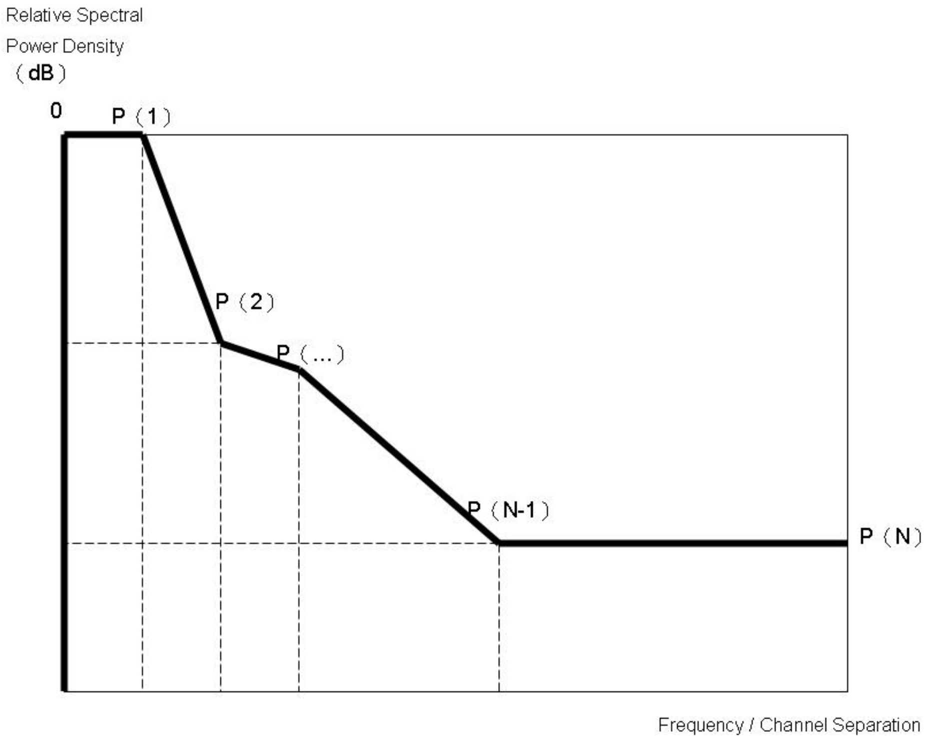
Appendix 2: Radiation Mask (Refer to EU ETSI EN 302 326)

1. Power Spectrum Mask

(1) Power Spectrum Mask Diagram



P(1), P(2),..P(N) refer to turning points of the emission power spectrum mask. Different wireless communications systems will have different turning points.

(2) The regulated values of emission power spectrum mask of mobile communications system:

TDMA System								
Turning Points	P(1)~P(N)							
Frequency /Channel Separation \ Equivalent Modulation Level	0	0.43	0.5	0.5	0.8	1.06	2	2.5
2	0dB	0dB			-27dB	-27dB	-45dB	-45dB
4	0dB	0dB			-32dB	-37dB	-45dB	-45dB
6	0dB	0dB	0dB	-13dB	-34dB	-42dB	-45dB	-45dB

CDMA (DS-CDMA or FH-CDMA) System						
Turning Points	P(1)~P(N)					
Frequency t/Channel Separation	0	0.5	0.8	1.0	1.5	2.5
Limitation Values	0dB	0dB	-25dB	-25dB	-45dB	-45dB

TDMA-OFDMA System							
Turning Points	P(1)~P(N)						
Frequency/Channel Separation / Equivalent Modulation Level	0	0.5	0.5	0.71	1.06	2	2.5
2	0dB	0dB	-8dB	-25dB	-27dB	-50dB	-50dB
4	0dB	0dB	-8dB	-27dB	-32dB	-50dB	-50dB
6	0dB	0dB	-8dB	-32dB	-38dB	-50dB	-50dB

MC-TDMA System								
Turning Points	P(1)~P(N)							
Frequency /Channel Separation / Equivalent Modulation Level	0	0.5	0.5	0.54	0.64	1	2	2.5
2	0dB	0dB	-8dB	-18dB	-23dB	-23dB	-45dB	-45dB
4	0dB	0dB	-10dB	-23dB	-32dB	-37dB	-45dB	-45dB
6	0dB	0dB	-13dB	-26dB	-37dB	-42dB	-45dB	-45dB

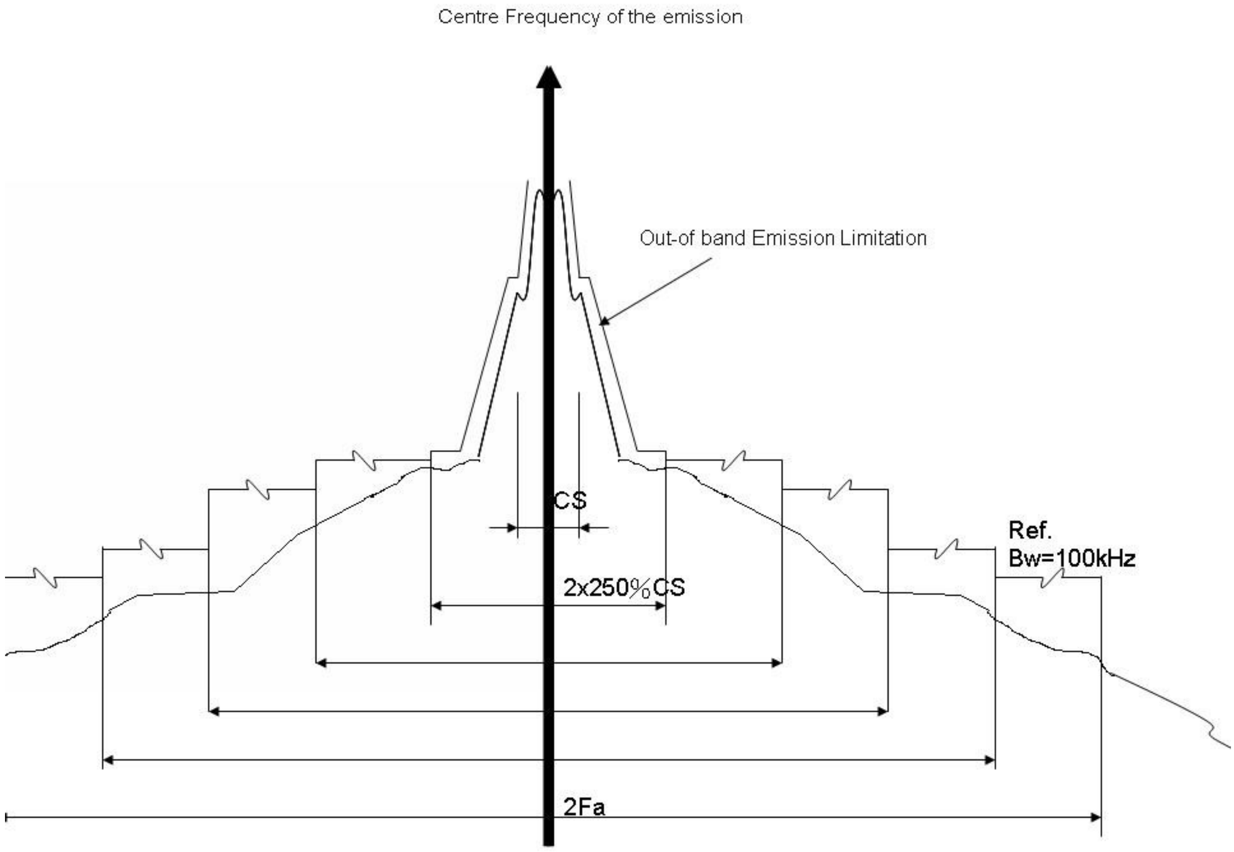
FDMA System							
Turning Points	P(1)~P(N)						
Frequency/Channel Separation / Equivalent Modulation Level	0	0.5	0.5	0.6	0.85	1.5	2.5
2	0dB	0dB	-23dB	-25dB	-25dB	-45dB	-45dB
3	0dB	0dB	-27dB	-29dB	-29dB	-45dB	-45dB
4 or 6	0dB	0dB	-31dB	-33dB	-33dB	-45dB	-45dB

Description:

1. Definition of Equivalent Modulation Level
   (1) To a modulator/demodulator, equivalent modulation level is defined as the number of discrete levels that each symbol can be assigned. It is the number of bits of information that each symbol can carry. Given that N is the allowed number of levels that can be assigned to each symbol in modulator/demodulator, its equivalent modulation level is $\log_2(\mathrm{N})$.
   (2) In the current digital communications system, the number of bits of information carried by each symbol is not determined by modulator/demodulator. The effect of Forward Error Correction Code (FEC) must also be taken into consideration. The following are examples describing how to the effect of FEC code modifies equivalent modulation level:
   (a) To 16QAM and 3/4 rate convolutional code digital communications systems, the equivalent modulation level is 3/4 $*$ $\log_2(16)$ = 3.
   (b) To the digital communications systems of 16QAM, 1/2 rate convolutional code, and 204/188 Reed-Solomom code, the equivalent modulation level is 188/204 $*$ 1/2 $*$ $\log_2(16)$ = 1.843. This system's equivalent modulation level could lie between the two equivalent modulation levels and correspond to appendix 2: The equivalent modulation level of regulated power spectrum mask shall comply with the specification of higher equivalent modulation level.
2. Tested channels are lowest, medium and highest channels; the equipment under test with different working bandwidth and the maximum modulation level (including modulation methods and coding rate) shall be respectively tested according to the related test methods in ETSI EN 301 126-2-3.

2. Transmitter Spurious Emissions Spectrum Mask

(1) Transmitter Spurious Emissions Spectrum Mask



(2) Regulated Values of Transmitter Spurious Emissions

Frequency Range	Limit（Traffic Mode）
30 MHz < f < 1 GHz	-30 dBm/100 kHz
1GHz ＜ f ＜2^{nd} harmonic	-30 dBm/1 MHz

(3) Reference Bandwidth of Transmitter Spurious Emissions Spectrum Mask

Channel Separation （CS） （MHz）	Symbol Rate（Fs） （~Mbaud/s）	Fa [Reference Bandwidth 100 kHz] (MHz)
1≦CS<10	Fs≒0.6-8	70
CS ≧ 10	Fs~>6	-