

NECESSARY BANDWIDTH DESCRIPTION

The bandwidth complies with EN 301 124 V1.1.1 (1998-11), section 5.3.2 (Spectrum Mask).

5.3.2 Spectrum mask (from EN 301 124)

The spectrum mask is given in figure 3. No allowance is made for frequency tolerance.

The transmitted output power spectrum is defined as the spectrum when modulated with a test data signal that simulates a system operating under maximum system loading conditions.

The spectrum measurement at point C' of the RF system block diagram figure 2 shall be performed with the maximum hold function on the spectrum analyser selected.

The reference level of the output spectrum means that the 0 dB level is the top of the modulated spectrum, disregarding residual carrier.

Table 2: Spectrum analyser settings

Resolution BW	Video BW	Sweep time
30 kHz	300 Hz	10 s

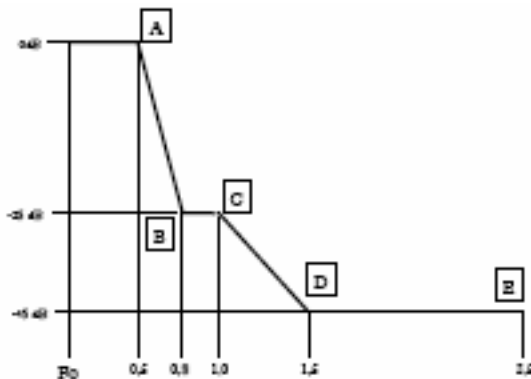


Figure 2: DS-SSMA spectrum mask normalized for channel spacing

Table 3: Channel spacing against spectrum mask reference points

Relative Level®	Point A 0 dB	Point B -25 dB	Point C -25 dB	Point D -45 dB	Point E -45 dB
Channel Spacing (MHz)	0,5 x Channel Spacing	0,8 x Channel Spacing	1,0 x Channel Spacing	1,5 x Channel Spacing	2,5 x Channel Spacing
5	2,5 MHz	4 MHz	5 MHz	7,5 MHz	12,5 MHz
10	5 MHz	8 MHz	10 MHz	15 MHz	25 MHz
15	7,5 MHz	12 MHz	15 MHz	22,5 MHz	37,5 MHz
NOTE: For channel spacings 3,5 MHz, 7 MHz and 14 MHz, see EN 301 055 [25].					

(End of 5.3.2)

The transmitted signal is modulated according to Quadrature Phase Shift Keying (QPSK). For the pulse forming, IAP uses a roll-off factor of 0.22. This results in a frequency channel separation of 4.6 ... 5 MHz in steps of 0.2 MHz.

The demo equipment that REDCOM is requesting a Special Temporary Authority to operate will be using a single 5 MHz channel between 1920 MHz to 1980 MHz. The center frequency of the channel can be software adjusted via a terminal in 200 kHz steps. Therefore, REDCOM will set the 5MHz channel anywhere within the 1920 MHz to 1980 MHz band that the FCC designates.