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Everything Everywhere Limited Response to the Ofcom consultation on

Licence Exemption of Wireless Telegraphy Devices

June 16th 2011

Everything Everywhere welcomes the opportunity to respond to Ofcom's consultation entitled 'Licence Exemption of Wireless Telegraphy Devices'. Everything Everywhere broadly accepts Ofcom's proposals apart from allowing the exemption of 2 GHz MSS user terminals. We have therefore limited our response to Question 4:

Question 4) Do you agree with our proposals for the authorisation of 2 GHz MSS user terminals from licensing?

Everything Everywhere notes that Ofcom proposes the authorisation of 2 GHz MSS user terminals under certain technical conditions. As pointed out by the consultation CEPT has recently begun work to prepare a Report on the adjacent band compatibility of MSS against 3G mobile services below 1980 MHz and other services above 2010 MHz. This report is expected to be used as the basis for the EC to harmonise European wide authorisation conditions for the new user terminals. Everything Everywhere supports the international work being carried out in order to ensure the protection of the adjacent services.

Everything Everywhere is concerned that Ofcom is allowing terminals to operate before the international work is completed. In particular Ofcom is proposing an interim authorisation for user terminals operating in satellite mode to 40 dBm. Once terminals are licence exempt and deployed at such high power levels, it becomes extremely difficult for the technical conditions for these terminals to be changed at a later date.

Everything Everywhere notes the UMTS base station blocking characteristics from Table 7.4 of ETSI TS 125 104 (see below). It is clear that terminals with maximum transmit powers of 40dBm have the potential to desensitise such base stations from a distance of hundreds of metres.

Table 7.4: Blocking performance requirement for operation in frequency bands in sub-clause 5.2(a)

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1920 - 1980 MHz	-40 dBm	-115 dBm	10 MHz	WCDMA signal with one code
1900 - 1920 MHz 1980 - 2000 MHz	-40 dBm	-115 dBm	10 MHz	WCDMA signal with one code
1 MHz -1900 MHz, and 2000 MHz - 12750 MHz	-15 dBm	-115 dBm	—	CW carrier

It should also be noted that base station minimum blocking requirements of -40dBm extend up to 2000MHz. Restricting maximum satellite terminal transmit power of 40dBm to the range 1985MHz to 2005MHz therefore conveys little additional protection to UMTS base stations in the worst case. In reality base station blocking performance is likely to exceed minimum requirements but the magnitude of exceedance is unclear both absolutely and with respect to frequency offset. Everything Everywhere requests that Ofcom carefully considers the above with respect to its proposals.

If Ofcom nonetheless does proceed with allowing high power terminals to operate before the international work is complete, then the protection of the adjacent band services is vital. Ofcom proposes to restrict the deployment of satellite mode user terminals with power levels higher than 24dBm to the central part of the band 1980 to 2010 MHz range, with an interim requirement of a 5 MHz frequency separation from the band edges. Everything Everywhere agrees that at least a 5 MHz frequency separation is needed together with suitable out of band emission levels.

Ofcom has already issued a corrigendum to their technical analysis correcting some 'inadvertent errors'. Everything Everywhere is not confident that the Table 1 is yet correct – for example there is no limit for the range -166 to 0 kHz although this is assumed to be an editorial matter. This demonstrates that these types of studies need very careful scrutiny and hence Everything Everywhere would strongly prefer to await the results of the international studies to ensure that no interference is caused to the adjacent services.

The corrigendum states that if FDD was used in the band 2010 – 2025 MHz then higher limits could be acceptable for the last entry of Table 1 . Everything Everywhere notes that ECC PT1 is currently updating ECC Decision (06)01 covering this band. There has been no interest within ECC PT1 on FDD use of this band and hence it is assumed that only TDD systems will be deployed. Hence Everything Everywhere would propose that the lower limits are retained in the Table.

Regarding the user terminals operating in a CGC mode across the band 1980 to 2010 MHz, we agree that these should be subject to the same terminal power conditions and limitations as those of similar user terminals that operate below 1980 MHz and above 2010 MHz.