

CHEN, Colin

From: rosdi [rosdi@balda.com.my]
Sent: 06 March 2007 08:31
To: CHEN, Colin
Cc: TAN, Lee Tuan; LIM, Cher Hwee
Subject: RE: Balda FCC Application (Our Ref: 56S061113)

Hi Colin,

There is no doubt the device has to qualify for FCC. The hopping is depends on the chipset level and Bluetooth protocol. We did not change the protocol and the hopping in the chipset. It is already qualified. Nokia is not only Bluetooth device is using BC03 chipset but a lot more in the market which listed in FCC official website.

Note*

Your question below is more on chipset level which already qualified.
BCO3 Chipset has 79 channels and it's randomly hopping.

Balda | SOLUTIONS MALAYSIA

Mohd Rosdi Ngah

RND Engineer

From: CHEN, Colin [mailto:Colin.CHEN@tuv-sud-psb.sg]
Sent: Monday, March 05, 2007 5:06 PM
To: rosdi
Cc: TAN, Lee Tuan; LIM, Cher Hwee
Subject: RE: Balda FCC Application (Our Ref: 56S061113)

Dear Rosdi,

According to 15.247(a)(1) The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies.

Therefore my question is if your hopping sequence satisfy the above condition?

Thanks

Colin Chen

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From: rosdi [mailto:rosdi@balda.com.my]
Sent: 05 March 2007 16:34
To: CHEN, Colin
Cc: TAN, Lee Tuan; LIM, Cher Hwee
Subject: RE: Balda FCC Application (Our Ref: 56S061113)

Hi Colin,

I don't really get what you mean but

FCC 15.247 (a) (1) is refer to carrier frequency separation and spectrum bandwidth (20dB measurement). The parameter is in FCC report and the result is PASS.

So the answer is YES. It should not be a problem since the BCO3 chipset is already qualified and the protocol is the same for all BT devices.

Cher Hwee,
Please advise if I am wrong.

Balda | SOLUTIONS MALAYSIA
Mohd Rosdi Ngah
RND Engineer

From: CHEN, Colin [mailto:Colin.CHEN@tuv-sud-psb.sg]
Sent: Monday, March 05, 2007 3:35 PM
To: rosdi
Cc: TAN, Lee Tuan; LIM, Cher Hwee
Subject: FW: Balda FCC Application (Our Ref: 56S061113)

Dear Rosdi,

I need your assistance in answering the following question with regards to your FCC application. This is very essential before any application can be submitted.

The rest of the questions have already been answered by Cher Hwee on your behalf. Thanks

1. Is the hopping sequence pseudorandom based on the technical description? 15.247(a)(1)

Colin Chen

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From: LIM, Cher Hwee
Sent: 05 March 2007 15:15
To: CHEN, Colin
Cc: TAN, Lee Tuan
Subject: RE: Balda FCC Application (Our Ref: 56S061113)

Dear Colin,

See below my reply.

Kind Regards,
Lim Cher Hwee
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From: CHEN, Colin
Sent: Monday, March 05, 2007 2:22 PM
To: LIM, Cher Hwee
Cc: TAN, Lee Tuan
Subject: Balda FCC Application

Dear Cher Hwee,

There are some questions with regards to the FCC application that I need you to help answer. Thanks

2. Is the hopping sequence pseudorandom based on the technical description? 15.247(a)(1)
>>CH's reply: Lee Tuan should have a copy from client on how this algorithm is being achieved.

3. Is each channel used equally on average, based on the technical description? 15.247(a)(1)
>> CH's reply: Yes. Please refer to pages 24-25 of the test report 56S061113/03A for results.

4. Does the associated system receiver have the ability to hop in synchronisation with the transmitter, based on the technical description?

>>CH's reply: As mentioned in item 1.

(Fast scanning between hops is permitted) 15.247(a)(1)

5. Is the gain of the antenna below 6dBi? 15.247(b)(4)
>>CH's reply: It's 0dBi

6. Does the frequency hopping system comply with the non-coordination requirements? 15.247(h)
>>CH's reply: The device employs Bluetooth V1.2 which is supporting adaptive frequency hopping. I am not sure on your question above. Having say that, attached 15.247 (h) I extracted from standard which reads:

(h) The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

>>CH's reply: In general, the device complies with 1st sentence of the clause.

Thanks. Please revert asap.

Colin Chen

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