



Request for Additional Information for EMC Certification

Company:	Fortress	Composite Device:	Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>
MT#:	27866	FCC Direct Filing:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
		Permit But Ask:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
FCC ID:	WYK-ES210	FCC Rule Part:	15.247 & 15.407	
UPN:	8190A-ES210	RSS Standard:	RSS-210	
FRN:	0018332015	Class II PC/Reassessment:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>

October 23, 2009

1. Antenna description document describes antenna having a Male Type N connector. The user manual and photos indicate that an RP-TNC connector is used. Please confirm which antenna type is used. Professional installation is specified in the manual so Type N male is acceptable, but please provide clarification on which antenna will be used for consistency.

Response: Fortress will use a TNC-N type adapter to connect the antenna to the radio.

2. Please provide test setup photo(s) for conducted RF and mains measurements.

Response: Please refer to the Ubiquiti test photos.

3. Operation description specifies operation from 2412-2484 MHz. Please confirm that operation is limited to channels with center frequencies from 2412-2462 as described in the test report.

Response: This was a typo. Please refer to the revised operational description.

4. Test reports EMC27866-FCC247_Final, EMCS80673_FCC247_Rev1, and EMC27866-FCC407_Final were included with this composite application. The following questions are related to the use of these test reports.

- a. Please provide a cover letter or revised operational description describing the use of FCCID: SWX-SR71 module in this application. Include information regarding the frequency range(s) to be used and since this module was approved as a MIMO device, include information related to the mode(s) of operation to be supported in FCCID: WYK-ES210 application. To the extent that full capabilities of the module may not be employed, describe or confirm briefly how the unused capabilities and functions will not be available or accessible to users of the product.

Response: Please refer to the revised operational description.

- b. Reports EMC27866-FCC247_Final and EMC27866-FCC407_Final include test results for operation from 5725 -5825 MHz and 5745-5805 MHz respectively. Is it the intent that this application is for operation in this overlapping frequency range under both FCC 15C and 15E?

Response: Yes, Fortress will use the 5745 - 5825MHz for 15C and 5745 - 5805MHz for 15E.

Please refer to operational description for details.

- c. Operation description indicates capability in 5180-5320 and 5500-5700 MHz bands, but the test reports provided do not include data for these bands. Please explain and or revise the operation description.

Response: This was a typo. Please refer to the revised operational description.



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5. If FCCID: SWX-SR71 module is to be incorporated **without** use of "Contains FCCID: SWX-SR71" per the existing label, please provide (1)schematic, (2)block diagram, (3)operational description, (4) internal photos, (5) external photos (6) for FCCID: SWX-SR71. (Per recent FCC workshop, this method is discouraged)

Response: Please refer to the Ubiquiti documents.

6. If FCCID: SWX-SR71 module is to be incorporated **with** the use of "Contains FCCID: SWX-SR71", please provide a revised label. (FCC strongly indicated at the recent TCB workshop, that this is the preferred method as opposed to that described in preceding item 5)

Response: Please refer to the #5.

7. Since the antenna employed in this application is different from the original modular approval, restricted band-edge measurements should be performed with the new antenna at least at several worst case points from original report. Restricted band edge results were very close to the limit in several cases.

Response: The Fortress ES210 is using a 5dBi Omni antenna with a TNC-N type adapter to connect the antenna to the radio. The original Ubiquiti SR-71 was approved with a 5dBi Omni antenna. Since the Fortress antenna is of the same type and gain, no retesting is required.

8. Plot 47 in test report EMCS80673_FCC247_Rev1 shows a radiated restricted average level of 58.8 dBμV/m @ 2483.5 MHz which exceeds the limit. Please explain.

Response: The Fortress ES210 is using a 5dBi Omni antenna, not the panel antenna the SR-71 was approved with; therefore this data is irrelevant to this application.