BreezeACCESS® VL

BreezeACCESS VL Release 5.5M

Release Notes

May 2009

Alvarion Ltd. All rights reserved.

The material contained herein is proprietary, privileged, and confidential. No disclosure thereof shall be made to third parties without the express written permission of Alvarion. Alvarion reserves the right to alter the specifications in this publication without prior notice.

1 General

This document details the main features, known limitations, and other important notifications with respect to BreezeACCESS VL product release 5.5M. It corresponds to software versions:

- VL-AU software version 5.5.27
- VL-SU software version 5.5.27
- VL-SU-Lite software version 2.1.10.

BreezeACCESS VL release 5.5M is supported starting from Device Driver version 2.6.0.13 of AlvariSTAR and AlvariCRAFT.

AlvariSTAR DD 2.6.0.13 version has to be installed on AlvariSTAR infrastructure platform version 3.2.3.5

2 Introduction

BreezeACCESS VL release 5.5M enhances the capabilities of a new family of VL SUs – SU-Lite (named SU-L). SU-Lite presents VL customers both with an advanced feature rich easy to install subscriber unit as well as a cost effective competitive solution. SU-Lite can be deployed in any VL sector (AU-SA, AU-BS, AUS) and with any type of VL SUs (SU-3, SU-6, SU-V, SU-54) enabling customers maximal flexibility. With Release 5.5M license upgrades for additional capacity of SU-L are available (SU-3-L to SU-6-L, and SU-6-L to SU-12-L).

Release 5.5M introduce support for the updated ETSI regulation for DFS detection, as well as support for 4.9 Brazil country code and additional benefits as detailed below.

3 Frequency bands

The currently supported frequency bands:

- 5.8 GHz Band: 5.725–5.875 GHz (Universal Country Code with HW Revision C) / 5.725–5.850 GHz (all other Country Codes)
- 5.4 GHz Band: 5.470–5.725 GHz
- 5.2 GHz Band: 5.150–5.350 GHz
- 5.3 GHz Band: 5.250–5.350 GHz
- 4.9 GHz Band: 4.900-5.100 GHz

4 Release 5.5M Key New Features -

- **SU-L**

Each SU-L, connected wirelessly to a VL AU, provides an efficient platform for continuous, broadband access. It consists of an outdoor wireless radio with integrated high performance 17dBi flat panel antenna, and the same IDU as the VL AU-SA for power supply and network interface.

Designed for fast installation and configuration, the SU-L includes a complete pole mounting bracket, link quality display for easy antenna alignment and an intuitive web-based user interface.

The SU-L utilizes a multi-band radio covering the entire 5.150–5.875 GHz band, with automatic frequency selection. Upon installation, the outdoor radio will tune itself to the appropriate band (5.2, 5.3, 5.4 or 5.8) and frequency, according to the VL AU it is associated with.

SU-3-L		
PRODUCT	**DESCRIPTION**	**P/N**
SU-A-MB-3-L-VL	SU-L subscriber Unit kit. A multi band Subscriber Unit (4.9 – 5.875 GHz), Full Data Bridge, Up to 3Mbps data rate. SU-3-L can be seamlessly deployed in VL sectors together with any other VL AU or SU. Package includes: An indoor Power supply/ Network Interface Unit + Outdoor radio unit with 17dBi flat panel Integrated antenna, Indoor to Outdoor Cat5 cable should be ordered separately.	850902

- **Updated ETSI DFS Compliancy**

Support for the updated ETSI standards on both AU and SU including

- Supporting EN 301 893 v1.5.1, including:
  - Staggered PRF detection across the bands 5470-5725 MHz
  - Pulse Width detection down to 0,8 uSec in the band 5470-5725 MHz
  - Solution for the noise calibration of weather radars in 5600-5650 MHz (CAC = 10min)
- Supporting EN 302 502 v1.2.1. for the 5.8 GHz band

- **Licenses**

PRODUCT	DESCRIPTION	P/N
SU-3-L to SU-6-L	License upgrade from SU-3-L to SU-6-L, enabling up to 6Mbps aggregated data rate.	858136
SU-6-L to SU-12-L	License upgrade from SU-6-L to SU-12-L, enabling up to 12Mbps aggregated data rate.	858137
SU-3 to SU-V	License upgrade from SU-3 to SU-V	858135
SU-V to SU-54	License upgrade from SU-V to SU-54 in case higher capacity than 10 Mbps is required.	858145

- **4.9GHz Brazil Support**

Starting with Release 5.5M, support for a new country code 4.9 Brazil is added.

The following new products are introduced with Release 5.5M

PRODUCT	DESCRIPTION	P/N
AUS-E-BS-4.9-VL	BreezeACCESS VL Access Unit. Limited to 8 SUs (SU-3 and/or SU-6 only). Fully upgradeable to standard AU. Package includes Indoor Network Interface card + Outdoor radio unit, 4.9GHz for Brazil. Should be ordered conjointly with antenna (849270, 849505, 300646 or 858170), Indoor to Outdoor Cable are NOT INCLUDED.	849548BR
AU-E-BS-4.9-VL	BreezeACCESS VL Access Unit. Package includes Indoor Network Interface card + Outdoor radio unit, 4.9GHz for Brazil. Should be ordered conjointly with antenna (849270, 849505, 300646 or 858170), Indoor to Outdoor Cable are NOT INCLUDED.	849546BR
AUS-E-SA-4.9-VL	Standalone access unit base station. Limited to 8 SUs, SU-3 and/or SU-6 only. Fully upgradeable to standard AU. Complete access unit kit, includes: stand alone indoor network interface, outdoor radio 4.9GHz Brazil, without detached antenna and RF cable. Should be ordered conjointly with antenna (849270, 849505, 300646 or 858170) indoor to outdoor CAT-5 cable is NOT INCLUDED	849544BR

AU-E-SA-4.9-VL	Standalone access unit base station. Complete access unit kit, includes: stand alone indoor network interface, outdoor radio 4.9GHz Brazil, without detached antenna and RF cable. Should be ordered conjointly with antenna (849270, 849505, 300646 or 858170) indoor to outdoor CAT-5 cable is NOT INCLUDED	849545BR
SU-A-4.9-3-BD-VL	Complete Subscriber Unit, Indoor Network Interface Unit and Power supply + Outdoor radio unit, Integrated antenna, Indoor to Outdoor Cat5 20 Meter cable included. 4.9GHz Brazil, Full Data Bridge, 3Mbps data rate	849543BR
SU-E-4.9-3-BD-VL	Subscriber Unit with external antenna. Indoor Network Interface Unit and Power supply + Outdoor radio unit 4.9GHz for Brazil, with N-Type connector for external antenna, Indoor to Outdoor 20 Meter cable included, Full Data Bridge, 3 Mbps data rate. External antenna is NOT included. Should be ordered conjointly with antenna of choice.	849541BR

- **New External Antennas**

Starting with Release 5.5M, the following new antennas are available:

PRODUCT	DESCRIPTION	P/N
ANT,BS,4.9-5.875G,90V, 16.5dBi,FLAT.	Sectorial Antenna, 90 deg. Vertical Polarity. 4.9-5.875 GHz. Terminating connector: N female, Gain: 16.5 dBi (4.9-5.15) 17 dBi (5.15-5.875). Cable (0.5m) included.	858170
ANT,BS,4.9-5.1G,120V, 15dBi, FLAT	Sectorial Antenna, 120 deg. Vertical Polarity. 4.9-5.1GHz Flat. Terminating connector: N female, Gain: 15 dBi. Cable (0.5m) included.	300646
ANT,BS,4.9-5.875G,V 9.5dBi, OMNI	9.5 dBi Omni-directional ruggedized high-performance antenna, 4.9-5.875 GHz, 5 ft. (0.5m) cable INCLUDED, and mast mount hardware. Terminating connector: N male Total gain: 9.5dBi	300709

Comments:

- **858170 has extended range starting this release to cover 4.9 – 5.1 GHz band**
- **300709 is a new Omni antenna for the entire 4.9-5.875GHz. This antenna would replace eventually the following antennas which covers portion of the band each:**

PN PLANNED FOR REPLACEMENT	DESCRIPTION
854270	ANT,BS,5.15-5.725G, 8dBi, OMNI
872812	ANT,BS,5.725-5.875G,90V 9dBi,OMNI.
849270	ANT,BS,4.9-5.15G, 9dBi, OMNI

Product replacement announcement is expected shortly

- **New SU-6 4.9 GHz (Universal Country Code)**

Starting with Release 5.5M, a new SU-6 is available for the 4.9GHz Universal country code:

PRODUCT	DESCRIPTION	P/N
SU-A-4.9-6-BD-VL	Complete Subscriber Unit, Indoor Network Interface Unit and Power supply + Outdoor radio unit, Integrated antenna, Indoor to Outdoor Cat5 20 Meter cable included. 4.9-5.1 GHz, Full Data Bridge, 6Mbps data rate	849550CH

- **New Power Supply Option – DC Power Injector**

Suitable for feeding when 48V DC (protected) is available on site.

PRODUCT	DESCRIPTION	P/N
DC power injector	Indoor unit for DC power injection for VL and BNB (DC pass through + Eth to PoE female). Including DC source cable (3 wires: +,-,GND). DC feed should be in compliance to the product requirements (protected, 40 to 60 VDC). Indoor-outdoor cable not included and should be ordered separately.	891000

- **WLP Provided Free Of Charge**

Starting with Release 5.5M, the WLP would be provided free of charge and would not require specific lincense

- **India Country Code 10MHz Tx Power Adjustment**

Starting from Release 5.5M the Tx Power under India country code would be set to Maximum 36dBm EIRP for both 20MHz and 10MHz channel bandwidth, in accordance to the regulation in India.

SU-Lite Key benefits and advantages

- Cost effective reliable solution enabling improved business case and rapid ROI
- Single CPE for all 5Ghz bands and country codes enables straightforward ordering and simple stocking
- Rapid and simplified deployment via near-line-of-sight (NLOS) technology, integral display for optimal alignment and intuitive Web-based management
- Instant network expansion with out-of-the-box solution and local available stock
- Full mix and match - deploy the SU-Lite with all VL AUs and SUs types
- Throughput of up to 3 Mbps per Subscriber Unit
- License upgrade for enhance capacity of 6 Mbps and 12 Mbps are available
- QoS – MIR/CIR per SU per direction (UL/DL)
- Complete VLAN Tagging functionality (802.1Q)
- A range of over 12 Km (FCC), extends broadband anywhere and everywhere
- Hardware based AES encryption (FIPS-197) enables secured wireless links without sacrificing performance
- Priority – allowing customers to configure over the air priority per SU-L (either low or high) thus providing high priority to selected customers
- Advanced ATPC to support improved network performance
- Management - AlvariSTAR /AlvariCRAFT support SU-L discovery and offers cut-through configuration (web, telnet)

5 Important Notes for SU-Lite

- SU-L units running SW version 1.0 will not be accepted at association by BreezeACCESS AU units running SW version 5.5 and later. In this situation customer must upgrade the SU-L unit to version 2.1.10. SU-L units will not be associated by BreezeACCESS AU units running any other SW version but 5.5 or later.
- **Customer should upgrade from version 1.0 only using the upgrade application (upgrade_ez.exe) provided by Alvarion. Choosing other upgrade methods (web, FTP etc) may produce unrecoverable damage to the units.**
  To help within the upgrade process Alvarion is also providing a technical note (SU-L Software Upgrade Procedure) which is guiding, step by step, through this process. The upgrade application as well as the technical note are available on the customer support web page or via the distributor
- In case where Information Rate (IR) is not achieved, the SU-L total aggregated traffic can be increased by decreasing the CW parameter value effectively increasing the SU chances to use the air (special care should be taken as decreasing the CW value can increase the collision probability resulting in reduced capacity)
- With respect to the new ETSI DFS regulation in the 5.4 -5.8 GHz, when upgrading the installed SU-L units to version 2.1.10, the DFS feature will not be enabled. Manually enabling the DFS option is required.

6 Known issues related to SU-Lite

- For upgrading customer should use the firmware file provided by Alvarion. In case customer accidentally uses a different file bigger than 18MB the result is unpredictable and can result in a need to reset the SU.
- Customer is advised not to refresh the web page with unreasonable speed
- SU-Lite re-association time might be longer than regular SU when DFS requires channel change

- From the HTTP/HTTPS interface if the DHCP option is activated the static IP can not be configured. It is recommended to configure the static IP address prior to activation of DHCP
- When working via webpage in the SU-Lite There is no way to verify that the encryption key has been introduced successfully - there is no warning message or other indication when configuring the encryption key from the web fails (for example if a wrong value is accidentally inserted)

7 Limitations of SU-Lite

- It is recommended not to set the same exact values for the CIR and MIR; in case CIR=MIR then the CIR value will not be reached
- When cell capacity is reached the overall delay might increase dramatically
- SU-L does not support burst and concatenation modes which may result in slightly lower performance in condensed sectors or when working with small packets (such as voice).
- The version name downloaded to the unit via FTP must have a minimum of 6 characters
- The SU-L Cell Distance option should be manually set when operating in mixed SU-VL and SU-L sectors (SU-L cannot learn the maximum distance from the AU)
- RF distance parameter is set to 1km when reset to factory defaults is applied. Following factory reset customers should configure the 'distance' parameter according to their needs.
- If Shared Key authentication is used then the data encryption option must be enable in order to allow the SU-L to associate
- Upon unit upgrade or downgrade, at boot time, if the unit detects errors in the new versions, it might temporarily switch to the default values. Applying HW reset to the unit will bring it back to the configured values.
- Promiscuous mode doesn't work in AU for SU-L subscribers (SU-L not supported in this mode)
- Data encryption must be set in the same way throughout the cell in order to support traffic relay. If the SU data encryption is enabled then the AU data encryption must also be enabled.
- SU L will not associate with an AU that uses hidden ESSID
- In the event that the Ethernet data rate exceeds the MIR value the packet delay, especially when working with UDP traffic, can significantly increase

- Simultaneous setting of all 4 MIR/CIR parameters from web does not work – customer is advised to set them one by one according to the right order
- When using http to configure SU-L if one parameter is set outside its range none of the parameters will be applied (the page is rejected as a block)
- Restoring an encrypted config file in the SU-L doesn't necessarily change all the MIR/CIR parameters – In which case customer will require to manually configure the MIR/CIR parameters
- When upgrading the SU-L the absolute FTP path of the upgrade file is not taken into account – customer needs to set the root of the FTP server manually
- Setting the admin password in telnet does not require status update
- When an SU-L is scanning for available AU Access Units, it may discover also other unit types (i.e. BreezeACCESS AU-L or other 802.11a APs). However, it will not associate other than Alvarion access point products.
- When using encryption, either for data or authentication, make sure all relevant settings are the same in the SU and the AU otherwise the SU-L might not associate
- When configuring parameters of SU-L, do not use backslash ("\") in free text parameters such as ESSID. A backslash may be interpreted by the device as a command, causing unexpected behavior that may result in complete lose of the ability to manage the unit.
- SW upgrade of SU-L may fail when the last channel on the frequencies list is being heavily interfered. In such cases, that heavily interfered frequency should be removed form the list and SW upgrade repeated.

8 Important Notes for BreezeACCESS VL systems

- Although minimum output power is defined as -10 dB when configuring the Tx Power manually, when ATPC is enabled the SU's output power may be less than this minimum.
- Extra care should be taken when configuring VLAN management and management IP filtering in order not to lose connectivity with unit. In case of connectivity loss, use the "restore default parameters" application to reset to factory values.

- In case data encryption is used, the maximum number of SUs that can be served by an AU is limited to 124 (512 when data encryption is not used). Note than when data encryption is needed, it must be used by all SUs served by the same AU, as well as by the AU itself. The Maximum Number of Associations in the AU must be set to 124 or lower to enable data encryption. As long as data encryption is enabled, the Maximum Number of Associations cannot be set to a value higher than 124.
- Upon downgrade from version 5.x and later to version 3.0 or lower, all the information in the new Network Management IP Address Ranges table will be lost. Hence, management access may be lost if the unit was managed from an IP address that is on a subnet defined in the new tables.
- When upgrading from version 3.0 or lower to version 5.0 and later, the high/low packet classification settings according to the old VLAN Priority Threshold or IP Precedence Threshold parameters will be lost. The new parameters are forced to the default value of 7, meaning no prioritization.
- When downgrading from version 5.0 and later to version 3.0 or lower the MIR value is changed to the default 14976 and can manually be set to any value up to the maximum of 32896.
- When Wireless Link Prioritization feature is activated the prevention of Low Priority Traffic Starvation is automatically disabled.
- Remote changes of the Maximum Modulation Level in an SU while Adaptive Modulation is disabled may lead to lose connectivity with the unit. The recommended workaround is to enable Adaptive Modulation, reset the unit to apply the change, and then change the Maximum Modulation Level.
- Adaptive Modulation may not converge to best modulation in some setups with high variance in noise levels. In these cases better performances may be achieved with manual modulation settings (Adaptive Modulation Disabled).
- When using the Q-in-Q feature the units can be managed by a management station behind the AU only if the following conditions are met:
  - The unit can be managed only with tagged frames: VLAN ID – Management must be other than 65535 (None).
  - To enable proper management, all units in a cell (the AU and all SUs served by it) must use the same VLAN ID - Management.
  - The VLAN ID – Management must differ from the Customer's VLAN ID - Data.

- Upon upgrade to SW version 5.0 and later from version 3.1 or lower the FTP Client IP Address and Subnet Mask no longer exist as configurable parameters and the unit's IP parameters are used instead. Upon downgrade from SW version 5. 0 and later to version 3.1 or lower the FTP Client IP Address of the unit is automatically set to the same value as the IP Address of the device. In this case following warning message appears:

  *** WARNING: Same 'Unit IP Address' and 'FTP Client IP Address'! ***

  *** 'FTP Client IP Address' ignored until change and reset! ***

  After downgrade it is recommended changing the FTP Client IP Address to 1.1.1.3 and the FTP Server IP Address to 1.1.1.4.

- Using FTP to put/get some files into/from the units might fail. However, the operation will succeed after several trials. In such cases it is recommended to use TFTP for the same file transfer.

- When a SU with SW version 3.x is upgraded to version 5.0 and later and the ATPC is activated, the TX power of the SU will be modified to the maximum value allowed by HW version and regulatory domain used (Country Code). ATPC will later adjust it to the optimal level.

- Starting with SW version 5.0, the frequency 4905 MHz is available when working on 10Mhz. on Country Code 1090 (Universal 4.9). This is correcting a misbehavior form previous versions.

- The operation of "Reset and boot from shadow" executed from SW version 5.0 and higher may take up to 2 seconds longer when the shadow version is lower than 5.0.

- Starting with SW version 5.2, when operating in Service Provider VLAN mode (Q in Q) the traffic within the Management VLAN ID will be forwarded from the wireless port to the Ethernet port of an SU only when "Access to Network Management Option" includes the Ethernet port.

- With respect to the new ETSI DFS functionality in 5.4Ghz,

  - When upgrading the installed SU units to version 5.5.27, the DFS feature will not be enabled. However a Country Code change, a Country Code re-apply or factory default will force the DFS mechanism to be enabled

- When upgrading the installed AU units to version 5.5.27, the DFS parameter called "minimum pulse to detect" will not be changed. However a Country Code change, a Country Code re-apply or factory default will force the "Minimum Pulses to Detect" parameter to be set to a new value
- When using the units in 5600-5650 MHz, with ETSI DFS feature activated, please note that due to the CAC = 10min, it is possible, in the worst case, to have the link established within maximum 20 min, after radar detection/system reset/power up.

- With respect to the new ETSI DFS functionality in 5.8GHz, when upgrading the installed SU units to version 5.5.27, the DFS feature will be automatically enabled.
- With respect to the new ETSI DFS regulation in the 5.4 -5.8 GHz, the updated standard mandates SUs capability of DFS sequences detection similar to the BST – the DFS detection mechanism on both ends (SU and AU) can lead to slight throughput degradation compared to old version performance in which detection of DFS was not required on the SU.

9 Limitations of BreezeACCESS VL systems

- When operating in very noisy environments, the automatic noise immunity mechanism (ANI) can force the OWS to a level of '1'. In the event that this will happen (on the AU side) the SUs, with SNRs bellow 25, can disassociate without being able to re-associate back again. In such cases (very noisy environments) the ANI must be set to 'MANUAL' and the OWS value must never be set to '1'.
- Data encryption must be set in the same way throughout the cell in order to support traffic relay. If the SU data encryption is enabled then the AU data encryption must also be enabled.
- Units running SW version 4.5 or later with country code 1044 (Australia) should not be downgraded to 4.0 and prior but only after changing the country code. The above mentioned country code is supported only by version 4.5 and later.
- Prior to changing the country code setting, it is recommended that the user should verify that under the new EIRP conditions, imposed by the new country code, it is still possible to maintain the link (relevant in cases where the new CC EIRP value is lower than the original EIRP value).
- When downgrading from version 5.5 to previous released versions the operator defaults will be corrupted. To avoid this the recommended procedure downgrade shall be:

1) Download the operator defaults (CMR file)
2) Downgrade from SW 5.2
3) Load the operator defaults

- Sensitivity may change slightly as a function of frequency (+/-2dB).
- Transmission power accuracy is +/-1dB above 8dBm @ antenna port (typical condition). At lower levels the accuracy is +/-3dBm, never contradicting regulations. At very low levels the use of ATPC may cause significant fluctuations in the power level of the transmitted signal. When operating at such low levels, it is recommended to disable the ATPC Option in the SU and to set the Transmit Power parameter to the average Tx Power level before the ATPC was disabled.
- In units operating in the 5.3 GHz band, the following rule must be met for full compliance with FCC regulations:
  - For units with HW Revision B, frequency 5270MHz should not be used with a 20 MHz bandwidth. For these units, the Transmit Power parameter in the AU, and the Maximum Tx Power parameter in the SUs served by this AU, should not be set to a value above "17-Antenna Gain".
  - For units with HW Revision C, frequencies 5270 MHz, 5275 MHz and 5330 MHz should not be used with a 20 MHz bandwidth. For these units, the Transmit Power parameter in the AU, and the Maximum Tx Power parameter in the SUs connected to this AU, should not be set to a value above "20-Antenna Gain".
  - For units with HW Revision C, frequency 5265 MHz should not be used with a 10 MHz bandwidth. For these units, the Transmit Power parameter in the AU, and the Maximum Tx Power parameter in the SUs connected to this AU, should not be set to a value above "25-Antenna Gain".
- In BreezeACCESS VL units operating in the 4.9 GHz Japan band (not B&B point-to-point) with a 10 MHz bandwidth, the following rules must be met for full compliance with regulations:
  - When operating at 4945 MHz, the Transmit Power parameter in the AU should not be set to a value above 11 dBm. The Maximum Transmit Power of the SU should not be set to a value above 10 dBm.
  - When operating at 5055 MHz, the Transmit Power parameter in the AU should not be set to a value above 13 dBm. The Maximum Transmit power of the SU should not be set to a value above 10 dBm.

This requirement, although not indicated in the certification document, is needed following the tests performed in the certification lab.

- When encryption is used by the Authentication Algorithm (Shared Key option), in large cells (more than 80 SUs) the association process may be relatively long.
- In units with HW Revision B, Burst Mode cannot be activated when using WEP for data encryption. In units with HW Revision B, the Burst Mode option will be "blocked" upon trying to enable it when using WEP for data encryption. This limitation does not apply to units with HW Revision C. Note that the Burst Mode parameter may be wrongly displayed on HW Revision B units as Enabled instead of Blocked, when DFS or data encryption is activated. However the behavior of the Burst Mode is as expected (blocked).
- The Country Code Learning by SU feature does not function with the default ESSID (ESSID1).
- MAC Address Deny/Allow List supports maximum 100 entries.
- Calculated distance in 10MHz channels might not be accurate when the AU and SUs do not run the same software version; If the AU uses SW version 5.0 or later and the SU(s) use SW version 3.1, the calculated distance might be higher by 10 km than the actual one. It is highly recommended to upgrade the entire cell to the same software version, or use manual cell distance mode.
- The character ";" (semicolon) is a reserved character. It should not be used in defining any string parameters (unit name, ESSID, etc) since the string will be cut before the semicolon.
- If you are using the Feature Upgrade option in Telnet to enter a license string using copy and paste operation, check carefully that the string is copied properly. You may have to enter it manually due to potential problems in performing copy/paste in Telnet.
- Country Code related limitations
  - An SU will learn a Country Code from the AU only if the SU is running from its main version.
  - In a deployment with two (or more) AUs running different Country Codes, if the Country Code learning feature is activated, SUs may migrate after reset from one AU to the other, try to learn the Country Code during association process and never be able to come back to the original AU. In such cases the Preferred AU feature must be activated in the SUs before enabling Country Code learning.

- When an SU running SW version lower than 5.0 is associated with an AU running SW version 5.0 or later:
  - A special warning messages might be displayed in the log file:

    WRN: Unknown vendor private element code: 15

    WRN: Unknown vendor private element code: 16

    WRN: Unknown vendor private element code: 17
  - Parameters that are not included in the old ADB table will be either not available (unknown) or with wrong values.
- When DFS is enabled, "Pulse sensitivity" parameter, although configurable, is not significant. At this case an equivalent value of HIGH will be automatically assigned to this parameter.
- It is recommended to use TFTP, as opposed to FTP, in all cases when files need to be transferred from/to the unit running SW version 5.0
- When DFS option is activated (enabled), the Noise Floor Value cannot e greater than -90dBm.
- RSSI reading feature requires an on-field calibration. Without this calibration the RSSI value read may have less accuracy (7-10dB). It is recommended to run the calibration at least once before using the RSSI readings.
- The RSSI calibration might fail in case of heavy interference present on more than 50% of the available RF channels.