|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | a | b | c | d | e | f | g | h | i | j | k |
| Value(mm) | 9.85 | 6.34 | 10 | 4.8 | 1.37 | 1.81 | 10.79 | 1.37 | 1 | 40 | 40 |

**Table 1**: Parametric list of 1×2 array antenna

**Table 2:** Parametric list of 2×2 array antenna

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | a | b | c | d | e | f | g |
| Value(mm) | 4.59 | 10 | 4.59 | 1.37 | 0.53 | 3.7 | 16.69 |

**Table 3: Evaluation of the prospective research in contrast to a 1x2 array antenna**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Antenna ref. | Return loss(dB) | Gain(dB) | Bandwidth | Size (mm2) |
| [7] | -19.2705 | 11.05 | 1.488GHz | 12.77× 17.22 |
| [8] | -12.543 | 5.5051 | 166.5MHz | 100×70 |
| [9] | -38.91 | 9.93 | 4MHz | – |
| [10] | -16.6509 | 12.43 | 500MHz | – |
| [11] | -38 | 8.86 | 1290MHz | 30.6×57 |
| proposed | -37.05 | 8.8 | *>*8GHz | 40×40 |

**Table 4: Evaluation of the prospective research in contrast to a 2x2 array antenna**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Antenna ref. | Return loss(dB) | Gain(dB) | Bandwidth | Size (mm2) |
| [8] | -30 | 11.9 | 6MHz | 100×70 |
| [9] | -40 | 13.5 | 5.5MHz | – |
| [10] | -87 | 14 | 1.14MHz | – |
| proposed | -50.88 | 9.5 | *>*10GHz | 40×40 |