



# Specification

Product name: 5.8G broadcast module

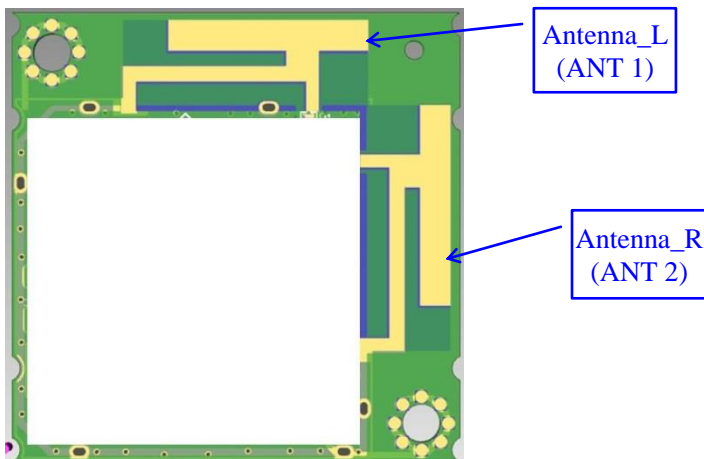
Product model: WL1BKR23

Antenna Type: PCB Printing Antenna

Manufacturer: SHENZHENSHI XINZHONGXIN TECHNOLOGY CO., LTD.

Ben: V1.0

Effective Date: 2022-12-19





Antenna\_L (ANT 1)

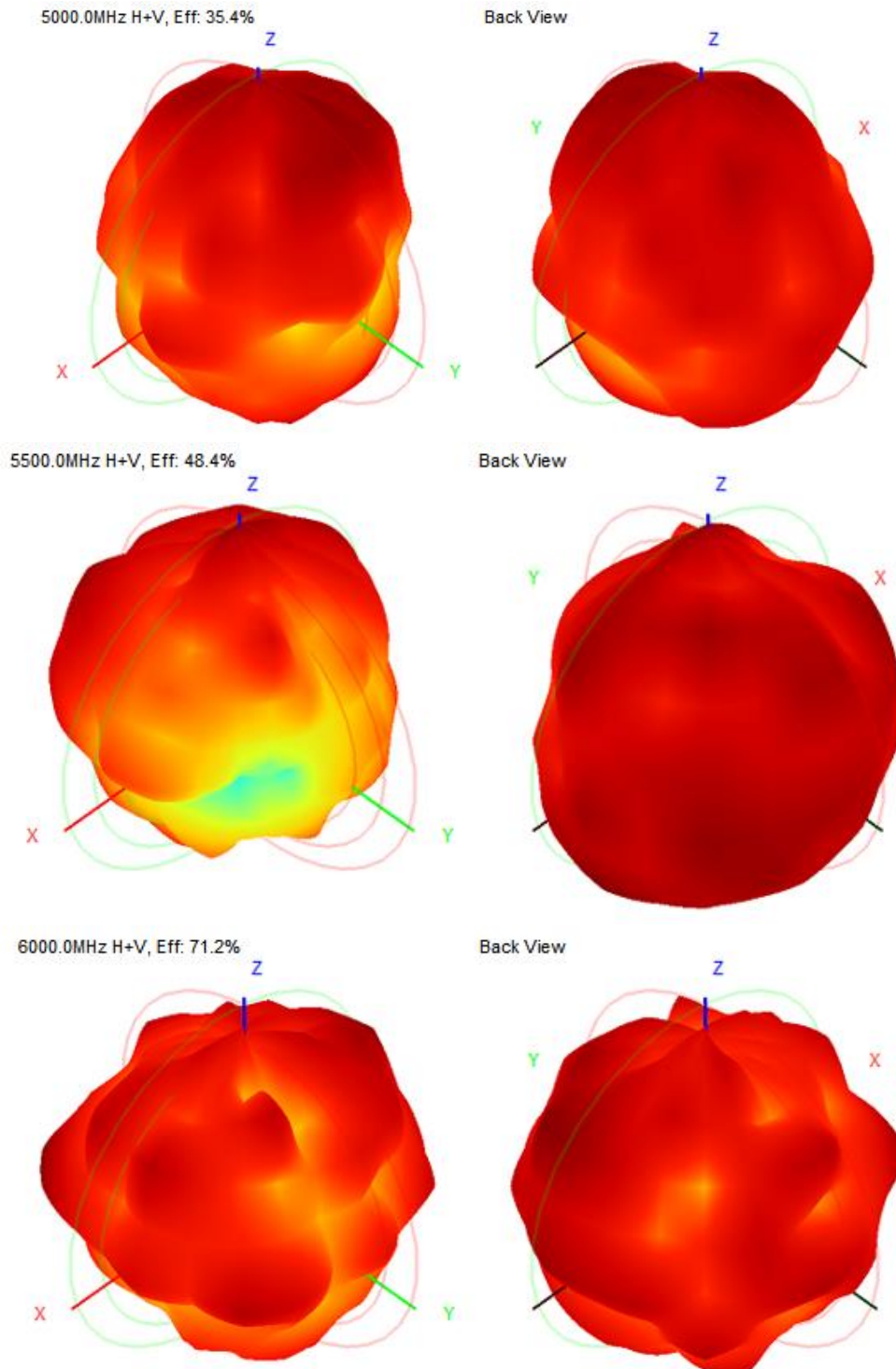
| Parameters      | Min  | Typ  | Max  | Unit |
|-----------------|------|------|------|------|
| Frequency range | 5000 | 5500 | 6000 | MHz  |
| Directivity     |      | 全向   |      | dBi  |
| Full band gain  | 0.52 | 1.69 | 3.76 |      |
| SWR             | <2   | <2   | <2   |      |
| Impedance       |      | 50   |      | Ohm  |
| Material        | FR-4 |      |      |      |

Antenna Efficiency Antenna\_L (ANT 1)

| Frequency (MHz) | Gain (dBi) | Efficiency (%) | Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|-----------------|------------|----------------|
| 5000.0          | 0.52       | 35.44          | 5520.0          | 2.08       | 54.26          |
| 5020.0          | 1.57       | 34.66          | 5540.0          | 2.19       | 54.38          |
| 5040.0          | 0.56       | 35.19          | 5560.0          | 2.50       | 52.41          |
| 5060.0          | 0.22       | 35.41          | 5580.0          | 2.28       | 54.43          |
| 5080.0          | 0.52       | 36.30          | 5600.0          | 3.43       | 57.12          |
| 5100.0          | 0.53       | 35.61          | 5620.0          | 2.48       | 52.61          |
| 5120.0          | 0.33       | 31.73          | 5640.0          | 1.67       | 49.01          |
| 5140.0          | -0.45      | 32.34          | 5660.0          | 2.38       | 47.60          |
| 5160.0          | 1.17       | 32.85          | 5680.0          | 1.67       | 49.48          |
| 5180.0          | 0.57       | 34.08          | 5700.0          | 1.89       | 50.98          |
| 5200.0          | 0.30       | 32.48          | 5720.0          | 1.73       | 52.44          |
| 5220.0          | 0.21       | 34.16          | 5740.0          | 1.85       | 52.37          |
| 5240.0          | 0.95       | 38.13          | 5760.0          | 2.36       | 52.24          |
| 5260.0          | 1.08       | 40.89          | 5780.0          | 1.45       | 47.26          |
| 5280.0          | 1.22       | 41.65          | 5800.0          | 2.70       | 48.15          |
| 5300.0          | 1.20       | 43.90          | 5820.0          | 1.78       | 46.34          |
| 5320.0          | 1.42       | 47.08          | 5840.0          | 3.39       | 49.62          |
| 5340.0          | 1.61       | 44.79          | 5860.0          | 2.34       | 57.23          |
| 5360.0          | 2.33       | 46.74          | 5880.0          | 2.45       | 51.10          |
| 5380.0          | 2.22       | 48.51          | 5900.0          | 3.11       | 54.93          |
| 5400.0          | 2.38       | 49.70          | 5920.0          | 2.78       | 65.34          |
| 5420.0          | 2.57       | 53.03          | 5940.0          | 4.16       | 69.29          |
| 5440.0          | 2.03       | 50.61          | 5960.0          | 2.53       | 65.71          |
| 5460.0          | 1.62       | 46.87          | 5980.0          | 3.49       | 67.78          |
| 5480.0          | 1.53       | 47.25          | 6000.0          | 3.76       | 71.20          |
| 5500.0          | 1.69       | 48.44          |                 |            |                |



Antenna\_L (ANT 1) 3D Pattern





Antenna\_R (ANT 2)

| Parameters      | Min  | Typ  | Max  | Unit |
|-----------------|------|------|------|------|
| Frequency range | 5000 | 5500 | 6000 | MHz  |
| Directivity     |      | 全向   |      | dBi  |
| Full band gain  | 0.25 | 2.43 | 3.55 |      |
| SWR             | <2   | <2   | <2   |      |
| Impedance       |      | 50   |      | Ohm  |
| Material        | FR-4 |      |      |      |

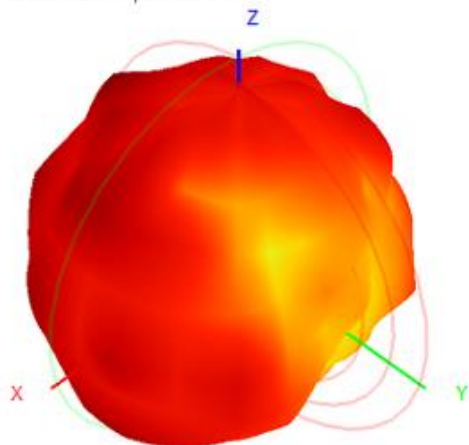
Antenna Efficiency Antenna\_R (ANT 2)

| Frequency (MHz) | Gain (dBi) | Efficiency (%) | Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|-----------------|------------|----------------|
| 5000.0          | 0.25       | 26.89          | 5520.0          | 2.64       | 62.86          |
| 5020.0          | 0.14       | 29.31          | 5540.0          | 2.55       | 57.95          |
| 5040.0          | 0.95       | 33.59          | 5560.0          | 1.68       | 52.38          |
| 5060.0          | 0.91       | 40.46          | 5580.0          | 2.55       | 55.26          |
| 5080.0          | 1.63       | 43.64          | 5600.0          | 2.51       | 59.13          |
| 5100.0          | 1.52       | 45.23          | 5620.0          | 3.01       | 55.92          |
| 5120.0          | 1.71       | 45.60          | 5640.0          | 2.20       | 55.53          |
| 5140.0          | 1.73       | 47.79          | 5660.0          | 1.61       | 49.97          |
| 5160.0          | 2.10       | 54.27          | 5680.0          | 1.83       | 53.19          |
| 5180.0          | 2.40       | 55.54          | 5700.0          | 1.45       | 53.17          |
| 5200.0          | 2.20       | 53.93          | 5720.0          | 0.96       | 52.23          |
| 5220.0          | 2.55       | 54.56          | 5740.0          | 1.67       | 48.44          |
| 5240.0          | 2.06       | 54.39          | 5760.0          | 1.79       | 48.71          |
| 5260.0          | 2.57       | 58.85          | 5780.0          | 2.73       | 44.91          |
| 5280.0          | 2.76       | 56.03          | 5800.0          | 2.25       | 43.52          |
| 5300.0          | 2.81       | 59.70          | 5820.0          | 0.84       | 40.55          |
| 5320.0          | 3.70       | 60.19          | 5840.0          | 2.08       | 44.00          |
| 5340.0          | 3.06       | 58.34          | 5860.0          | 1.64       | 43.49          |
| 5360.0          | 2.22       | 57.19          | 5880.0          | 1.13       | 39.43          |
| 5380.0          | 2.54       | 56.95          | 5900.0          | 1.53       | 45.40          |
| 5400.0          | 2.52       | 56.49          | 5920.0          | 3.29       | 51.25          |
| 5420.0          | 2.43       | 60.99          | 5940.0          | 3.52       | 58.89          |
| 5440.0          | 2.34       | 56.57          | 5960.0          | 3.14       | 56.12          |
| 5460.0          | 1.93       | 52.88          | 5980.0          | 1.90       | 55.25          |
| 5480.0          | 1.55       | 54.35          | 6000.0          | 3.55       | 58.73          |
| 5500.0          | 2.43       | 53.88          |                 |            |                |

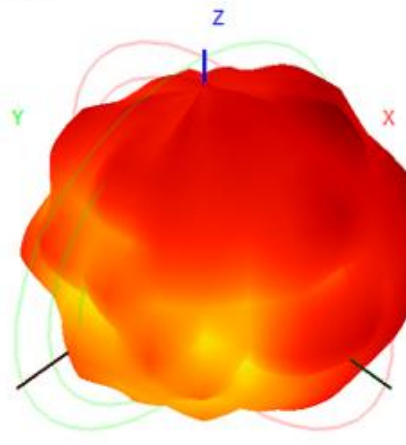


Antenna\_R (ANT 2) 3D Pattern

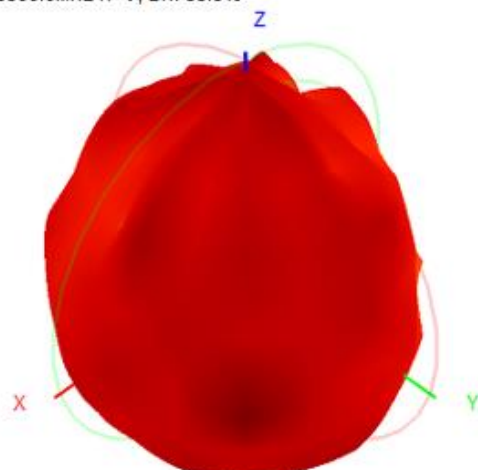
5000.0MHz H+V, Eff: 26.9%



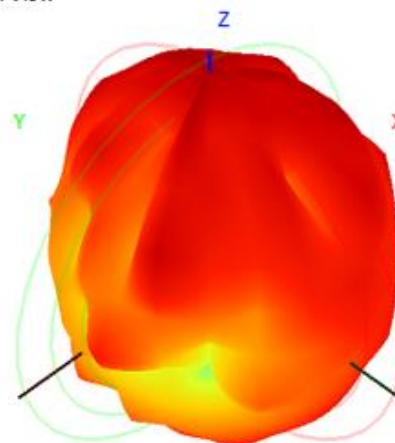
Back View



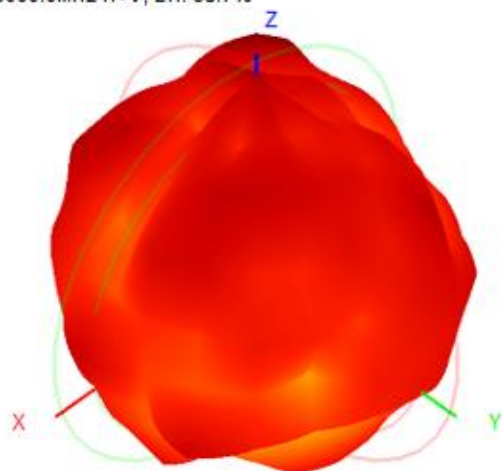
5500.0MHz H+V, Eff: 53.9%



Back View



6000.0MHz H+V, Eff: 58.7%



Back View

