

2. Specification

2-1. GSM & WCDMA General Specification

	GSM850	EGSM 900	DCS1800	PCS1900	WCDMA 2100	WCDMA 1900	WCDMA 850
Freq. Band[MHz] Uplink/ Downlink	824.2~848.8 869.2~893.8	876.2~914.8 921.2~959.8	1710.2~1784.8 1805.2~1879.8	1850.2~1909.8 1930.2~1989.8	1922.4~1977.6 2112.4~2167.6	1852.4~1907.6 1932.4~1987.6	826.4~846.6 871.4~891.6
ARFCN range	128~251	0~124 & 975~1023	512~885	512~810	UL: 9612~9888 DL: 10562~10838	UL: 9262~9538 DL: 9662~9938	UL: 4132~4233 DL: 4357~4458
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz	80MHz	45MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	3.84Mcps	3.84Mcps	3.84Mcps
Time Slot Period/ Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSK/16QAM	QPSK/16QAM	QPSK/16QAM
MS Power	33dBm~5dBm	32.5dBm~5dBm	29.5dBm~0dBm	29.5dBm~0dBm	24dBm~ -50dBm	24dBm~ -50dBm	24dBm~ -50dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	3(max+24dBm)	3(max+24dBm)	3(max+24dBm)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm	-106.7dBm	-104.7dBm	-104.7dBm
TDMA Mux	8	8	8	8			
Cell Radius	35Km	35Km	35Km	35Km	2Km	2Km	2Km

2. Specification

	WCDMA 1700	WCDMA 900	TDSCDMA 2000	TDSCDMA 1900
Freq. Band[MHz] Uplink/ Downlink	1712.4~1752.6 2112.4~2152.6	882.4~912.6 927.4~957.6	2010 ~ 2025	1880 ~ 1920
ARFCN range	UL: 9612~9888 DL: 10562~10838	UL: 9262~9538 DL: 9662~9938	10050 ~ 10125	9400 ~ 9600
Tx/Rx spacing	400MHz	45MHz	-	-
Mod. Bit rate/ Bit Period	3.84Mcps	3.84Mcps	1.28Mcps	1.28Mcps
Time Slot Period/ Frame Period	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.675ms	FrameLength: 10ms Slotlength: 0.675ms
Modulation	QPSK/16QAM	QPSK/16QAM	QPSK/8PSK	QPSK/8PSK
MS Power	24dBm~ -50dBm	24dBm~ -50dBm	24dBm~ -48dBm	24dBm~ -48dBm
Power Class	3(max+24dBm)	3(max+24dBm)	2(max+24dBm)	2(max+24dBm)
Sensitivity	-106.7dBm	-103.7dBm	-107.3dBm	-107.3dBm
TDMA Mux				
Cell Radius	2Km	2Km	11.25Km	11.25Km

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2. Specification

2-2. LTE General Specification

	LTE Band1	LTE Band2	LTE Band3	LTE Band4	LTE Band5
Freq. Band[MHz] Uplink/ Downlink	1920~1980 2110~2170	1850~1910 1930~1990	1710~1785 1805~1880	1710~1755 2110~2155	824~849 869~894
ARFCN range	UL: 18000~18599 DL: 0~599	UL: 18600~19199 DL: 600~1199	UL: 19200~19949 DL: 1200~1949	UL: 19950~20399 DL: 1950~2399	UL: 20400~20649 DL: 2400~2649
Tx/Rx spacing	190MHz	80MHz	95MHz	400MHz	45MHz
Channel Bandwidth	5/10/15/20 MHz	1.4/3/5/10/15/20 MHz	1.4/3/5/10/15/20 MHz	1.4/3/5/10/15/20 MHz	1.4/3/5/10 MHz
Modulation	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM
MS Power (MPR)	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm
Sensitivit (QPSK) (BW 10MHz)	-96.3 dBm	-94.3 dBm	-93.3 dBm	-96.3 dBm	-94.3 dBm
Cell Radius	>5Km	>5Km	>5Km	>5Km	>5Km

2. Specification

	LTE Band7	LTE Band8	LTE Band12	LTE Band13	LTE Band17
Freq. Band[MHz] Uplink/ Downlink	2500~2570 2620~2690	880~915 925~960	699~716 729~746	777~787 746~756	704~716 734~746
ARFCN range	UL: 20750~21449 DL: 2750~3449	UL: 2712~2863 DL: 2937~3088	UL: 23010~23179 DL: 5010~5179	UL: 23180~23279 DL: 5180~5279	UL: 23730~23849 DL: 5730~5849
Tx/Rx spacing	120MHz	45MHz	30MHz	-31MHz	30MHz
Channel Bandwidth	5/10/15/20 MHz	1.4/3/5/10 MHz	1.4/3/5/10 MHz	5/10 MHz	5/10 MHz
Modulation	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM
MS Power (MPR)	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm
Sensitivit (QPSK) (BW 10MHz)	-94.3 dBm	-93.3 dBm	-93.3 dBm	-93.3 dBm	-93.3 dBm
Cell Radius	>5Km	>5Km	>5Km	>5Km	>5Km

2. Specification

	LTE Band18	LTE Band19	LTE Band20	LTE Band25	LTE Band26
Freq. Band[MHz] Uplink/ Downlink	815~830 860~875	830~845 875~890	832~862 791~821	1850~1915 1930~1995	814~849 859~894
ARFCN range	UL: 23850~23999 DL: 5850~5999	UL: 24000~24190 DL: 6000~6149	UL: 24150~24449 DL: 6150~6449	UL: 26040~26689 DL: 8040~8689	UL: 26690~27039 DL: 8690~9039
Tx/Rx spacing	45MHz	45MHz	-41MHz	80MHz	45MHz
Channel Bandwidth	5/10/15 MHz	5/10/15 MHz	5/10/15/20 MHz	1.4/3/5/10/15/20 MHz	1.4/3/5/10/15 MHz
Modulation	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM
MS Power (MPR)	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm
Sensitivit (QPSK) (BW 10MHz)	-96.3 dBm	-96.3 dBm	-93.3dBm	-92.8 dBm	-93.8dBm
Cell Radius	>5Km	>5Km	>5Km	>5Km	>5Km

2. Specification

	LTE Band28	LTE Band38	LTE Band39	LTE Band40	LTE Band41
Freq. Band[MHz] Uplink/ Downlink	703~748 758~803	2570~2620	1880~1920	2300~2400	2496~2690
ARFCN range	UL: 27210~27659 DL: 9210~9659	37750~38249	38250~38649	38650~39649	39650~41589
Tx/Rx spacing	55MHz	—	—	—	—
Channel Bandwidth	3/5/10/15/20 MHz	5/10/15/20 MHz	5/10/15/20 MHz	5/10/15/20 MHz	5/10/15/20 MHz
Modulation	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM	QPSK,16/64QAM
MS Power (MPR)	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm	-35~25.7 dBm
Sensitivit (QPSK) (BW 10MHz)	-94.8 dBm	-96.3 dBm	-96.3dBm	-96.3 dBm	-94.3dBm
Cell Radius	>5Km	>5Km	>5Km	>5Km	>5Km