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FCC Laboratory
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7 May 2007

Attention: Application Examiner

Applicant: Alvarion Ltd.

Re: Part 15 Class 2 Permissive Change Certification Application: Model Differences

FCC ID: LKT-VL-53C

To whom it may concern,

Attached please find a description of model number varieties and numbering scheme for marketing purposes. Please note this list also applies to other products with different FCC IDs that are currently under review by TCBs.

If you have questions or need further information, please contact the undersigned.

Sincerely,



THOMAS N. COKENIAS
EMC Consultant/Agent for Alvarion Ltd.

BreezeACCESS VL / BreezeNET B system 5.3GHz band – Access Points and subscribers/clients

All Alvarion products are based on the core unit, which is the Outdoor Unit (ODU). The ODU is carrying all the necessary components to support the wireless application, except the Power supply adaptor to 110/220V AC and the Antenna

Exception: some ODU units do have Integral Antenna. This Integral Antenna model is a 20 or 21dBi Antenna and it is used only for the Point to Point applications or for the point to multipoint subscribers/clients

The other components used in defining the model names are:

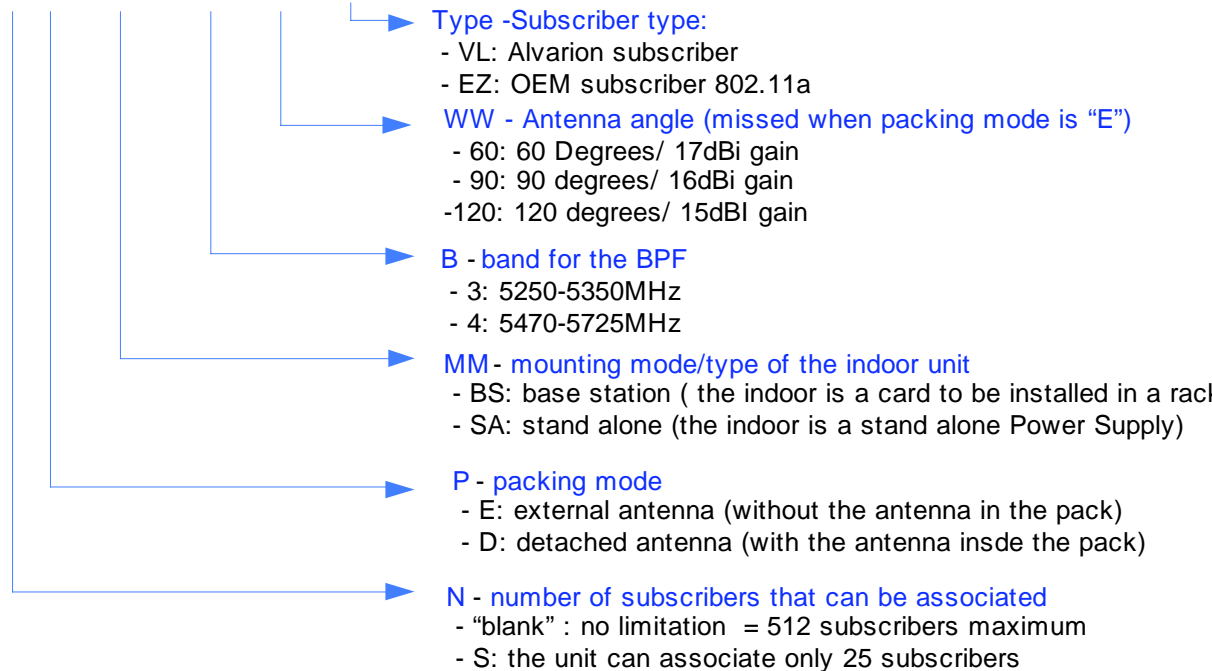
- 1) A SW component which limits the number of subscribers that can associate
 - a. Only one subscriber (the unit will present itself as BreezeNET B)
 - b. 25 subscribers
 - c. 512- maximum
- 2) Antennas
 - a. Without antenna (unit will not start to operate until the professional installer will introduce the antenna gain)
 - b. With antenna inside the package
- 3) Indoor Unit (IDU)
 - a. Stand Alone IDU
 - b. rack IDU for base stations' shelves
- 4) Type of BPF inside the ODU
 - a. 5.3 : 5250 – 5350 MHz
 - b. 5.4: 5470 – 5725 MHz
- 5) Antenna gain
 - a. 120 degrees antenna- 15dBi gain
 - b. 90 degrees antenna – 16dBi gain
 - c. 60 degrees antenna – 17dBi gain
- 6) A SW component which limits the type of the subscriber
 - a. Regular Alvarion subscribers (client station) - VL
 - b. OEM subscriber (client station) - EZ

All the above components are marketing decisions of promoting the BreezeAccess /BreezeNET B products with a very high flexibility in choosing the configuration

A short formula for understanding the model names will be:

- 1) for the BreezeAccess VL (point to multipoint applications)

AUN-P-MM-5.B-WW-Type



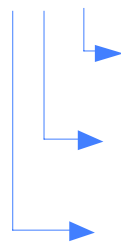
2) for the BreezeNET B (point to point application)

The general access point components all BreezeNet B products , if they are not "parameterized" in the Model Name, are:

- ODU (same like all other units + same SW code)**
- Only one subscriber can associate**
(With this P2P product line The Access Point is called **Base Unit or BU** and the client/subscriber is called **Remote Bridge or RB**)
By SW, when it is configured to work in P2P application, customer can switch between BU and RB mode of operation; only the BU has activated the DFS mechanism)
- Stand Alone IDU**
- Antenna gain: 21dBi (integral 10.5 degrees antenna) if the package Letter is not mentioning a detached antenna, in which case the product will not work until the antenna gain will be set by the professional installer. Being a point to point application antenna gain lower than 21 is for low interest;**
- Type of subscribers: is all the time only Alvarion product since user can switch between BU(Access Point) and RB(Client) mode of operation**

The general formula for the Model Names of BreezeNet B (BNB) is:

BU/RB-BrrP-B

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- B** - band for the BPF
 - 3: 5250-5350MHz
 - 4: 5470-5725MHz
 - P** - packing mode
 - blank: integral antenna
 - D: external antenna (without the antenna inside the pack)
 - rr** - Information Rate Limitation
 - 14: maximum 14 Mbps (7Mbps per direction)
 - 28: maximum 28 Mbps (20Mbps per direction)
 - 100: no limit - only HW limitations

The subscribers Models are based on the same structure as Access points. They will use integral or external antenna, stand alone or base station IDU and, similar to BreezeNet B applications, they will have internal SW limitations on the information rate that is allowed to pass.

For the next table the model names will be described in the column “Notes” with reference to the 5 components of the marketing models

No	Model	IC:	Notes
1	AU-E-SA-5.3-VL	2514A-VL53	Components: <ul style="list-style-type: none">0) ODU1) 512 subscribers (AU-E-SA-5.3-VL)2) No antenna delivered in the package (AU-E-SA-5.3-VL)3) Stand Alone Indoor Unit (AU-E-SA-5.3-VL)4) 5.250 -5.350 BPF in the ODU (AU-E-SA-5.3-VL)5) Antenna gain – N/A6) Type of the subscribers = VL (AU-E-SA-5.3-VL)

No	Model	IC:	Notes
2	AU-E-BS-5.3-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 512 subscribers (AU-E-SA-5.3-VL) 3) No antenna delivered in the package (AU-E-SA-5.3-VL) 4) Base station IDU (AU-E-BS-5.3-VL) 5) 5.250 -5.350 BPF in the ODU (AU-E-SA-5.3-VL) 6) Antenna gain – N/A 7) Type of the subscribers = VL (AU-E-SA-5.3-VL) <p>NOTE: Same like #1 but with Base station Indoor</p>
3	AU-D-BS-5.3-120-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 512 subscribers (AU-D-BS-5.3-120-VL) 3) Antenna delivered in the package (AU-D-BS-5.3-120-VL) 4) Base station IDU (AU-D-BS-5.3-120-VL) 5) 5.250 -5.350 BPF in the ODU (AU-D-BS-5.3-120-VL) 6) Antenna gain – 15dBi (120 degrees) (AU-D-BS-5.3-120-VL) 7) Type of the subscribers = VL (AU-D-BS-5.3-120-VL) <p>NOTE: Same like #1 but with base station IDU and delivered with 120 degrees antenna in the same package</p>

No	Model	IC:	Notes
4	AU-D-BS-5.3-90-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 512 subscribers (AU-D-BS-5.3-90-VL) 3) Antenna delivered in the package (AU-D-BS-5.3-90-VL) 4) Base station IDU (AU-D-BS-5.3-90-VL) 5) 5.250 -5.350 BPF in the ODU (AU-D-BS-5.3-90-VL) 6) Antenna gain – 16dBi (90 degrees) (AU-D-BS-5.3-90-VL) 7) Type of the subscribers = VL (AU-D-BS-5.3-90-VL) <p>NOTE: Same like #1 but with base station IDU and delivered with 90 degrees antenna in the same package</p>
5	AU-D-BS-5.3-60-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 512 subscribers (AU-D-BS-5.3-60-VL) 3) Antenna delivered in the package (AU-D-BS-5.3-60-VL) 4) Base station IDU (AU-D-BS-5.3-60-VL) 5) 5.250 -5.350 BPF in the ODU (AU-D-BS-5.3-60-VL) 6) Antenna gain – 17dBi (60 degrees) (AU-D-BS-5.3-60-VL) 7) Type of the subscribers = VL (AU-D-BS-5.3-60-VL) <p>NOTE: Same like #1 but with base station IDU and delivered with 60 degrees antenna in the same package</p>

No	Model	IC:	Notes
6	AU-D-SA-5.3-120-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 512 subscribers (AU-D-SA-5.3-120-VL) 3) Antenna delivered in the package (AU-D-SA-5.3-120-VL) 4) Stand Alone IDU (AU-D-SA-5.3-120-VL) 5) 5.250 -5.350 BPF in the ODU (AU-D-SA-5.3-120-VL) 6) Antenna gain – 15dBi (120 degrees) (AU-D-SA-5.3-120-VL) 7) Type of the subscribers = VL (AU-D-SA-5.3-120-VL) <p>NOTE: Same like #1 but delivered with 120 degrees antenna in the same package</p>
7	AU-D-SA-5.3-90-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 512 subscribers (AU-D-SA-5.3-90-VL) 3) Antenna delivered in the package (AU-D-SA-5.3-90-VL) 4) Stand Alone IDU (AU-D-SA-5.3-90-VL) 5) 5.250 -5.350 BPF in the ODU (AU-D-SA-5.3-90-VL) 6) Antenna gain – 16dBi (90 degrees) (AU-D-SA-5.3-90-VL) 7) Type of the subscribers = VL (AU-D-SA-5.3-90-VL) <p>NOTE: Same like #1 but delivered with 90 degrees antenna in the same package</p>

No	Model	IC:	Notes
8	AU-D-SA-5.3-60-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 512 subscribers (AU-D-SA-5.3-60-VL) 3) Antenna delivered in the package (AU-D-SA-5.3-60-VL) 4) Stand Alone IDU (AU-D-SA-5.3-60-VL) 5) 5.250 -5.350 BPF in the ODU (AU-D-SA-5.3-60-VL) 6) Antenna gain – 17dBi (60 degrees) (AU-D-SA-5.3-60-VL) 7) Type of the subscribers = VL (AU-D-SA-5.3-60-VL) <p>NOTE: Same like #1 but delivered with 60 degrees antenna in the same package</p>
9	AUS-E-SA-5.3-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 25 subscribers (AUS-E-SA-5.3-VL) 3) No antenna delivered in the package (AUS-E-SA-5.3-VL) 4) Stand Alone Indoor Unit (AUS-E-SA-5.3-VL) 5) 5.250 -5.350 BPF in the ODU (AUS-E-SA-5.3-VL) 6) Antenna gain – N/A 7) Type of the subscribers = VL (AUS-E-SA-5.3-VL) <p>NOTE: Same like #1 but limited to only 25 subscribers</p>

No	Model	IC:	Notes
10	AUS-D-SA-5.3 -120-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 25 subscribers (AUS-D-SA-5.3-120-VL) 3) No antenna delivered in the package (AUS-D-SA-5.3-120-VL) 4) Stand Alone Indoor Unit (AUS-D-SA-5.3-120-VL) 5) 5.250 -5.350 BPF in the ODU (AUS-D-SA-5.3-120-VL) 6) Antenna gain – 15 (120 degrees antenna) (AUS-D-SA- 5.3-120-VL) 7) Type of the subscribers = VL (AUS-E-SA-5.3-120-VL) <p><i>NOTE: Same like #1 but limited to only 25 subscribers and delivered with 120 degrees antenna in the same package</i></p>
11	AUS-D-SA-5.3 - 90-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 25 subscribers (AUS-D-SA-5.3-90-VL) 3) No antenna delivered in the package (AUS-D-SA-5.3-90-VL) 4) Stand Alone Indoor Unit (AUS-D-SA-5.3-90-VL) 5) 5.250 -5.350 BPF in the ODU (AUS-D-SA-5.3-90-VL) 6) Antenna gain – 15 (120 degrees antenna) (AUS-D-SA- 5.3-90-VL) 7) Type of the subscribers = VL (AUS-E-SA-5.3-90-VL) <p><i>NOTE: Same like #1 but limited to only 25 subscribers and delivered with 90 degrees antenna in the same package</i></p>

No	Model	IC:	Notes
12	AUS-D-SA-5.3 -60-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 25 subscribers (AUS-D-SA-5.3-60-VL) 3) No antenna delivered in the package (AUS-D-SA-5.3-60-VL) 4) Stand Alone Indoor Unit (AUS-D-SA-5.3-60-VL) 5) 5.250 -5.350 BPF in the ODU (AUS-D-SA-5.3-60-VL) 6) Antenna gain – 15 (120 degrees antenna) (AUS-D-SA- 5.3-60-VL) 7) Type of the subscribers = VL (AUS-E-SA-5.3-60-VL) <p><i>NOTE: Same like #1 but limited to only 25 subscribers and delivered with 60 degrees antenna in the same package</i></p>
13	SU-E-5.3-3-BD-VL	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) N/A 3) External Antenna SU-E-5.3-3-BD-VL 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU (SU-E-5.3-3-BD-VL) 6) Antenna gain – will be set by the professional installer 7) Information Rate limited to 3Mbps (SU-E-5.3-3-BD-VL) 8) Maximum number of MAC addresses accepted behind the SU: no limit (Bridge) (SU-E-5.3-3-BD-VL) 9) Type of subscriber: Alvarion VL (SU-E-5.3-3-BD-VL) <p><i>NOTE: Same like #1 but working like SU, with throughput limitation on 3Mbps</i></p>

No	Model	IC:	Notes
14	SU-E-5.3-6-BD-VL	2514A-VL53	<p>Components:</p> <ul style="list-style-type: none"> 10) ODU 11) N/A 12) External Antenna SU-E-5.3-6-BD-VL 13) Stand Alone Indoor Unit 14) 5.250 -5.350 BPF in the ODU (SU-E-5.3-6-BD-VL) 15) Antenna gain – will be set by the professional installer 16) Information Rate limited to 6Mbps (SU-E-5.3-6-BD-VL) 17) Maximum number of MAC addresses accepted behind the SU: no limit (BriDge) (SU-E-5.3-6-BD-VL) 18) Type of subscriber: Alvarion VL (SU-E-5.3-6-BD-VL) <p><i>NOTE: Same like #13 with throughput limitation on 6Mbps</i></p>
15	SU-E-5.3-54-BD-VL	2514A-VL53	<i>NOTE: Same like #13 with no throughput limitation</i>
16	SU-E-BS- 5.3-54-BD-VL	2514A-VL53	<i>NOTE: Same like #15 with Base station IDU</i>
17	SU-A-5.3-3-BD-VL	2514A-VL53	<i>NOTE: Same like #13 with integral antenna of 21dBi</i>
18	SU-A-5.3-6-BD-VL	2514A-VL53	<i>NOTE: Same like #14 with integral antenna of 21dBi</i>
19	SU-A-5.3-54-BD-VL	2514A-VL53	<i>NOTE: Same like #15 with integral antenna of 21dBi</i>

No	Model	IC:	Notes
20	BU/RB-B14-5.3	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 1 subscriber 3) Integral Antenna 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU (BU/RB-B14-5.3) 6) Antenna gain – 21(Integral 10.5 degrees) 7) Type of the subscribers = Alvarion type 8) Information rate limited to 14Mbps (BU/RB-B14-5.3) <p>Remark: On point to point application there is another SW parameter which limits the maximum throughput in the link. This parameter is used also in point to multipoint but only on the SU side to define different type of subscribers</p> <p>NOTE: Same like #1 but limited to only 1 subscriber, with Integral antenna instead of external and limited to only 14Mbps in the link</p>
21	BU/RB-B28-5.3	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 1 subscriber 3) Integral Antenna 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU (BU/RB-B28-5.3) 6) Antenna gain – 21(Integral 10.5 degrees) 7) Type of the subscribers = Alvarion type 8) Information rate limited to 14Mbps (BU/RB-B28-5.3) <p>NOTE: Same like #20 but limited to 28Mbps in the link</p>

No	Model	IC:	Notes
22	BU/RB-B100-5.3	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 1 subscriber 3) Integral Antenna 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU (BU/RB-B100-5.3) 6) Antenna gain – 21(Integral 10.5 degrees) 7) Type of the subscribers = Alvarion type 8) No information rate limit (BU/RB-B100 -5.3) <p><i>NOTE: Same like #20 but with no limit(makes it to be same like # but with Integral Antenna)</i></p>
23	BU/RB-B14D-5.3	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 1 subscriber 3) External Antenna (BU/RB-B14D-5.3) 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU (BU/RB-B14D-5.3) 6) Antenna gain – will be set by the professional installer 7) Type of the subscribers = Alvarion type 8) Limited to 14Mbps (BU/RB-B14D-5.3) <p><i>NOTE: Same like #1 but limited to only 1 subscriber, and limited to only 14Mbps in the link</i></p>

No	Model	IC:	Notes
24	BU/RB-B28D-5.3	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 1 subscriber 3) External Antenna (BU/RB-B28D-5.3) 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU (BU/RB-B28D-5.3) 6) Antenna gain – will be set by the professional installer 7) Type of the subscribers = Alvarion type 8) Limited to 28Mbps (BU/RB-B28D-5.3) <p><i>NOTE: Same like #1 but limited to only 1 subscriber and limited to only 28Mbps in the link</i></p>
25	BU/RB-B100D-5.3	2514A-VL53	<p>Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 1 subscriber 3) External Antenna (BU/RB-B100D-5.3) 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU (BU/RB-B100D-5.3) 6) Antenna gain – will be set by the professional installer 7) Type of the subscribers = Alvarion type 8) No Information Rate limit (BU/RB-B100D-5.3) <p><i>NOTE: Same like #1 but limited to only 1 subscriber</i></p>

No	Model	IC:	Notes
26	AU-5.3-120-EZ	2514A-VL53	<p>The equivalent Name according to the formula would be: AUS-D-SA-5.3-120-EZ Changed by Marketing decision to AU-5.3-120-EZ To show like there is no option for different configuration Components:</p> <ol style="list-style-type: none"> 1) ODU 2) 48 subscribers 3) Antenna delivered in the package 4) Stand Alone Indoor Unit 5) 5.250 -5.350 BPF in the ODU 6) Antenna gain – 15 (120 degrees antenna) 7) Type of the subscribers = EZ <p><i>NOTE: Same like #10 but limited to 48 OEM subscribers instead of 25 VL subscribers</i></p>

BreezeACCESS VL / BreezeNET B system 5.4GHz band

Same model names with only change of BPF inside the OCU form 5.3 to 5.4

No	Model	IC:	Notes
1	AU-E-SA-5.4-VL	2514A-VL53	
2	AU-E-BS-5.4-VL	2514A-VL53	
3	AU-D-BS-5.4-120-VL	2514A-VL53	
4	AU-D-BS-5.4-90-VL	2514A-VL53	
5	AU-D-BS-5.4-60-VL	2514A-VL53	
6	AU-D-SA-5.4-120-VL	2514A-VL53	
7	AU-D-SA-5.4-90-VL	2514A-VL53	
8	AU-D-SA-5.4-60-VL	2514A-VL53	
9	AUS-E-SA-5.4-VL	2514A-VL53	
10	AUS-D-SA-5.4-120-VL	2514A-VL53	
11	AUS-D-SA-5.4-90-VL	2514A-VL53	
12	AUS-D-SA-5.4-60-VL	2514A-VL53	

No	Model	IC:	Notes
13	SU-E-5.4-3-BD-VL	2514A-VL53	
14	SU-E-5.4-6-BD-VL	2514A-VL53	
15	SU-E-5.4-54-BD-VL	2514A-VL53	
16	SU-E-BS- 5.4-54-BD-VL	2514A-VL53	
17	SU-A-5.4-3-BD-VL	2514A-VL54 2514A-VL53	
18	SU-A-5.4-6-BD-VL	2514A-VL54 2514A-VL53	
19	SU-A-5.4-54-BD-VL	2514A-VL54 2514A-VL53	
20	BU/RB-B14-5.4	2514A-VL53	
21	BU/RB-B28-5.4	2514A-VL53	
22	BU/RB-B100-5.4	2514A-VL53	
23	BU/RB-B14D-5.4	2514A-VL53	
24	BU/RB-B28D-5.4	2514A-VL53	
25	BU/RB-B100D-5.4	2514A-VL53	
26	AU-5.4-120-EZ	2514A-VL53	

Multi-band SU (5.3, 5.4 and 5.8GHz)

No	Model	IC:	Notes
1	SU-A-MB-12-EZ	HEDOAP3211A	Multi-band SU, integral antenna, EZ kit, OEM