

FCC ID: SK6XI-N300

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August 23, 2011

To whom it may concern:

The enclosed documents constitute a formal submittal and application for Equipment Authorization for a limited modular approval for a 2x2 MIMO 802.11abgn WLAN device pursuant to the following rules:

Subpart C of Part 15 of FCC Rules (CFR 47)

Subpart E of Part 15 of FCC Rules (CFR 47), UNII Devices

Approval for the module will be limited to installation in host systems manufactured by the applicant (Xirrus). The applicant is requesting that the grant notes allow co-location of multiple modules within a single host. At this time they are requesting co-location of up to 8 modules in the same host system. They would also like the ability to co-locate the 2x2 module detailed in this application with a 3x3 version of the module that is currently pending approval with the FCC under FCC ID SK6XI-N450. RF exposure concerns related to multiple, co-located modules are addressed in the MPE calculation.

Compliance with power limits for the host system when operating with multiple radios in the same band is explained in the operational description exhibits, which explain how the host system controls the modules to ensure no two modules operate on the same (or overlapping) channels and reduce output power in the 5150-5250, 5250-5350 and 5470-5725 MHz to remain compliant with both the maximum eirp and maximum output power limits in those bands. Operation in the 2.4GHz and 5.8GHz bands under 15.247 allows for a total eirp of no more than 4W and an output power of less than 1W. With all 3 available non-overlapping 20MHz channels in use in the 2.4 GHz band the limits are not exceeded given the power ratings of the individual modules, however some power reduction is required in HT40 MHz mode in the 5.8GHz band.

Please note that the 2 transmit chains on the module always operate on the same channel. The hosts system control is limiting operation of different modules to ensure the different modules operate on different, non-overlapping, channels.

Elliott Laboratories, as duly authorized agent prepared this submittal. A copy of the letter of our appointment as agent is included with the application.

If there are any questions or if further information is needed, please contact Elliott Laboratories for assistance.

Given that the modules do not have shielding it is understood that the addition of new host systems will require an evaluation of radiated spurious emissions in that specific host. This application covers use of the modules in the Xirrus XR4820 and XR4420 host systems. These systems use the same enclosure and differ only in the number of modules they have installed (8 modules in the XR4820 and 4 modules in the XR4420). As this is a master device it is further understood that DFS testing in each host system will need to be evaluated and submitted through the FCC for approval.

For DFS testing, as the DS algorithms and control is in the host system we respectfully ask that this 2x2 module be evaluated by the FCC at the same time as the 3x3 module.

Sincerely,



Mark Briggs  
Staff Engineer  
Elliott Labs – An NTS Company