

## Cellular Antenna:

- Antenna efficiency for 690-900MHz (low-band) : 4.2-14.1%
- Antenna efficiency for 1700-2200MHz (high-band) : 13-47%

- Uplink Frequency gain table

| Band | Channel | Uplink Frequency (MHz) | Antenna Gain (dBi) |
|------|---------|------------------------|--------------------|
| B12  | L       | 699                    | -5.3               |
|      | M       | 707.54                 | -4.8               |
|      | H       | 715.66                 | -4.6               |
| B28  | L       | 703                    | -5.2               |
|      | M       | 725.5                  | -4.2               |
|      | H       | 746.86                 | -3.87              |
| B13  | L       | 777                    | -3.8               |
|      | M       | 782.36                 | -3.98              |
|      | H       | 787                    | -5                 |
| B5   | L       | 825                    | -8.5               |
|      | M       | 836.86                 | -8.2               |
|      | H       | 849                    | -8                 |
| B20  | L       | 832                    | -8.4               |
|      | M       | 847.36                 | -8                 |
|      | H       | 860.96                 | -8.2               |
| B2   | L       | 1850                   | -0.25              |
|      | M       | 1880                   | -0.68              |
|      | H       | 1910                   | -0.8               |
| B3   | L       | 1710                   | -3.8               |
|      | M       | 1747.5                 | -2.48              |
|      | H       | 1785                   | -1.35              |
| B4   | L       | 1710                   | -3.8               |
|      | M       | 1732.5                 | -3.3               |
|      | H       | 1755                   | -2.2               |

- Downlink Frequency gain table

| Band | Channel | Downlink Frequency (MHz) | Antenna Gain (dBi) |
|------|---------|--------------------------|--------------------|
| B12  | L       | 729                      | -4.3               |
|      | M       | 737.5                    | -4                 |
|      | H       | 746                      | -3.87              |
| B28  | L       | 758                      | -4.1               |
|      | M       | 780.5                    | -3.9               |
|      | H       | 803                      | -6.1               |
| B13  | L       | 746                      | -4.3               |
|      | M       | 751                      | -4.33              |
|      | H       | 756                      | -3.9               |
| B5   | L       | 869                      | -7.7               |
|      | M       | 881.5                    | -7.7               |
|      | H       | 894                      | -8.2               |
| B20  | L       | 791                      | -5                 |
|      | M       | 806                      | -6.7               |
|      | H       | 821                      | -8.6               |
| B2   | L       | 1930                     | -1                 |
|      | M       | 1960                     | -0.8               |
|      | H       | 1990                     | -1.8               |
| B3   | L       | 1805                     | -1.28              |
|      | M       | 1842.5                   | 0                  |
|      | H       | 1880                     | -0.7               |
| B4   | L       | 2110                     | -2.2               |
|      | M       | 2132.5                   | -3                 |
|      | H       | 2155                     | -3.1               |