

**ELSYS**

# **AMPLIMAX ULTRA**

Outdoor  
5G CPE for  
FWA

**Datasheet**



**EPRL 30 - US Version**

**AMPLIMAX ULTRA** is an outdoor 5G CPE for FWA. 100% developed and manufactured by the Elsys team, it ensures the best performance and signal capture, offering more range, more speed and more connection stability.



## USE CASES



**Fixed internet access via mobile network (FWA), even in outlying or shadow zones with very weak signal**



**Internet failover for critical systems**



**Security systems, monitoring or speed cameras**

## SIM CARDS

## EASY INSTALL

Figure 1



## FREQUENCY BANDS

<b>5G SA</b>	n2 [1900MHz]	n5 [850MHz]	n14 [700MHz]
	n30 [2300MHz]	n38 [2600MHz]	n48 [3600MHz]
	n66 [1700MHz]	n77 [3700MHz]	n78 [3500 MHz]
	DL 4×4 MIMO NR (bands n2/n5/n14/n30/n48/n77) UL 2×2 MIMO (bands n38/n77)		
<b>5G nSA</b>	n2 [1900MHz]	n5 [850MHz]	n25 [1900MHz]
	n30 [2300MHz]	n41 [2600MHz]	n66 [1700MHz]
	n71 [600MHz]	n77 [3700MHz]	n78 [3500 MHz]
	DL 4×4 MIMO NR (bands n2/n5/n30/n41/n71/n77) UL 2×2 MIMO (bands n41/n77)		
<b>4G LTE FDD</b>	B2 [1900MHz]	B4 [1700MHz]	B5 [850MHz]
	B12 [700MHz]	B13 [700MHz]	B17 [700MHz]
	B25 [1900MHz]	B26 [850MHz]	B30 [2300MHz]
	B66 [1700MHz]	B71 [600MHz]	
	Bands: 1.4/3/5/10/15/20MHz DL 4x4 MIMO (bands B2/4/5/12/13/17/25/26/30/66/71)		
<b>4G LTE TDD</b>	B41 [2600MHz]	B48 [3500MHz]	
	Bands: 1.4/3/5/10/15/20MHz DL 4×4 MIMO (bands B41/B48)		

## DATA RATES

<b>5G SA</b>	Downlink: 2.47 Gbps Uplink: 900 Mbps
<b>5G nSA</b>	Downlink: 3.47 Gbps Uplink: 660 Mbps
<b>4G LTE FDD</b>	Downlink: 1.6 Gbps (CAT19) Uplink: 211 Mbps (CAT18)
<b>4G LTE TDD</b>	Downlink: 1.6 Gbps (CAT19) Uplink: 211 Mbps (CAT18)

## MAXIMUM TX POWER

<b>5G</b>	5G nR Bands: +23 dBm 5G nR HPUE Bands n41/n77: +26 dBm
<b>4G</b>	LTE Bands: +23 dBm LTE HPUE Band B41: +26 dBm

## MOBILE

<b>5G NR</b>	3GPP Rel-16 NSA/SA operation, Sub-6 GHz
<b>LTE category</b>	DL Cat 19/ UL Cat 18

## HARDWARE

<b>Chipset</b>	Qualcomm SDx62 (release 16 do 5G) (Snapdragon)
<b>Modules</b>	RG520N-NA (Manufacturer Quectel, technologies 5G and 4G) ESP32-MINI-1-N4 (Manufacturer Espressif, technologies: WiFi and Bluetooth; Certified on: CE/FCC/IC/SRRC)

## PHYSICAL INTERFACES (PORTS, LEDS AND BUTTONS)

<b>LAN Port</b>	Ethernet 2.5Gbps / 1.0 Gb / 100Mb / 10 Mb
<b>USB</b>	USB-C
<b>Status LEDs</b>	4G/5G; SIM 1; SIM 2; eSIM; USB-C
<b>Buttons</b>	Easy Install

## OTA (OVER-THE-AIR)

<b>OTA</b>	Remote software update over cellular network (5G, 4G or 3G)
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## POWER

<b>PoE</b>	POE (Power Over Ethernet) – passive POE (IEEE 802.3af/at 2.5 Gb, mode B)
<b>Voltage</b>	from 12 up to 24 VDC
<b>Power adapter</b>	24V / 1 Ampère (100 up to 240 Vac)
<b>Battery</b>	Product allows feeding though batteries (not included)
<b>Power consumption</b>	Peak: 18 Watts Average: 3 Watts

## MAIN INTERNAL ANTENNA 2x2

<b>Use</b>	Either for transmission (TX) as reception (RX)
<b>Polarization</b>	+/- 45°
<b>Type</b>	Directional antenna
<b>Gain</b>	617 to 960 MHz: 7.0 dBi 1710 to 1910 MHz: 7.9 dBi 1920 to 2700 MHz: 10.0 dBi (1920 MHz); 10.0 dBi (2310 MHz) e 8.0 dBi (2700 MHz) 3300 to 4200 MHz: 9.0 dBi

## SECONDARY INTERNAL ANTENNA 2x2

<b>Use</b>	Used only for reception (RX)
<b>Polarization</b>	Vertical
<b>Type</b>	2 omnidirectinal antennas with spacial diversity
<b>Peak gain:</b>	600 to 960 MHz: 0.5 dBi 1710 to 1910 MHz: 3.1 dBi 1920 to 2700 MHz: 4.0 dBi 3300 to 4000 MHz: 4.2 dBi

## ENVIROMENTAL

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<b>Temperature</b>	-22 up to 140 °F
<b>Protection</b>	IP-65

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## INTERNAL WIFI

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<b>Use</b>	Used for monitoring and configuring the product
<b>Hidden network</b>	SSID: EASY_INSTALL Password: (15 digit IMEI number; 35449225xxxxxxx)
<b>Standards</b>	IEEE 802.11b/g/n
<b>Channel central frequency</b>	2412 ~ 2484 MHz

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## PACKAGE CONTENTS



1 Amplimax Ultra



1 POE (Power Over Ethernet)



1 24 VDC/1A power supply  
(POE)



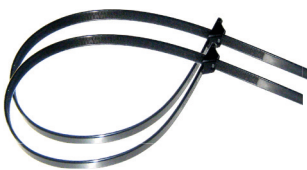
1 ethernet cable 4.5 ft long



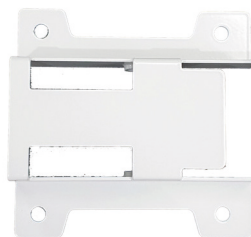
1 ethernet cable 49.2 ft long



2 metal clamps ( pole fixing)



2 plastic clamps (aid in fixing to the pole and  
fixing the cable to the pole)



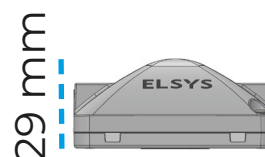
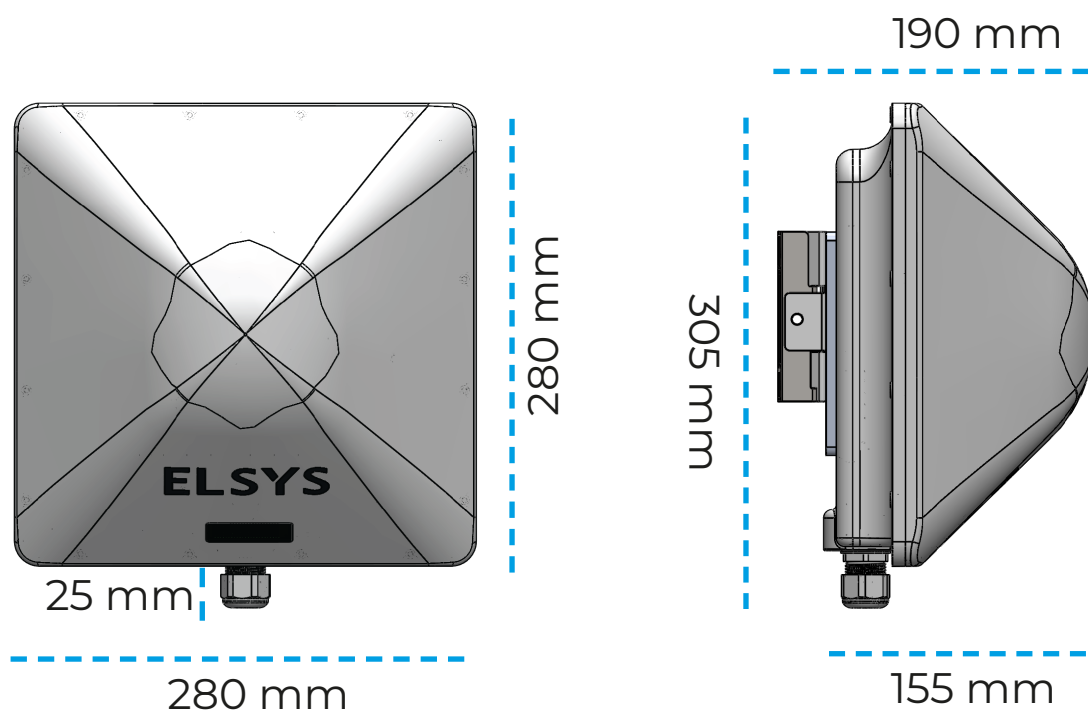
1 wall support  
(optional use)

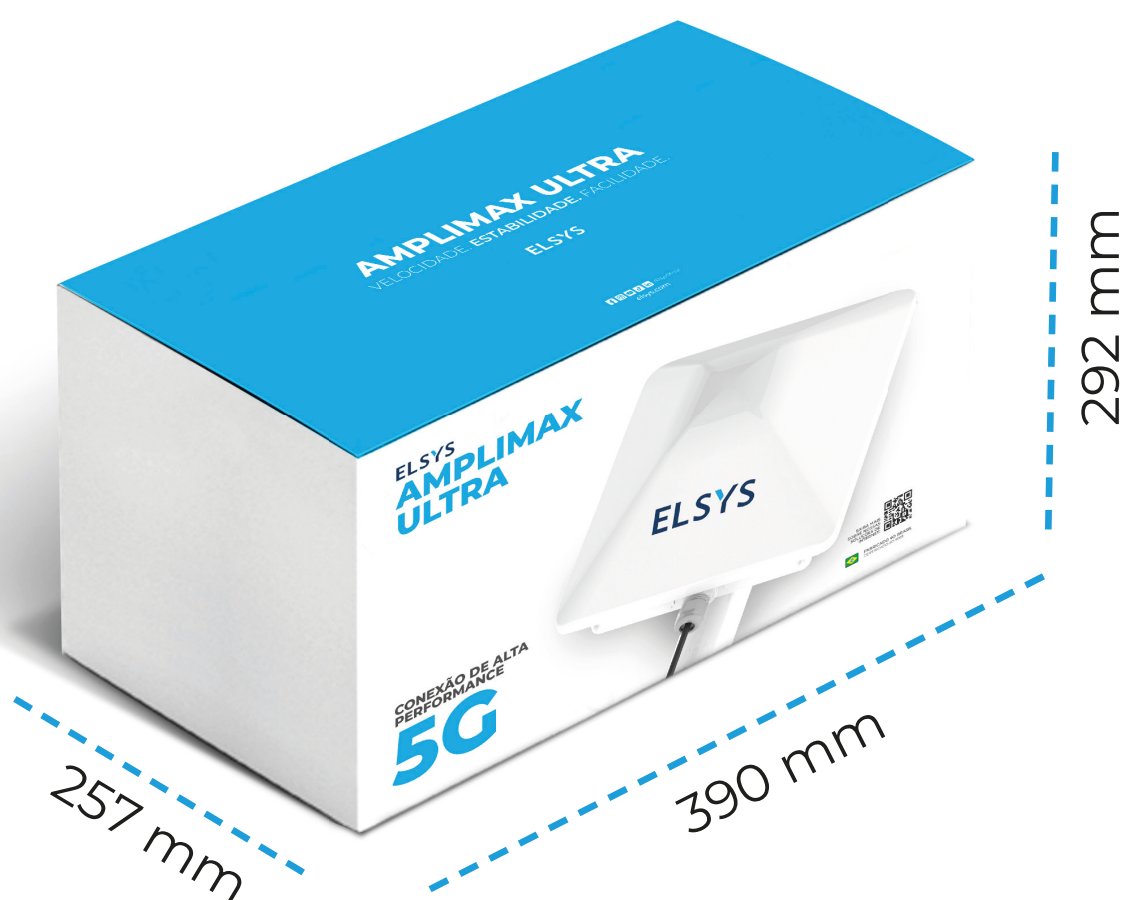
### Dimensions

AMPLIMAX: 280 x 280 x 190 mm (height x width x depth)  
 POE: 29 x 65 x 63.7 mm (height x width x depth)  
 PACKAGE: 292 x 390 x 257 mm (height x width x depth)

### Weight

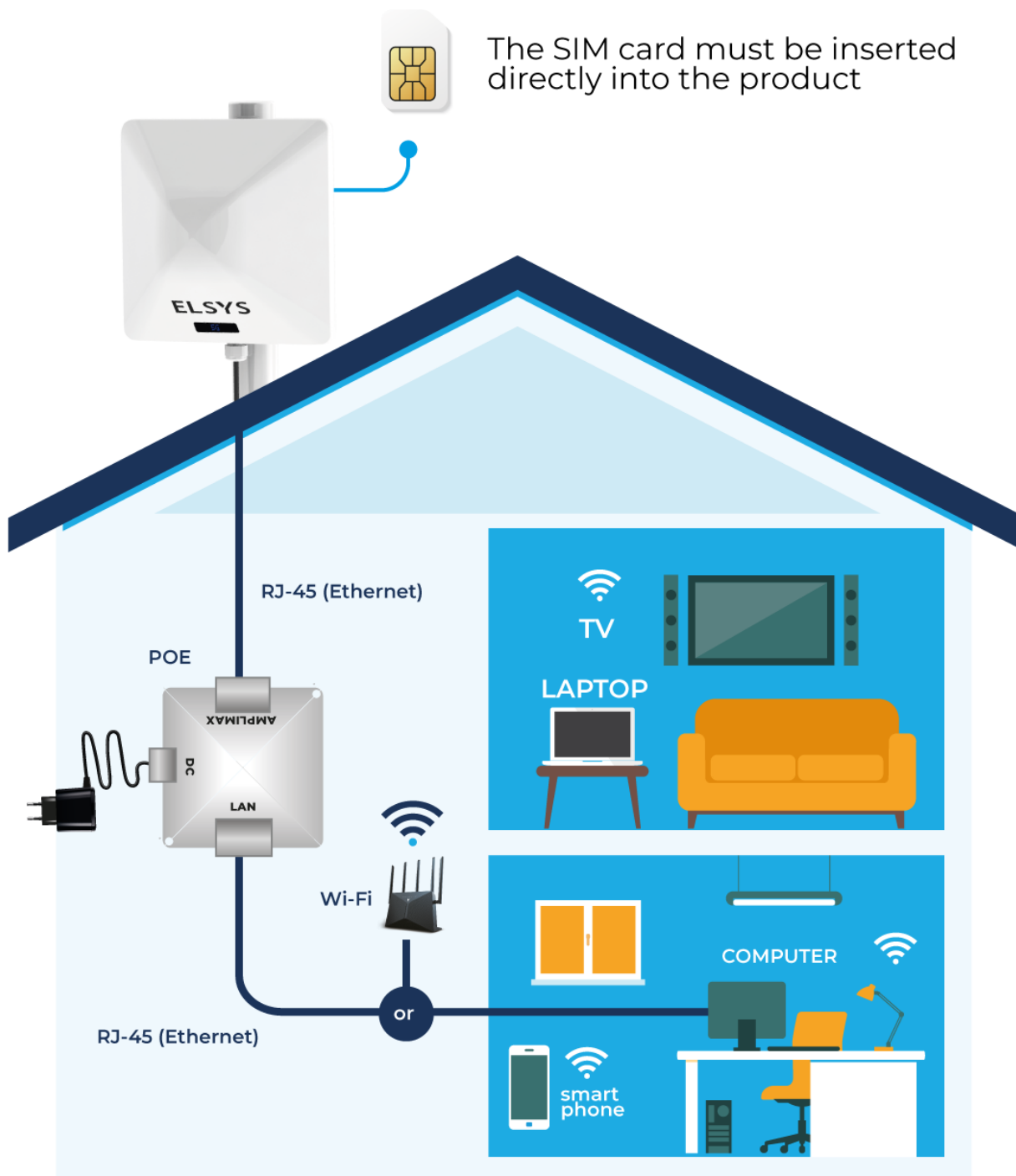
AMPLIMAX: 4.18 lb  
 POE: 0.10 lb  
 PACKAGE: 9.96 lb





# AMPLIMAX ULTRA

## TYPICAL USAGE MAP



# AMPLIMAX ULTRA

EPRL30



**Product Model:** EPRL30

**Product Description:** Amplimax  
Ultra

**Manufactured by:**

Elsys Equipamentos Eletrônicos Ltda.  
Avenida Torquato Tapajós, 4780  
Colônia Santo Antônio - Manaus – AM  
CEP: 69093-018  
Industria Brasileira

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