



6 August 2006

CKC Certification Services  
TCB No: US0103  
4933 Sierra Pines Drive  
Mariposa, CA 95338

Subject: Application for Limited Modular Approval of 5.8 GHz Transmitter  
FCC ID: TVQ-U58A

Reference: FCC Registration Number 0014119408  
Alico Systems Inc Grantee Code: TVQ

Dear TCB:

Alico Systems is applying for Limited Modular Approval of a 5.8 GHz Transmitter Module under FCC Part 15 rules. Alico is utilizing a previously FCC certified unmodified product from Ubiquity Networks FCC ID: SWX-SR5 (datasheet attached) as our transmitter module. Alico Systems is a systems manufacturer/OEM and utilizes components/modules from best of breed vendors to develop our end product. This proposed modular transmitter (TVQ-U58A) as configured and tested will be exclusively used within Alico Systems end products. We intend to only sell this modular transmitter as an embedded part of an Alico product line in applications such as Wireless Access Point, Base Station, Wireless Bridge, Mesh Network, Subscriber CPE, etc. We will not sell the modular transmitter as a standalone product.

Compliance with Modular Transmitter Requirements:

**Requirement #1:**

Comply. The modular transmitter is in the form of a mini-PCI card and includes appropriate shielding on board and no external shielding is required. This was demonstrated by testing the transmitter without any enclosures and was found in compliance with the Part 15 limits.

**Requirement #2:**

Comply. The modular transmitter is based on the Atheros AR5004X chipset, the RF section is based on a single chip radio AR5112 which only interfaces to the baseband chip AR5213. The modulation and data rates are controlled by the baseband chip. The entire chip set supports the IEEE 802.11a protocol and the modulation type and data rates are as per the IEEE standard. The interface to the modular transmitter is through a PCI bus specification only.

**Requirement #3:**

Comply. The modular transmitter is powered by a 3.3V DC power supply. This power supply requirement is part of the PCI specification (used for the transmitter mini PCI card). In addition to the 3.3VDC power, the modular transmitter generates onboard 2.5VDC and 1.8VDC required for the AR5004X chipset. The microprocessor mother board which hosts the modular transmitter has a DC to DC power supply which generates the 3.3VDC. The entire power supply is tightly controlled within the sealed enclosure. The end user or installer will have no control to vary the power supply to the transmitter.

**Requirement #4:**

Comply. Alico plans to sell two configurations. One configuration will include an integrated antenna which cannot be replaced. The second configuration utilizes an external antenna. Alico has tested and plans to offer 5 types of antennas for the 5.8 GHz transmitter. These antennas with their maximum gains include a 32 dBi Dish, 17 dBi Sector, 26 dBi Flat Panel, 15 dBi Omni, and 9 dBi Mobile Omni. These antenna requirements with their maximum gains are specified in the instruction manual. In addition these systems are required to be professionally installed. The installer or integrator does not have direct access to the modular transmitter which is supplied in a sealed enclosure.

**Requirement #5:**

Comply. The modular transmitter was tested in a standalone configuration with no enclosure and complies with Part 15 requirements. Ferrites are required to be installed on the power/data cable. These Ferrites will be installed and provided as part of the system delivery of each unit. The modular transmitter was also tested for AC line conducted requirements and is in compliance. The line lengths were greater than 10 cms.

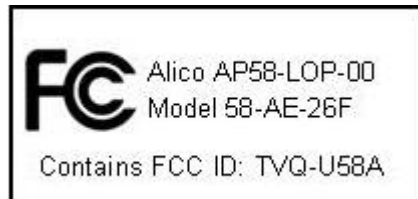
**Requirement #6:**

Comply. The following is the label affixed on the transmitter module.

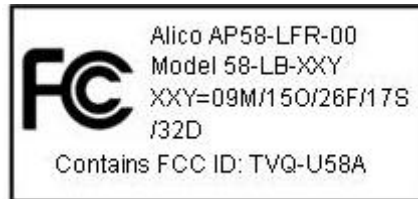


The following are the proposed external labels to be affixed on the outside of the equipment to be sold.

a) Integrated Antenna Configuration



b) External Antenna Configuration



**Requirement #7:**

Comply. Instruction Manual attached with this submission.

**Requirement #8:**

Comply. The Instruction Manual specifies at least a 20 cm distance from the antenna and any human being.

I attest the information provided in this application is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Syed M. Akbar', written over a light gray grid background.

Syed M. Akbar  
President & CEO  
Alico Systems Inc