

Agreement

between the

**Finnish Communications
Regulatory Authority**

and the

**Estonian National
Communications Board**

**on issues concerning the
frequency sharing in simplex sub-bands
406,1-410 MHz and 440 – 450 MHz**

5.11.2007

Agreement

between the

**Finnish Communications
Regulatory Authority (FICORA)**

and the

**Estonian National
Communications Board (ENCB)**

concerning the use of the simplex-bands 406,1-410 MHz and 440-450 MHz

**The Finnish Communications Regulatory Authority (FICORA)
and
The Estonian National Communications Board (ENCB)**

considering:

- a) That both administrations are responsible for frequency planning and coordination process;
- b) That both administrations have to ensure the maximum efficiency in spectrum usage within their countries;
- c) That both administrations need to guarantee to the users of the radio equipment the interference-free operation;
- d) The both administrations are aiming to make the coordination process as flexible and efficient as possible in the frequency sub-bands covered by this Agreement;
- e) That in this Agreement the low power applications mean radio transmitters with field strength not exceeding 20 dB μ V/m (10 % of time, 50 % of location, with the receiving antenna height 10 m) on the coastline of the other country;
- f) That in this Agreement the high power applications mean radio transmitters with field strength exceeding 20 dB μ V/m (10 % of time, 50 % of location, with the receiving antenna height 10 m) on the coastline of the other country.

taking into account:

- a) That both administrations use these frequency bands for land mobile and fixed applications;
- b) That until this time there is no coordination agreement between Estonia and Finland concerning the usage of these frequency bands in border areas;
- c) That the actual usage of these frequency bands differs between the countries;
- d) That the radio transmitters that have been taken into use before the 11.01.2007 may continue the operation with assigned technical parameters.

agree:

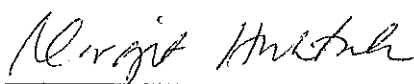
- a) That administrations specify the frequency blocks intended for use by high power applications in Finland and in Estonia (see Annex) in the border areas. In case the field strength produced by the priority channel of one country exceeds the value 35 dB μ V/m (10 % of time, 50 % of location, with the receiving antenna height 10 m) on the coastline of the other country, the usage shall be coordinated;
- b) In case the field strength produced by the non-priority channel of one country exceeds the value 20 dB μ V/m (10 % of time, 50 % of location, with the receiving antenna height 10 m) on the coastline of the other country, the usage shall be coordinated;

- c) Channels marked with FIN are priority channels used/planned for high power applications in Finland (respectively non-priority channels for Estonia) and channels marked with EST are priority channels used/planned for high power applications in Estonia (respectively non-priority channels for Finland) ;
- d) That administrations specify the frequency blocks intended for use by low power applications in the border areas (see Annex), which could be used by both administrations without coordination on the condition that the field strength on the coastline of the other country does not exceed the value 20 dB μ V/m (10 % of time, 50 % of location, with the receiving antenna height 10 m). In case the field strength exceeds the value 20 dB μ V/m the usage shall be coordinated;
- e) Channels marked with CU are the channels used/planned for low power applications both in Finland and Estonia
- f) In case of transition to a frequency grid with a 12.5 kHz channel spacing according to CEPT Rec. T/R 25-08 E, the status of preferential channels of each Party is maintained also for channels which fall into in the intervals between each Party's preferential channels with a 25 kHz channel spacing or 12.5 kHz channel spacing. When the channels with a 12.5 kHz channel spacing are located in the intervals between the preferential channels of the other Party, they are subject to coordination;
- g) In case of transition to a frequency grid with a 25 kHz channel spacing according to CEPT Rec. T/R 25-08 E, the status of preferential channels of each Party is maintained also for channels which fall into in the intervals between each Party's preferential channels with a 25 kHz channel spacing or 12.5 kHz channel spacing. When the channels with a 25 kHz channel spacing are located in the intervals between the preferential channels of the other Party, they are subject to coordination;
- h) ITU-R recommendation P.1546 "Method for point-to-area predictions for terrestrial services in the frequency range 30-3000 MHz" shall be used for field strength calculations;
- i) That administrations shall inform the other administration about putting into service the high power application including the same technical parameters as in the coordination requests in case the field strength produced by the priority channel of one country exceeds the value 20 dB μ V/m, but not exceeds the value 35 dB μ V/m (10 % of time, 50 % of location, with the receiving antenna height 10 m) on the coastline of the other country;
- j) Both administration agree to support the initiative of other administration for providing of additional measurements or calculations with the aim to optimize the frequency usage;
- k) This agreement may be cancelled as desired by one of the administrations with a notice of one year;
- l) This agreement may be revised if mutual understanding is reached at the negotiations between the administrations;
- m) In case this agreement is cancelled and new one is not concluded the coordination procedure will be based on CEPT Recommendation T/R 25-08.

This agreement shall come into effect from 5th November 2007

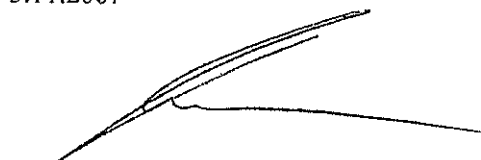
This agreement has been drawn up in two identical copies, of which each party has taken its own.

For the Finnish Administration
5.11.2007



Margit Huhtala
Deputy Director

For the Estonian Administration
5.11.2007



Priit Soom
Deputy Director General

ANNEX to Agreement

Frequency sharing in 406.1- 410 MHz frequency band (based on 12.5 kHz channel spacing)

	Frequency MHz	Status	Remarks
1	406.1000		EPIRB
2	406.1125	EST	
3	406.1250	EST	
4	406.1375	EST	
5	406.1500	EST	
6	406.1625	EST	
7	406.1750	EST	
8	406.1875	EST	
9	406.2000	EST	
10	406.2125	EST	
11	406.2250	EST	
12	406.2375	EST	
13	406.2500	EST	
14	406.2625	EST	
15	406.2750	EST	
16	406.2875	EST	
17	406.3000	EST	
18	406.3125	CU	
19	406.3250	CU	
20	406.3375	CU	
21	406.3500	CU	
22	406.3625	CU	
23	406.3750	CU	
24	406.3875	CU	
25	406.4000	CU	
26	406.4125	CU	
27	406.4250	CU	
28	406.4375	CU	
29	406.4500	CU	
30	406.4625	CU	
31	406.4750	CU	
32	406.4875	CU	
33	406.5000	CU	
34	406.5125	CU	
35	406.5250	CU	
36	406.5375	CU	
37	406.5500	CU	
38	406.5625	CU	
39	406.5750	CU	
40	406.5875	CU	
41	406.6000	CU	
42	406.6125	CU	
43	406.6250	CU	

44	406.6375	CU	
45	406.6500	CU	
46	406.6625	CU	
47	406.6750	CU	
48	406.6875	CU	
49	406.7000	CU	
50	406.7125	CU	
51	406.7250	CU	
52	406.7375	CU	
53	406.7500	CU	
54	406.7625	CU	
55	406.7750	CU	
56	406.7875	CU	
57	406.8000	CU	
58	406.8125	CU	
59	406.8250	CU	
60	406.8375	CU	
61	406.8500	CU	
62	406.8625	CU	
63	406.8750	CU	
64	406.8875	CU	
65	406.9000	CU	
66	406.9125	CU	
67	406.9250	CU	
68	406.9375	CU	
69	406.9500	CU	
70	406.9625	CU	
71	406.9750	CU	
72	406.9875	CU	
73	407.0000	CU	
74	407.0125	CU	
75	407.0250	CU	
76	407.0375	CU	
77	407.0500	CU	
78	407.0625	CU	
79	407.0750	CU	
80	407.0875	CU	
81	407.1000	CU	
82	407.1125	CU	
83	407.1250	CU	
84	407.1375	CU	
85	407.1500	CU	
86	407.1625	CU	
87	407.1750	CU	
88	407.1875	CU	
89	407.2000	CU	
90	407.2125	CU	
91	407.2250	CU	
92	407.2375	CU	

93	407.2500	CU	
94	407.2625	CU	
95	407.2750	CU	
96	407.2875	CU	
97	407.3000	CU	
98	407.3125	CU	
99	407.3250	CU	
100	407.3375	CU	
101	407.3500	CU	
102	407.3625	CU	
103	407.3750	CU	
104	407.3875	CU	
105	407.4000	CU	
106	407.4125	CU	
107	407.4250	CU	
108	407.4375	CU	
109	407.4500	CU	
110	407.4625	CU	
111	407.4750	CU	
112	407.4875	CU	
113	407.5000	CU	
114	407.5125	CU	
115	407.5250	CU	
116	407.5375	CU	
117	407.5500	CU	
118	407.5625	CU	
119	407.5750	CU	
120	407.5875	CU	
121	407.6000	CU	
122	407.6125	CU	
123	407.6250	CU	
124	407.6375	CU	
125	407.6500	CU	
126	407.6625	CU	
127	407.6750	CU	
128	407.6875	CU	
129	407.7000	CU	
130	407.7125	CU	
131	407.7250	CU	
132	407.7375	CU	
133	407.7500	CU	
134	407.7625	CU	
135	407.7750	CU	
136	407.7875	CU	
137	407.8000	CU	
138	407.8125	CU	
139	407.8250	CU	
140	407.8375	CU	
141	407.8500	CU	

142	407.8625	CU	
143	407.8750	CU	
144	407.8875	CU	
145	407.9000	CU	
146	407.9125	CU	
147	407.9250	CU	
148	407.9375	CU	
149	407.9500	CU	
150	407.9625	CU	
151	407.9750	CU	
152	407.9875	CU	
153	408.0000	CU	
154	408.0125	CU	
155	408.0250	CU	
156	408.0375	CU	
157	408.0500	CU	
158	408.0625	CU	
159	408.0750	CU	
160	408.0875	CU	
161	408.1000	CU	
162	408.1125	CU	
163	408.1250	CU	
164	408.1375	CU	
165	408.1500	CU	
166	408.1625	CU	
167	408.1750	CU	
168	408.1875	CU	
169	408.2000	CU	
170	408.2125	CU	
171	408.2250	CU	
172	408.2375	CU	
173	408.2500	EST	
174	408.2625	EST	
175	408.2750	EST	
176	408.2875	EST	
177	408.3000	EST	
178	408.3125	EST	
179	408.3250	EST	
180	408.3375	EST	
181	408.3500	EST	
182	408.3625	CU	
183	408.3750	CU	
184	408.3875	CU	
185	408.4000	CU	
186	408.4125	CU	
187	408.4250	CU	
188	408.4375	CU	
189	408.4500	CU	
190	408.4625	CU	

191	408.4750	CU	
192	408.4875	CU	
193	408.5000	CU	
194	408.5125	CU	
195	408.5250	CU	
196	408.5375	CU	
197	408.5500	CU	
198	408.5625	CU	
199	408.5750	CU	
200	408.5875	CU	
201	408.6000	CU	
202	408.6125	CU	
203	408.6250	CU	
204	408.6375	CU	
205	408.6500	CU	
206	408.6625	CU	
207	408.6750	CU	
208	408.6875	CU	
209	408.7000	CU	
210	408.7125	CU	
211	408.7250	CU	
212	408.7375	CU	
213	408.7500	CU	
214	408.7625	CU	
215	408.7750	CU	
216	408.7875	CU	
217	408.8000	CU	
218	408.8125	CU	
219	408.8250	CU	
220	408.8375	CU	
221	408.8500	CU	
222	408.8625	CU	
223	408.8750	CU	
224	408.8875	CU	
225	408.9000	CU	
226	408.9125	CU	
227	408.9250	CU	
228	408.9375	CU	
229	408.9500	CU	
230	408.9625	CU	
231	408.9750	CU	
232	408.9875	CU	
233	409.0000	CU	
234	409.0125	CU	
235	409.0250	CU	
236	409.0375	CU	
237	409.0500	CU	
238	409.0625	CU	
239	409.0750	CU	

240	409.0875	CU	
241	409.1000	CU	
242	409.1125	CU	
243	409.1250	CU	
244	409.1375	CU	
245	409.1500	CU	
246	409.1625	CU	
247	409.1750	CU	
248	409.1875	CU	
249	409.2000	CU	
250	409.2125	CU	
251	409.2250	CU	
252	409.2375	CU	
253	409.2500	CU	
254	409.2625	CU	
255	409.2750	CU	
256	409.2875	CU	
257	409.3000	CU	
258	409.3125	CU	
259	409.3250	CU	
260	409.3375	CU	
261	409.3500	CU	
262	409.3625	CU	
263	409.3750	CU	
264	409.3875	CU	
265	409.4000	CU	
266	409.4125	CU	
267	409.4250	CU	
268	409.4375	CU	
269	409.4500	CU	
270	409.4625	CU	
271	409.4750	CU	
272	409.4875	CU	
273	409.5000	CU	
274	409.5125	CU	
275	409.5250	CU	
276	409.5375	CU	
277	409.5500	CU	
278	409.5625	CU	
279	409.5750	CU	
280	409.5875	CU	
281	409.6000	CU	
282	409.6125	CU	
283	409.6250	CU	
284	409.6375	CU	
285	409.6500	CU	
286	409.6625	CU	
287	409.6750	CU	
288	409.6875	CU	

289	409.7000	CU	
290	409.7125	CU	
291	409.7250	CU	
292	409.7375	CU	
293	409.7500	CU	
294	409.7625	CU	
295	409.7750	CU	
296	409.7875	CU	
297	409.8000	CU	
298	409.8125	CU	
299	409.8250	CU	
300	409.8375	CU	
301	409.8500	CU	
302	409.8625	CU	
303	409.8750	CU	
304	409.8875	CU	
305	409.9000	CU	
306	409.9125	CU	
307	409.9250	CU	
308	409.9375	CU	
309	409.9500	CU	
310	409.9625	CU	
311	409.9750	CU	
312	409.9875	CU	

Frequency sharing in 440-450 MHz frequency band (based on 25 kHz channel spacing)

	Frequency MHz	Status	Remarks
1	440.000	CU	
2	440.025	CU	
3	440.050	CU	
4	440.075	CU	
5	440.100	CU	
6	440.125	CU	
7	440.150	CU	
8	440.175	CU	
9	440.200	CU	
10	440.225	CU	
11	440.250	CU	
12	440.275	CU	
13	440.300	CU	
14	440.325	CU	
15	440.350	CU	
16	440.375	CU	
17	440.400	CU	
18	440.425	CU	
19	440.450	CU	

20	440.475	CU	
21	440.500	CU	
22	440.525	CU	
23	440.550	CU	
24	440.575	CU	
25	440.600	CU	
26	440.625	CU	
27	440.650	EST	
28	440.675	EST	
29	440.700	EST	
30	440.725	EST	
31	440.750	EST	
32	440.775	EST	
33	440.800	EST	
34	440.825	EST	
35	440.850	EST	
36	440.875	EST	
37	440.900	EST	
38	440.925	EST	
39	440.950	EST	
40	440.975	EST	
41	441.000	EST	
42	441.025	EST	
43	441.050	EST	
44	441.075	EST	
45	441.100	EST	
46	441.125	EST	
47	441.150	EST	
48	441.175	EST	
49	441.200	FIN	
50	441.225	FIN	
51	441.250	FIN	
52	441.275	FIN	
53	441.300	FIN	
54	441.325	FIN	
55	441.350	FIN	
56	441.375	FIN	
57	441.400	FIN	
58	441.425	FIN	
59	441.450	FIN	
60	441.475	FIN	
61	441.500	FIN	
62	441.525	FIN	
63	441.550	FIN	
64	441.575	FIN	
65	441.600	FIN	
66	441.625	FIN	
67	441.650	FIN	
68	441.675	FIN	

69	441.700	FIN	
70	441.725	FIN	
71	441.750	FIN	
72	441.775	FIN	
73	441.800	FIN	
74	441.825	FIN	
75	441.850	FIN	
76	441.875	FIN	
77	441.900	FIN	
78	441.925	FIN	
79	441.950	FIN	
80	441.975	FIN	
81	442.000	FIN	
82	442.025	FIN	
83	442.050	FIN	
84	442.075	FIN	
85	442.100	FIN	
86	442.125	FIN	
87	442.150	FIN	
88	442.175	FIN	
89	442.200	FIN	
90	442.225	FIN	
91	442.250	FIN	
92	442.275	FIN	
93	442.300	FIN	
94	442.325	FIN	
95	442.350	FIN	
96	442.375	FIN	
97	442.400	FIN	
98	442.425	FIN	
99	442.450	FIN	
100	442.475	FIN	
101	442.500	FIN	This frequency range is for Fixed Service in Estonia
102	442.525	FIN	
103	442.550	FIN	
104	442.575	FIN	
105	442.600	FIN	
106	442.625	FIN	
107	442.650	FIN	
108	442.675	FIN	
109	442.700	FIN	
110	442.725	FIN	
111	442.750	FIN	
112	442.775	FIN	
113	442.800	FIN	
114	442.825	FIN	
115	442.850	CU	
116	442.875	CU	
117	442.900	CU	

118	442.925	CU	
119	442.950	CU	
120	442.975	CU	
121	443.000	CU	
122	443.025	CU	
123	443.050	CU	
124	443.075	CU	
125	443.100	CU	
126	443.125	CU	
127	443.150	CU	
128	443.175	CU	
129	443.200	CU	
130	443.225	CU	
131	443.250	CU	
132	443.275	CU	
133	443.300	CU	
134	443.325	CU	
135	443.350	CU	
136	443.375	CU	
137	443.400	CU	
138	443.425	CU	
139	443.450	CU	
140	443.475	CU	
141	443.500	CU	
142	443.525	CU	
143	443.550	CU	
144	443.575	CU	
145	443.600	CU	
146	443.625	CU	
147	443.650	CU	
148	443.675	CU	
149	443.700	CU	
150	443.725	CU	
151	443.750	CU	
152	443.775	CU	
153	443.800	CU	
154	443.825	CU	
155	443.850	CU	
156	443.875	CU	
157	443.900	CU	
158	443.925	CU	
159	443.950	CU	
160	443.975	CU	
161	444.000	FIN	
162	444.025	FIN	
163	444.050	FIN	
164	444.075	FIN	
165	444.100	FIN	
166	444.125	FIN	

167	444.150	FIN	
168	444.175	EST	
169	444.200	EST	
170	444.225	FIN	
171	444.250	EST	
172	444.275	FIN	
173	444.300	FIN	
174	444.325	FIN	
175	444.350	FIN	
176	444.375	EST	
177	444.400	EST	
178	444.425	EST	
179	444.450	EST	
180	444.475	EST	
181	444.500	FIN	
182	444.525	FIN	
183	444.550	FIN	
184	444.575	EST	
185	444.600	EST	
186	444.625	EST	
187	444.650	EST	
188	444.675	EST	
189	444.700	FIN	
190	444.725	EST	
191	444.750	FIN	
192	444.775	FIN	
193	444.800	EST	
194	444.825	EST	
195	444.850	EST	
196	444.875	EST	
197	444.900	EST	
198	444.925	EST	
199	444.950	EST	
200	444.975	EST	
201	445.000	CU	
202	445.025	FIN	
203	445.050	FIN	
204	445.075	FIN	
205	445.100	FIN	
206	445.125	FIN	
207	445.150	FIN	
208	445.175	FIN	
209	445.200	FIN	
210	445.225	FIN	
211	445.250	FIN	
212	445.275	FIN	
213	445.300	FIN	
214	445.325	FIN	
215	445.350	FIN	

216	445.375	FIN	
217	445.400	CU	
218	445.425	FIN	
219	445.450	FIN	
220	445.475	FIN	
221	445.500	FIN	
222	445.525	FIN	
223	445.550	FIN	
224	445.575	FIN	
225	445.600	FIN	
226	445.625	FIN	
227	445.650	FIN	
228	445.675	FIN	
229	445.700	FIN	
230	445.725	FIN	
231	445.750	FIN	
232	445.775	FIN	
233	445.800	CU	
234	445.825	FIN	
235	445.850	FIN	
236	445.875	FIN	
237	445.900	FIN	
238	445.925	FIN	
239	445.950	FIN	
240	445.975	FIN	
241	446.000		PMR
242	446.025		
243	446.050		
244	446.075		
245	446.100		
246	446.125		
247	446.150		
248	446.175		
249	446.200		DMR
250	446.225	FIN	
251	446.250	FIN	
252	446.275	FIN	
253	446.300	FIN	
254	446.325	FIN	
255	446.350	FIN	
256	446.375	FIN	
257	446.400	FIN	
258	446.425	FIN	
259	446.450	FIN	
260	446.475	EST	
261	446.500	EST	
262	446.525	EST	
263	446.550	EST	
264	446.575	EST	

265	446.600	FIN	
266	446.625	FIN	
267	446.650	EST	
268	446.675	EST	
269	446.700	EST	
270	446.725	EST	
271	446.750	FIN	
272	446.775	EST	
273	446.800	EST	
274	446.825	EST	
275	446.850	EST	
276	446.875	EST	
277	446.900	EST	
278	446.925	EST	
279	446.950	EST	
280	446.975	FIN	
281	447.000	FIN	
282	447.025	EST	
283	447.050	EST	
284	447.075	EST	
285	447.100	EST	
286	447.125	EST	
287	447.150	EST	
288	447.175	EST	
289	447.200	EST	
290	447.225	EST	
291	447.250	EST	
292	447.275	EST	
293	447.300	EST	
294	447.325	CU	
295	447.350	CU	
296	447.375	CU	
297	447.400	CU	
298	447.425	CU	
299	447.450	CU	
300	447.475	FIN	
301	447.500	FIN	
302	447.525	FIN	
303	447.550	FIN	
304	447.575	FIN	
305	447.600	FIN	
306	447.625	FIN	
307	447.650	FIN	
308	447.675	FIN	
309	447.700	FIN	
310	447.725	EST	
311	447.750	EST	
312	447.775	EST	
313	447.800	EST	

314	447.825	EST	
315	447.850	EST	
316	447.875	EST	
317	447.900	EST	
318	447.925	EST	
319	447.950	EST	
320	447.975	EST	
321	448.000	EST	
322	448.025	EST	
323	448.050	EST	
324	448.075	EST	
325	448.100	EST	
326	448.125	EST	
327	448.150	EST	
328	448.175	EST	
329	448.200	EST	
330	448.225	EST	
331	448.250	EST	
332	448.275	EST	
333	448.300	EST	
334	448.325	EST	
335	448.350	EST	
336	448.375	EST	
337	448.400	CU	
338	448.425	CU	
339	448.450	CU	
340	448.475	CU	
341	448.500	CU	
342	448.525	CU	
343	448.550	CU	
344	448.575	CU	
345	448.600	CU	
346	448.625	CU	
347	448.650	CU	
348	448.675	CU	
349	448.700	CU	
350	448.725	CU	
351	448.750	CU	
352	448.775	CU	
353	448.800	CU	
354	448.825	CU	
355	448.850	CU	
356	448.875	CU	
357	448.900	CU	
358	448.925	CU	
359	448.950	CU	
360	448.975	CU	
361	449.000	EST	
362	449.025	EST	

363	449.050	FIN	
364	449.075	EST	
365	449.100	EST	
366	449.125	CU	
367	449.150	EST	
368	449.175	EST	
369	449.200	EST	
370	449.225	FIN	
371	449.250	EST	
372	449.275	FIN	
373	449.300	EST	
374	449.325	EST	
375	449.350	FIN	
376	449.375	EST	
377	449.400	EST	
378	449.425	EST	
379	449.450	EST	
380	449.475	FIN	
381	449.500	FIN	
382	449.525	FIN	
383	449.550	EST	
384	449.575	EST	
385	449.600	EST	
386	449.625	EST	
387	449.650	EST	
388	449.675	EST	
389	449.700	FIN	
390	449.725	EST	
391	449.750	FIN	
392	449.775	EST	
393	449.800	EST	
394	449.825	EST	
395	449.850	EST	
396	449.875	EST	
397	449.900	EST	
398	449.925	EST	
399	449.950	EST	
400	449.975	EST	