

TP-CELLX

Outdoor cellular network monitor
2G-3G-4G



TELEPROJECT
MISSION CRITICAL COMMUNICATIONS

What is TP-CELLX

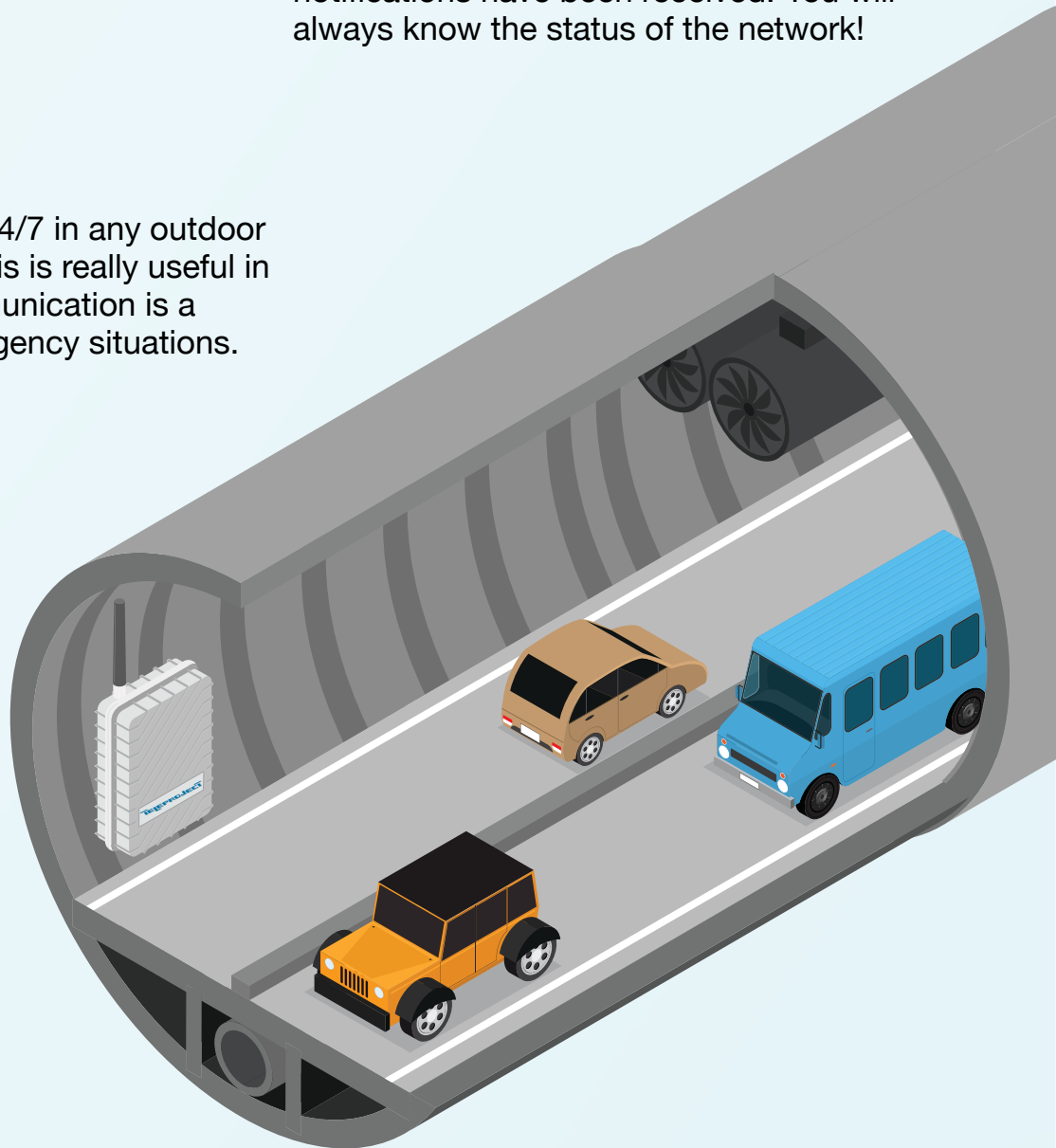
TP-CELLX is an outdoor cellular network analyzer, it can monitor cellular bands of any operator globally in the following technologies 2G, 3G, 4G and 5G (available soon).

The main functionality:

Monitor the cellular network signal quality with a real-time dashboard, multiple notifications systems (Email and SNMP) an ethernet connection to ensure that notifications have been received. You will always know the status of the network!

Why is so powerful:

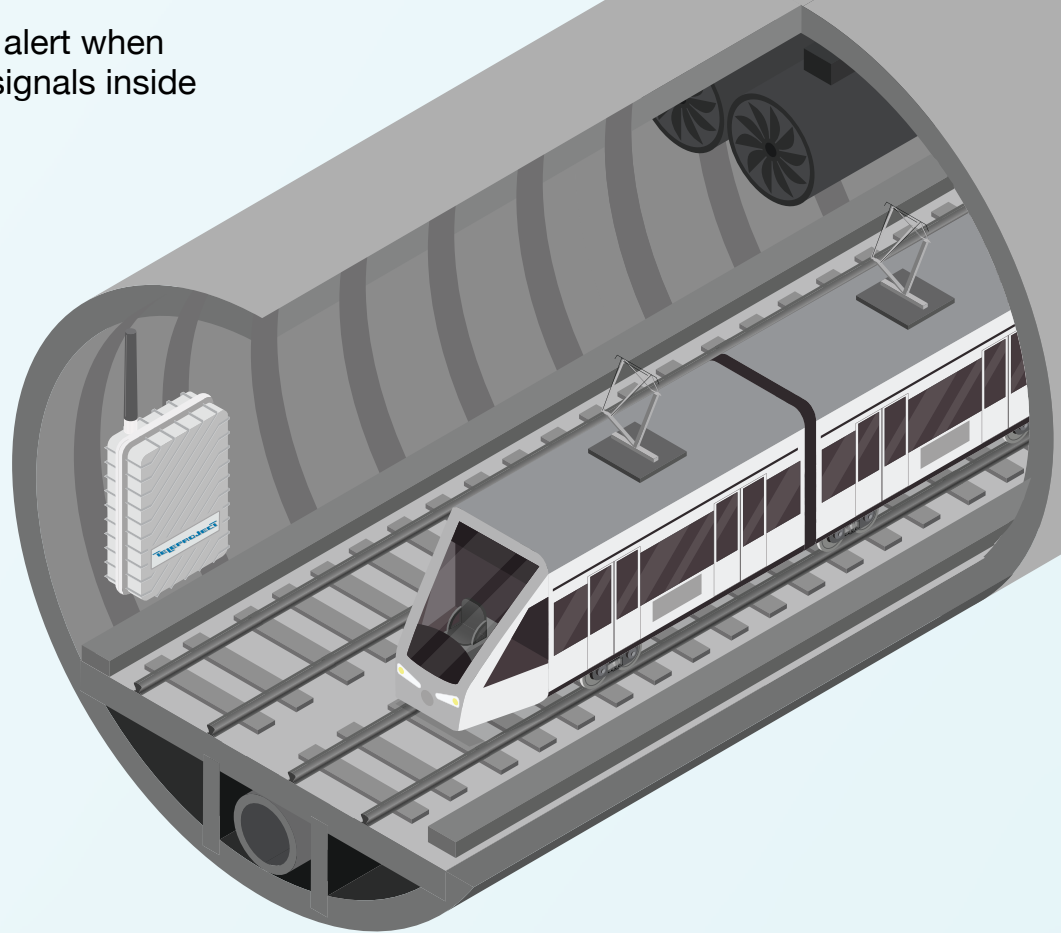
TP-CELLX is able to work 24/7 in any outdoor condition (IP67 certified), this is really useful in places where cellular communication is a critical requirement in emergency situations.




Typical Applications:

We have installed inside road-train tunnels to monitor cellular signal.

The technicians will get an alert when there are no more cellular signals inside the tunnel.



 PoE Powered

Other feature:

- It can do test calls between different cellular cells or speed tests (SIM card with an active plan required).
- Other than testing the downlink frequencies it can test the audio quality between different cellular cells.
- History page: you can go back in time to see if in a determinate period of time there was or was not a cellular carrier.
- Users: you can create different users with different roles and privileges.

SPECIFICATIONS

Global cellular module

Supported bands	
4G bands	B1, B3, B7, B8, B20, B28A
3G bands	B1, B3, B8
2G bands	B3, B8
Data rate	
4G	LTE-FDD: Max. 150 Mbps (DL)/Max. 50 Mbps (UL)
3G	DC-HSDPA: Max. 42 Mbps (DL) HSUPA: Max. 5.76 Mbps (UL) WCDMA: Max. 384 kbps (DL)/Max. 384 kbps (UL)
2G	EDGE: Max. 296 kbps (DL)/Max. 236.8 kbps (UL) GPRS: Max. 107 kbps (DL)/Max. 85.6 kbps (UL)
Voice	
Speech Codec Modes	HR/FR/EFR/AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/Noise Suppression
Audio	Digital Audio and VoLTE (Voice over LTE)

Power supply

Input voltage (PoE power supply)	36-56 V
Operating voltage	5 V
Operating current	10-3000 mA
Max operating power	15 W
Protection	Overload and short circuit
Maximun distance from power supply	100 meters

SPECIFICATIONS

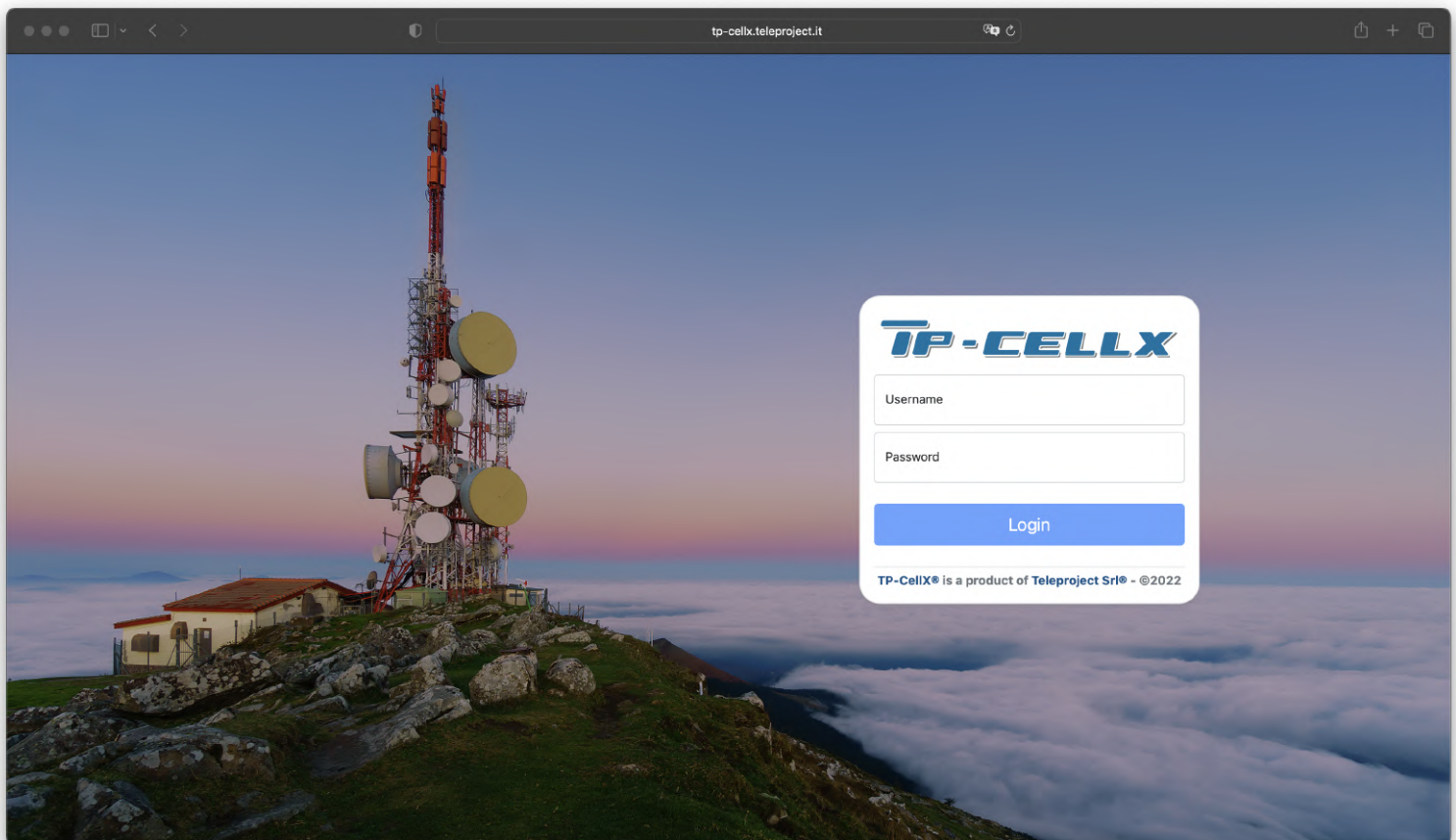
Case

Connectors	1 x RJ-45 PoE and 2 x N-Type female
Dimension (without connectors)	235 mm. x 155mm. x 75mm.
Weight	2 Kg.
Enclosure Seal Operating temperature:	-60° C to +230° C
Heat Trap:	+6.5° C under full sun (~100,000 Lux)
Wall thickness:	5mm
Temperature raise using a 5-10Watt heat source	+5.5 Celsius

Monitoring - alarm notification

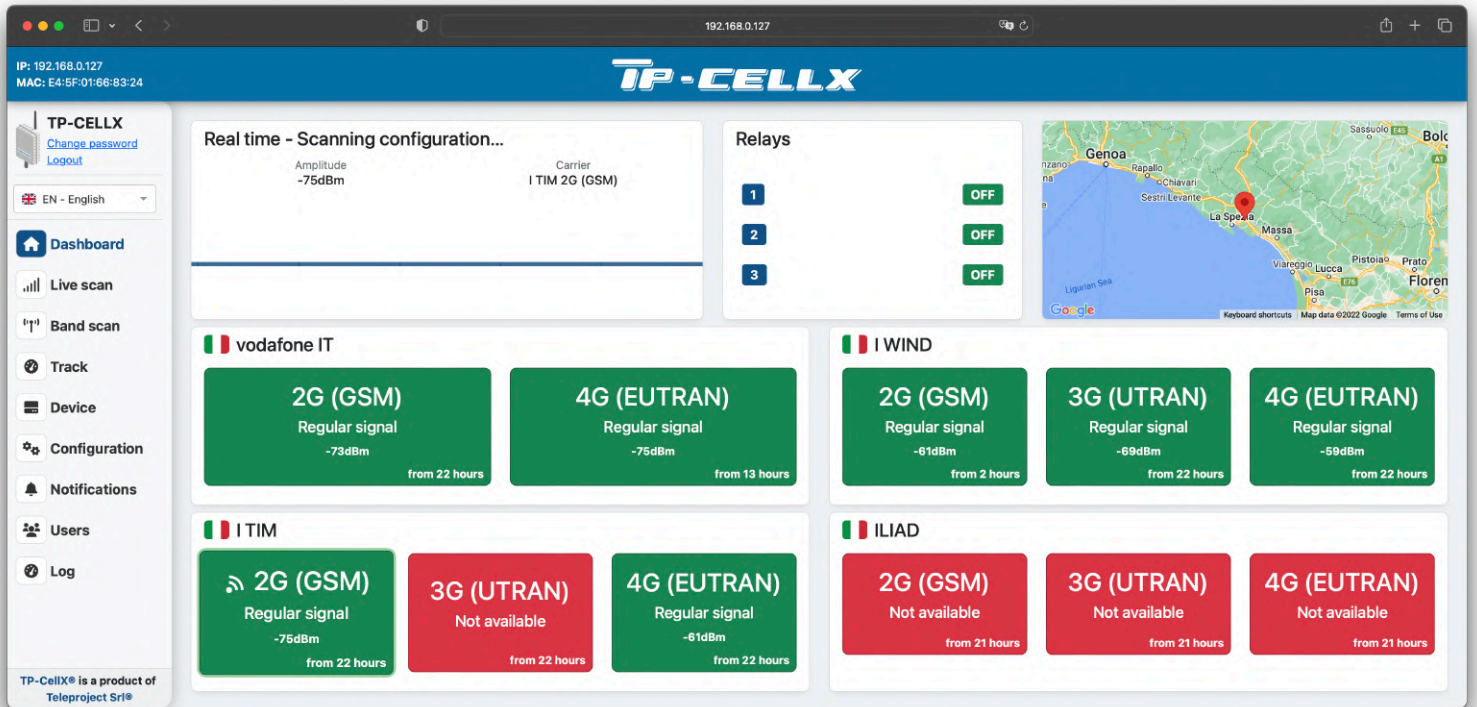
Email, Telegram / WhatsApp (only with trackTP) and SNMP V2C

WEB INTERFACE



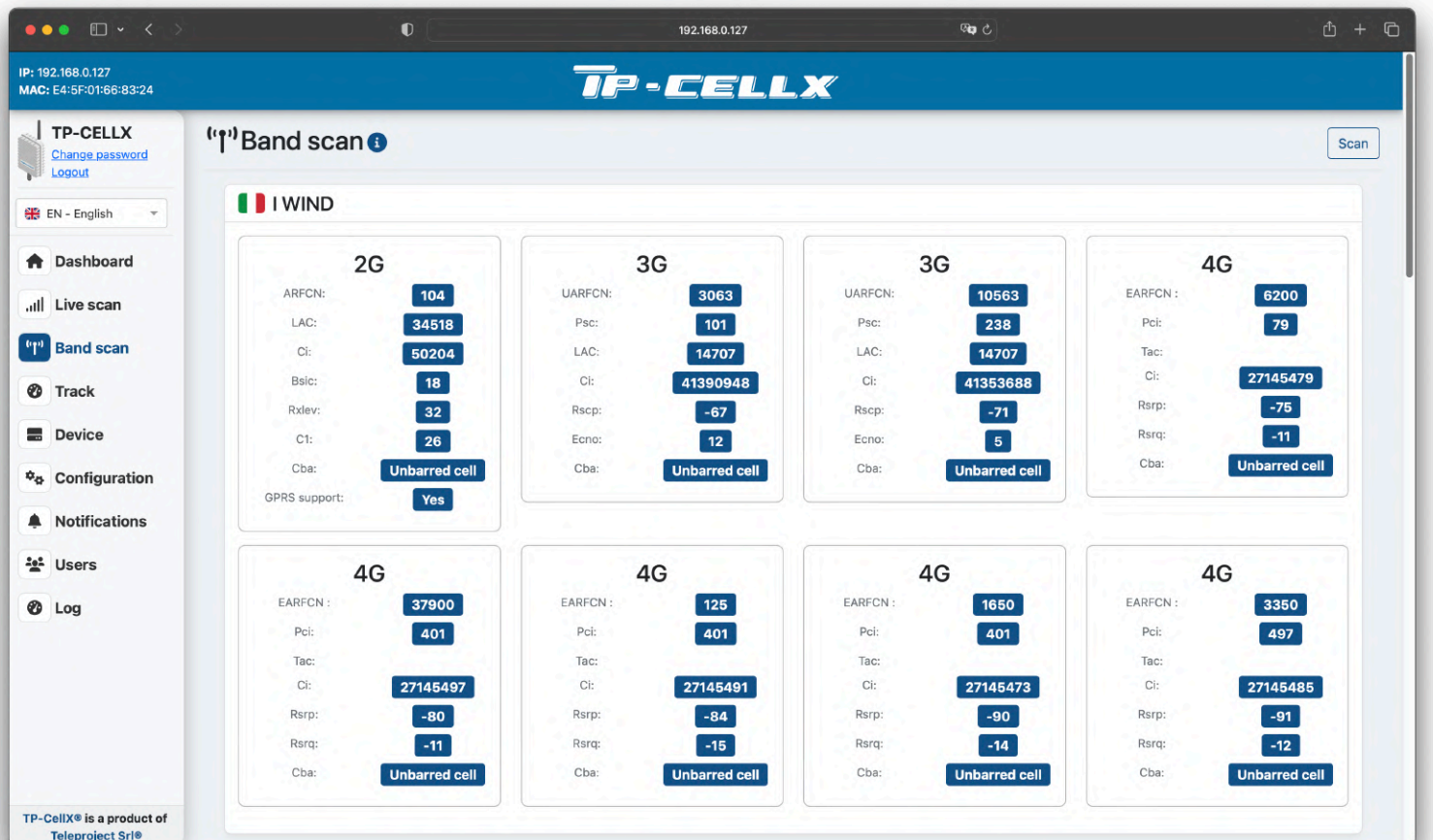
Dashboard:

Monitor cellular provider with each technology



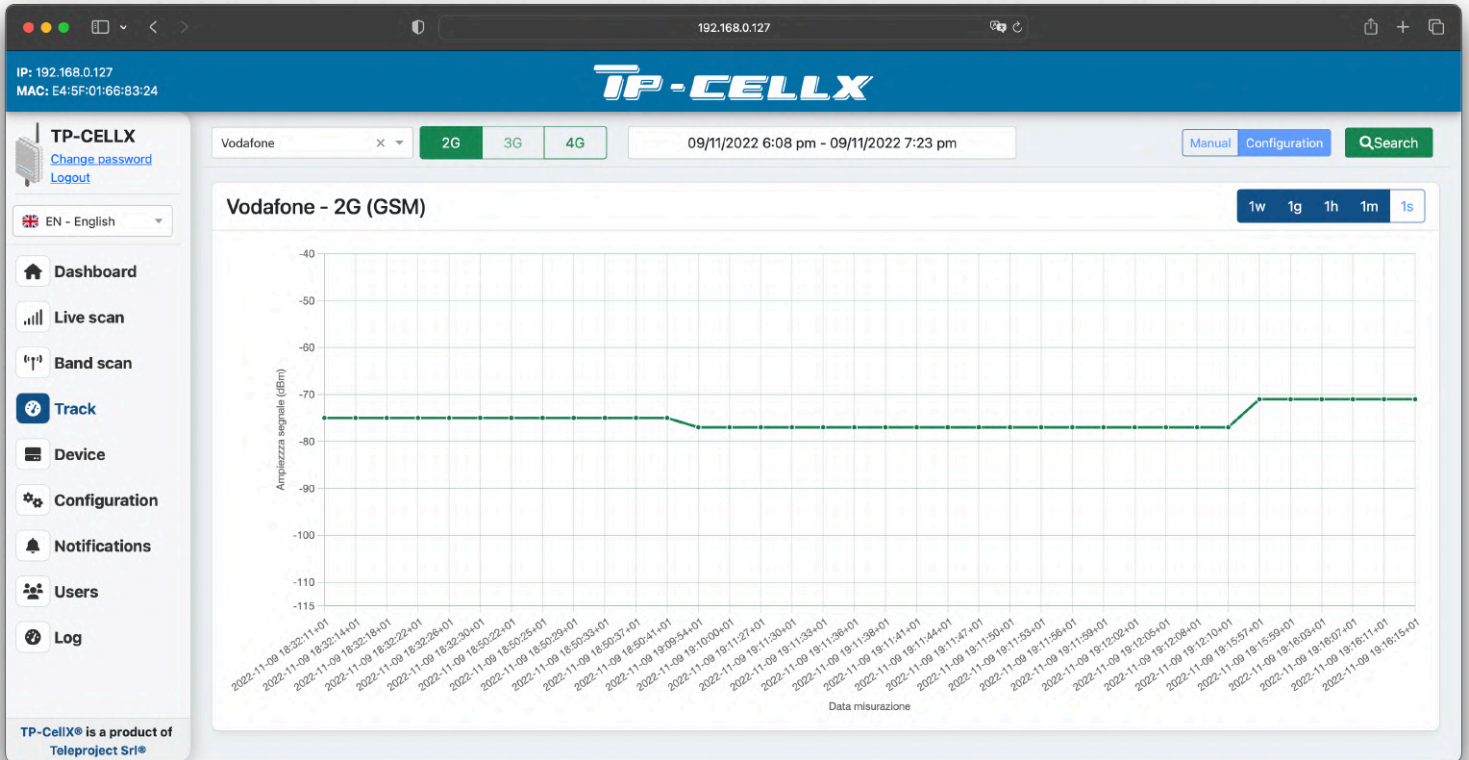
Band scan:

The scan band function allows you to see all cellular cells near TP-CELLX



History page:

You can go back in time to see if in a determinate period of time there was or was not a signal



Configuration page:

All cellular carrier the TP-CELLX is monitoring

The screenshot shows the TP-CELLX interface with the 'Configuration' page selected. The main content is titled 'Carrier to scan' and displays three carrier configurations: Vodafone, Wind, and TIM. Each configuration is shown in a card format with the following details:

- Vodafone:** Attivo, Transmitter location: La Spezia, Network: vodafone IT, Carrier: vodafone IT, Scan time: 20s, Acts: 2G, 3G, 4G. Alert level 2G: Degraded signal: -86dBm, No signal: -100dBm. Alert level 4G: Degraded signal: -80dBm, No signal: -100dBm. Relay number: No relay set.
- Wind:** Attivo, Transmitter location: La Spezia, Network: I WIND, Carrier: I WIND, Scan time: 20s, Acts: 2G, 3G, 4G. Alert level 2G: Degraded signal: -100dBm, No signal: -100dBm. Alert level 3G: Degraded signal: -110dBm, No signal: -110dBm. Alert level 4G: Degraded signal: -100dBm, No signal: -100dBm. Relay number: No relay set.
- TIM:** Attivo, Transmitter location: La Spezia, Network: I TIM, Carrier: I TIM, Scan time: 20s, Acts: 2G, 3G, 4G. Alert level 2G: Degraded signal: -100dBm, No signal: -100dBm. Alert level 3G: Degraded signal: -110dBm, No signal: -110dBm. Alert level 4G: Degraded signal: -100dBm, No signal: -100dBm. Relay number: No relay set.

Each configuration card has buttons for 'Delete', 'Disable', 'Clone', and 'Edit'. The interface also includes a sidebar with navigation options and a top navigation bar with 'Import', 'Export', and 'Alert-Notifications timer: 20s'.

IP-CELLX



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