |
| 1970          | 29.1        | -5.36        | -2.05         | 2470          | 37.42       | -4.27        | 0.83          |
| 1980          | 30.57       | -5.15        | -1.79         | 2480          | 37.06       | -4.31        | 0.87          |
| 1990          | 31.69       | -4.99        | -1.61         | 2490          | 38.19       | -4.18        | 1             |
| 2000          | 32.94       | -4.82        | -1.51         | 2500          | 37.96       | -4.21        | 1.11          |
| 2010          | 33.49       | -4.75        | -1.43         | 2510          | 35.96       | -4.44        | 0.89          |
| 2020          | 30.72       | -5.13        | -1.85         | 2520          | 36.42       | -4.39        | 1.08          |
| 2030          | 30.79       | -5.12        | -1.92         | 2530          | 33.89       | -4.7         | 0.73          |
| 2040          | 31.25       | -5.05        | -2.07         | 2540          | 33.04       | -4.81        | 0.64          |
| 2050          | 32.52       | -4.88        | -1.97         | 2550          | 31.62       | -5           | 0.35          |
| 2060          | 36.01       | -4.44        | -1.45         | 2560          | 30.35       | -5.18        | 0.1           |
| 2070          | 37.76       | -4.23        | -1.09         | 2570          | 28.42       | -5.46        | -0.31         |
| 2080          | 36.79       | -4.34        | -1            | 2580          | 26.28       | -5.8         | -0.61         |
| 2090          | 37.84       | -4.22        | -0.74         | 2590          | 23.4        | -6.31        | -1.03         |
| 2100          | 38.67       | -4.13        | -0.53         | 2600          | 23.86       | -6.22        | -0.94         |
| 2110          | 34.57       | -4.61        | -1.05         | 2610          | 21.89       | -6.6         | -1.39         |
| 2120          | 33.99       | -4.69        | -1.11         | 2620          | 19.74       | -7.05        | -1.91         |
| 2130          | 33.75       | -4.72        | -1.12         | 2630          | 18.95       | -7.22        | -2.36         |
| 2140          | 34.13       | -4.67        | -1            | 2640          | 19.12       | -7.18        | -2.46         |
| 2150          | 33.93       | -4.69        | -0.93         | 2650          | 18.27       | -7.38        | -2.8          |
| 2160          | 33.84       | -4.71        | -0.89         | 2660          | 18.93       | -7.23        | -2.95         |
| 2170          | 34.47       | -4.63        | -0.87         | 2670          | 18.02       | -7.44        | -3.19         |
| 2180          | 35.18       | -4.54        | -0.85         | 2680          | 17.07       | -7.68        | -3.47         |
| 2190          | 36.35       | -4.39        | -0.57         | 2690          | 15.92       | -7.98        | -3.84         |
| 2200          | 37.8        | -4.22        | -0.21         |               |             |              |               |

**GWB**

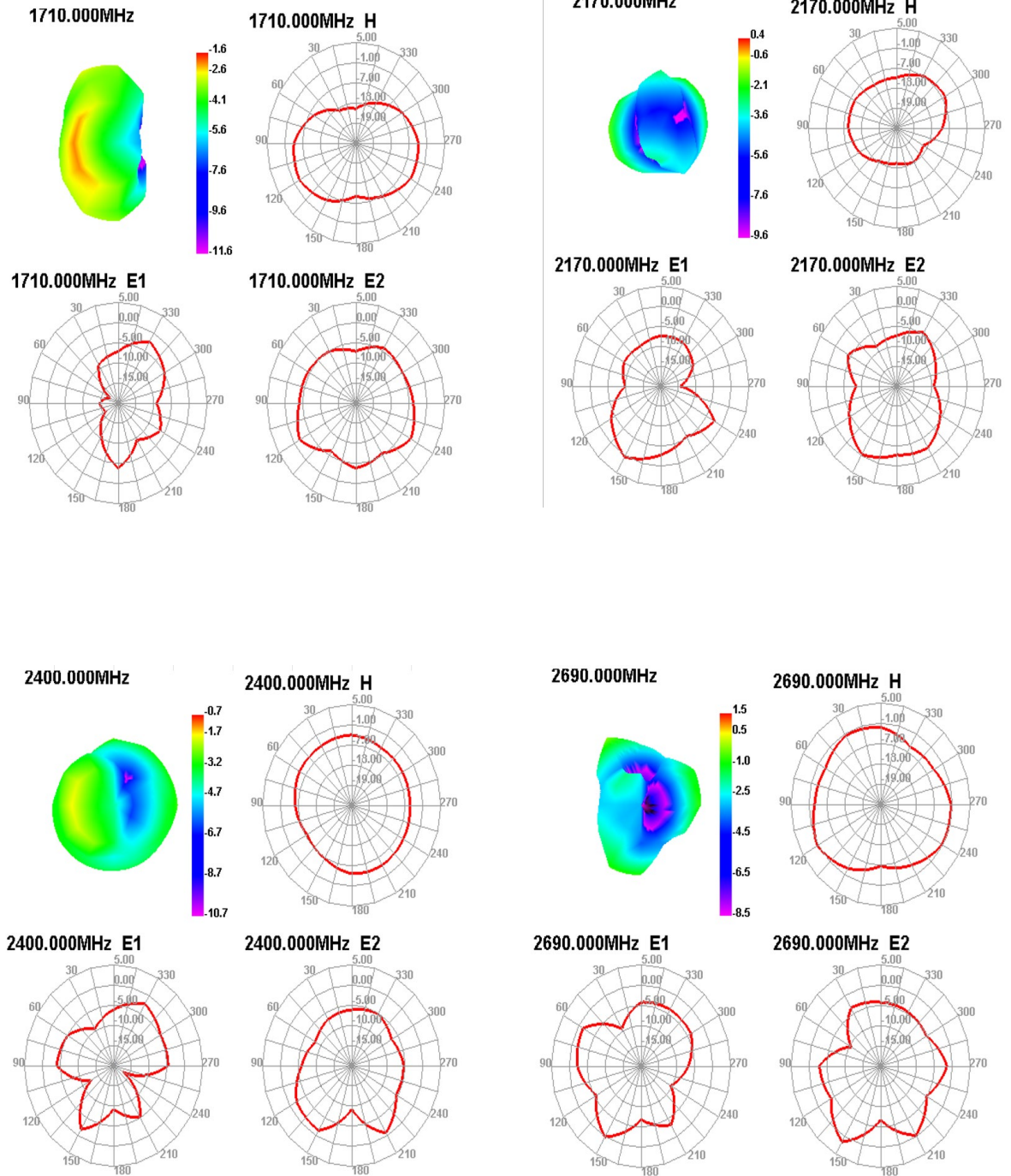
| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|---------------|-------------|--------------|---------------|
| 5150          | 30.65       | -5.14        | -0.28         | 5500          | 28.79       | -5.41        | -1.26         |
| 5160          | 31.02       | -5.08        | -0.43         | 5510          | 28.66       | -5.43        | -1.22         |
| 5170          | 30.38       | -5.17        | -0.27         | 5520          | 29.55       | -5.29        | -1.17         |
| 5180          | 29.41       | -5.32        | -0.41         | 5530          | 29.26       | -5.34        | -1.47         |
| 5190          | 28.49       | -5.45        | -0.51         | 5540          | 29.25       | -5.34        | -1.39         |
| 5200          | 27.83       | -5.56        | -0.27         | 5550          | 28.23       | -5.49        | -1.59         |
| 5210          | 29.01       | -5.37        | -0.31         | 5560          | 28.1        | -5.51        | -1.54         |
| 5220          | 29.59       | -5.29        | -0.29         | 5570          | 28.69       | -5.42        | -0.8          |
| 5230          | 30.78       | -5.12        | -0.34         | 5580          | 28.55       | -5.44        | -1.26         |
| 5240          | 29.77       | -5.26        | -0.36         | 5590          | 28.16       | -5.5         | -1.21         |
| 5250          | 27.93       | -5.54        | -0.41         | 5600          | 28.57       | -5.44        | -1.01         |
| 5260          | 28.5        | -5.45        | -0.54         | 5610          | 28.69       | -5.42        | -1.04         |
| 5270          | 28.77       | -5.41        | -0.45         | 5620          | 28.63       | -5.43        | -1.02         |
| 5280          | 28.62       | -5.43        | -0.71         | 5630          | 29          | -5.38        | -1.06         |
| 5290          | 29.92       | -5.24        | -0.51         | 5640          | 28.76       | -5.41        | -1.07         |
| 5300          | 27.77       | -5.56        | -0.38         | 5650          | 29.93       | -5.24        | -1.1          |
| 5310          | 27.74       | -5.57        | -0.35         | 5660          | 30.61       | -5.14        | -0.95         |
| 5320          | 29.53       | -5.3         | -0.61         | 5670          | 31.18       | -5.06        | -0.99         |
| 5330          | 29.68       | -5.28        | -0.67         | 5680          | 31.41       | -5.03        | -0.83         |
| 5340          | 31.66       | -5           | -0.53         | 5690          | 32.42       | -4.89        | -0.88         |
| 5350          | 32.76       | -4.85        | -0.47         | 5700          | 32.32       | -4.91        | -0.94         |
| 5360          | 30.68       | -5.13        | 0.1           | 5710          | 31.69       | -4.99        | -0.97         |
| 5370          | 30.18       | -5.2         | 0.01          | 5720          | 32.4        | -4.89        | -1.17         |
| 5380          | 31.12       | -5.07        | 0.08          | 5730          | 33.91       | -4.7         | -0.95         |
| 5390          | 29.31       | -5.33        | -0.11         | 5740          | 34.2        | -4.66        | -0.54         |
| 5400          | 34.69       | -4.6         | 0.26          | 5750          | 35.55       | -4.49        | -0.36         |
| 5410          | 33.52       | -4.75        | 0.13          | 5760          | 33.14       | -4.8         | 0.2           |
| 5420          | 32.63       | -4.86        | 0.21          | 5770          | 33.74       | -4.72        | -0.03         |
| 5430          | 32.58       | -4.87        | 0.14          | 5780          | 33.44       | -4.76        | -0.08         |
| 5440          | 32          | -4.95        | 0.28          | 5790          | 33.85       | -4.7         | -0.01         |
| 5450          | 31.22       | -5.06        | 0.22          | 5800          | 32.97       | -4.82        | -0.14         |
| 5460          | 31.21       | -5.06        | 0.37          | 5810          | 33.4        | -4.76        | 0.18          |
| 5470          | 29.59       | -5.29        | -0.92         | 5820          | 33.73       | -4.72        | -0.21         |
| 5480          | 29.05       | -5.37        | -0.91         | 5830          | 33.64       | -4.73        | -0.19         |
| 5490          | 28.88       | -5.39        | -0.85         | 5840          | 34.33       | -4.64        | -0.13         |
|               |             |              |               | 5850          | 35.86       | -4.45        | -0.09         |

## 2.3 3D Pattern

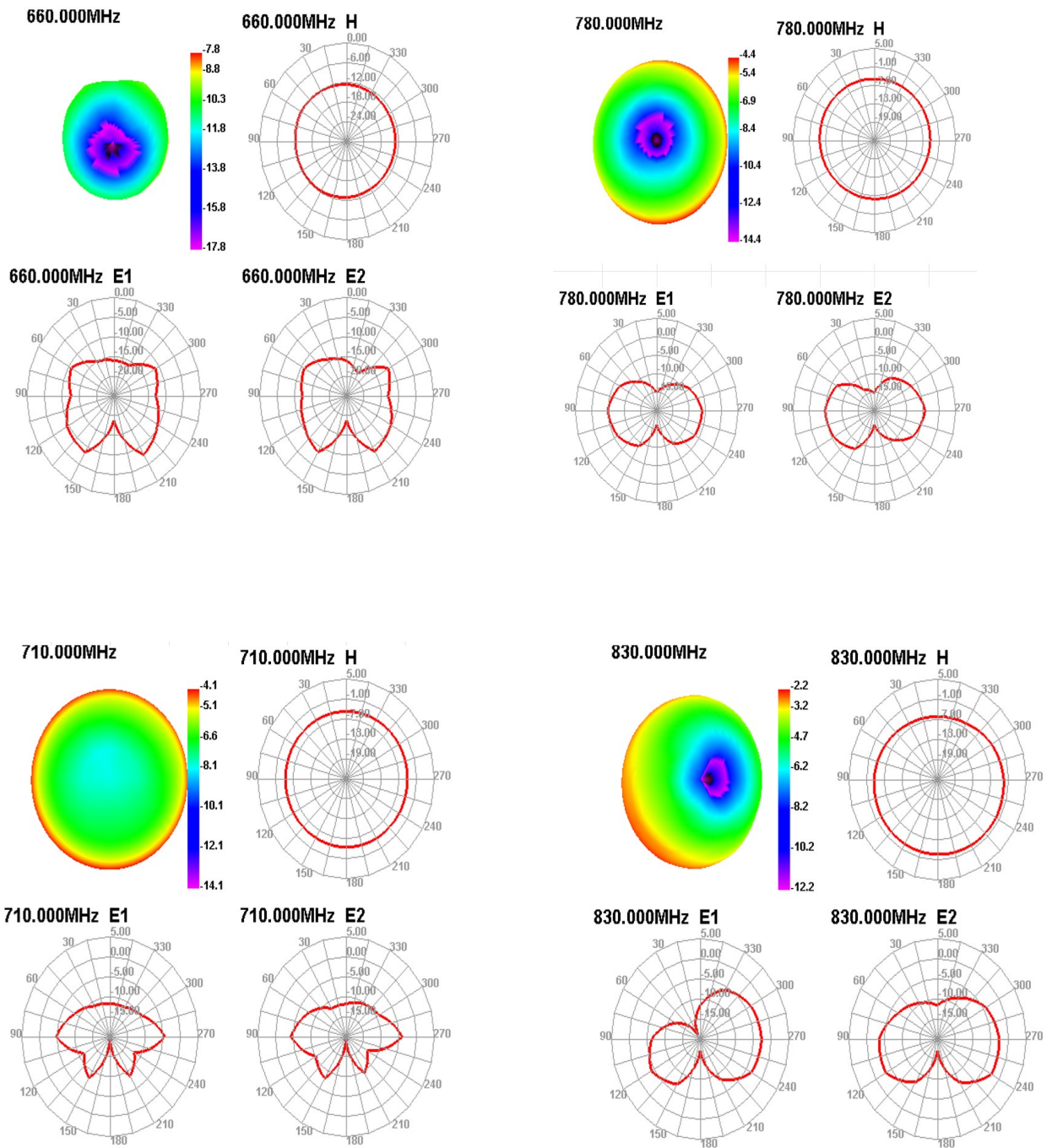
### ANT0



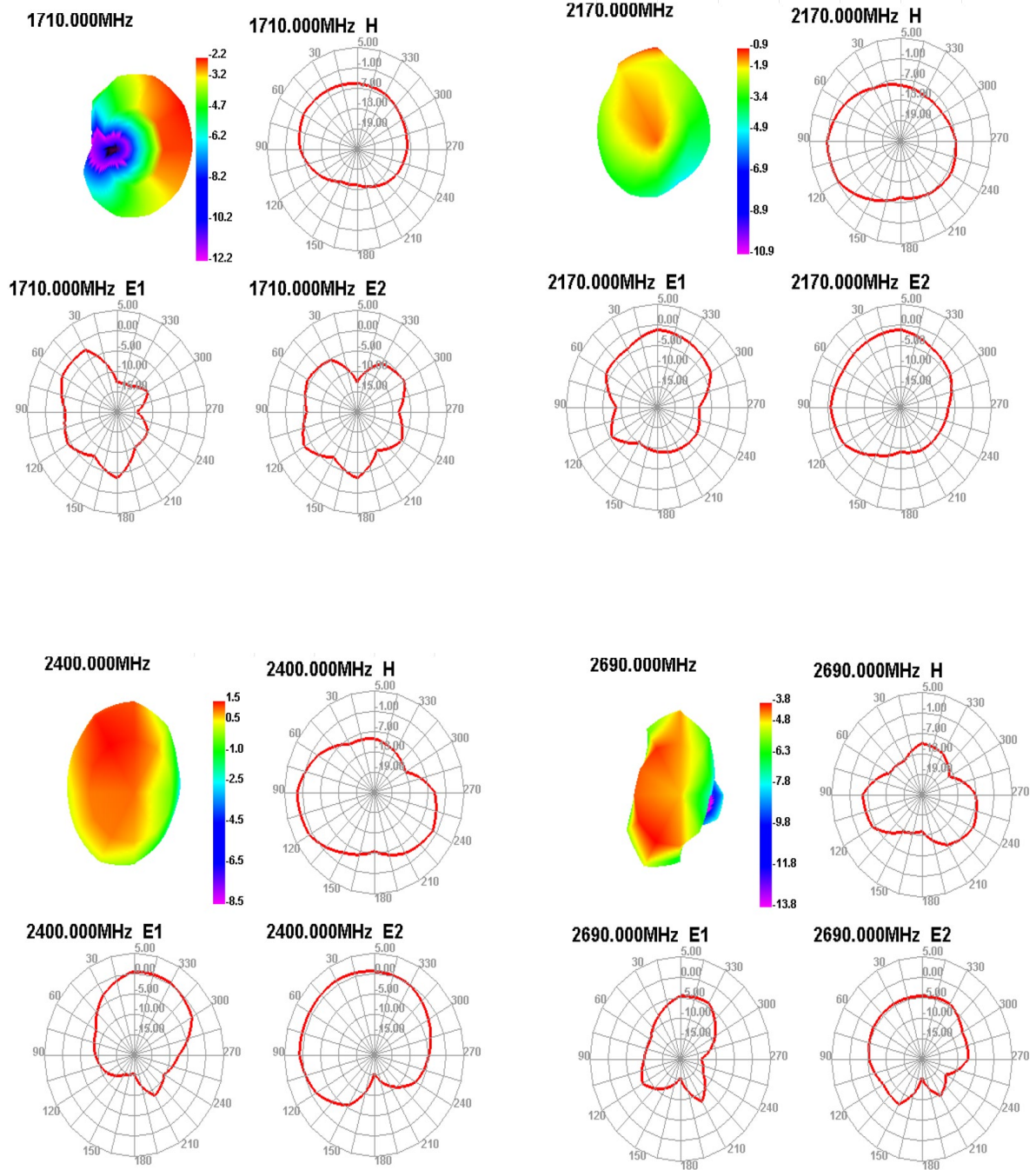




# ANT1







GWB

