

**DOCKET FILE COPY ORIGINAL**Federal Communications Commission  
Washington, D.C. 20554

May 29, 2002

Dr. Mun Seog Choi  
7718 Melita Avenue North  
Hollywood, California 91605

Dear Dr. Choi:

This office is in receipt of two Petitions for Rule Making filed by Mr. Mun Cheol Choi, Won Technologies Ltd., on November 26, 2001, and on February 4, 2002. In these petitions, Won Technologies requests that the Commission amend Part 15 of its rules to permit the authorization of wireless adapters operating in several frequency bands to provide for "hands free" cellular telephone use in cars. It requests that these products be permitted to operate in the 76-80 MHz, 150.05-151.05 MHz, 314-316 MHz and 350-380 MHz bands at emission levels ranging from 1000 uV/m to 3000 uV/m. These petitions are dismissed for the reasons set forth below.

The petitions do not address how the operation of the requested adapters could occur without causing harmful interference to the radio services allocated in, and operating within, the requested frequency bands. For example, the band 76-82 MHz is allocated for television broadcast channel five. Based on earlier findings in the First Report and Order in GEN Docket No. 20780, adopted September 18, 1979, FCC 79-555, the Commission determined that the maximum emission level that should be permitted within this frequency band was 100 uV/m, as measured at 3 meters with a CISPR quasi-peak detector. The petitions request that operation within this band be permitted at a signal level of 3000 uV/m. No analysis is provided demonstrating how operation at this level can be permitted without resulting in harmful interference to TV channel five reception. We have similar concerns with the other requested frequency bands. The band 150.05-151.05 MHz is allocated for fixed and mobile operations by the U.S. Government as well as by public safety and other non-government land mobile stations. The bands 314-316 MHz and 350-380 MHz are allocated exclusively for U.S. Government fixed and mobile operations. No analysis is provided to support the need to employ these specific frequency bands. In addition, no analysis has been provided demonstrating why operation at the requested emission levels will not result in harmful interference to the radio services currently authorized in these frequency bands.

Based on the above, there does not appear to be a sufficient basis to initiate a proceeding to consider amending our regulations to allow the operation of the wireless adapters described by Won Technologies. Accordingly, under the authority contained in Sections 0.31 and 0.241 of our regulations, 47 C.F.R. §§ 0.31 and 0.241, your Petitions for Rule Making are dismissed.

Sincerely,

A handwritten signature in black ink, appearing to read "Edmond J. Thomas", written over a faint, illegible stamp or background.

Edmond J. Thomas  
Chief, Office of Engineering and Technology

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**RECEIVED**

DEC 13 2001

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**The petition for Rule Making**  
**( The frequency allocation for wireless RF hands free of cellular  
phone )**

Date : 2001. 10. 23

Petitioner: Mr. Mun Cheol Choi  
President of Won technologies Ltd. Co.**Contents**

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## **A new section 15.2xx for wireless hands free requested**

### **1. The Status of our existing situation**

Dear Sir

We are engineers of a small venture company in Korea, developing and manufacturing WLAN in 2.4 GHz and wireless hands free for cellular phone using in vehicle (refer to attachment) and I am president of this company. I would like to explain our situation as followings, please refer to make your decision.

- We have developed wireless hands free for cellular phone using in vehicle and our intention is to supply this wireless hands free for customers in worldwide.
- We have applied for the type approval of this product to FCC through one of Korean testing agent of US test Lab in last July. The requested frequency was 74.6MHz for auditory assistance device.
- All of concerning people who were charged for test have expected this frequency could be approved for hands free but finally FCC has rejected because this is the frequency for only handicapped person and persons (Section 15.237) in September.
- After this rejection we (our company and FCC agent in Korea) searched the usable frequency for hands free using in public allocated by FCC, but there has been not any frequency for this kind of devices allocated by FCC.
- I have contact related FCC authorities and have advised a lot and I could contact you at first time. I suggest many of problem will be in

our document, but I would like to ask you to comment please.

- My address is as attached item 3

1. The petition is as followings.

Please allocate available frequencies among following requested frequencies and fundamental emission for RF hands free of cellular phone for public usage.

2-1. The requesting frequencies

- 1MHz for auditory assistance device within 76 ~ 80 MHz
- 1MHz for auditory assistance device within 150 ~ 160MHz
- 1MHz for the frequency of wireless hands free at  $315 \pm 1$  MHz
- 1MHz for the frequency of wireless hands free within 350 ~ 380MHz

2-2. The requesting fundamental emission for each frequencies

- For 76 ~ 80 MHz : 3,000 micro volt/meter
- For 150 ~ 160MHz: 2,000 micro volt/meter
- For 315, 350 ~ 380MHz: 1,500 micro volt/meter

3. Our address for communication

<PROCEEDING>

<DATE> 10/23/2001

<NAME> Mun Cheol Choi

<ADDRESS1> #401 yisu bldg. 343-7 Gasan-dong, Gumchun-gu,  
153-023, Seoul, Korea

<FILE-NUMBER>

<DOCUMENT-TYPE> PU  
 <PHONE-NUMBER> +82-2-861-5834  
 <DESCRIPTION> Request amendment of the commission's Rule to create  
 a new hands free for cellular phone

\*\*\* Reference address which you can use on your convenience \*\*\*

<NAME>Mun Seog Choi  
 <ADDRESS2> 7718 Melita Ave  
 <CITY> N. Hollywood  
 <STATE> CA  
 <ZIP> 91605 USA  
 <PHONE-NUMBER> 818-759-0652

4. Proposal

I have studied FCC rule part15 secs.15.209 because I have applied the type approval of wireless hands free of cellular phone using the frequency for auditory assistance device(74.6MHz) but it was rejected approval by FCC, because it is only for handicapped person and persons. I could not find any frequency for hands free for cellular phone.

My proposal is as followings.

Please modify secs.15.209 and make a new section 15.2xx as following proposal for wireless hands free adapter for cellular phone, if you agree.

4-1. Proposal for Modification of existing section

section. 15.209

Radiated emission limits; general requirements.

(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Measurement Frequency (MHz)	Field strength (microvolts/meter)	distance (meters)
0.009-0.490.....	2400/F(kHz)	300
0.490-1.705.....	24000/F(kHz)	30
1.705-30.0.....	30	30
30-88.....	100 **	3
88-216.....	150 **	3
216-960.....	200 **	3
Above 960.....	500	3

\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 314-316MHz (add up) or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., Secs. 15.231 and 15.241 and 15.2xx(additional section)

4-2. Proposal of making a **new section** for wireless hands free :

We have learned all equipment operating under in Section 15. 209 should be operated as the fundamental emission as indicated. However, operation within these frequency bands is permitted under other sections of this part, e.g., Secs. 15.231 and 15.241 and 15.2xx(additional section as proposed)

Sec.15.2xx

Operation in the bands 76.0-80.0 MHz, 150.05-160 MHz and 314-316 MHz, 350 ~ 380MHz.

- (a) The intentional radiator shall be restricted to use as an hands free adapter for cellular phone and other auditory communication device.
- (b) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the above specified frequency ranges.
- (c) The field strength of any emissions within the permitted 200 kHz band shall not exceed the following:

	Field strength of Fundamental frequency (MHz) (microvolts/meter)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emissions
76-80.....	3,000.....	300	
150.05-151.05.....	1,500.....	150	
314-316, 350 ~ 380.....	1,000	100	

- 5. The problems which we have facing to related FCC regulations
  - Section 15.205 restrict band
  - Section 15.209 radiated emission limit

- A. we could not use the fundamental emission limit indicated in section 15.209 for our commercial product, because the emission limit is too low as 100 ~ 200 micro volt/meter for this commercial communication device.
- B. For wireless hands free, we need the fundamental emission in 1□3mV/m for each frequencies which we have proposed to make a new rule of wireless hands free of commercial products as our proposal.
- C. We have developed wireless hands free, GARION™, and have got type approval by Korean Government with the emission limit 0.5mV/m for coverage 2 ~ 3 meter, but we suggest this is too low emission for commercial hands free and we have proposed 3mV/m for communicating min. coverage 5□7 meter.
- D. Our status for this matter is that we have tested engineering sample in 74.6MHz with our buyer in USA and agreed when we have got the type approval from FCC, they will place purchasing order for trial marketing.

[ Secs. 15.209

Radiated emission limits

(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Measurement Frequency (MHz)	Field strength (microvolts/meter)	distance (meters)
0.009-0.490.....	2400/F(kHz)	300
0.490-1.705.....	24000/F(kHz)	30
1.705-30.0.....	30	30
30-88.....	100 **	3
88-216.....	150 **	3
216-960.....	200 **	3
Above 960.....	500	3

\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., Secs. 15.231 and 15.241 ]

A. Section 15.231 periodic operation

This Section are restricted for periodic operation, not for continuous transmission.

[ Section 15.231 (a) The provisions of this section are restricted to periodic operation within the band 40.66-40.70 MHz and above 70 MHz.

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emissions (microvolts/meter)
40.66-40.70	2,250	225
70-130	1,250	125
130-174	\1\ 1,250 to 3,750	\1\ 125 to 375
174-260	3,750	375
260-470	\1\ 3,750 to 12,500	\1\ 375 to 1,250
Above 470	12,500	1,250

\1\ Linear interpolations.

(1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.

following:

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emission (microvolts/meter)
40.66-40.70	1,000	100
70-130	500	50
130-174	500 to 1,500	\1\ 50 to 150
174-260	1,500	150
260-470	1,500 to 5,000	\1\ 150 to 500
Above 470	5,000	500

\1\ Linear interpolations.

**B. Section 15.237 operation for handicapped person**

This Section Should be used for handicapped person and persons.

[ Sec. 15.237

Operation in the bands 72.0-73.0 MHz, 74.6-74.8 MHz and 75.2-76.0 MHz.

(a) The intentional radiator shall be restricted to use as an auditory assistance device.

(b) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the above specified frequency ranges.

(c) The field strength of any emissions within the permitted 200 kHz band shall not exceed 80 millivolts/meter at 3 meters. The field strength of any emissions radiated on any frequency outside of the specified 200 kHz band shall not exceed 1500 microvolts/meter at 3 meters. The emission limits in this paragraph are based on measurement instrumentation employing an average detector. The provisions in Sec. 15.35 for limiting peak emissions apply. ]