

From: Jandy so [jandyso@semtest.com.cn]

Sent: Monday, January 22, 2007 1:21 PM

To: TIMCO TCB

Cc: gilbert

Subject: Re: TIMCO-TCB/Request for additional question - FUJIAN QUANZHOU BEIFENG TELECOM SYSTEMS CO., LTD. - FCC ID: UUTBF5208

Hello Bruno,

For avoiding the internet interruption these days, I sent the Additional requirements through E-mail. If you received it, plz sent me a messages.

[\(FCC ID: UUTBF520801 JOB 59CC7\)](#)

[Problem 2.](#) I revised the test report in Page 4 of 28 under the sheet "Note...", Since I have confirmed that product is only one power setting(3.13w). So, the OperationDescription Page 5 of 5, "1W for low" is deleted. Also, the user manual is deleted about the program power control uncorrect info. refer to the UserManual Page 12 of 12.

[Problem 3.](#) The Attestation is confirmed by the manufacture, refer to the attachement.

[Problem 5.](#) Since the test sample is a engineering sample using a same module construction, and the whole productions will get no screws for belt-clip peraration. Also, the "external microphone/speaker connector" is designed for engineer development use for writing channel only.
refer to the updated Usermanual Page 9 of 12(Connectors) and Page 5 of 12(Assessories), Page 1 of 12(Body-worn Operation), Page 3 of 12(Instructions).

For the customer demanded, the files connected have been updated as:

UserManual

ExternalPhoto

TestSetupPhoto

IDLabelLocation

IDLabelInfo

[Problem 6.](#) The channel/frequency is prograded by manufacture only and it is capable of these 3 band
430.185-430.560MHz
450.185-450.560MHz
469.610-469.985MHz
by using software writing(manufacture development only) without hardware changed.
refer to the Attestation.

Thank you much!

Jandy so
SEM.Test compliance
2007-01-23

发件人：TIMCO TCB
发送时间：2007-01-19 00:03:21
收件人：jandyso@semtest.com.cn
抄送：Gilbert Lui
主题：TIMCO-TCB/Request for additional question - FUJIAN QUANZHOU BEIFENG
TELECOM SYSTEMS CO., LTD. - FCC ID: UUTBF520801

TIMCO ENGINEERING INC. FCB

TCB &

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FCC Approvals
Industry Canada Approvals
Notified Body for Europe

First request 1/15/2007, SECOND REQUEST 1/18/07

Mr. Jandy So
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SUBJECT: FUJIAN QUANZHOU BEIFENG TELECOM SYSTEMS CO., LTD. - FCC ID:
UUTBF520801

REFERENCE: JOB 59CC7

Dear Mr. So:

This application is on hold until these questions are resolved. Please answer all question(s) together and only respond to tei@timcoengr.com. Any other method will cause **unnecessary delay.**

DO NOT HIT REPLY! Your response should be sent ONLY to tei@timcoengr.com. Any additional exhibits that are sent should be UPLOADED at our web site – please do not attach files to your email. Responses should also contain the job number, applicant name and FCC ID of the device. If an acceptable response is not received within 2 weeks the job will be closed & there will be additional charges to reopen.

Answer all questions. Be sure to number or identify your answer with the corresponding question. If you are referring to another document, be sure to give the page number and paragraph reference where your response can be found.

Thank you for your reply and revised exhibit. However, based upon our review of this application we still have the following questions (blue font):

1. -
2. Power settings: Please describe whether the power is switchable or variable from Low to High power setting. Please revise test report to include this information.
 - a) It is understood that only the manufacturer will set the power to high and low. Please explain whether the radio has a switch so the user can select either 3.13W or 1W.
 - b) Can the manufacturer program the power anywhere between 3.13W and 1W (example 2 Watt radio for user A and 3.13 W to user B, etc.)
 - c) If the radio is tunable from 1W to 3.13W by the manufacturer, then a grant note will be added to the grant conditions.
 - d) If the radio is switchable to 3.13 or 1W, then 3 line items will be added on the grant with a rated power of 1W.
 - e) If the radio is switchable to 3.13 or 1W, please provide in the test report the measured output power for the low power settings.
3. Part 90.203(e): The manual page 13/15 indicates that users can program the channel/frequency and the desired power setting (low and high). Please provide an attestation for compliance with this section. Section 90.203(e): Except as provided in paragraph (g) of this section, transmitters designed to operate above 25 MHz shall not be certificated for use under this part if the operator can program and transmit on frequencies, other than those programmed by the manufacturer, service or maintenance personnel, using the equipment's external operation controls.
 - a) Please provide an attestation from the applicant.
4. -
5. Part 2.1093 - RF exposure and manual exhibits: The applicant is supplying a belt-clip for

operation at a separation distance closer than 2.5cm from the body. This conflicts with the instruction to operate at $>2.5\text{cm}$. The equation used in this exhibit is not appropriate for a P.T.T device with a belt-clip providing a separation distance from the body of less than 2.5cm. The following equation should be used for determining whether or not SAR is required to qualify for TCB approval: Low Threshold = $(375/f\text{GHz}) \text{ mW}$, $d < 2.5 \text{ cm}$. SAR testing is required for this device. Alternatively, please provide a side view photo of the belt-clip showing a separation distance $> \text{ or } = 2.5\text{cm}$ from the back of the radio (not the antenna).

a) Manual - Page 1 of 15 : It is indicated the following:

“Body-worn Operation: Always place the radio in an BFDX approved holder, case, or body harness for this product” This is conflicting with previous reply. This device was designed to be used with a belt-clip (see screws on back of device for belt-clip accessory).

Manual - page 3 of 15: Instructions 9. “if you wear a portable two way radio on your body, ...”. The FCC requires showing evidence of a belt-clip providing a separation distance of at least 2.5cm in order to qualify for the low threshold for $d > 2.5\text{cm}$.

Even though the manufacturer is not supplying a belt-clip, this device is supplied with an external microphone/speaker connector for connection to a headphone and it has VOX capability. This device is expected to be body-worn and the user has not mean to prevent operation at $< 2.5\text{cm}$.

OET 65c page 45/57(pdf) - Recommended test positions for body-worn and other configurations – third paragraph:

“Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm. In these cases, the device may use body-worn accessories that provide a separation distance greater than that tested for the device provided however that the accessory contains no metallic components....”

6. Operation frequency band:

a) Block diagram and tune-up procedure list a frequency of operation from 450 to 470MHz, whereas the application was made from 430-470MHz. Please revise the document(s) for consistency.

b) Frequency band – 731: Please download the following FCC procedure on how to list/apply for frequency range.

KDB publication # 634817 Frequency Range Listings For Certification Grants

https://gulfoss2.fcc.gov/prod/oet/forms/blobs/IDRetrieve.cgi?attachment_id=22161

According to part 2.106, the following frequency bands should be listed on 731 form (item 13 and 14.)

430-454 pt 90

454-455 pt 22

455-456 pt 74

456-470 pt 90

c) Please revise the test report to include compliance with part 22 and 74, respectively for the band 454-455 and 455-456MHz.

a) Is the device capable of operating on any channel/frequency in the each of the band listed? For example, can it operate anywhere between 430.185-430.560MHz?

b) Is the device capable of operating on only three fixed frequencies: 430.185MHz, 450.185MHz, and 469.985MHz?

c) Please explain why the device is not capable of tuning on any frequency between 430.185 – 469.985MHz (example: hardware limitation such as difference in VCOs/frequency determining circuitry). If there is a difference in components related to frequency determination, please provide list of components for the three models or test sample tested.

Sincerely,

Bruno Clavier