

## Mike Kuo

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**From:** Claire Hoque  
**Sent:** November 07 日 2003 年 Friday 11:58 AM  
**To:** Mike Kuo  
**Cc:** Don Erwin; Thu Chan  
**Subject:** URGENT! Vivato Inc. FCC ID:QLNVP824BWFBR, AN03T3319

**Importance:** High

Hi Mike,

Here are the answers from Vivato. Pls kindly issue the grant TODAY, if there are no more questions. Vivato is very anxious to get the grant.

Question #1: Antenna specification and test report listed the antenna gain is 2 dBi. However, in the theory of operation and user manual ( page 17), the antenna gain is listed as 2.2 dBi. Please explain the differences and confirm the antenna gain that was used during the tests.

<Vivato>Clarified that the antennas are 2.0 dBi. Please see attached antenna data sheet. Users guide and Theory of Ops have been modified(as attached)



S181TC-2450S.pdf



Theory of operation(revised).P.Manual(revised).pdf



User

Question #2: Per the information given in page 37-39 of user manual, the user can select the channel number for the best performance. Page 20 of user manual listed the frequency range for this device is from 2400-2497MHz. Please confirm that this device will only be capable of operating from 2412-2462MHz within the U.S. End user will not be able to select the channel beyond 11 channel.

<Vivato>Changed frequency range on page 20 to say 2412 MHz to 2462 MHz. Clarified channel setting sections to say that only channels 1 through 11 are supported. The control software does not allow you to select a channel above 11.

Question #3: Please confirm antenna connector type. Antenna specification indicates the antenna connector is a standard TNC with male connector but the user manual indicates the antenna connector is reverse polarity TNC connector. If standard TNC antenna connectors are used, the grant will be limited that this device must be professionally installed.

<Vivato>Antenna connector is reverse polarity TNC. Please see attached antenna data sheet - we are using alternative part# S181TR-2450S.

Question #4: User manual does not contain information required per section 15.21 and 15.105(b) of FCC rules. In addition, RF exposure warning statement did not include in user manual. Please provide revised user manual to address these requirements.

<Vivato>The following information is already in the user guide in the "FCC Declaration of Conformity" section. "Do not substitute any parts or modify the product. Any unauthorized changes to the product could result in compromising the safety features or the correct operation of the product."

The Vivato Wi-Fi Bridge/Router has been evaluated under FCC Bulletin OET 65C and found to be compliant to the requirements set forth in CFR 47 15.247 (b) (4) addressing RF Exposure from radio frequency devices. The Wi-Fi Bridge/Router must be at least 20 cm (7.8 in.) from people when operating.

From part 15.21, Added to Safety Information in the "Do not substitute any parts or modify this product" paragraph: "Changes or modifications not expressly approved by Vivato compliance could void the user's authority to operate the equipment. Refer any service or repair to authorized Vivato personnel or its certified agent."

Part 15.105(b) is already in the Safety section.

Question #5: Based upon the description of test report, two identical Mini-PCI module are used in this device, please explain why the RF conducted output power measurement has 1 dB differences at high channel.

<Vivato>A 1dB variance could be attributed to module calibration, cable loss, temperature, or a combination of any or all.

Question #6: What was data rate used during the measurement ?

<Vivato>The data rate was 11Mbps.

Thanks,

Claire