

# 深圳市丰禾原电子科技有限公司 SUNITEC ENTERPRISE CO.,LTD.

2020.07.13

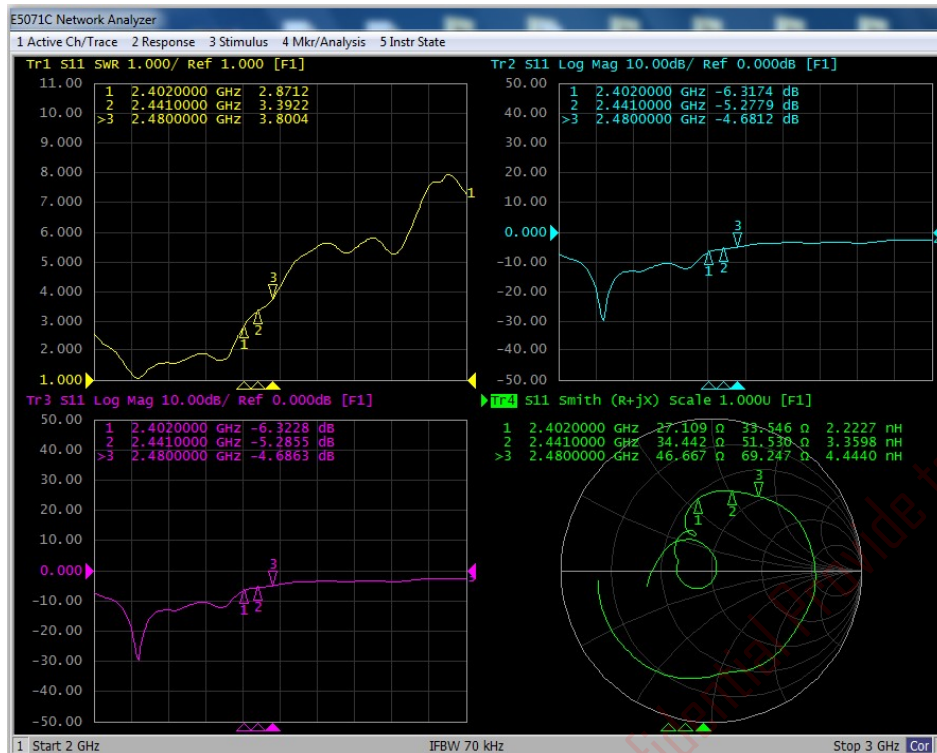
## product appearance:



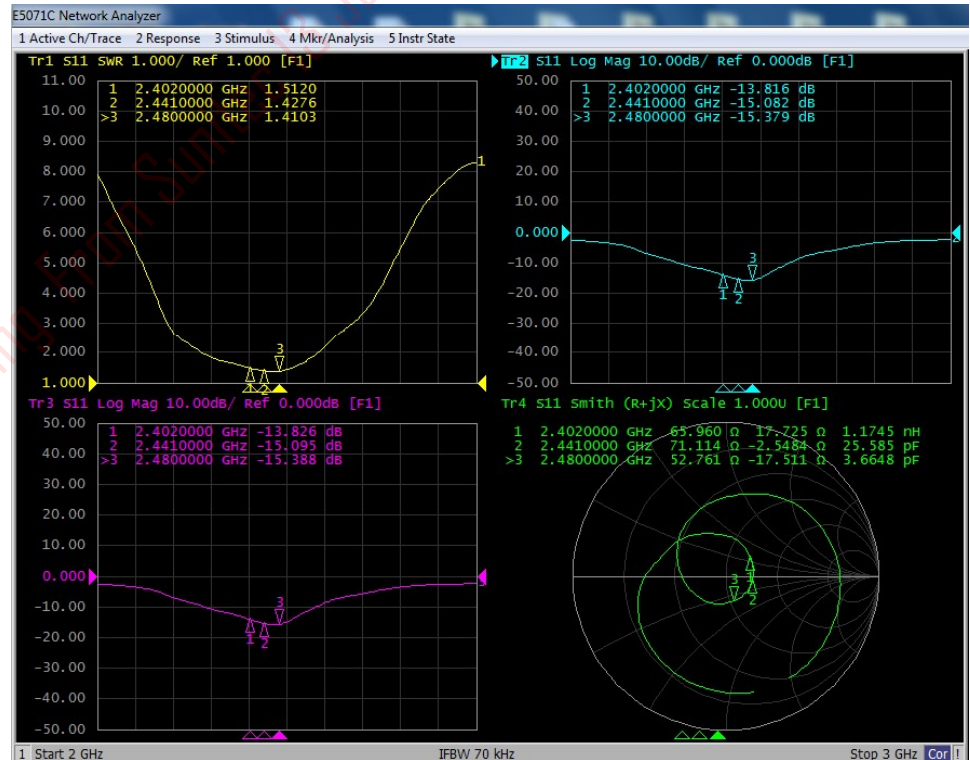


# EJ058 RF Test Report

## VSWR、Return loss and impedance :



Original Antenna Matching

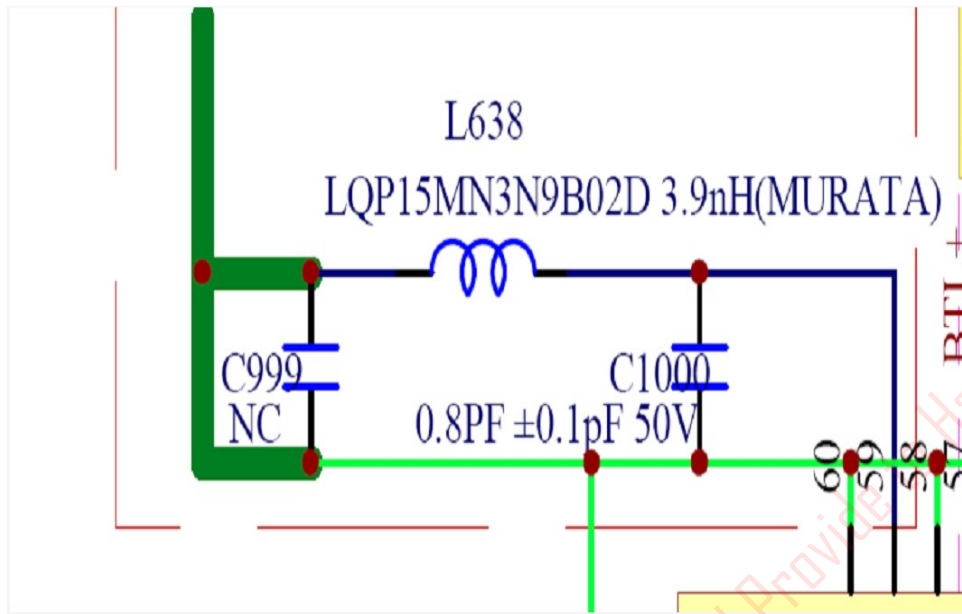


New Antenna Matching



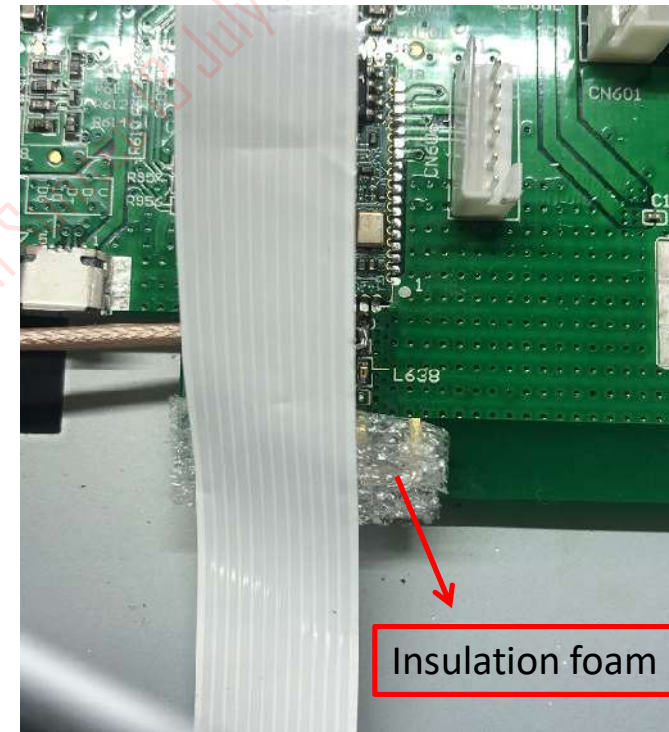
## EJ058 RF Test Report

### ANT Matching And Environmental change:



C1000: 0.5PF(RF15N0R5B500CT)

L638: 4.7NH(LQP15MN4N73B02)

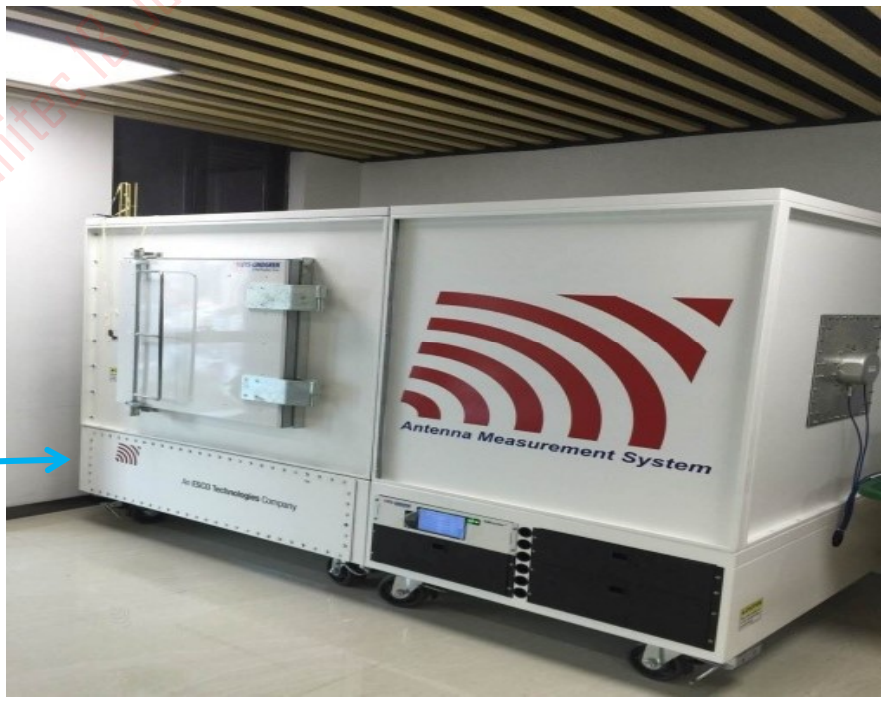
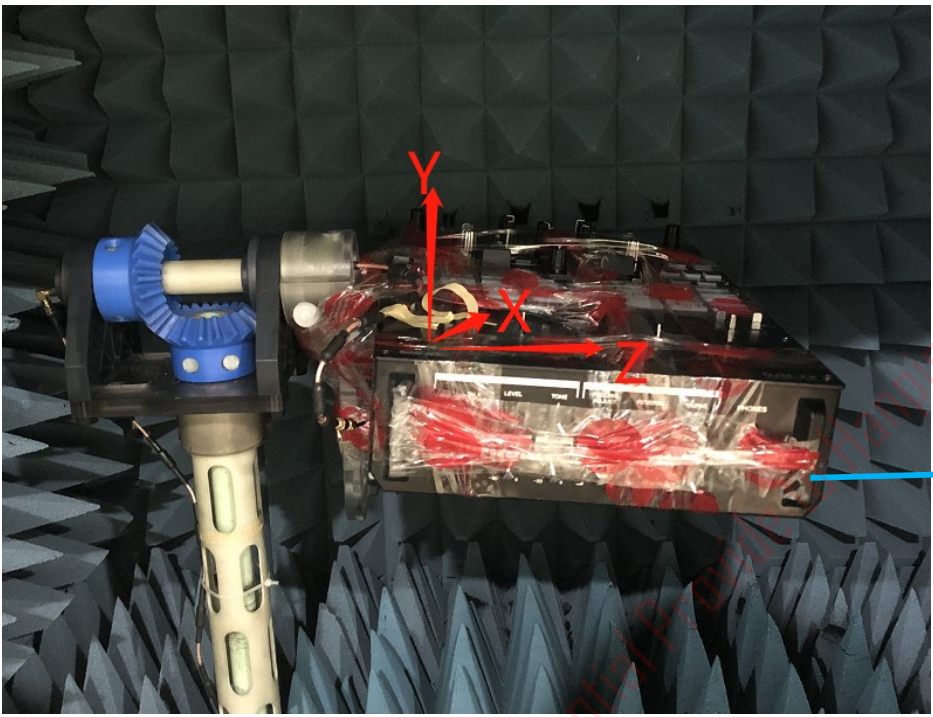


Add the Insulation foam between the antenna and the wire for reduce the effect of wiring on the antenna

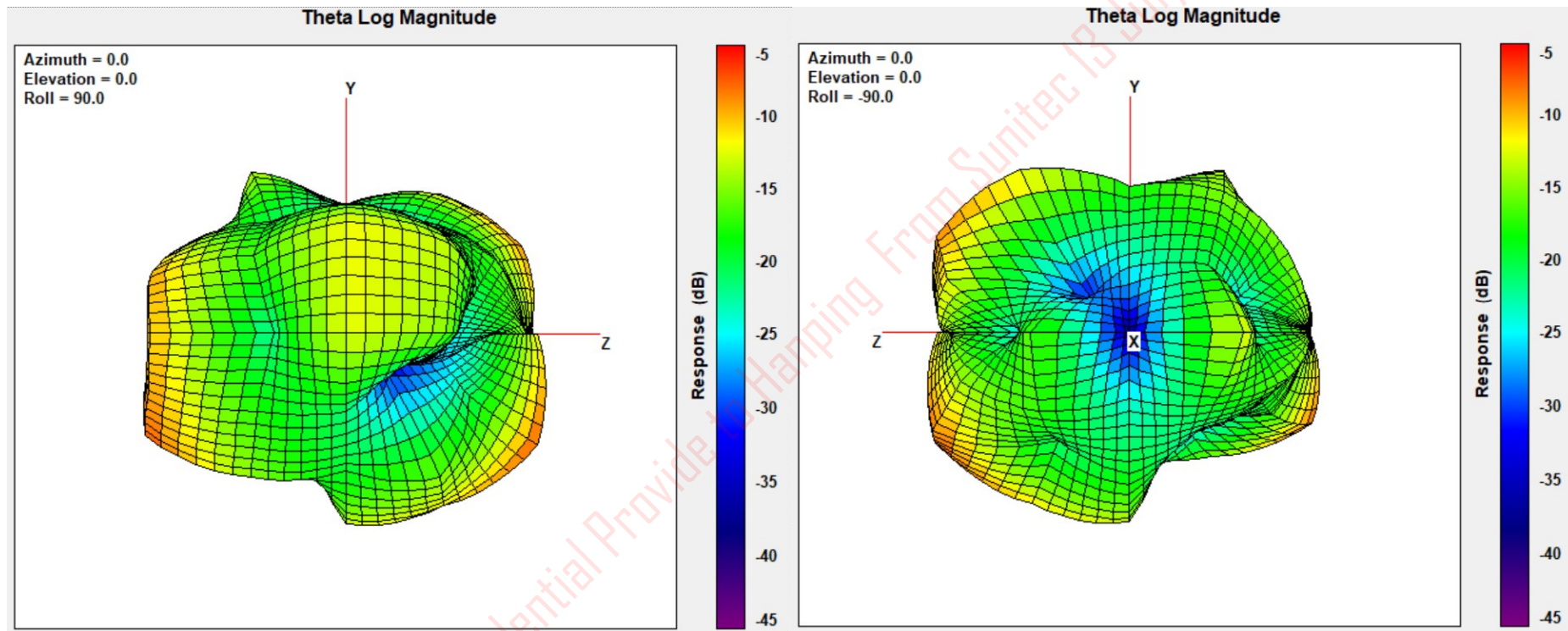


# EJ058 RF Test Report

## ANT Test Settings:

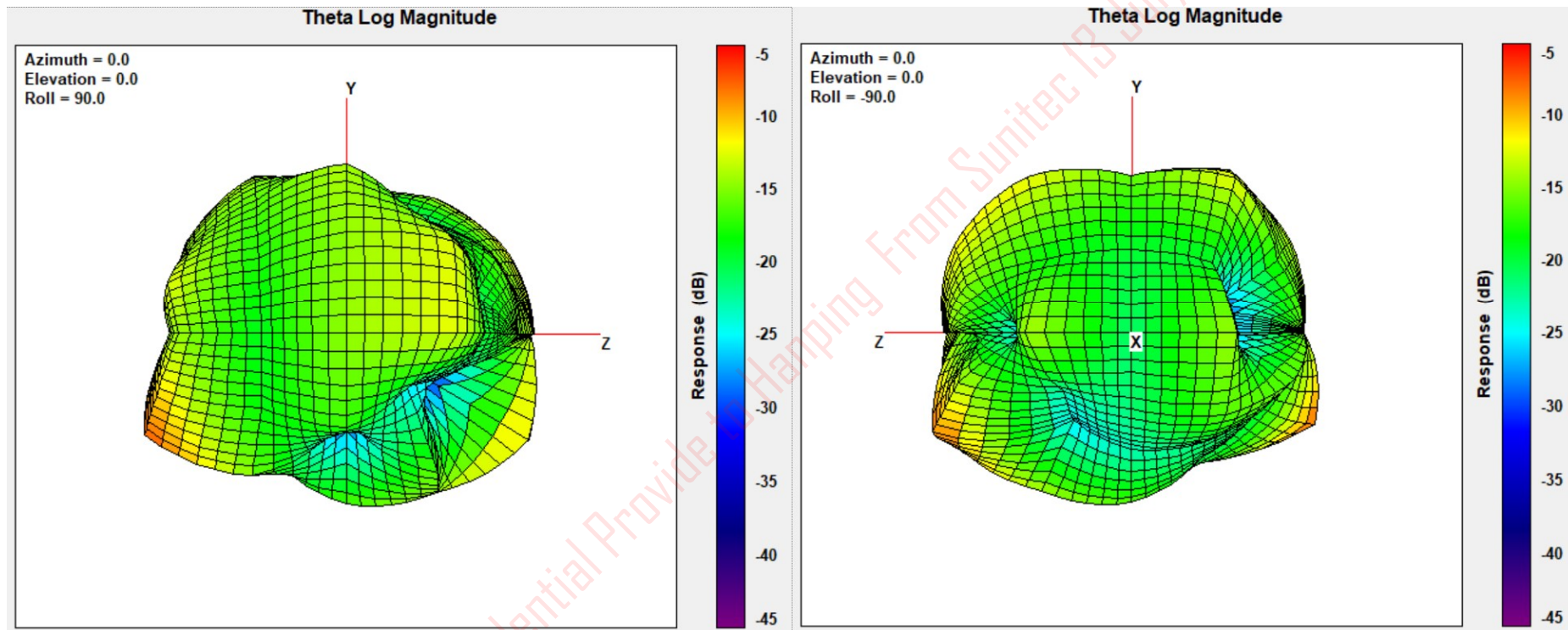


## 2402MHz ANT 3D Radiation Pattern :



| Frequency(MHZ) | Efficiency (%) | Gain (dBi) |
|----------------|----------------|------------|
| 2402MHz        | 6.6%           | -6.23      |

## 2441MHz ANT 3D Radiation Pattern :

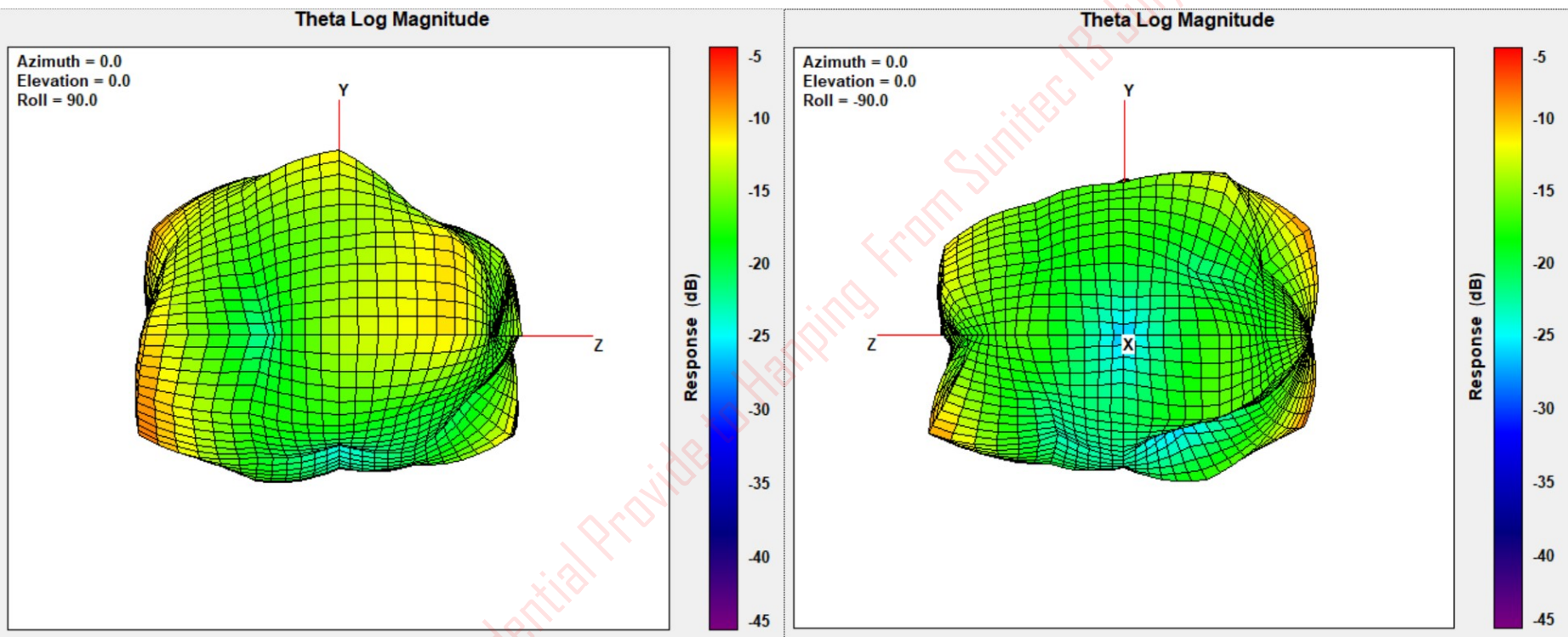


| Frequency(MHZ) | Efficiency (%) | Gain (dBi) |
|----------------|----------------|------------|
| 2441MHz        | 7.8%           | -6.10      |



# EJ058 RF Test Report

## 2480MHz ANT 3D Radiation Pattern :



| Frequency(MHZ) | Efficiency (%) | Gain (dBi) |
|----------------|----------------|------------|
| 2480MHz        | 10.7%          | -5.0       |



# EJ058 RF Test Report

## ANT Passive DATA:

| Total Attributes | Point Values    | Ant. Port Input Pwr. (dBm) | Tot. Rad. Pwr. (dBm) | Peak EIRP (dBm) | Directivity (dBi) | Efficiency (dB) | Efficiency (%) | Gain (dBi) |
|------------------|-----------------|----------------------------|----------------------|-----------------|-------------------|-----------------|----------------|------------|
|                  | Frequency (MHz) |                            |                      |                 |                   |                 |                |            |
|                  | 2400            | 0                          | -11.7992             | -6.23227        | 5.56695           | -11.7992        | 6.60813        | -6.23227   |
|                  | 2401            | 0                          | -11.7921             | -6.20787        | 5.58418           | -11.7921        | 6.61903        | -6.20787   |
|                  | 2402            | 0                          | -11.7859             | -6.19264        | 5.59323           | -11.7859        | 6.62847        | -6.19264   |
|                  | 2403            | 0                          | -11.7777             | -6.17319        | 5.60447           | -11.7777        | 6.64101        | -6.17319   |
|                  | 2404            | 0                          | -11.7713             | -6.15729        | 5.61402           | -11.7713        | 6.65073        | -6.15729   |
|                  | 2405            | 0                          | -11.757              | -6.13909        | 5.6179            | -11.757         | 6.6727         | -6.13909   |
|                  | 2406            | 0                          | -11.7417             | -6.1211         | 5.6206            | -11.7417        | 6.69623        | -6.1211    |
|                  | 2407            | 0                          | -11.7296             | -6.11471        | 5.61491           | -11.7296        | 6.71488        | -6.11471   |
|                  | 2408            | 0                          | -11.7208             | -6.10695        | 5.61383           | -11.7208        | 6.72854        | -6.10695   |
|                  | 2409            | 0                          | -11.7069             | -6.11273        | 5.59422           | -11.7069        | 6.75002        | -6.11273   |
|                  | 2410            | 0                          | -11.696              | -6.13314        | 5.56289           | -11.696         | 6.76701        | -6.13314   |
|                  | 2411            | 0                          | -11.6864             | -6.14139        | 5.54505           | -11.6864        | 6.78196        | -6.14139   |
|                  | 2412            | 0                          | -11.6732             | -6.15342        | 5.51978           | -11.6732        | 6.80267        | -6.15342   |
|                  | 2413            | 0                          | -11.6566             | -6.16066        | 5.4959            | -11.6566        | 6.82879        | -6.16066   |
|                  | 2414            | 0                          | -11.637              | -6.1616         | 5.47545           | -11.637         | 6.85955        | -6.1616    |
|                  | 2415            | 0                          | -11.6211             | -6.16232        | 5.45878           | -11.6211        | 6.88478        | -6.16232   |
|                  | 2416            | 0                          | -11.6071             | -6.1687         | 5.43842           | -11.6071        | 6.90698        | -6.1687    |
|                  | 2417            | 0                          | -11.5862             | -6.16275        | 5.4234            | -11.5862        | 6.9404         | -6.16275   |
|                  | 2418            | 0                          | -11.5677             | -6.15551        | 5.41223           | -11.5677        | 6.96988        | -6.15551   |
|                  | 2419            | 0                          | -11.5491             | -6.16467        | 5.38445           | -11.5491        | 6.99983        | -6.16467   |
|                  | 2420            | 0                          | -11.5346             | -6.16706        | 5.36755           | -11.5346        | 7.02327        | -6.16706   |
|                  | 2421            | 0                          | -11.5196             | -6.17226        | 5.34731           | -11.5196        | 7.04763        | -6.17226   |
|                  | 2422            | 0                          | -11.506              | -6.18453        | 5.32146           | -11.506         | 7.06971        | -6.18453   |
|                  | 2423            | 0                          | -11.4919             | -6.19772        | 5.29414           | -11.4919        | 7.09275        | -6.19772   |
|                  | 2424            | 0                          | -11.4799             | -6.22288        | 5.25705           | -11.4799        | 7.11224        | -6.22288   |
|                  | 2425            | 0                          | -11.4608             | -6.24829        | 5.21251           | -11.4608        | 7.14365        | -6.24829   |



# EJ058 RF Test Report

|      |   |          |          |         |          |         |          |
|------|---|----------|----------|---------|----------|---------|----------|
| 2426 | 0 | -11.446  | -6.24931 | 5.19664 | -11.446  | 7.16811 | -6.24931 |
| 2427 | 0 | -11.4252 | -6.24898 | 5.17626 | -11.4252 | 7.20236 | -6.24898 |
| 2428 | 0 | -11.4056 | -6.24342 | 5.16216 | -11.4056 | 7.23506 | -6.24342 |
| 2429 | 0 | -11.3814 | -6.23453 | 5.14692 | -11.3814 | 7.27538 | -6.23453 |
| 2430 | 0 | -11.3595 | -6.21554 | 5.14393 | -11.3595 | 7.31228 | -6.21554 |
| 2431 | 0 | -11.3365 | -6.21806 | 5.11844 | -11.3365 | 7.35107 | -6.21806 |
| 2432 | 0 | -11.3132 | -6.20475 | 5.10849 | -11.3132 | 7.39054 | -6.20475 |
| 2433 | 0 | -11.2914 | -6.19892 | 5.09248 | -11.2914 | 7.42779 | -6.19892 |
| 2434 | 0 | -11.2685 | -6.19566 | 5.07279 | -11.2685 | 7.46715 | -6.19566 |
| 2435 | 0 | -11.2366 | -6.1745  | 5.06211 | -11.2366 | 7.5221  | -6.1745  |
| 2436 | 0 | -11.2079 | -6.15966 | 5.04825 | -11.2079 | 7.57197 | -6.15966 |
| 2437 | 0 | -11.1751 | -6.14774 | 5.02736 | -11.1751 | 7.6294  | -6.14774 |
| 2438 | 0 | -11.1413 | -6.12655 | 5.01477 | -11.1413 | 7.68896 | -6.12655 |
| 2439 | 0 | -11.1026 | -6.10542 | 4.99721 | -11.1026 | 7.75777 | -6.10542 |
| 2440 | 0 | -11.0727 | -6.09996 | 4.97269 | -11.0727 | 7.8115  | -6.09996 |
| 2441 | 0 | -11.0409 | -6.10311 | 4.93784 | -11.0409 | 7.86874 | -6.10311 |
| 2442 | 0 | -11.0122 | -6.11989 | 4.89232 | -11.0122 | 7.92098 | -6.11989 |
| 2443 | 0 | -10.9774 | -6.13179 | 4.84565 | -10.9774 | 7.98465 | -6.13179 |
| 2444 | 0 | -10.94   | -6.13732 | 4.80273 | -10.94   | 8.05369 | -6.13732 |
| 2445 | 0 | -10.9002 | -6.15685 | 4.74335 | -10.9002 | 8.12793 | -6.15685 |
| 2446 | 0 | -10.8547 | -6.16414 | 4.69053 | -10.8547 | 8.21359 | -6.16414 |
| 2447 | 0 | -10.8088 | -6.16986 | 4.63898 | -10.8088 | 8.30073 | -6.16986 |
| 2448 | 0 | -10.7606 | -6.17003 | 4.59059 | -10.7606 | 8.3934  | -6.17003 |
| 2449 | 0 | -10.7053 | -6.1734  | 4.53185 | -10.7053 | 8.50108 | -6.1734  |
| 2450 | 0 | -10.6466 | -6.18697 | 4.45962 | -10.6466 | 8.61671 | -6.18697 |
| 2451 | 0 | -10.5832 | -6.17325 | 4.40994 | -10.5832 | 8.7434  | -6.17325 |
| 2452 | 0 | -10.5211 | -6.15772 | 4.36342 | -10.5211 | 8.86923 | -6.15772 |
| 2453 | 0 | -10.4654 | -6.1504  | 4.31501 | -10.4654 | 8.98378 | -6.1504  |
| 2454 | 0 | -10.4094 | -6.1409  | 4.26851 | -10.4094 | 9.10038 | -6.1409  |
| 2455 | 0 | -10.3609 | -6.11186 | 4.24907 | -10.3609 | 9.20254 | -6.11186 |
| 2456 | 0 | -10.3115 | -6.07785 | 4.23364 | -10.3115 | 9.30787 | -6.07785 |



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|      |   |          |          |         |          |         |          |
|------|---|----------|----------|---------|----------|---------|----------|
| 2457 | 0 | -10.267  | -6.03702 | 4.23001 | -10.267  | 9.40367 | -6.03702 |
| 2458 | 0 | -10.2198 | -5.98692 | 4.23293 | -10.2198 | 9.50638 | -5.98692 |
| 2459 | 0 | -10.1758 | -5.95266 | 4.22312 | -10.1758 | 9.60333 | -5.95266 |
| 2460 | 0 | -10.135  | -5.90317 | 4.23181 | -10.135  | 9.69397 | -5.90317 |
| 2461 | 0 | -10.0942 | -5.87699 | 4.21722 | -10.0942 | 9.7854  | -5.87699 |
| 2462 | 0 | -10.0543 | -5.83545 | 4.21887 | -10.0543 | 9.87572 | -5.83545 |
| 2463 | 0 | -10.0153 | -5.79989 | 4.21538 | -10.0153 | 9.96489 | -5.79989 |
| 2464 | 0 | -9.9773  | -5.77215 | 4.20515 | -9.9773  | 10.0524 | -5.77215 |
| 2465 | 0 | -9.93985 | -5.75285 | 4.187   | -9.93985 | 10.1395 | -5.75285 |
| 2466 | 0 | -9.89966 | -5.72602 | 4.17364 | -9.89966 | 10.2337 | -5.72602 |
| 2467 | 0 | -9.86565 | -5.68704 | 4.17861 | -9.86565 | 10.3142 | -5.68704 |
| 2468 | 0 | -9.83374 | -5.63795 | 4.19579 | -9.83374 | 10.3902 | -5.63795 |
| 2469 | 0 | -9.80582 | -5.58583 | 4.21999 | -9.80582 | 10.4573 | -5.58583 |
| 2470 | 0 | -9.78435 | -5.53846 | 4.24589 | -9.78435 | 10.5091 | -5.53846 |
| 2471 | 0 | -9.76932 | -5.50031 | 4.26901 | -9.76932 | 10.5455 | -5.50031 |
| 2472 | 0 | -9.75262 | -5.45323 | 4.29938 | -9.75262 | 10.5862 | -5.45323 |
| 2473 | 0 | -9.73722 | -5.39745 | 4.33976 | -9.73722 | 10.6238 | -5.39745 |
| 2474 | 0 | -9.72795 | -5.36059 | 4.36735 | -9.72795 | 10.6465 | -5.36059 |
| 2475 | 0 | -9.7194  | -5.31135 | 4.40805 | -9.7194  | 10.6674 | -5.31135 |
| 2476 | 0 | -9.714   | -5.25257 | 4.46143 | -9.714   | 10.6807 | -5.25257 |
| 2477 | 0 | -9.71095 | -5.19594 | 4.515   | -9.71095 | 10.6882 | -5.19594 |
| 2478 | 0 | -9.70777 | -5.14204 | 4.56573 | -9.70777 | 10.6961 | -5.14204 |
| 2479 | 0 | -9.70599 | -5.07425 | 4.63174 | -9.70599 | 10.7004 | -5.07425 |
| 2480 | 0 | -9.69899 | -5.00213 | 4.69687 | -9.69899 | 10.7177 | -5.00213 |
|      |   |          |          |         |          |         |          |

# Thanks