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Attn: Reviewing Engineer
Federal Communications Commission
7435 Oakland Mills Road
Columbia, MD 21046

RE: LIMITED MODULAR APPROVAL FOR FCC ID: RAR20051001 AS PER FCC PUBLIC NOTICE DA 00-1407

Enhanced Radio Module 5, tested under part 15.

To Whom It May Concern,

The module FCC ID: RAR20051001 is submitted for Limited Modular Approval (LMA) by BelAir Networks Inc. In keeping with FCC Part 15.212, Part 15 Unlicensed Modular Transmitter Approval, this letter affirms that BelAir Networks shall retain complete control over the final installation of the device and ensure compliance of the end-product to FCC regulations.

The module shall only be installed into a final product by technicians trained by BelAir Networks Inc. The module shall not be distributed, marketed or sold to the general public. It will only be available installed in a complete BelAir Networks product.

The complete BelAir product shall only be sold by BelAir Networks directly or through a BelAir Networks-specified sales channel to authorized resellers, and will be installed by professional installers with training by BelAir Networks or authorized representatives.

As illustrated by the accompanying documentation, the module FCC ID: RAR20051001 is a module with its own RF shielding, contains the complete radio within the module, provides its own power supply regulation, was tested in a stand-alone configuration, will be labeled with FCC ID and meets RF exposure regulations.



The following is a point-by-point response to the items listed in FCC Part 15.212:

1. The module has its own RF shielding. It has been tested for radiated emissions with the module on its own, with no external shielding beyond that incorporated into the module to ensure compliance to all radiated emissions requirements at the module level.
2. The input to the module is an Ethernet interface. All modulation and IEEE 802.11a/n protocol elements reside within the module. There are no modulation or data inputs to the module which could alter the performance or behavior of the modulator or radio which could cause it to exceed FCC limits.
3. The module has its own power supply filtering and regulation for all modulation and radio circuitry in order to avoid any issues with varying power supply inputs. The module is powered by several DC voltage rails. In order to test power line conducted requirements for the module, it was tested with the power supply and package as intended for the complete product which will be manufactured by BelAir Networks. BelAir Networks maintains complete control of the AC-to-DC power supply and packaging of the complete product and therefore ensures that compliance will be maintained.
4. The module incorporates MCX RF connectors and does not have an integral antenna on the module. The module was tested in conjunction with the intended antennas (see accompanying documentation). Considering our submission is seeking Limited Modular Approval, BelAir Networks will ensure professional installation of the complete product. In this manner we will ensure that only the approved antenna type is used in conjunction with this module.
5. The module was tested in a stand-alone configuration for all conducted and radiated emissions, except for conducted power line emissions. Since the module is not AC powered, it was tested with the power supply and package in the configuration with which it will be installed in the product. This configuration is also tested to ensure the complete product will meet all Class B radiated and conducted emissions requirements.
6. The module will be labeled with its own FCC ID number. Since this label will not be visible when the module is installed in the complete product, the manual indicates that the final product shall include a permanent label which uses the



wording "Contains FCC ID: RAR20051001". See the labeling information provided with this submission.

7. The module operates under Part 15.247(b)(3). Since all modulation and IEEE 802.11 protocol elements reside within the module, users will not have access to controls which may cause the module to operate outside its normal mode of operation. All timing and control for RF and modulator sections are inaccessible from outside the module.

8. The module has been evaluated with the intended antenna and complies with RF exposure requirements. The manual states that a distance as per the Table 1 below shall be maintained between any person and the antenna. As BelAir Networks or its authorized agents will retain control of the final installation through the requirement for professional installation, BelAir Networks shall ensure that this distance is maintained in all installations.

RF Exposure Table 1:

Minimum Safety Distances								
Product	Standard Gain Antennas (up to 15 dBi)				High Gain Antennas (up to 29 dBi)			
RF boards: All valid combinations	ERM1	ERM5	ARM3	PSM2	ERM1	ERM5	ARM3	PSM2
BelAir100, BelAir100C, BelAir100T, BelAir100S, BelAir100M, BelAir100D	up to 15 dBi	up to 15 dBi	Any	9 dBi	up to 23 dBi	up to 29 dBi	Any	25 dBi
Distance	(10.6 inches)				(54.3 inches)			
BelAir200, BelAir200D	up to 15 dBi	up to 15 dBi	Any	9 dBi	up to 23 dBi	up to 29 dBi	Any	25 dBi
Distance	(13.0 inches)				(63.0 inches)			
RAR20000003 (ARM3); RAR20008001 (PSM2); RAR20021001 (ERM1); RAR20051001 (ERM5)								

Sincerely,

Marcel Chenier
SVP Engineering
BelAir Networks Inc.