

Compliance Certification Services  
561F Monterey Road  
Morgan Hill, CA 95037

Attention: Mike Kuo

Re: Reply to TCB questions regarding Airgo Networks Dual Band AP

Subject: Airgo Networks, FCC ID: SA3-AGN1202AP0000, Assessment NO.:  
AN04T4105, Notice#1

Dear Mike,

Answers to 1,2-1 4,5,6, and 7 are below. The other questions will be answered in a separate document.

Question #1: Based upon internal photos, this Access point is capable of equipping with 3 mini-PCI radio module. As indicated in the internal photos, there are two identical 802.11 a/b/g modules installed. Please explain how the third mini-PCI slots will be used.

**ANS 1** The middle slot was intended for a VNP security module, which speeds the security processing when there are a lot of clients (i.e. like a security co-processor). The VNP security module is strictly a digital device and will be added later via permissive change route.

Question #2: In the test report, there is no indication how the RF conducted measurements were performed. Please address the following issues :

1. Since there are two transmitting antenna connectors, please indicate which transmitting connector was used during RF conducted measurement.

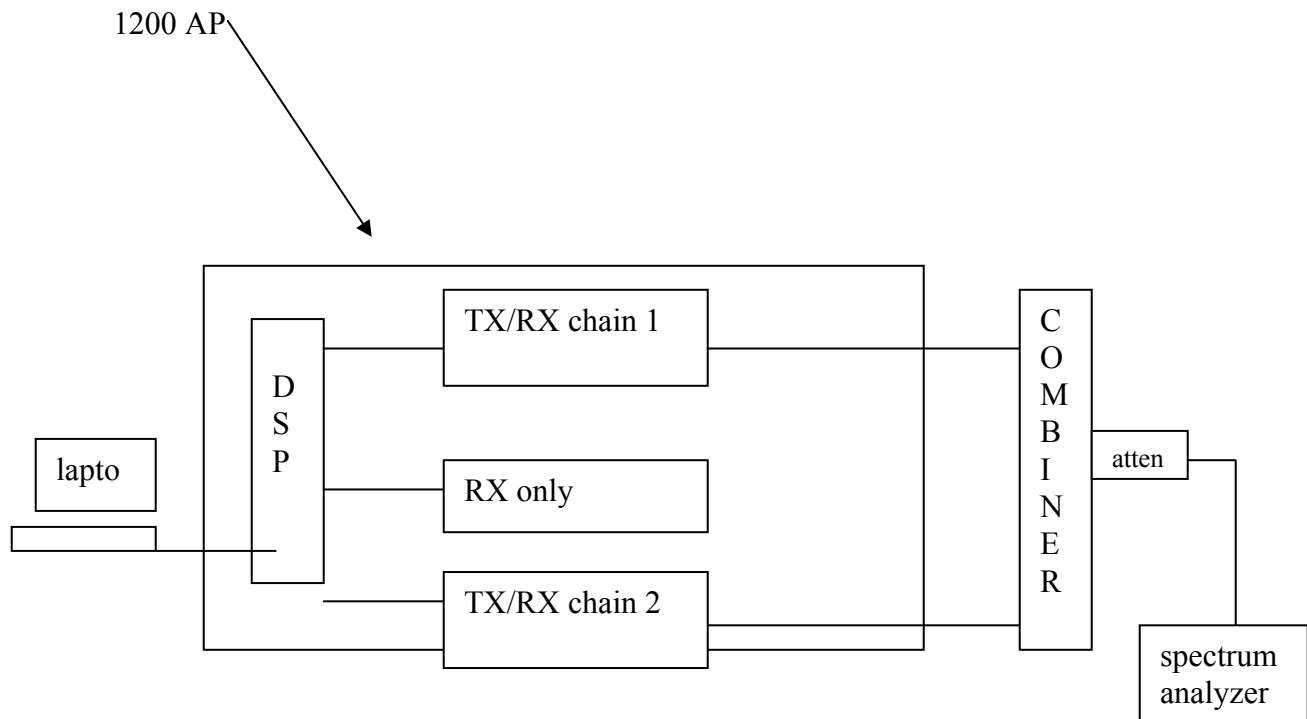
**ANS 2-1** There are two transmitter ports on each radio board. A combiner and Hirose - to-SMA cables were connected to the transmitter ports, the combined output was connected to the spectrum analyzer.

2. Please clearly explain what is the operating conditions during measurements. In particular, what is the data rate used during b, g, a modulation, is only one transmitting function activated or both ? the

highest output power is measured with combined output power or individual output power ? Is combiner used ?

ANS 2-2 Each radio was tested separately. Each radio can be configured for 2.4 GHz or 5 GHz operation, and there can only be one of each on a 2 radio AP. In other words, one radio is set for 2.4 operation, and the other must be set for 5 GHz operation only. The highest output reported was the combined output for Chain 1 and Chain 2 of each TX.

See test setup diagram below



3. Please provide peak output power measurement data for the following mode of operation:

One 802.11b mode with 1 mbps data rate measured at one transmitting connector

Two 802.11 b model with 1 Mbps date rate measured with combiner

One 802.11g mode with 6 Mbps date rate measured at one transmitting connector

Two 802.11g mode with 6 Mbps data rate measured with combiner

One 802.11g mode with 54 mbps data rate measured at one transmitting

connector

Two 802.11g mode with 54 mbps data rate measured with combiner

One 802.11a mode with 6 Mbps data rate measured at one transmitting connector

Two 802.11a mode with 6 Mbps data rate measured with combiner

One 802.11a mode with 108 Mbps data rate measured at one transmitting connector

Two 802.11a mode with 108 Mbps data rate measured with combiner.

One 802.11b mode with 1 Mbps data rate and one 802.11g mode with 54 data rate measured with combiner.

ANSWER Data will be provided in separate document.

Question #3: Page 41 , Figure 27 of user manual has information to allow the end user to select the channel and power. Please provide detail information to what type of setting is available for user to select.

ANSWER will be provided in separate document

Question #4: User Manual does not include information required per section 15.21 of FCC rules.

Question #5: User manual does not include information to address RF exposure compliance. Please submit revised user manual to address this requirement.

**ANS 4 and 5** Refer to user manual wording to be added (attached). This was mistakenly omitted from the original attachments upload.

Question #6: Please provide clear explanation to describe what is the test condition during radiated spurious emission and restricted bandedge. How many transmitters are activated ? what is the data rate ?

**ANS 6** Radios were tested one at a time. Spurious emissions and bandedge tests were performed at worst case as determined by preliminary testing: 11 Mbps for 802.11b and 6 Mbps for 802.11g, and for 802.11a.

Question #7 Please take into account when multiple transmitters are transmitting simultaneously and relation to the output power in the MPE estimate. Please provide justification to show what is the separation distance is required when multiple transmitters are transmitting at the same

time.

**ANS 7** MPE was calculated by adding contributions from each TX antenna. Refer to attached document.

Question #8 :Based upon the spectrum plots of output power, the duty cycle may not be transmitted at 100 %. Please provide technical description to describe the duty cycle for one transmitter , two transmitter in each mode and in each data rate.

**ANSWER** Data will be provided in separate document.