Status

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- Interface Statistics
- Wireless Link Statistics
- CINR and RSSI parameters

The "Status" page is displayed by default after the authentication step. It displays the main parameters of the unit in real-time.

Status

Port	Status	Mode	Packets Rx/Tx	Errors Rx/Tx	Load (Kbps) Rx/Tx	Load (pps) Rx/Tx
mgmt	Up	--	707837 / 527070	0 / 0	14 / 30	11 / 9
ge0	Up	1000 Mbps Full Duplex	566632 / 349691	0 / 0	11 / 29	8 / 7
ge1	Up	--	0 / 0	0 / 0	0 / 0	0 / 0
sfp	Up	--	0 / 0	0 / 0	0 / 0	0 / 0
radio	Up	--	1480 / 1491	0 / 0	0 / 0	0 / 0

Wireless Link Statistics

Wireless Link status	UP
Measured Distance	---
Channel Width	20 MHz
DL/UL Ratio	23/77
Frame Period	4

Device Type		Master	
Tx Capacity		47560 kbps	
		Carrier 0 (Up)	
Tx/Rx Frequency		6020 MHz	
DFS status		DISABLED	
Tx/Rx Frames		138405934/103801848	
Rx Bad Frames		704	
Rx Acc FER		6.78e-6 (0.0%)	
		Stream 0	Stream 1
TX	MCS	QAM256 7/8 (8)	QAM256 6/8 (7)
	Power	0.92 dBm	1.41 dBm
RX	MCS	QAM256 6/8 (7)	QAM64 5/6 (6)
	CINR	33 dB	32 dB
	RSSI	-50 dBm	-50 dBm
	Errors	42388	48632
	Acc TBER	2.53e-5 (0.0%)	2.9e-5 (0.0%)

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

Figure - Status page

You can set the "*Auto Refresh*" option to refresh the statistics automatically. The "*Auto refresh*" is available in the bottom-left side of the "Status" page, along with the «**Show GNSS Statistics**» button. If GNSS is in use and GNSS monitoring is enabled, its statistics can be queried by clicking on «**Show GNSS Statistics**».

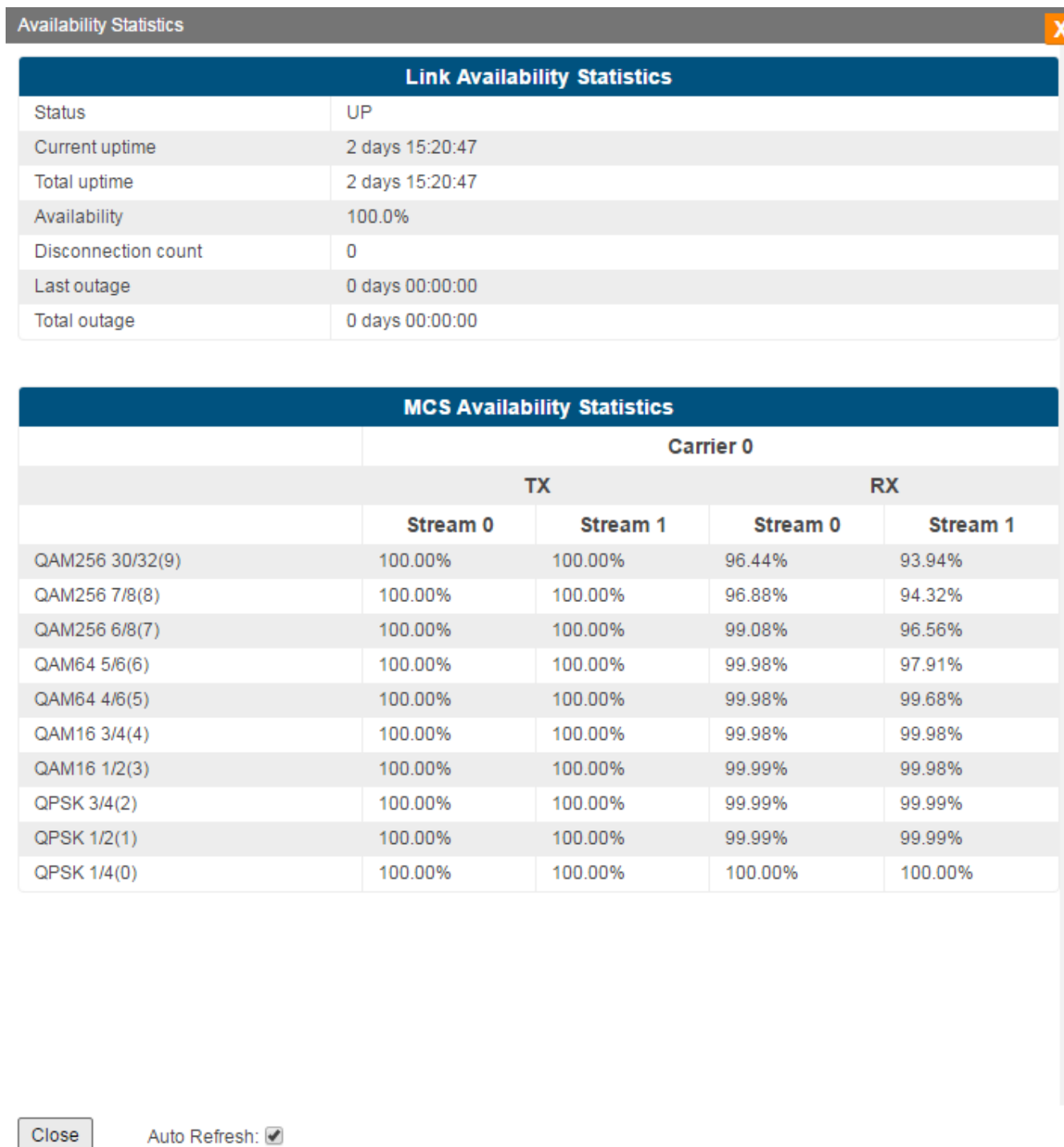To obtain link and MCS availability statistics use the "**Show Availability Statistics**" button.

Title

Availability Statistics	X

Link Availability Statistics	
Status	UP
Current uptime	2 days 15:20:47
Total uptime	2 days 15:20:47
Availability	100.0%
Disconnection count	0
Last outage	0 days 00:00:00
Total outage	0 days 00:00:00

MCS Availability Statistics				
	Carrier 0			
	TX		**RX**	
	Stream 0	**Stream 1**	**Stream 0**	**Stream 1**
QAM256 30/32(9)	100.00%	100.00%	96.44%	93.94%
QAM256 7/8(8)	100.00%	100.00%	96.88%	94.32%
QAM256 6/8(7)	100.00%	100.00%	99.08%	96.56%
QAM64 5/6(6)	100.00%	100.00%	99.98%	97.91%
QAM64 4/6(5)	100.00%	100.00%	99.98%	99.68%
QAM16 3/4(4)	100.00%	100.00%	99.98%	99.98%
QAM16 1/2(3)	100.00%	100.00%	99.99%	99.98%
QPSK 3/4(2)	100.00%	100.00%	99.99%	99.99%
QPSK 1/2(1)	100.00%	100.00%	99.99%	99.99%
QPSK 1/4(0)	100.00%	100.00%	100.00%	100.00%

Close   Auto Refresh: ☑

Figure - Availability Statistics

On the bottom-right side of the "Status" page the «**Clear All Counters**» button is present with the scope of resetting the counter values to 0 when clicked on.

> ⓘ **CAUTION**
>
> Clearing these counters by clicking on the «**Clear All Counters**» button means losing the history data about the functionality of your unit. Avoid this operation unless you are completely sure you don't need this data in the future.

The "Status" page has the following sections:

- "Interface Statistics" - displays the main parameters of all configured interfaces (physical and logical).

- "Wireless Link Statistics" - displays the main parameters of the radio link.

Interface Statistics

Parameter	Description
Port	Displays all physical and logical set interfaces
Status	Displays for each interface whether it is up and running or not
Mode	- Displays the operation mode for the GE ports: 10,100 or 1000 Mbps and half or full duplex
Packets Rx/Tx	Displays the number of received and transmitted packets for each interface since the unit is operational or since the counters were last reset
Errors Rx/Tx	Displays the number of received and transmitted error packets for each interface since the unit is operational or since the counters were last reset
Load (Kbps) Rx/Tx	Displays the packet flow through each interface in real-time (for the system and the data traffic) expressed in Kbps
Load (pps) Rx/Tx	Displays the packet flow through each interface in real-time (for the system and the data traffic) expressed in packets per second (pps)

Table - Interface Statistics

Additional statistics about the network packet types and error types for reception/transmission are displayed by clicking on any of the interfaces:

Figure - Additional interface statistics

Wireless Link Statistics

This section is divided in the following two areas:

- "General radio link parameters" - displays the following information:

Parameter	Description
Wireless Link Status	- Displays the status of the radio link which can be "Up" or "Down"
Measured Distance	- Displays the measured distance of the radio link in meters
Channel Width	- Displays the channel bandwidth that is in use

DL/UL Ratio	- Displays actual downlink/uplink ratio
	   - "Downlink" - data transmission from Master to Slave
	   - "Uplink" - data transmission from Slave to Master

Frame Period	- Frame length

Table - General radio link parameters

- "Real time radio link status" - displays the following parameters of the radio link in real time for both the local and remote unit:

Parameter	Description

Title

Tx capacity	• Displays the maximum transmission capacity expressed in Kbps for the current modulation and coding scheme. If the MCS changes, the Tx capacity will also change accordingly
Tx/Rx Frequency	• Displays the center Tx frequency expressed in MHz

DFS status	• DFS status information. Possible statuses:
	  • "NO_INIT" - utility is not initialized
	  • "DISABLED" - DFS is disabled
	  • "ENABLED" - DFS is enabled
	  • "FG_RADAR_SEARCH" - selected frequency scanning for radars existence
	  • "FG_RSSI_SCAN" - all available frequency grid noise level scanning
	  • "RADAR_FOUND" - radar found
	  • "RADAR_UP" - frequency with radar is blocked for selection
	  • "BG_RSSI_V" - "background" RSSI on the vertical channel
	  • "BG_RSSI_H" - "background" RSSI on the horizontal channel
	  • "BG_RDRDT_MAIN" - radar "background" searching on the main frequency
	  • "BG_RDRDT_ANNOUNCE" - radar "background" searching on the potential frequency
	  • "BG_FF_UL" - uplink frequency changing
	  • "BG_FF_DL" - downlink frequency changing

Tx/Rx Frames	• Displays the number of transmitted and received air frames
Rx Bad frames	• Displays the number of air frames received with errors for which the Control Block cannot be correctly decoded
Rx Acc FER	• Displays the Frame Error Ratio, meaning the percentage of frame loss (air frames that cannot be decoded divided by the total number of air frames received)
Tx parameters	
MCS	• Displays the modulation and coding scheme that is in use at Tx 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 Tx 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 encoder produces 8 bits to be sent over the air) and "(8)" represents the index of the MCS in use
Power	• Displays the current power level of the Tx signal for each radio chain in dBm
Rx parameters	
MCS	• Displays the modulation and coding scheme that is in use at Rx side. The representation is similar to that for Tx part
CINR	• Displays Carrier to Interference and Noise Ratio measured in downlink and expressed in dB • CINR can be limited either due to too low signal level or because of the interference from other radios • AMC algorithm makes its decisions based on the CINR value • Higher CINR is better
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 interferences) and if it goes below the level of the sensitivity, the link will go down

Acc TBER	
	• Displays the Transport Block Error Ratio, showing the percentage of errored transport blocks • Each application has an acceptable air block error rate defined as a minimum requirement • The values are presented in the table below

Table - Wireless Links Statistics

> ⚠️ **NOTE**
>
> For the **InfiLINK XG 1000** family models the real time radio link parameters are displayed for both radio modules.

CINR and RSSI parameters

CINR and RSSI are very important in analyzing the link performance. Below there are the guidelines for CINR and RSSI levels:

CINR (dB)	
5...12	• Very low quality signal suitable for low-order modulations only. It is highly recommended to improve signal quality by selecting less congested channel or increasing signal level
13...19	• Low signal quality, average modulations are available
20...27	• Average signal quality
>=28	• Very good quality signal suitable for highest-order modulations
RSSI (dBm)	
-90...-80	• Close to the receiver sensitivity level, suitable only for the lowest modulation levels; it is highly recommended to improve signal level or switch to narrower available channel width in order to avoid the loss of connectivity
-80...-60	• Average input range
-60...-40	• The recommended range for achieving best performance
>-40	• Input signal level is too high, it is recommended to decrease the Tx power in order to avoid possible damage of the radio module of the remote unit

Table - CINR and RSSI value ranges