InfiLINK XG and InfiLINK XG 1000

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This page describes the capabilities of the InfiLINK XG product family for device maintenance and network status monitoring. This article is only intended to briefly show the main parameters that are relevant for device monitoring and troubleshooting. For more information about the Web interface please proceed to the InfiLINK XG / InfiLINK XG 1000 - Technical User Manual.

Monitoring options

Interface status

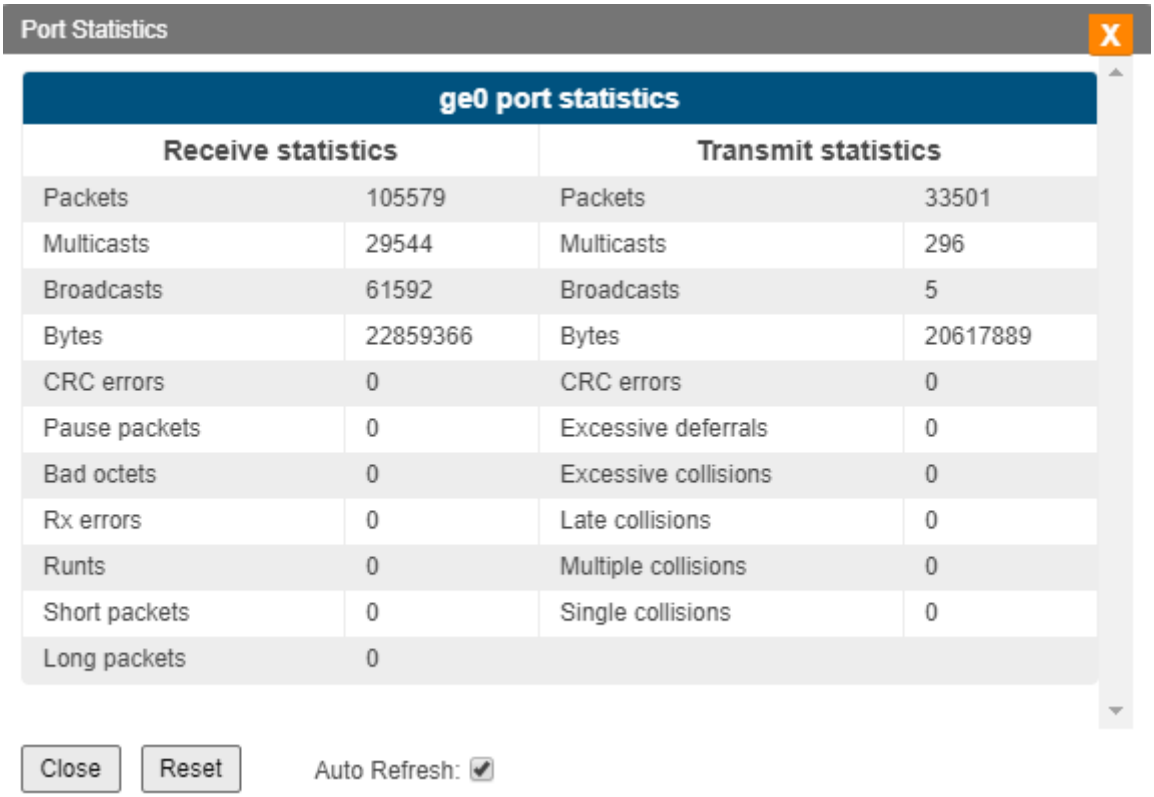
The "Status" section displays statistic for each physical interface as well as for logical "management" interface. The information about load, packet number and errors is shown on the main page.

Status

Port	Status	Mode	Packets Rx/Tx	Errors Rx/Tx	Load (Kbps) Rx/Tx	Load (pps) Rx/Tx
mgmt	Up	--	180911 / 140642	0 / 0	26 / 27	16 / 12
ge0	Up	100 Mbps Full Duplex	99520 / 31470	0 / 0	20 / 25	9 / 4
ge1	Up	--	0 / 0	0 / 0	0 / 0	0 / 0
sfp	Up	--	0 / 0	0 / 0	0 / 0	0 / 0
radio	Up	--	79819 / 164921	0 / 0	3 / 19	5 / 13

In order to review detailed information about the transmitted packets and the errors type, extended statistics can be displayed by clicking on the interface you are interested in.

Title



Wireless link statistic

This section allows you to monitor the radio link parameters. The link status and main settings are displayed on top of this section, while the bottom part shows statistics for the Master and Slave unit, for both uplink and downlink directions. In case of the InfiLINK XG 1000 family, the information is shown for both carriers.

Title

Wireless Link status	UP
Measured Distance	139 meters
Channel Width	40 MHz
DL/UL Ratio	59/41 (auto)
Frame Period	5 ms

Device Type		Master (local)		Slave (remote)	
Tx Capacity		250592 kbps		156038 kbps	
		Carrier 0 (Up)			
Tx/Rx Frequency		5360 MHz		5360 MHz	
DFS status		DISABLED		DISABLED	
Tx/Rx Frames		28362928/11365498		28357000/16991880	
Rx Bad Frames		16		0	
Rx Acc FER		1.41e-6 (0%)		0e0 (0%)	
		Stream 0	Stream 1	Stream 0	Stream 1
TX	MCS	QAM256 7/8 (8)	QAM256 6/8 (7)	QAM256 6/8 (7)	QAM256 6/8 (7)
	Power	5 dBm	5 dBm	0 dBm	0 dBm
RX	MCS	QAM256 6/8 (7)	QAM256 6/8 (7)	QAM256 6/8 (7)	QAM256 6/8 (7)
	CINR	29 dB	29 dB	29 dB	30 dB
	RSSI	-52 dBm	-51 dBm	-49 dBm	-48 dBm
	Errors	2395	1814	3589	426
	Acc TBER	6.53e-6 (0%)	4.95e-6 (0%)	6.67e-6 (0%)	7.92e-7 (0%)

Auto Refresh: ☑ Show GNSS Statistics Show Availability Statistics Reset AMC Statistics Clear All Counters

In addition to capacity and frames number, there are a few important parameters which allow to perform radio link quality monitoring.

MCS

Displays the modulation and coding scheme that is in use at the receiver side. There are 11 MCS schemes available and if the AMC is set to auto, the MCS will dynamically change its value based on the link quality (at both units - local and remote). The maximum capacity varies based on the MCS in use. For example, for QAM256 7/8 (8): "QAM256" is the modulation in use, "7/8" is the coding scheme in use (for every 7 data bits, the encoder produces 8 bits to be sent over the air) and "(8)" represents the index of the MCS in use.

CINR

Displays the Carrier to Interference and Noise Ratio measured in downlink and expressed in dB. CINR can be limited either due to a low signal level or because of the interference from other radios. In order to obtain the highest modulations, values higher or equal to 28 dB are required.

RSSI

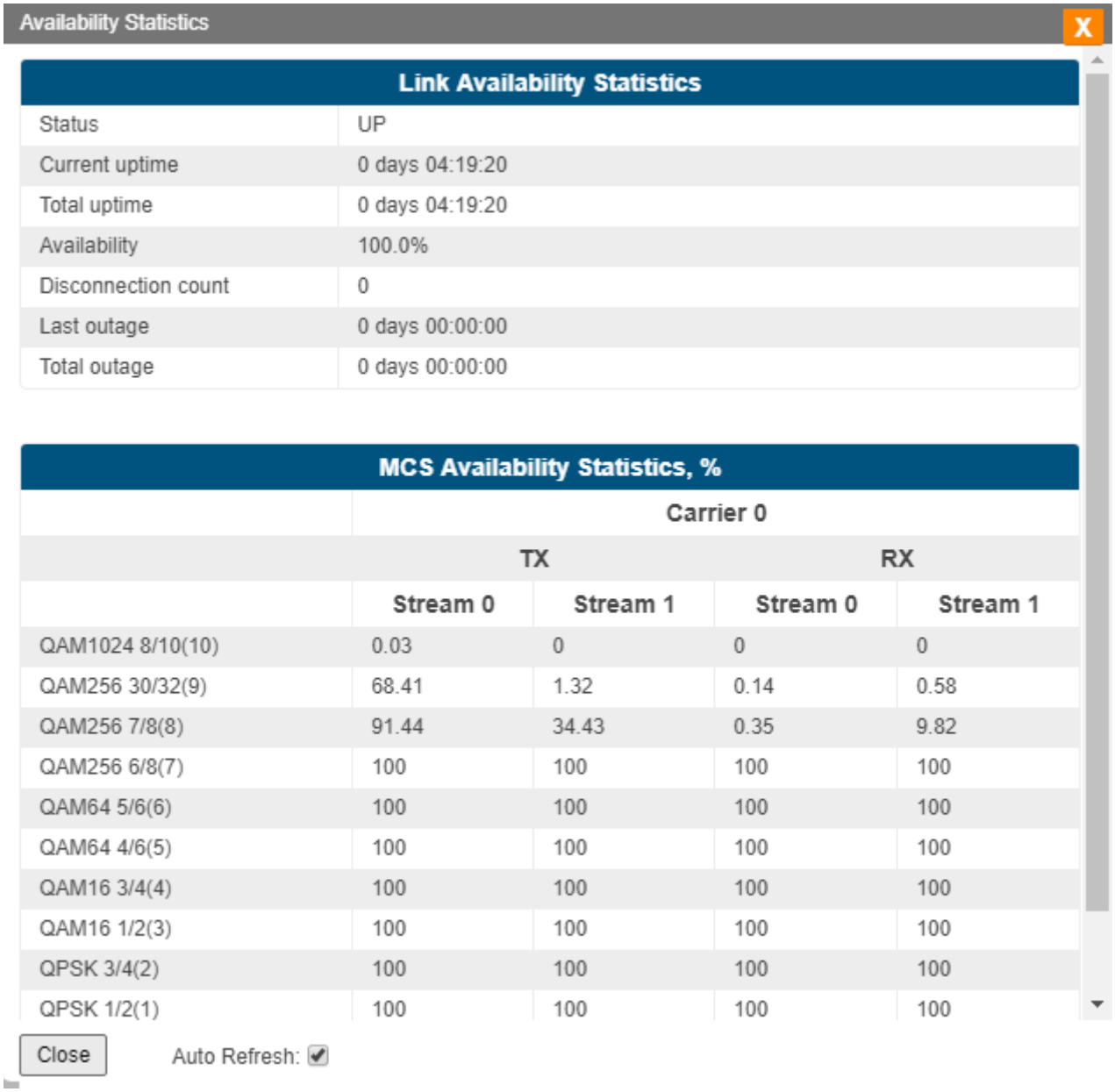
Displays the Received Signal Strength Indicator measured in downlink and expressed in dBm. Represents the power of the received signal as a whole (useful signal plus noise and interference) and if it goes below the level of the sensitivity, the link will go down. The recommended range for achieving the best performance is between -60 and -40 dBm.

Acc TBER

Displays the Transport Block Error Ratio, showing the percentage of transport blocks with errors. Each application has an acceptable air block error rate defined as a minimum requirement.

Availability statistics

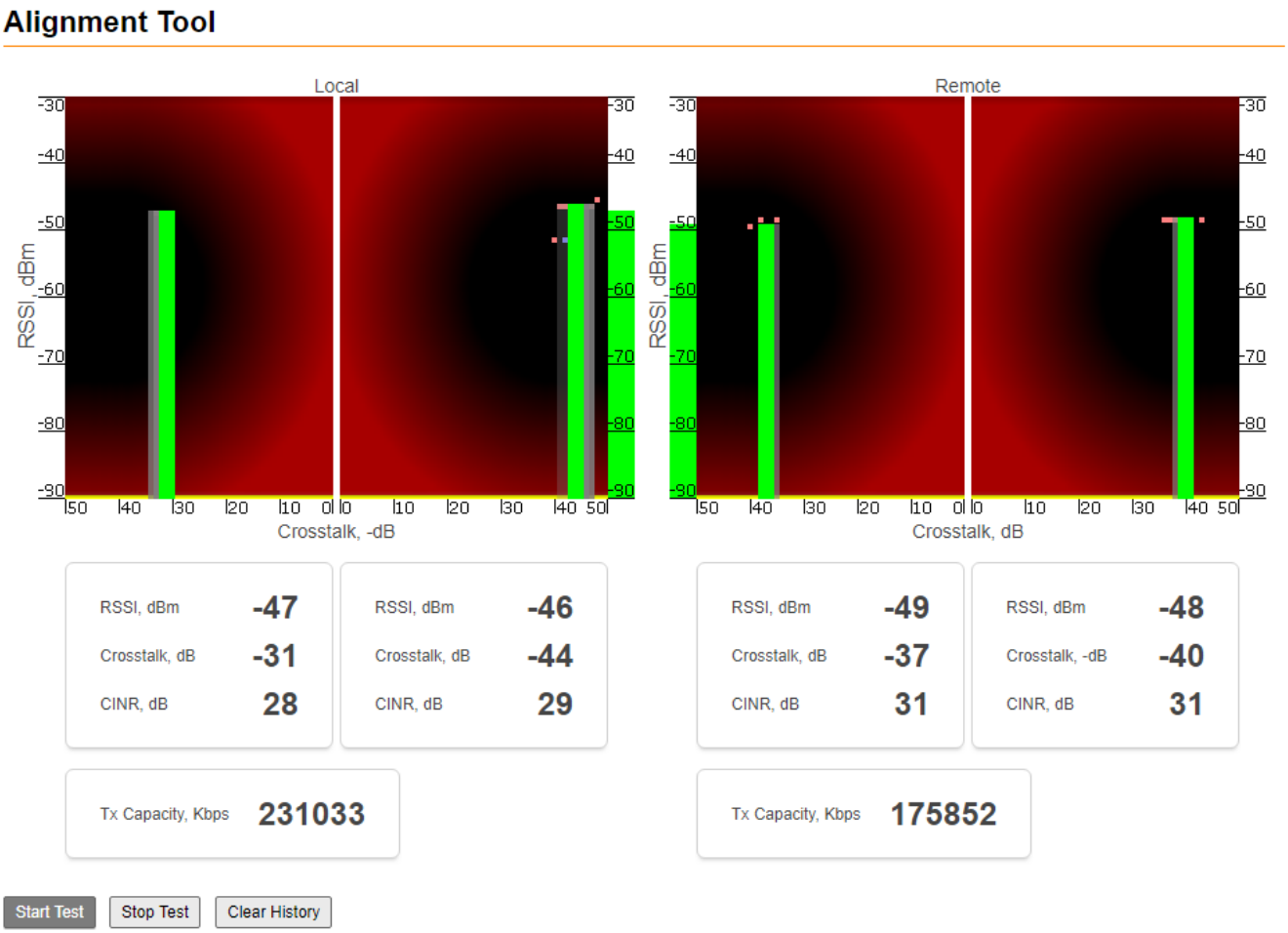
Link and MCS availability statistics are available on the bottom of the section by clicking on the "Show Availability Statistics" button.



Antenna alignment tool

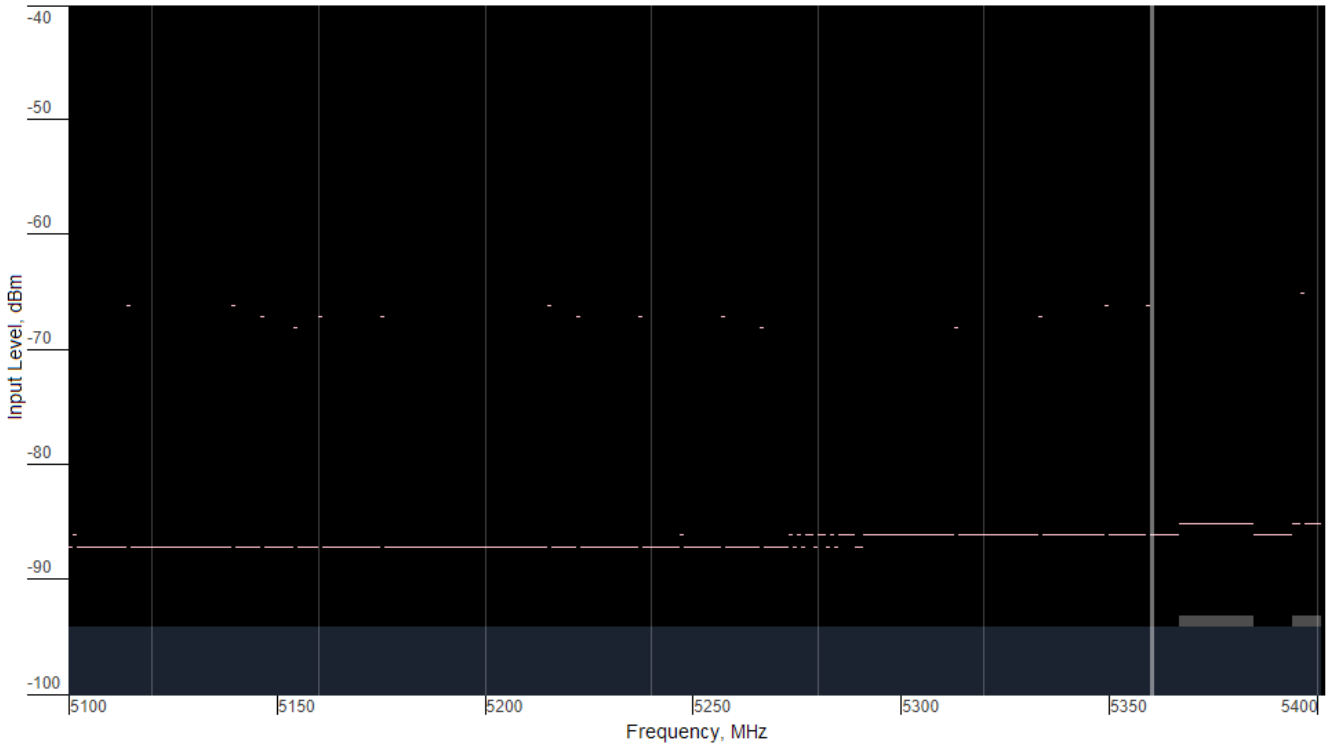
An intuitive graphical tool that helps to check the antenna alignment and to troubleshoot problems related to the link quality (errors, poor signal level). It provides information about the RSSI level, the signal level and bitrate. Some basic guidelines:

- For correct alignment, the green graphical indication for the signal level should be seen as close as possible to the center of the black area.
- In the text part, the optimal level for the RSSI is between -60 to -40 dBm, the CINR (carrier-to-interference-and-noise ratio) should be equal to or greater than 28 dB. The Crosstalk indicates the influence of the vertical and horizontal polarizations on each other, and it should not exceed -20 dB.



Spectrum analyzer

Performs a scan of the electromagnetic spectrum in the desired frequency range and provides detailed information about the emitting sources present in the area. While the test is being performed, the link is disconnected and the unit will operate in listening mode only. Interference can be easily spotted this way. Interference pulses are displayed for the frequencies that are busy. By pointing over the desired pulse, detailed information will be displayed about the strength of the interference: input level, max and average RSSI. The scan is available based on customized parameters: start/stop frequency, band, step, and scan duration.



Supported frequency range: 4900-6000 MHz

Start Frequency (MHz): 5100 RSSI mode: Normal

Stop Frequency (MHz): 5400

Resolution Bandwidth (MHz): 40

Step (MHz): 1

Polarization: Horizontal

Scan Duration: Accurate

Note: When running spectrum scan on a unit accessible via Radio interface, connection will be lost during the scan. Click "Last Snapshot" button to get scan results.
Estimated test time: 00:05:00

Start Sensor Test | Stop Sensor Test | Last Snapshot

Maintenance

The following management options are available from the Web interface, Maintenance section:

Firmware, license and configuration management

The existing firmware, license or configuration can be viewed, downloaded or updated. The firmware can be updated in two ways, automatically by clicking the "Check Latest Release" button or manually by uploading it from the FTP server https://ftp.infinet.ru/.

Unit reboot

For remote reboot of the unit.

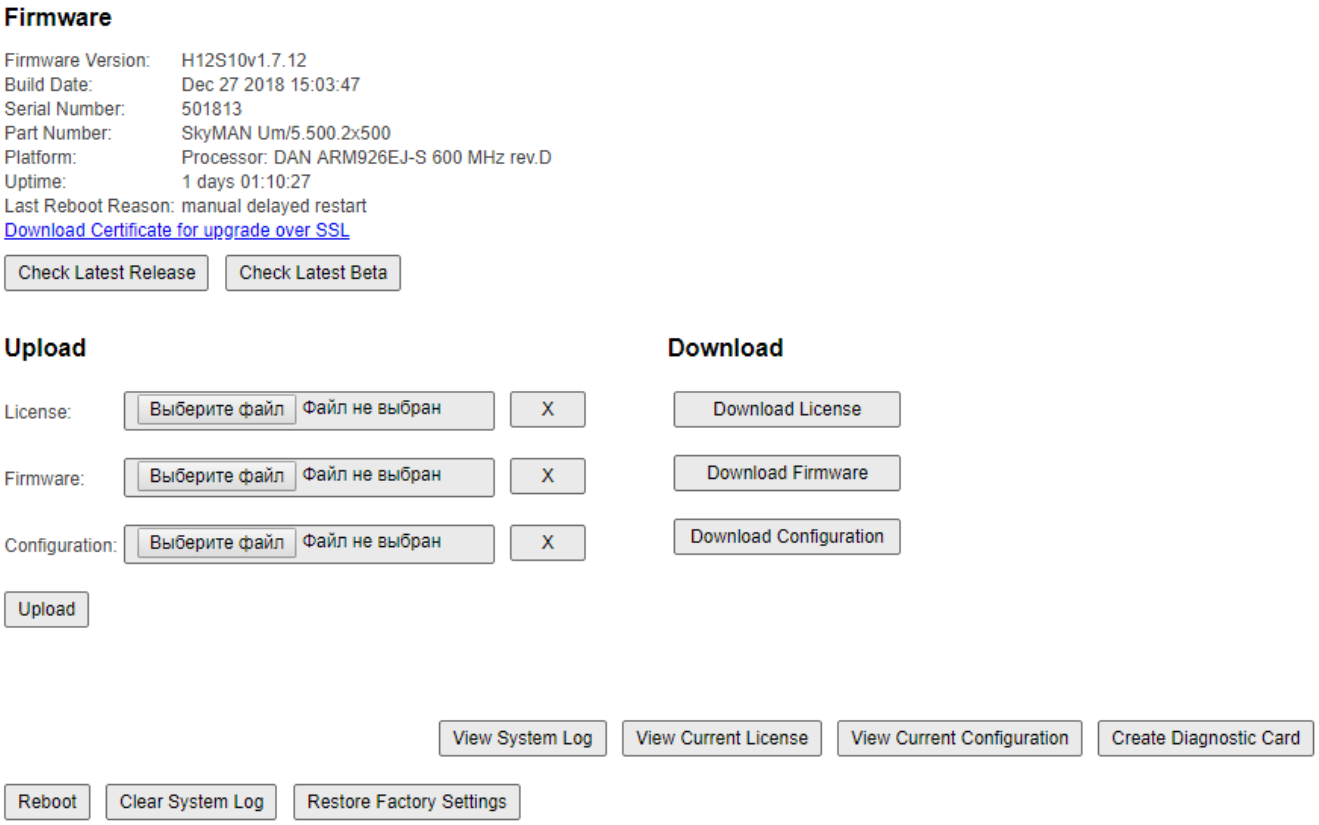
Restore to factory settings

If needed, the unit can be restored to the factory default settings.

Diagnostic card creation

In order to gather complete troubleshooting information and send it to the InfiNet Wireless technical support team, a diagnostic card must be created. This includes the configuration, system log messages, various output parameters, system messages, license information etc.

Title


Firmware
Firmware Version: H12S10v1.7.12
Build Date: Dec 27 2018 15:03:47
Serial Number: 501813
Part Number: SkyMAN Um/5.500.2x500
Platform: Processor: DAN ARM926EJ-S 600 MHz rev.D
Uptime: 1 days 01:10:27
Last Reboot Reason: manual delayed restart
Download Certificate for upgrade over SSL
Check Latest Release
Check Latest Beta
Upload
License:
Выберите файл
Файл не выбран
X
Firmware:
Выберите файл
Файл не выбран
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Configuration:
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