

2. Specification

2-1. GSM General Specification

| | GSM900 Phase 1 | EGSM 900 Phase 2 | DCS1800 Phase 1 | PCS1900 |
|------------------------------------|---------------------------|-----------------------------|----------------------------|------------------------|
| Freq. Band[MHz] Uplink/Downlink | 890~915 935~960 | 880~915 925~960 | 1710~1785 1805~1880 | 1850~1910 1930~1990 |
| ARFCN range | 1~124 | 0~124 & 975~1023 | 512~885 | 512~810 |
| Tx/Rx spacing | 45MHz | 45MHz | 95MHz | 80MHz |
| Mod. Bit rate / Bit Period | 270.833kbps 3.692us | 270.833kbps 3.692us | 270.833kbps 3.692us | 270.833kbps 3.692us |
| Time Slot Period / Frame Period | 576.9us 4.615ms | 576.9us 4.615ms | 576.9us 4.615ms | 576.9us 4.615ms |
| Modulation | 0.3GMSK | 0.3GMSK | 0.3GMSK | 0.3GMSK |
| MS Power | 33dBm~5dBm | 33dBm~5dBm | 30dBm~0dBm | 30dBm~0dBm |
| Power Class | 5pcl ~ 19pcl | 5pcl ~ 19pcl | 0pcl ~ 15pcl | 0pcl ~ 15pcl |
| Sensitivity | -102dBm | -102dBm | -100dBm | -100dBm |
| TDMA Mux | 8 | 8 | 8 | 8 |
| Cell Radius | 35Km | 35Km | 2Km | - |

2-2. GSM TX power class

| TX Power control level | GSM900 | TX Power control level | DCS1800 | TX Power control level | PCS1900 |
|-------------------------------|---------------|-------------------------------|----------------|-------------------------------|----------------|
| 5 | 33±2 dBm | 0 | 30±2 dBm | 0 | 30±2 dBm |
| 6 | 31±3 dBm | 1 | 28±3 dBm | 1 | 28±3 dBm |
| 7 | 29±3 dBm | 2 | 26±3 dBm | 2 | 26±3 dBm |
| 8 | 27±3 dBm | 3 | 24±3 dBm | 3 | 24±3 dBm |
| 9 | 25±3 dBm | 4 | 22±3 dBm | 4 | 22±3 dBm |
| 10 | 23±3 dBm | 5 | 20±3 dBm | 5 | 20±3 dBm |
| 11 | 21±3 dBm | 6 | 18±3 dBm | 6 | 18±3 dBm |
| 12 | 19±3 dBm | 7 | 16±3 dBm | 7 | 16±3 dBm |
| 13 | 17±3 dBm | 8 | 14±3 dBm | 8 | 14±3 dBm |
| 14 | 15±3 dBm | 9 | 12±4 dBm | 9 | 12±4 dBm |
| 15 | 13±3 dBm | 10 | 10±4 dBm | 10 | 10±4 dBm |
| 16 | 11±5 dBm | 11 | 8±4dBm | 11 | 8±4dBm |
| 17 | 9±5 dBm | 12 | 6±4 dBm | 12 | 6±4 dBm |
| 18 | 7±5 dBm | 13 | 4±4 dBm | 13 | 4±4 dBm |
| 19 | 5±5 dBm | 14 | 2±5 dBm | 14 | 2±5 dBm |
| | | 15 | 0±5 dBm | 15 | 0±5 dBm |

2-3. GSM EDGE TX power class

| TX Power control level | GSM900 | TX Power control level | DCS1800 | TX Power control level | PCS1900 |
|-------------------------------|---------------|-------------------------------|----------------|-------------------------------|----------------|
| 8 | 27±3 dBm | 2 | 26 -4/+3 dBm | 2 | 26 -4/+3 dBm |
| 9 | 25±3 dBm | 3 | 24±3 dBm | 3 | 24±3 dBm |
| 10 | 23±3 dBm | 4 | 22±3 dBm | 4 | 22±3 dBm |
| 11 | 21±3 dBm | 5 | 20±3 dBm | 5 | 20±3 dBm |
| 12 | 19±3 dBm | 6 | 18±3 dBm | 6 | 18±3 dBm |
| 13 | 17±3 dBm | 7 | 16±3 dBm | 7 | 16±3 dBm |
| 14 | 15±3 dBm | 8 | 12±3 dBm | 8 | 12±3 dBm |
| 15 | 13±3 dBm | 9 | 10±3 dBm | 9 | 10±3 dBm |
| 16 | 11±5 dBm | 10 | 14±3 dBm | 10 | 14±3 dBm |
| 17 | 9±5 dBm | 11 | 12±4 dBm | 11 | 12±4 dBm |
| 18 | 7±5 dBm | 12 | 10±4 dBm | 12 | 10±4 dBm |
| 19 | 5±5 dBm | 13 | 8±4dBm | 13 | 8±4dBm |
| | | 14 | 6±4 dBm | 14 | 6±4 dBm |
| | | 15 | 4±4 dBm | 15 | 4±4 dBm |

