



# Reporte de Evidencias

Proyecto MT - Marzo 2025





# Introducción

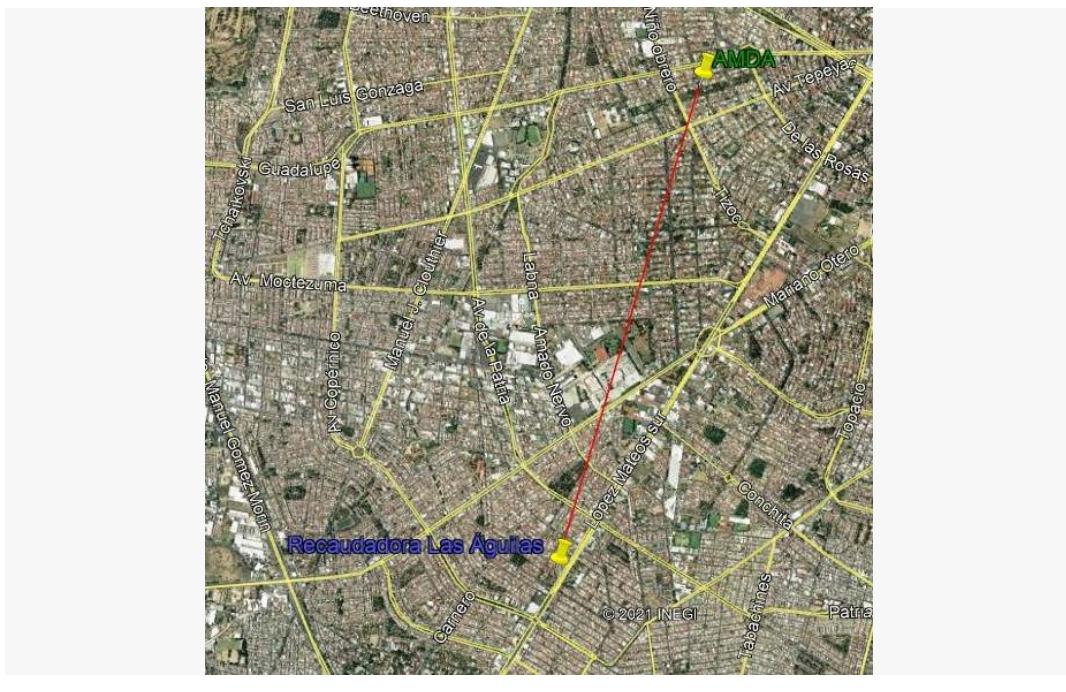
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Este documento contiene las evidencias recopiladas durante el proyecto MT.





# Ubicación



RED\_DIGITAL



AMDA

## Ubicación



LAS\_ÁGUILAS



# Inventario

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Inventario.pdf

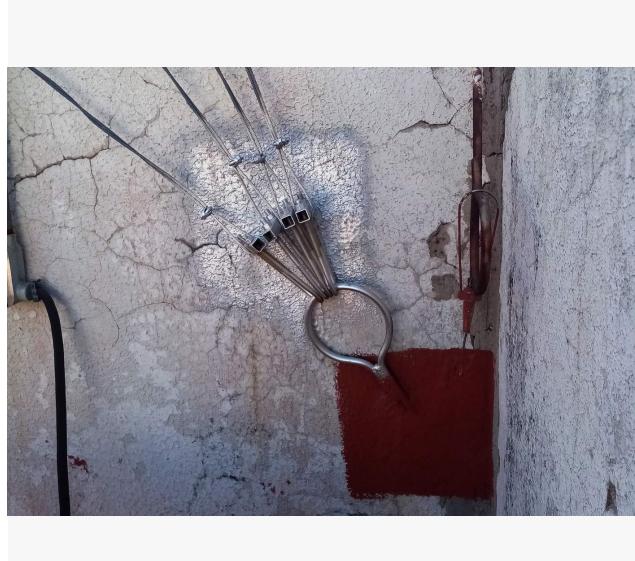
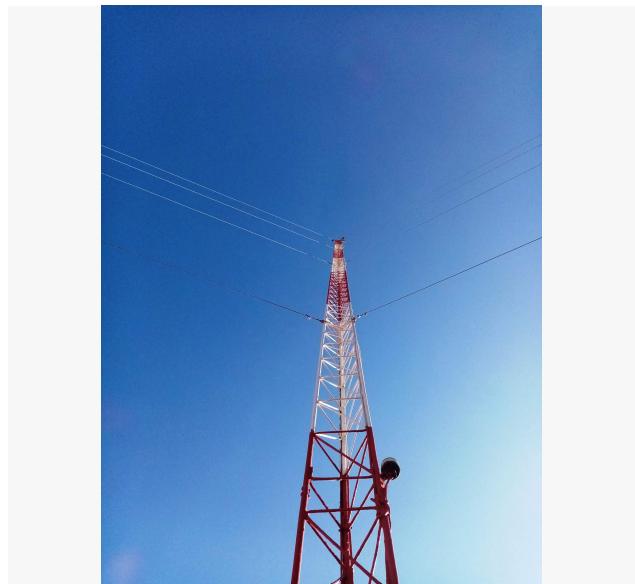
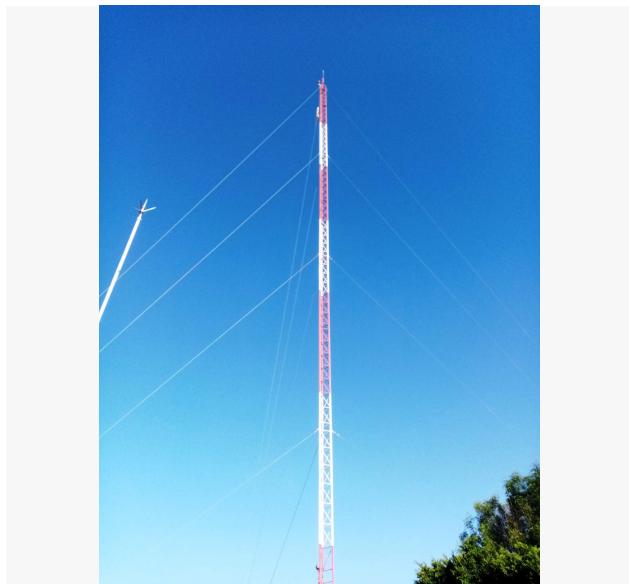


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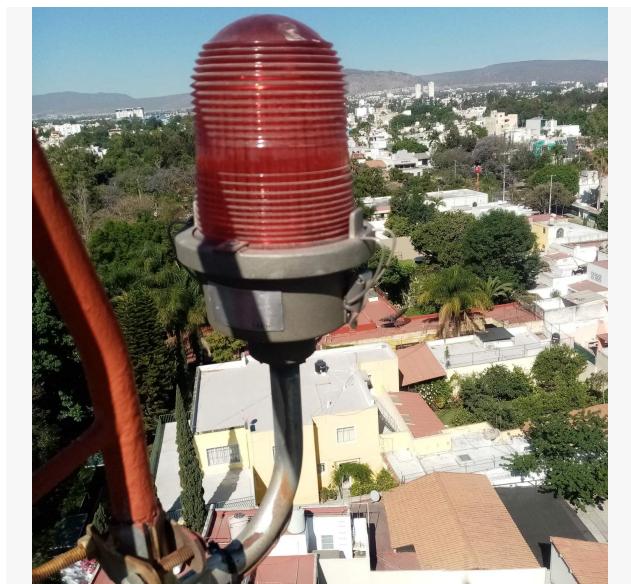
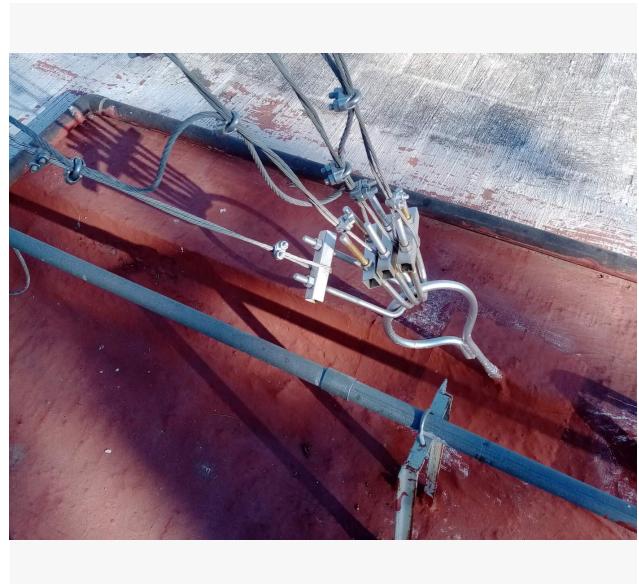
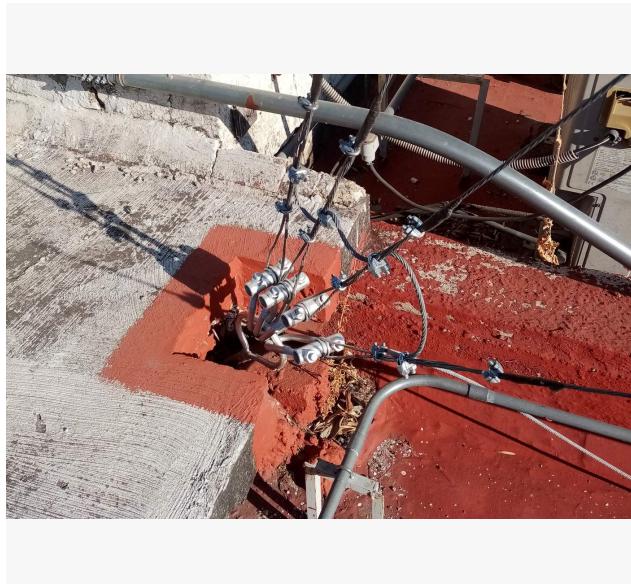
## Equipos AMDA

### Mantenimiento a torre

#### Previo a mtto



# Mantenimiento

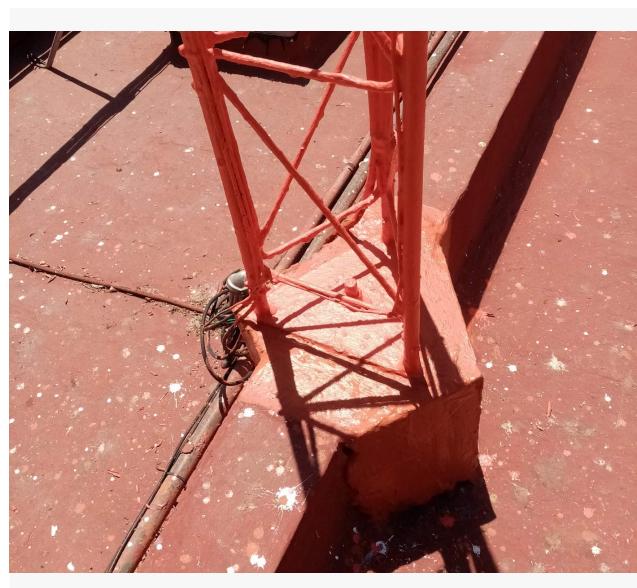
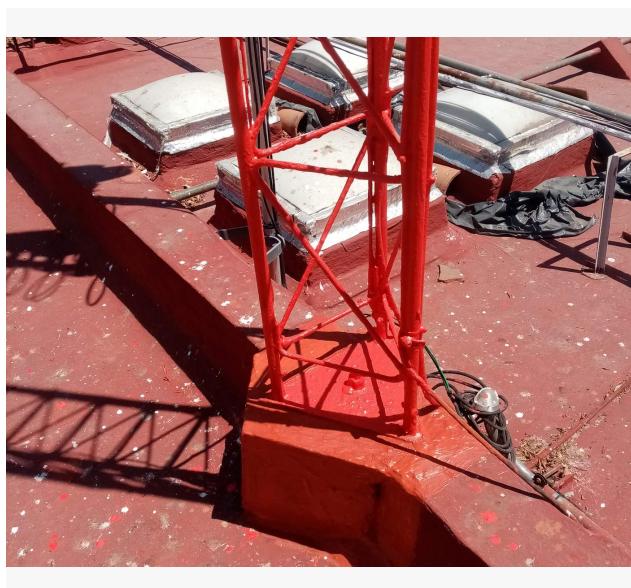
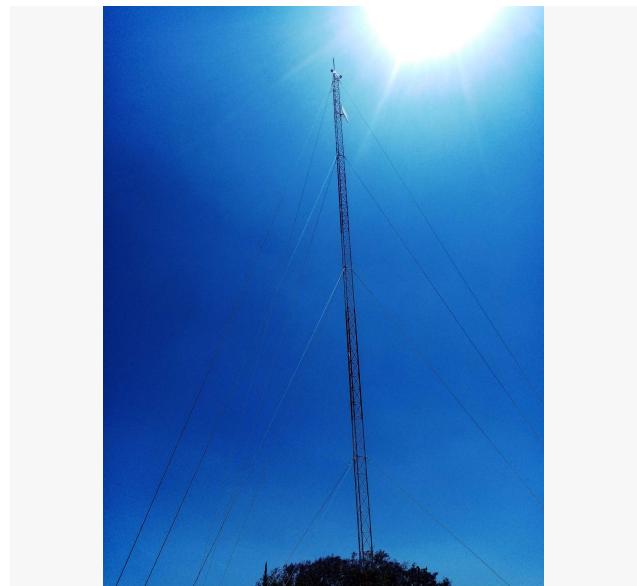
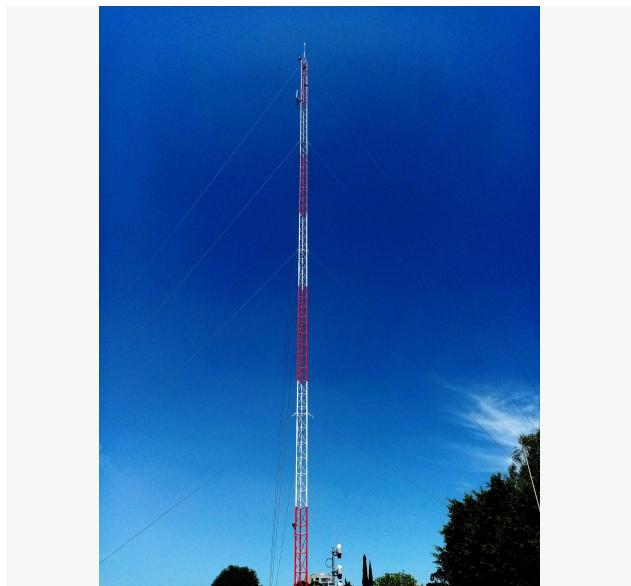


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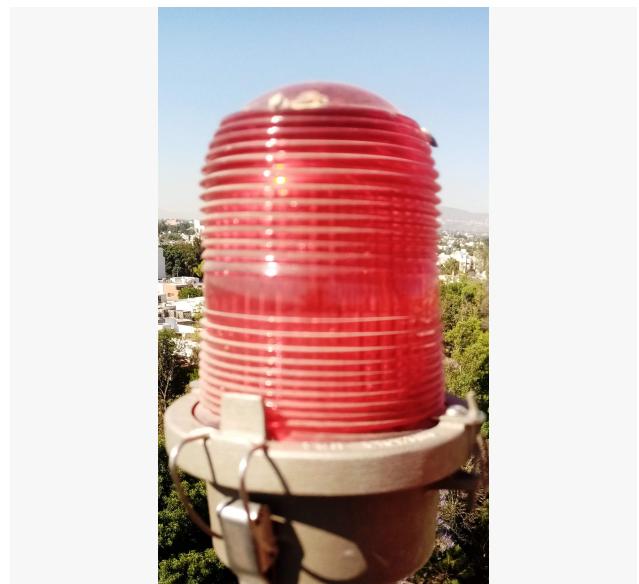
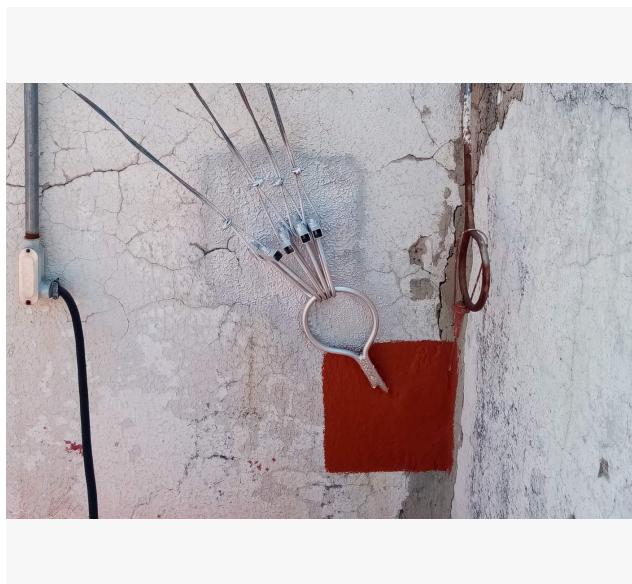
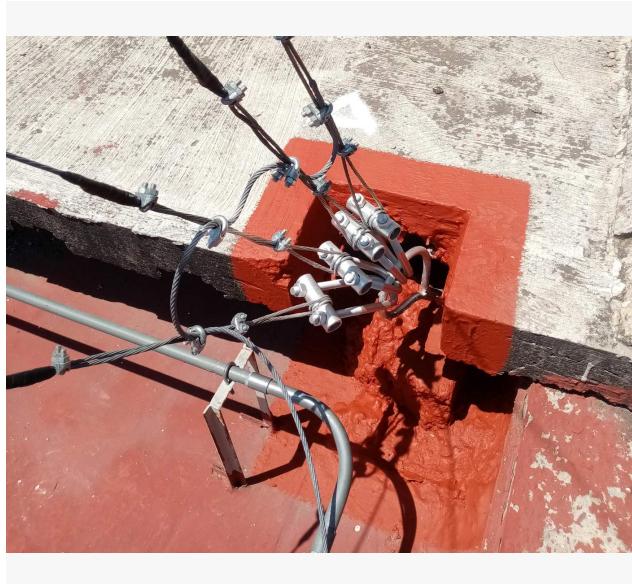


# Mantenimiento

## Posterior a mtto

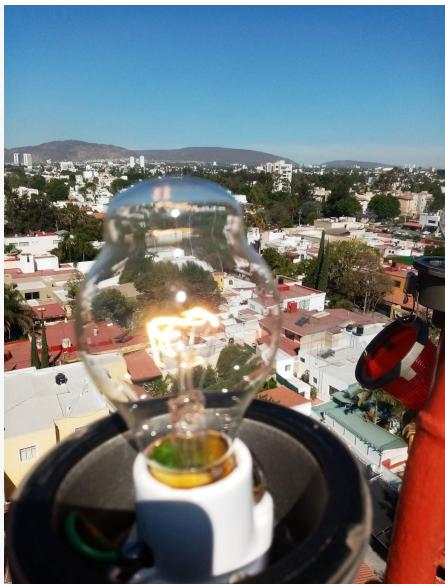


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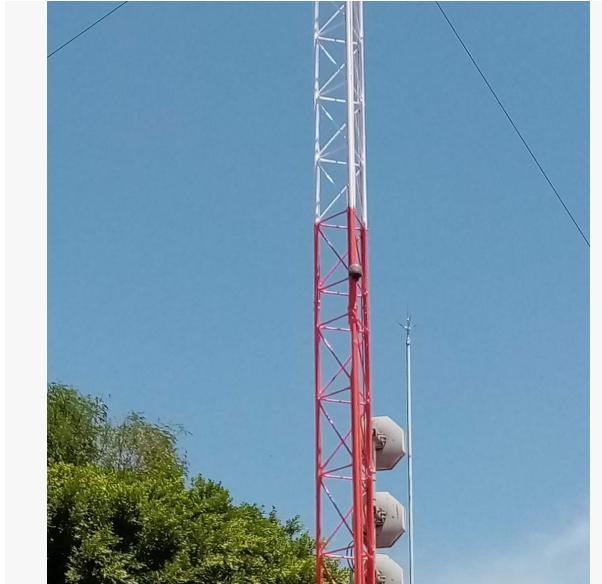


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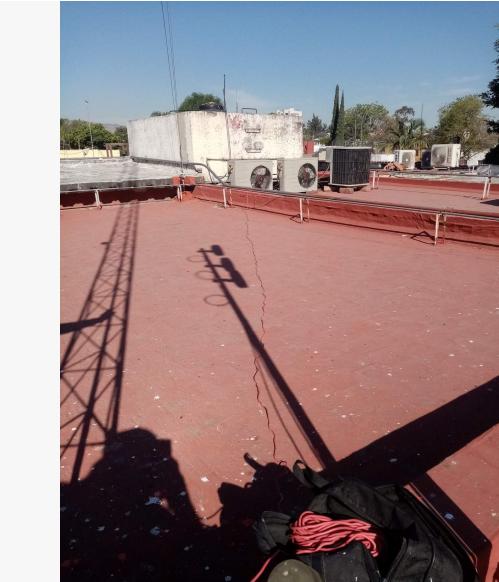
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# Mantenimiento



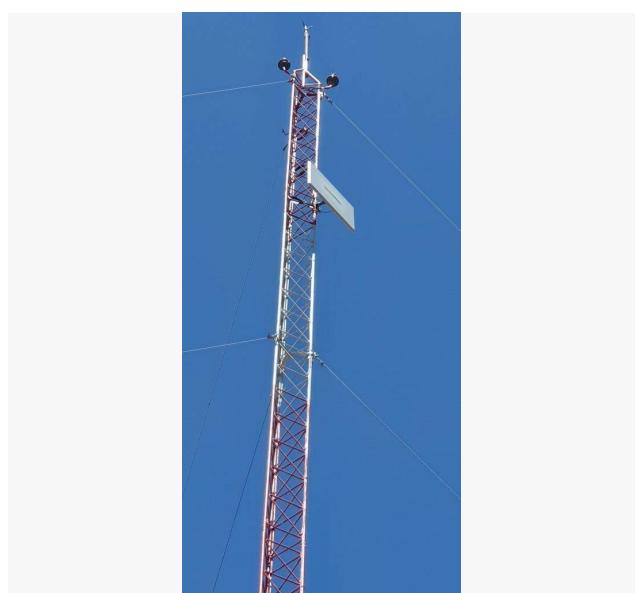
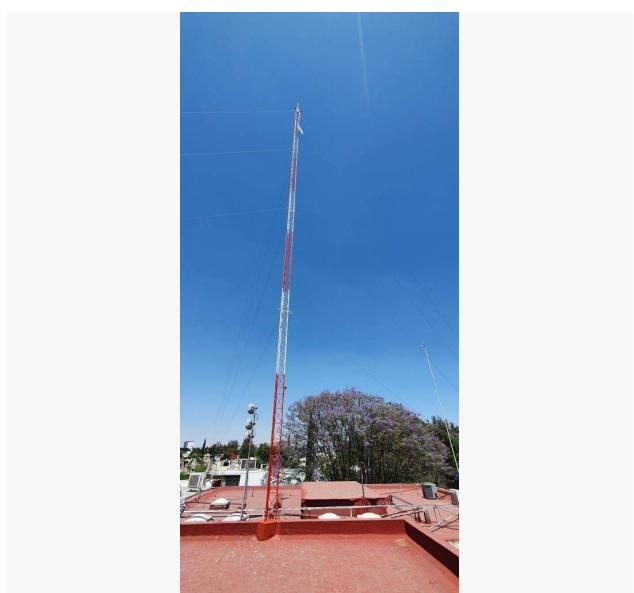
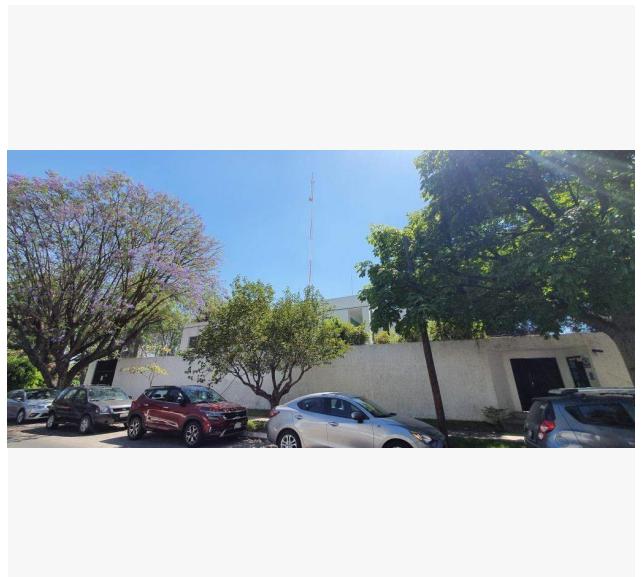
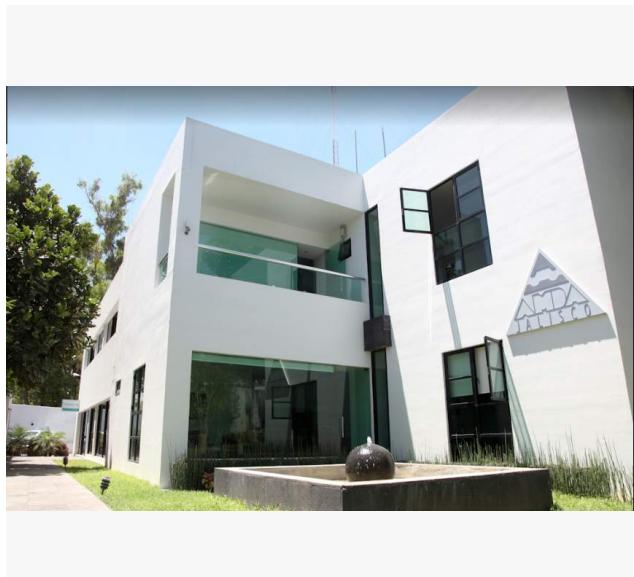
# Mantenimiento



# Mantenimiento

## Mantenimiento a enlace

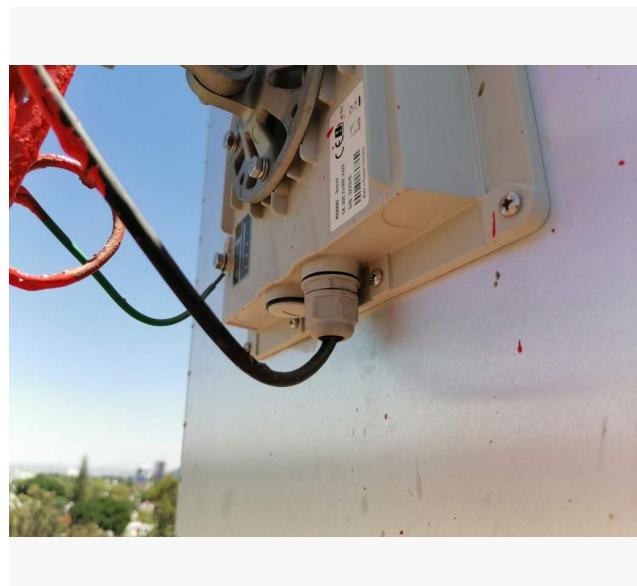
Previo a mtto



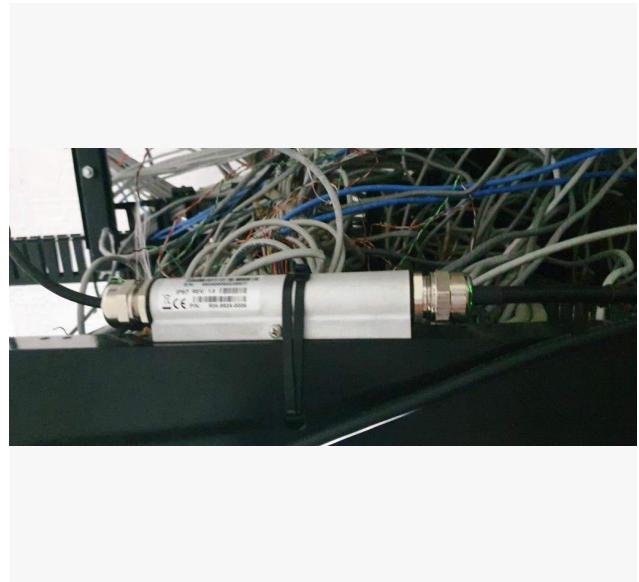
# Mantenimiento



# Mantenimiento

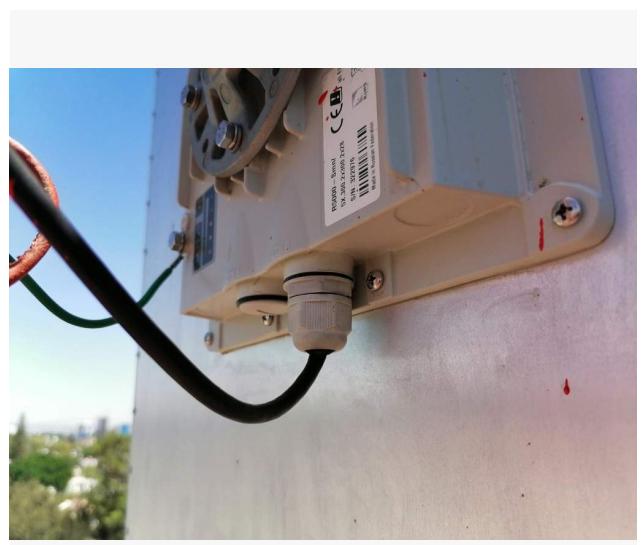


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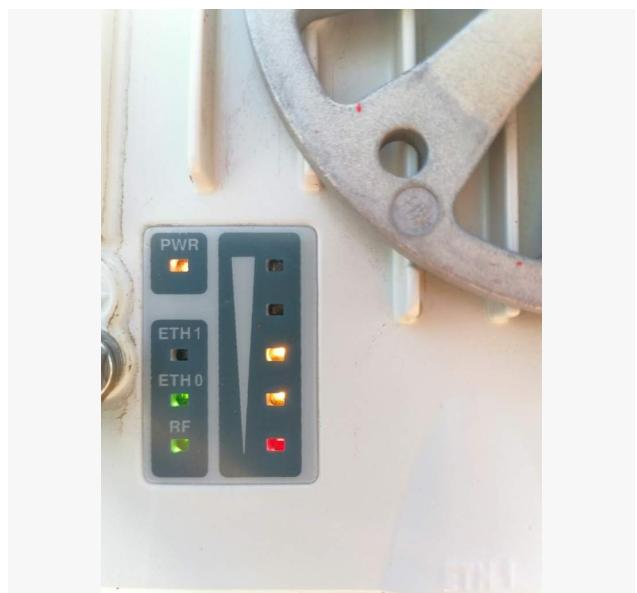
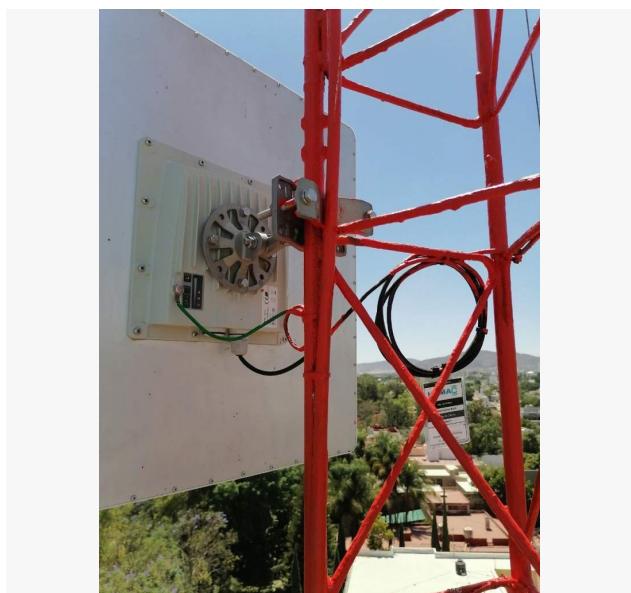
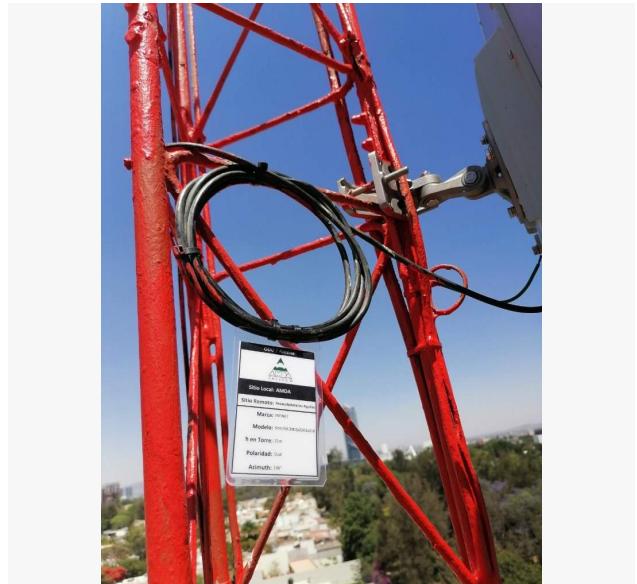


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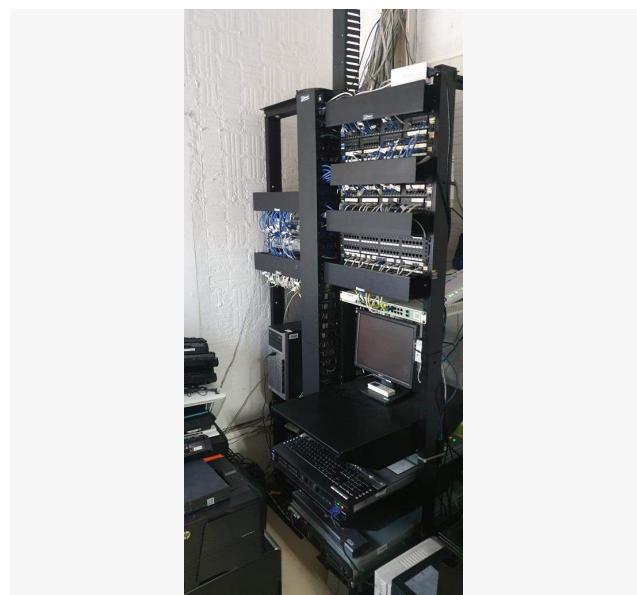
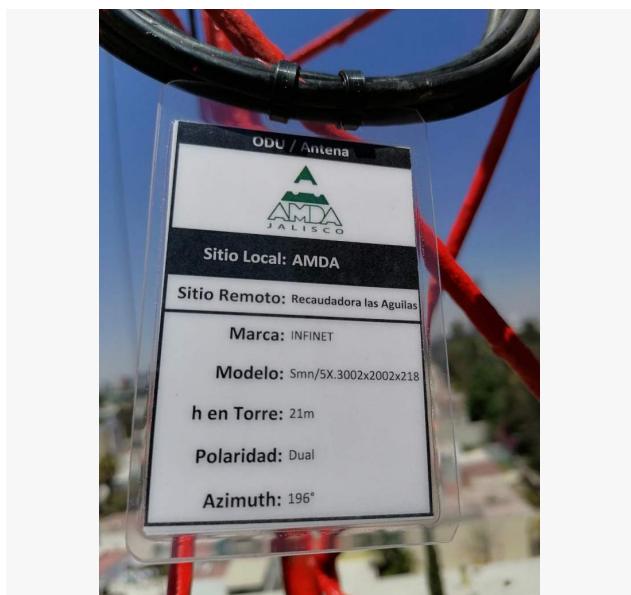
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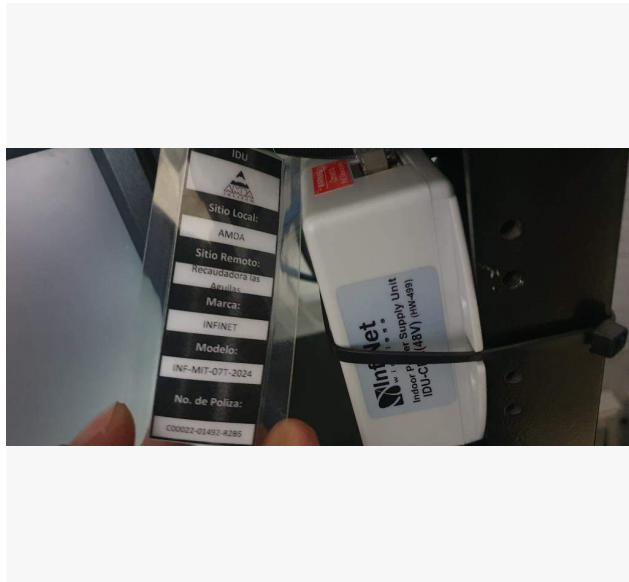
# Mantenimiento



# Mantenimiento

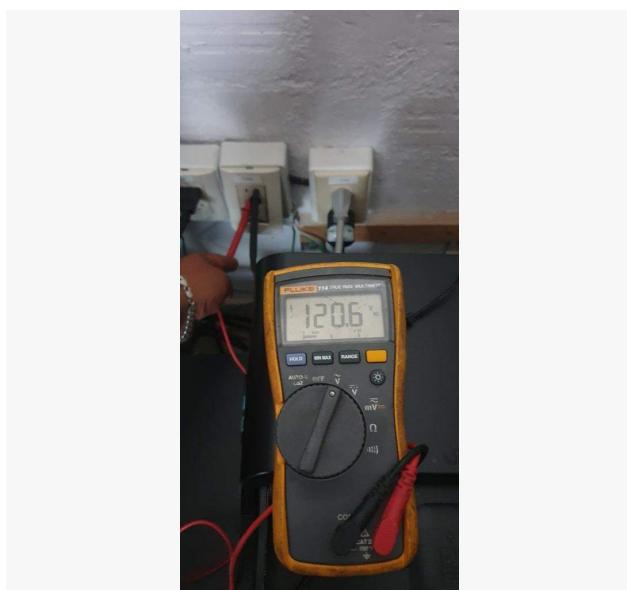
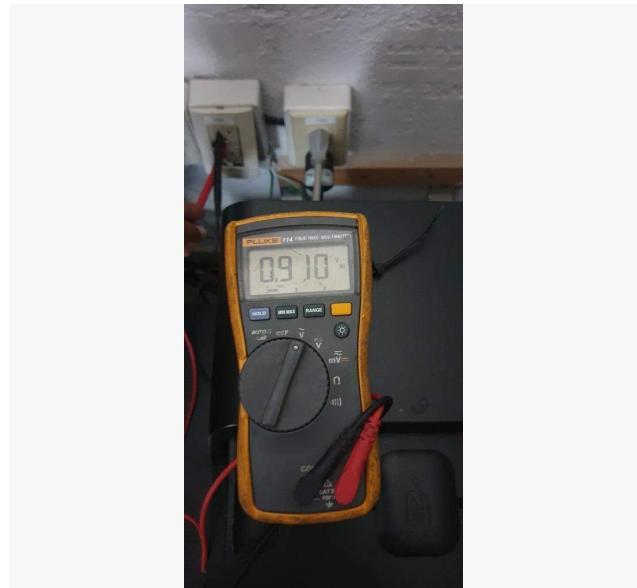
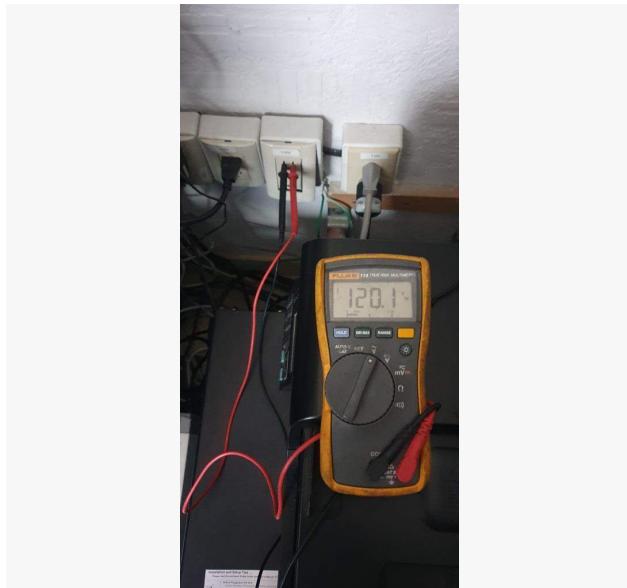


# Mantenimiento



# Mantenimiento

## Mediciones de voltaje





# Mantenimiento

## Pantallas

The screenshot shows the InfiNet wireless Device Status interface. At the top, it displays system statistics: CPU 3%, Memory 49887K / 124597K, and Flash 4431K / 15687K. The uptime is listed as 151 days 21:44:05. Below this is the H11S01-MINTv1.90.42 software version. The main content area is divided into sections:

- Interface Statistics:** Shows traffic for interfaces eth0, eth1, rf5\_0, and svr1. For example, eth0 has an Up status, 100 Mbps Full Duplex mode, and 803212 / 304488 packets Rx/Tx.
- Links Statistics on rf5\_0 (AMDA ID: 22976):** Displays one link to RECAUDADORA LAS AGUILAS with Node ID 22974, distance 5 km, Tx Power 23 / 25 dBm, SNR 30 / 38 dB, and BER 39 / 104.
- Switch Statistics:** Shows a single switch node with status Started.

At the bottom, there are refresh and auto-refresh buttons, and links to Show System Log and Route Map.

The screenshot shows the InfiNet wireless Basic Settings interface. It includes sections for:

- System Settings:** Fields for Device Name (AMDA), User Name (root), Password, Confirm Password, Start SNTP (unchecked), SNTP Server (unchecked), SNTP IP Address (IP address fields), Time Zone, Latitude, Longitude, VED Interface language (English dropdown), and HTTPS only (checkbox).
- Network Settings:** A collapsed section containing Link Settings, Static Links, MAC Switch, IP Firewall, SNMP, and QoS Options.

A red banner at the top reminds the user to "Please setup system Login and Password!"



# Mantenimiento

The screenshot shows the InfiNet wireless Device Status interface. The main menu includes Device Status, Basic Settings, Maintenance, Spectrum Analyzer, DSS, and Command Line. A message at the top says "Please setup system Login and Password!". The Network Settings section displays the following interface configurations:

- eth0:** IP 10.10.10.2, Up: checked, Description: [empty], DHCP: unchecked, IPv4 MTU: 1500, Mode: auto. Subnet mask: 10.10.10.24.
- eth1:** IP [empty], Up: checked, Description: [empty], DHCP: unchecked, IPv4 MTU: 1500, Mode: auto. Subnet mask: [empty]. POE: unchecked.
- rf5.0:** IP [empty], Up: checked, Description: [empty], DHCP: unchecked, IPv4 MTU: 1500.
- svi1:** IP 10.50.2.3, Up: checked, Description: L2 Management Interface, DHCP: checked, IPv4 MTU: 1500, Switch group: 1. Subnet mask: 10.50.2.24.

Buttons at the bottom include Create PRF, Create VLAN, Create LAG, Create SVI, Create Tunnel, and Create Tap.

The screenshot shows the InfiNet wireless Link Settings interface for the rf5.0 profile. The General Settings section contains the following parameters:

- Enable link: checked
- Type: Slave, MultIBS: unchecked
- Mode: Fixed
- Radar Detection: unchecked
- Tx Power (dBm): 25, Auto: checked, Range: [-10, +]
- Node Name: AMDA
- Scrambling: unchecked
- Trap gateway: unchecked
- Switch Border: unchecked
- Network Entry SNR (dB): Low: 0, High: 2
- RX Attenuation (dB): [empty]
- Multicast Mode: Multicast
- Authentication Mode: public
- ODR: Disabled
- DTA: Passive
- Log Level: normal

The right panel shows the configuration for profile 1:

- Disable profile: unchecked
- Channel Width (MHz): 20
- Frequency (MHz): 5010
- Frequency Range List: [empty]
- Tx Bitrate (Kbps): Max, Auto: checked, Range: [0, +]
- Channel Type: Dual, Greenfield: checked
- Network SID: 10101010
- Node ID: 22976
- Security Key: [empty]

Buttons at the bottom include Copy and Remove.



# Mantenimiento

Firmware

Firmware Version: H11S01-MINTv1.90.42  
Build Date: Jan 31 2020 16:57:50  
Serial Number: 322976  
Part Number: R5000-Smn/5X.300.2x300.2x28  
Platform: Processor: MPC8309 400 MHz  
Uptime: 151 days 21:44:31  
Last Reboot Reason: power-on reset

Check Latest Release | Check Latest Beta

Upload

License: [Seleccionar archivo] Ningún archivo seleccionado [X]  
Firmware: [Seleccionar archivo] Ningún archivo seleccionado [X] OTA:  Neighbors only:   
Configuration: [Seleccionar archivo] Ningún archivo seleccionado [X]  
SSL Certificate: [Seleccionar archivo] Ningún archivo seleccionado [X]

Download

Download License | Download Firmware | Download Configuration

Reboot | Restore Factory Settings | Delete SSL Certificate | View Current License | View Current Configuration | Create Diagnostic Card

Please setup system Login and Password!

Firmware

Firmware Version: H11S01-MINTv1.90.42  
Build Date: Jan 31 2020 16:57:50  
Serial Number: 322976  
Part Number: R5000-Smn/5X.300.2x300.2x28  
Platform: Processor: MPC8309 400 MHz  
Uptime: 151 days 21:44:34  
Last Reboot Reason: power-on reset

Check Latest Release | Check Latest Beta

Upload

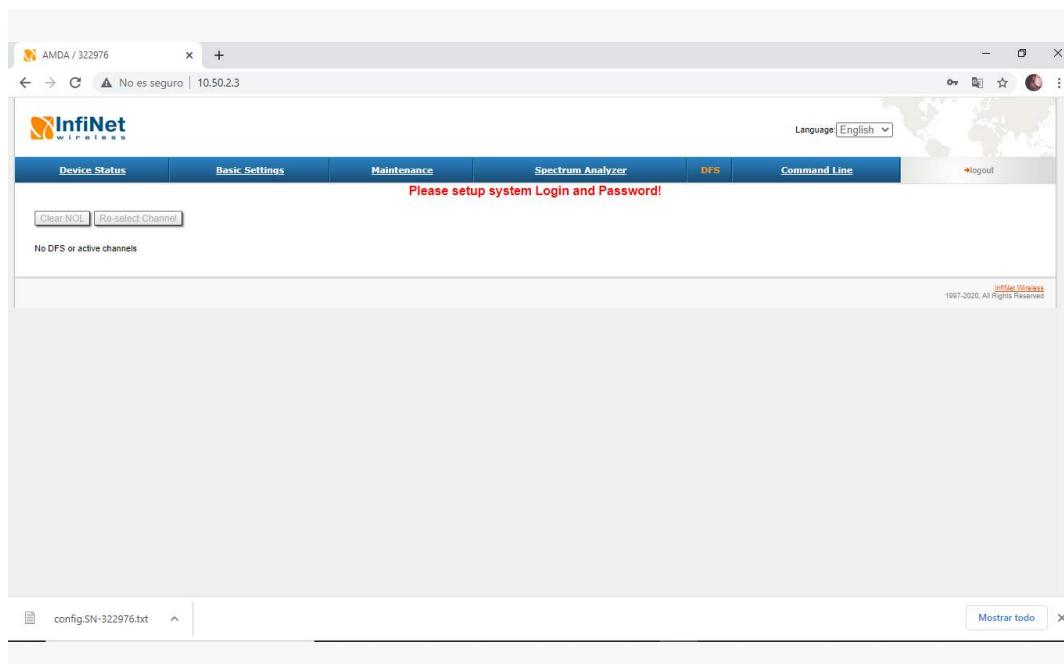
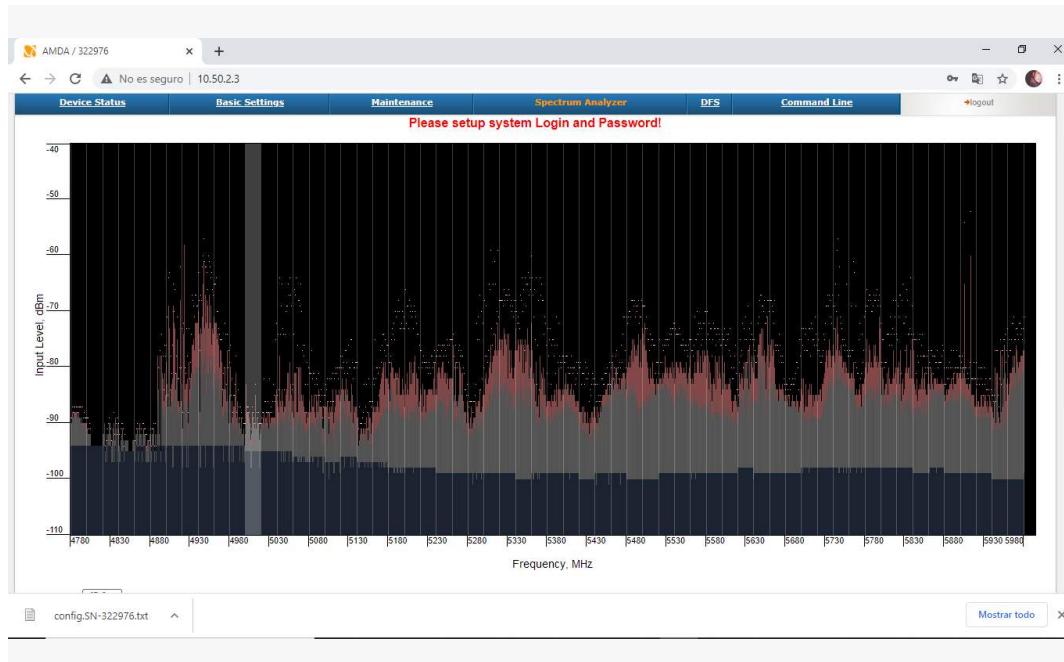
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SSL Certificate: [Seleccionar archivo] Ningún archivo seleccionado [X]

Close

Reboot | Restore Factory Settings | Delete SSL Certificate | View Current License | View Current Configuration | Create Diagnostic Card



# Mantenimiento





# Mantenimiento

AMD / 322976    +

No es seguro | 10.50.2.3

InfiNet wireless

Device Status Basic Settings Maintenance Spectrum Analyzer DSS Command Line Logout

Please setup system Login and Password!

CPU 3% Memory 49687K / 124597K Flash 4431K / 15687K

Uptime: 151 days 21:44:50 H11S01-MINTv1.90.42

Interface Statistics

Interface	MAC Address	Status	Mode	Packets Rx/Tx	Errors Rx/Tx	Load (Kbps) Rx/Tx	Load (pps) Rx/Tx
eth0	00043504eda0	Up	100 Mbps Full Duplex	803220 / 304500	0 / 0	67 / 12	3 / 4
eth1	00043514ea00	Up	--	0 / 0	0 / 0	0 / 0	0 / 0
rfs 0	00043524eda0	Up	130 Mbps / 5010 MHz / 20 MHz / 25 dBm / GF / DFS ONLY	159656 / 331695	0 / 1	9 / 9	11 / 11
svi1 L2 Management Interface	02043504eda0	Up	Switch Group #1	1020 / 1525	0 / 0	6 / 12	3 / 4

Reset All Counters Graphs

Links Statistics on rfs.0 (AMDA ID: 22976) Links: 1

Noise: -94 dBm ATPC: On Autobitrates: On Polling: OFF

Status	MAC Address	Name	Node ID	Distance (Km)	Tx Power (dBm) Rx/Tx	SNR (dB) Rx/Tx	Level (dB) Rx/Tx	Bilrate Rx/Tx	Retries (%) Rx/Tx	Load (Kbps) Rx/Tx	Load (pps) Rx/Tx
00 05 10	00043524eda0	RECAUDADORA LAS AGUILAS	22974	5	23 / 25	30 / 38	31 / 18	39 / 104	0 / 0	3 / 3	3 / 3

Route Map Graphs

Switch Statistics Status: Started

Refresh Auto Refresh:  Auto Refresh Time (sec): [1]

Show System Log

config.SN-322976.txt Mostrar todo

AMD / 322976    +

No es seguro | 10.50.2.3

InfiNet wireless

Device Status Basic Settings Maintenance Spectrum Analyzer DSS Command Line Logout

Antenna Alignment Tool

Alignment Test (Interface rfs.0, MAC 00043524eda0, Neighbor AMDA)

Local Remote

Input Level dB Cross Talk dB Input Level dB Cross Talk dB

RSSI, dBm	RSSI, dBm	CINR, dB	CINR, dB	Crosstalk, dB	Crosstalk, dB	EVM, dB	EVM, dB	Retries, %	Retries, %	Tx bitrate, Kbps	Tx bitrate, Kbps
-48	-54	41	35	-28	-16	-24	-25	0	0	39000 (MCS10)	104000 (MCS13)

INTV1.90.42

Load (pps) Rx/Tx: 1 / 2, 0 / 0, 18 / 18, 8 / 13

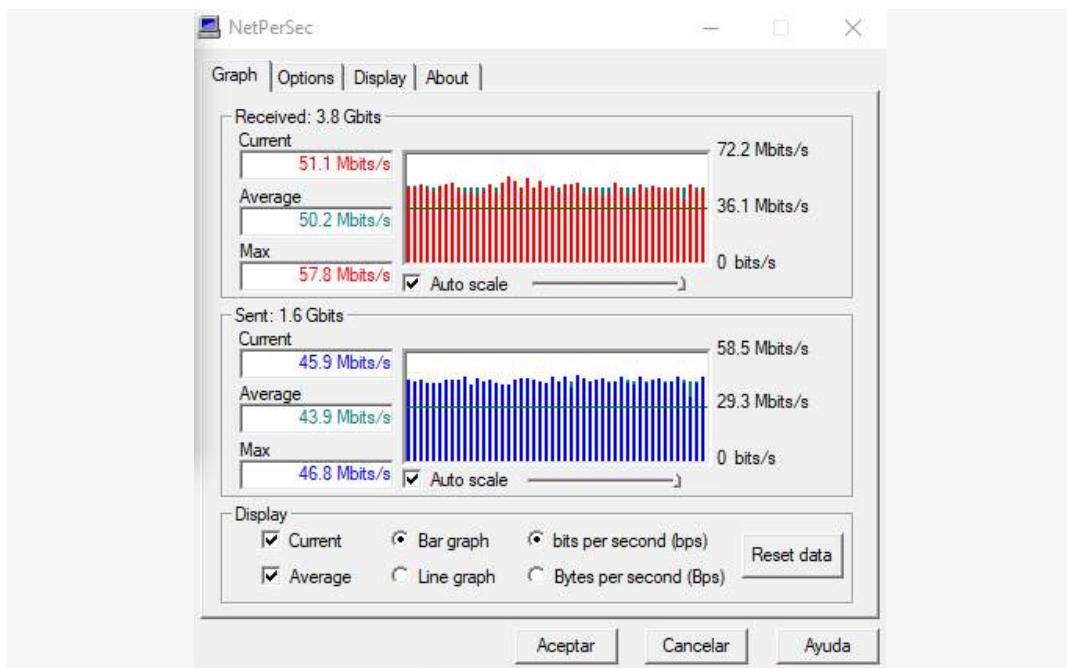
Load (pps) Rx/Tx: 5 / 6

Map Graphs Show System Log

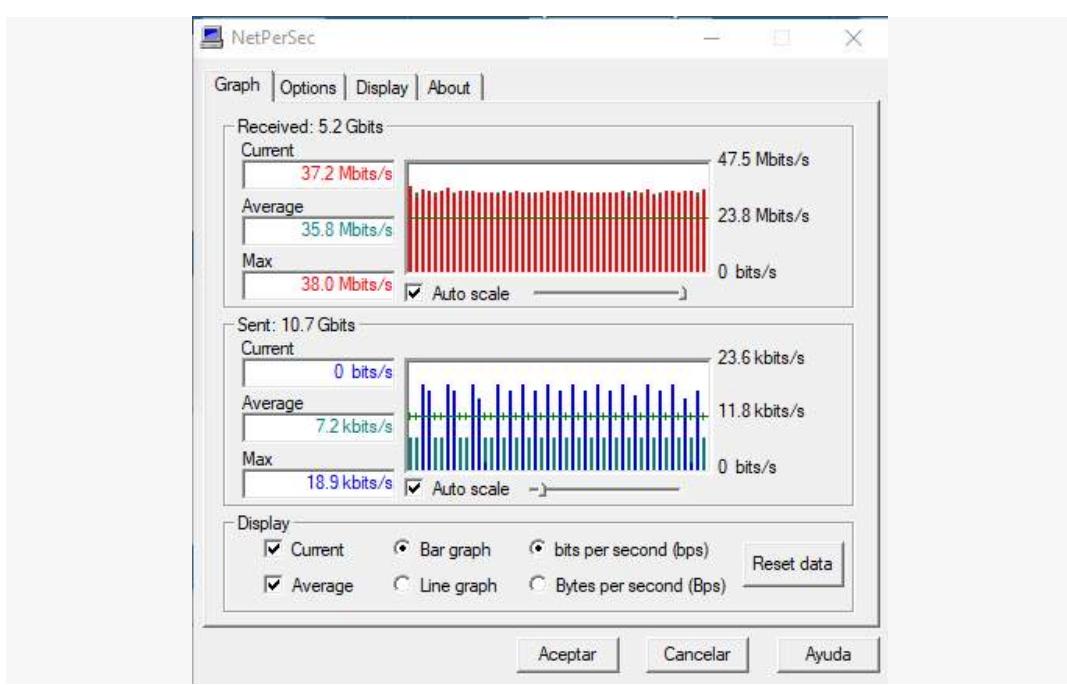
config.SN-322976.txt Mostrar todo

# Mantenimiento

## Pruebas



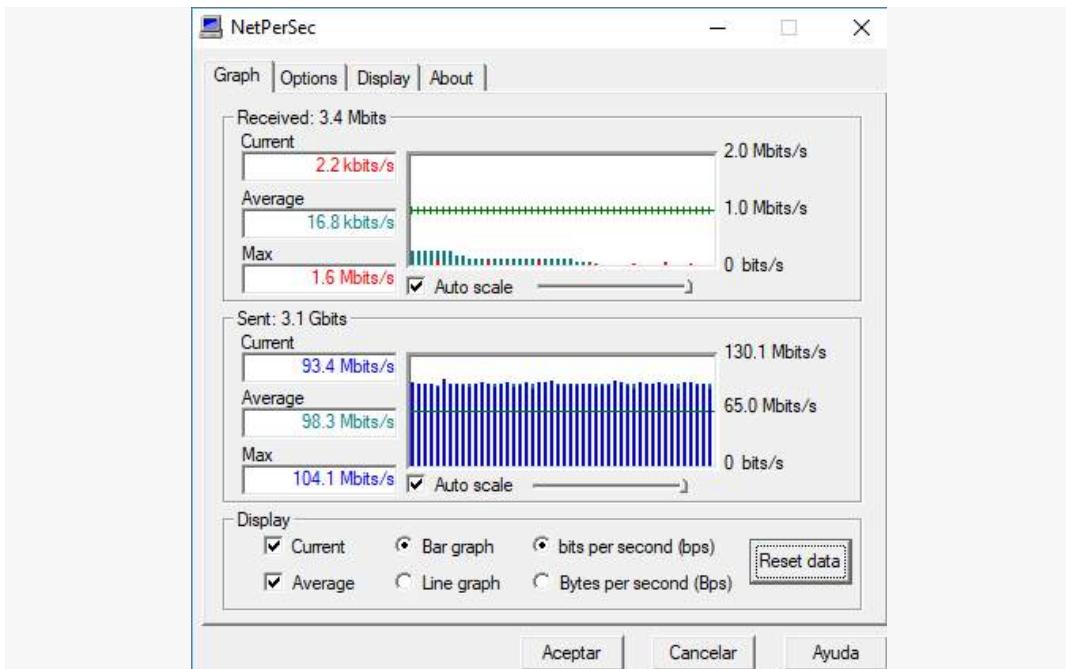
FULL



RX



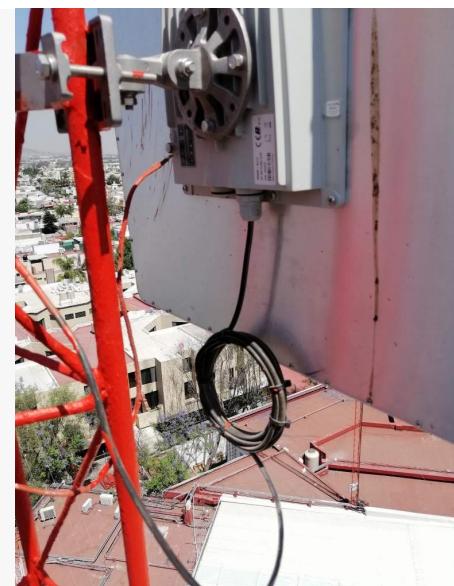
# Mantenimiento



TX

# Mantenimiento

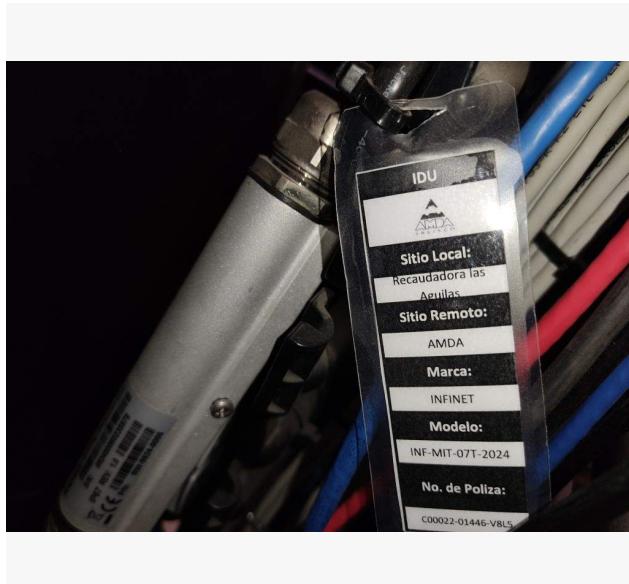
**Equipos Las Águilas**  
**Mantenimiento a enlace**  
**Previo a mtto**



# Mantenimiento

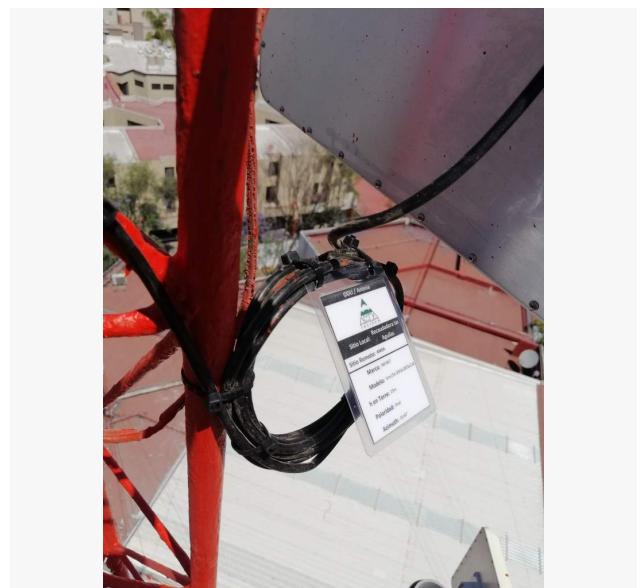
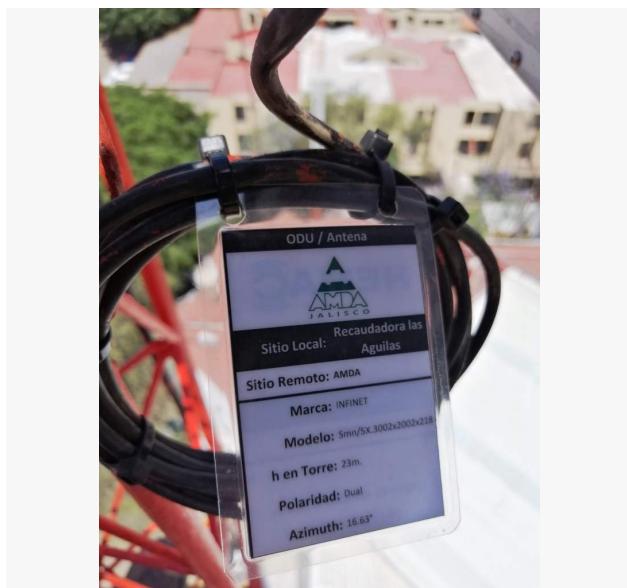
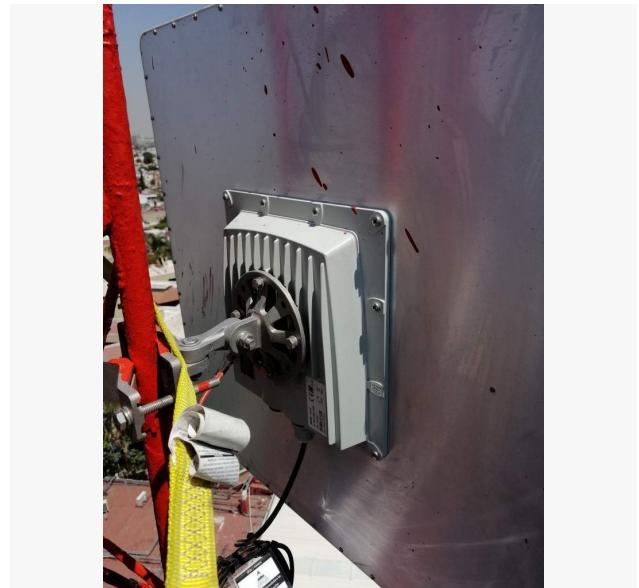
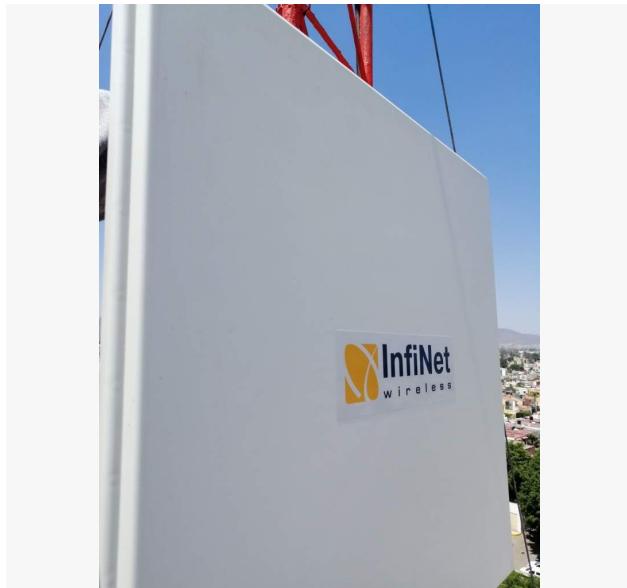


# Mantenimiento

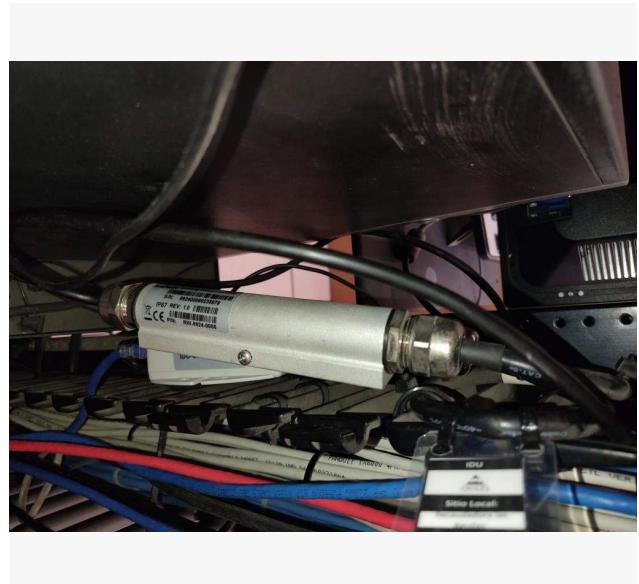


# Mantenimiento

## Posterior a mtto

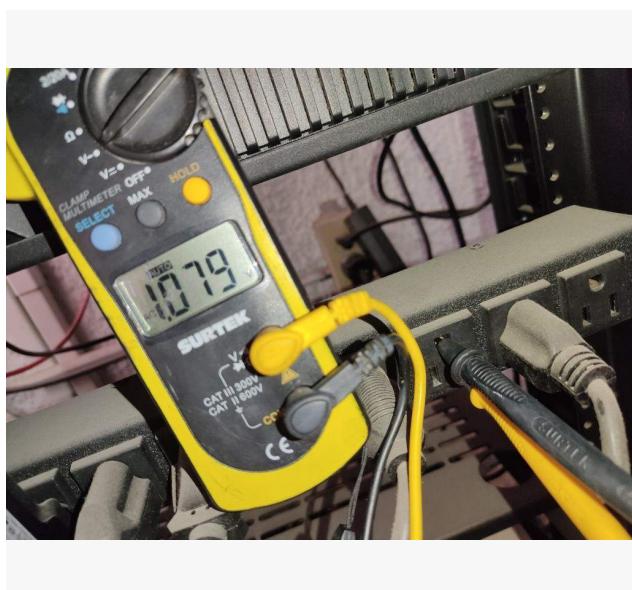
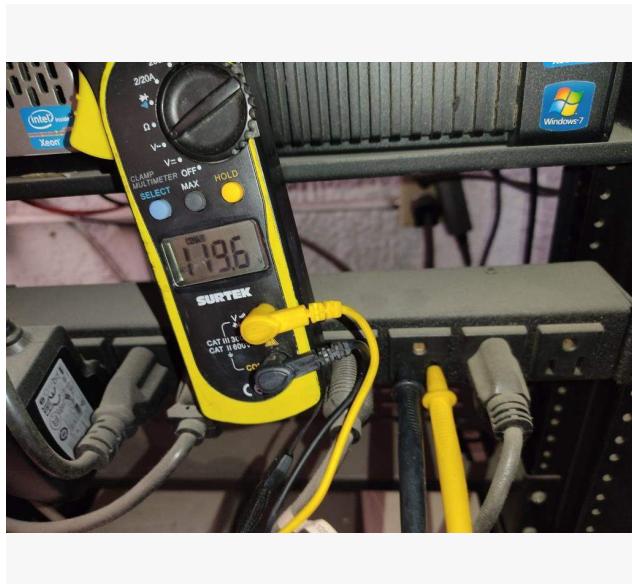


# Mantenimiento



# Mantenimiento

## Mediciones de voltaje





# Mantenimiento

## Pantallas

The screenshot shows the InfiNet web interface for the device RECAUDADORA LAS AGUILAS. The top navigation bar includes links for Device Status, Basic Settings, Maintenance, Spectrum Analyzer, DES, Command Line, and Logout. The Maintenance tab is active. A message at the top of the content area says "Please setup system Login and Password!". Below this, resource usage is displayed: CPU 3%, Memory 48424K / 124597K, and Flash 4431K / 15687K. The Uptime is listed as 154 days 01:06:20. The main content area is titled "Interface Statistics". It lists network interfaces (eth0, eth1, rf5.0, sv1) with their MAC addresses, status, mode, and various performance metrics like Packets Rx/Tx, Errors Rx/Tx, and Load (Kbps) Rx/Tx. Below this is a table for "Links Statistics on rf5.0" showing a single link between Node ID 22976 and Node ID 00:05:19 with distance 5 km, Tx Power -25 dBm, and other parameters. The right side of the interface includes buttons for "Reset All Counters" and "Graphs". At the bottom, there are "Route Map" and "Graphs" buttons, and a "Show System Log" link.

The screenshot shows the InfiNet web interface for the device RECAUDADORA LAS AGUILAS. The maintenance section is active. A central window displays the "Antenna Alignment Tool" results for an "Alignment Test (Interface rf5.0, MAC 00043524eda0, Neighbor AMDA)". It features two heatmaps labeled "Local" and "Remote" showing Input Level (dB) across a grid of 50x50. Below the heatmaps, a table compares RSSI, CINR, Crosstalk, EVM, and Retries for both Local and Remote interfaces. The table values are as follows:

	Local	Remote
RSSI, dBm	-49	-55
CINR, dB	41	36
Crosstalk, dB	-29	-16
EVM, dB	-25	-23
Retries, %	0	0

The interface also shows "Interface Statistics" for interfaces eth0, eth1, rf5.0, and sv1, and "Links Statistics on rf5.0" for a link between Node ID 00:04:51 and 00043524eda0. The right side of the interface includes resource usage information and "Route Map" and "Graphs" buttons, along with a "Show System Log" link.



# Mantenimiento

The screenshot shows the InfiNet Wireless configuration interface for a device named "RECAUDADORA LAS AGUILAS". The "System Settings" tab is active, displaying fields for Device Name (RECAUDADORA LAS AGUILAS), User Name (root), Password, Confirm Password, Start SNTP, SNTP IP Address, Time Zone, Latitude, Longitude, WEB Interface language (English), and HTTPS only. A red message at the top right says "Please setup system Login and Password!". Other tabs include Device Status, Basic Settings, Maintenance, Spectrum Analyzer, DFS, and Command Line. A sidebar on the left lists Network Settings, Link Settings, Static Links, MAC Switch, IP Firewall, and SNMP.

The screenshot shows the InfiNet Wireless configuration interface for the same device. The "Network Settings" tab is active, displaying interface configurations for eth0 (IP 10.10.10.1), eth1 (IP 10.10.10.2), rf5.0 (IP 10.50.2.1), and svi1 (IP 10.50.2.2). It includes fields for Up, Description, DHCP, IPv4 MTU, Mode, and POE. Below this, there are buttons for Create PREF, Create VLAN, Create LAG, Create SVI, Create Tunnel, and Create Tap. The "Routing Parameters" section shows Default Gateway (IP 10.50.2.1) and Network/Gateway ranges. Other tabs and sidebar items are visible.



# Mantenimiento

RECAUDADORA LAS AGUILAS / No seguro | 10.50.2.2

General Settings

Enable link:

Type: Master Polling Off

Mode: Fixed

DFS: DFS Off

Tx Power (dBm): 23 Auto:  0

Node Name: RECAUDADORA LAS AGUILAS

Scrambling:

Trap gateway:

Switch Border:

Network Entry SNR (dB): Low: 0 High: 2

RX Attenuation (dB):

Multicast Mode: Multicast

Authentication Mode: public

ODR: Disabled

OTA: Passive

Log Level: normal

Add Profile

Current Settings

Channel Width (MHz): 20

Frequency (MHz): 5010

Tx Bitrate (Kbps): 39000 Auto:  0

Channel Type: Dual Greenfield:

Network SID: 10101010

Node ID: 22974

Security Key:

RECAUDADORA LAS AGUILAS / No seguro | 10.50.2.2

InfiNet wireless

Device Status Basic Settings Maintenance Spectrum Analyzer DFS Command Line Language English logout

Please setup system Login and Password!

Firmware

Firmware Version: H11S01-MINTv1.90.42  
Build Date: Jan 31 2020 16:57:50  
Serial Number: 322974  
Part Number: R5000-Smm/SX\_300.2x300.2x28  
Platform: Processor: MPC8309 400 MHz  
Uptime: 154 days 01:08:32  
Last Reboot Reason: manual delayed restart

Check Latest Release Check Latest Beta

Upload

License:  No se eligió archivo   
Firmware:  No se eligió archivo   
Configuration:  No se eligió archivo   
SSL Certificate:  No se eligió archivo

OTA:  Neighbors only:

Download

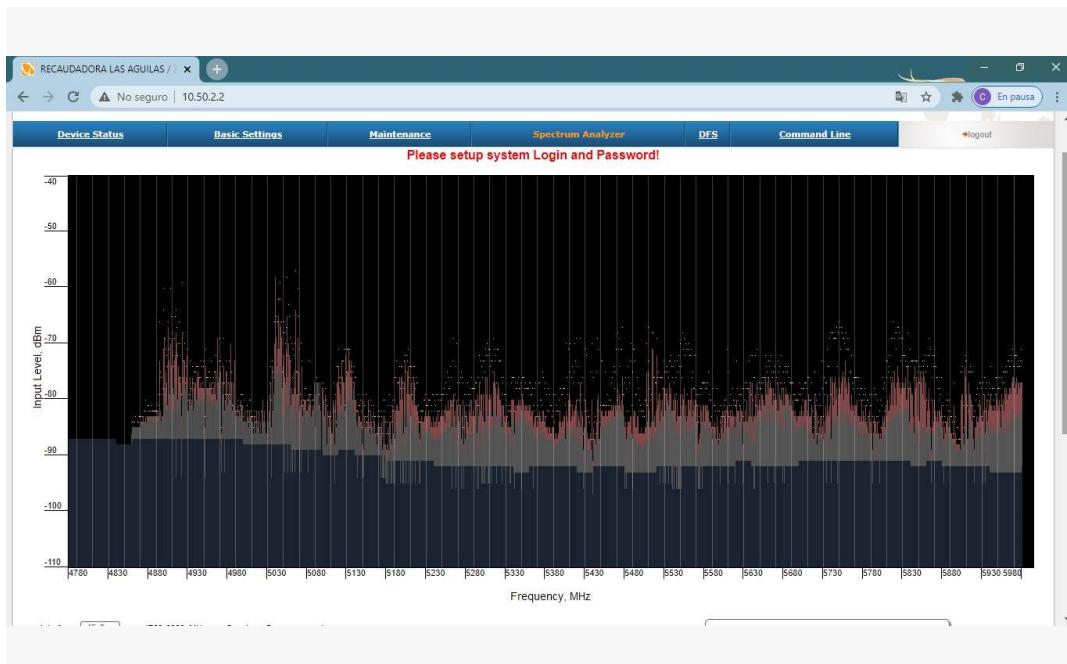
Download License  
Download Firmware  
Download Configuration

Upload

Reboot Restore Factory Settings Delete SSL Certificates View Current License View Current Configuration Create Diagnostic Card

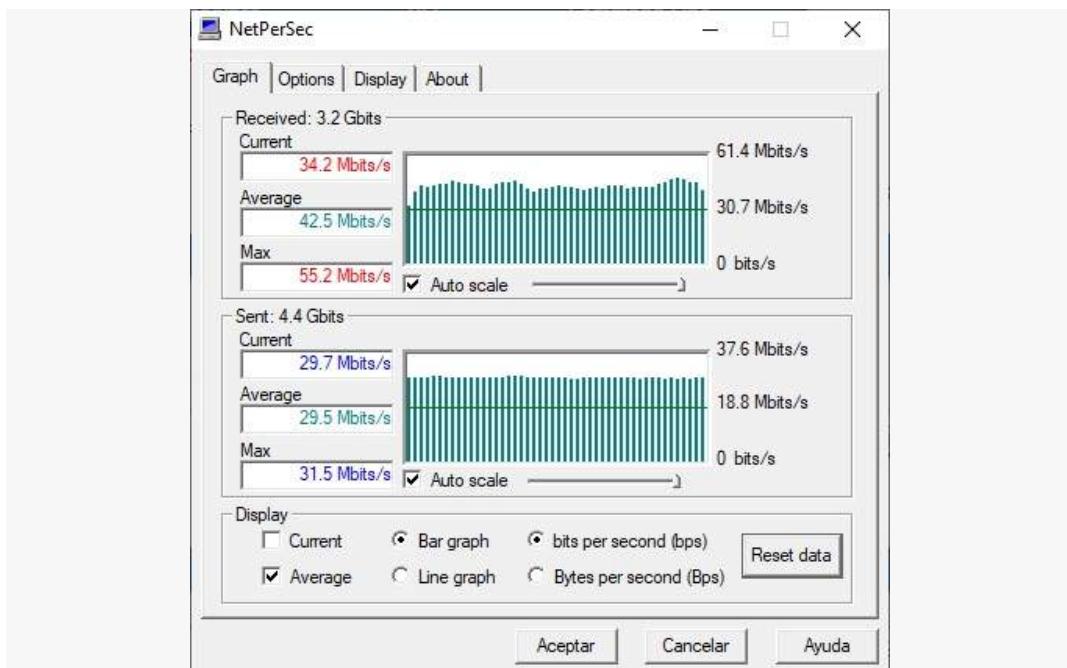


# Mantenimiento

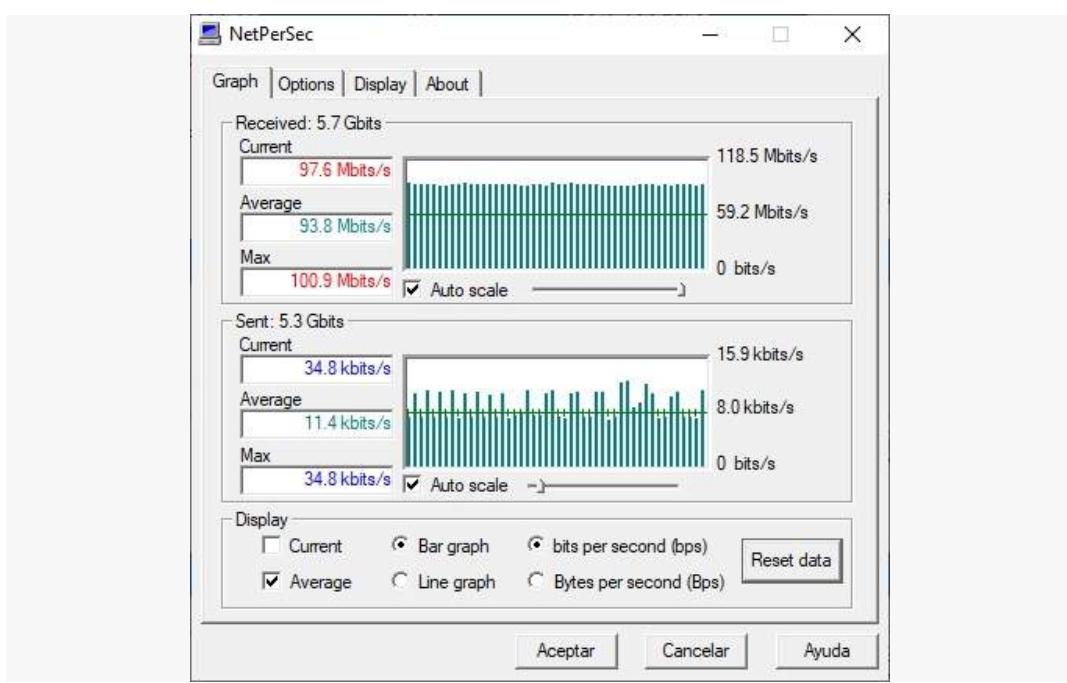


# Mantenimiento

## Pruebas



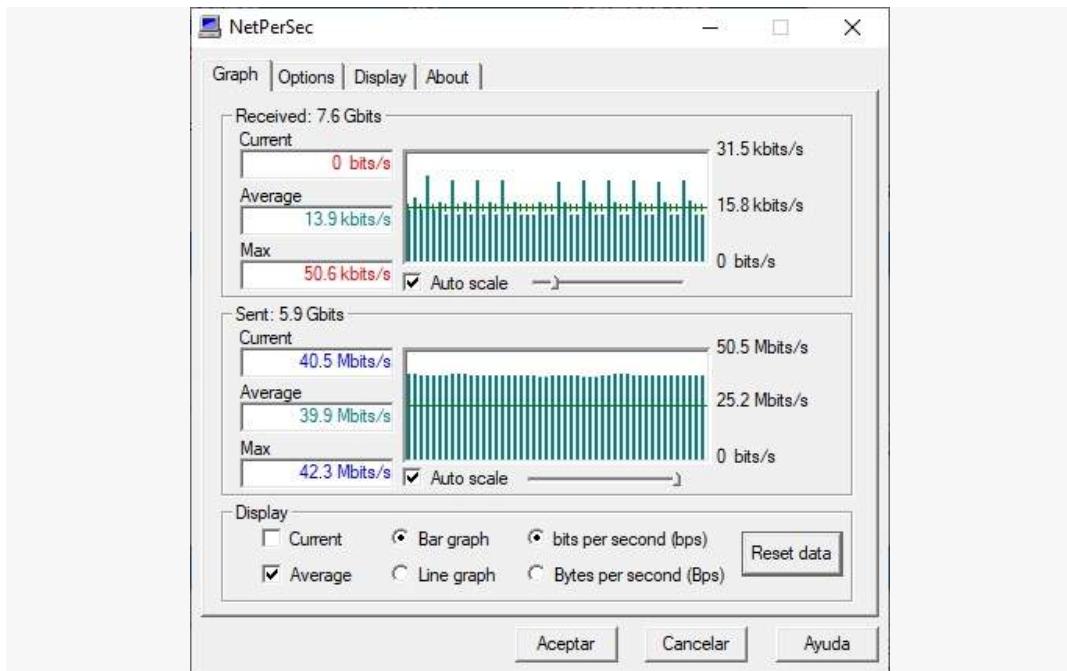
FULL



RX



# Mantenimiento



TX



# Mantenimiento

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## Anexos

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01.\_R5000-smn-21-dbi.pdf





02.\_MIT-07T-2024.pdf





03.-\_RW-9924-0006.pdf





01.-CARATULA\_DE\_POLIZA-.pdf





## 01.-CARATULA\_DE\_POLIZA.PDF





02.-CARTA\_BIENVENIDA-.pdf





02.-CARTA\_BIENVENIDA.PDF





03.-ALCANCES-.pdf





## 03.-ALCANCES.PDF





04.-PROCEDIMIENTO\_DE\_ATENCION-.pdf





## 04.-PROCEDIMIENTO\_DE\_ATENCION.PDF

