

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

OVERVIEW

Description	CPE for FWA (Fixed Wireless Access) used for Internet access, using the technologies 4G and 5G
Mounting	Pole or wall
Display	Smart front display
APN	Auto APN
Downlink	MIMO 4x4

SIM CARDS

SIM Card	2 inputs for nano SIM card (4FF)
eSIM	1 internal eSIM

EASY INSTALL

Blind Search	Shows the RF strength of each carrier in your place even without any SIM card - Figure 1
Pointer	Shows the RF strength on the display in order to find the best sport to place the device and to point it in the direction of the cellular tower. Buzzer gives the same information, through audio - Figure 2

Figure 1

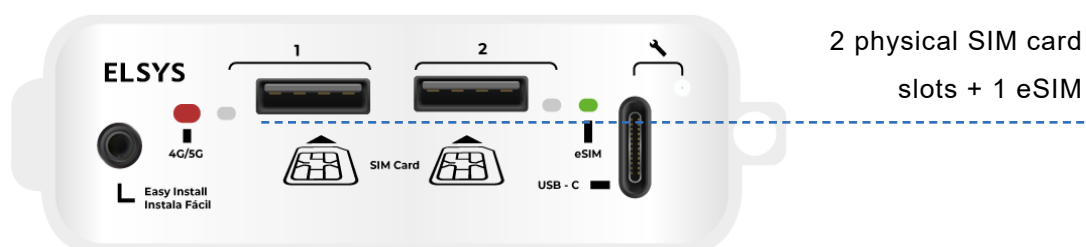
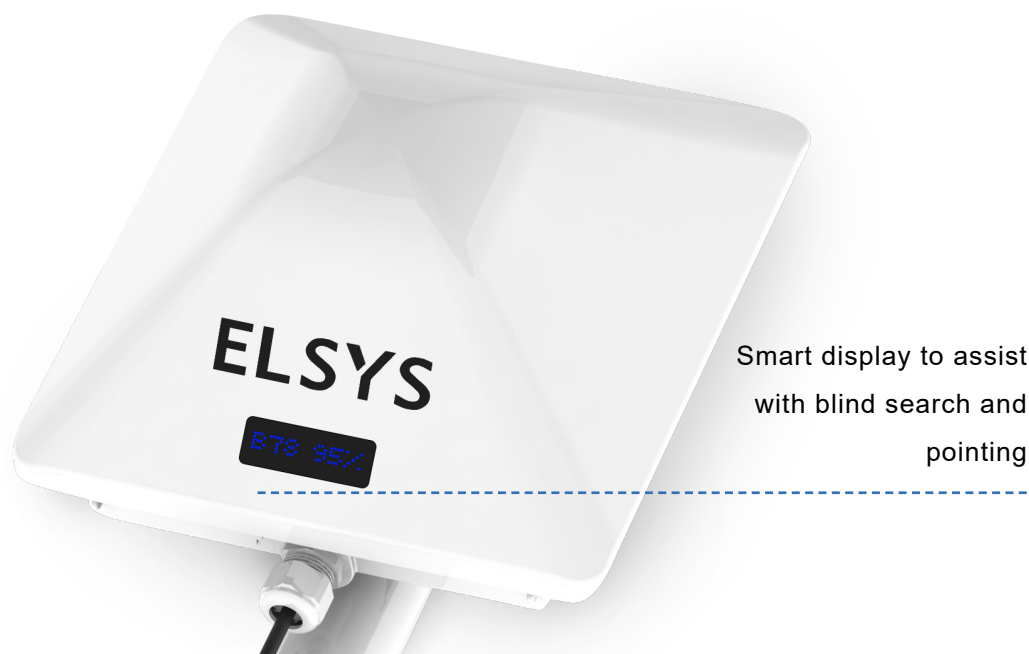


Figure 2



FREQUENCY BANDS

5G SA	n2 [1900MHz] n30 [2300MHz] n66 [1700MHz]	n5 [850MHz] n38 [2600MHz] n77 [3700MHz]	n14 [700MHz] n41 [2600MHz] n48 [3600MHz]
	DL 4x4 MIMO NR (bands n2/n5/n14/n30/n41/n48/n77) UL 2x2 MIMO (bands n41/n38/n77)		
5G nSA	n2 [1900MHz] n30 [2300MHz] n71 [600MHz]	n5 [850MHz] n41 [2600MHz] n77 [3700MHz]	n25 [1900MHz] n66 [1700MHz]
	DL 4x4 MIMO NR (bands n2/n5/n30/n41/n71/n77) UL 2x2 MIMO (bands n41/n77)		
4G LTE FDD	B2 [1900MHz] B12 [700MHz] B25 [1900MHz] B66 [1700MHz]	B4 [1700MHz] B13 [700MHz] B26 [850MHz] B71 [600MHz]	B5 [850MHz] B17 [700MHz] B30 [2300MHz]
	Bands: 1.4/3/5/10/15/20MHz DL 4x4 MIMO (bands B2/4/5/12/13/17/25/26/30/66/71)		
4G LTE TDD	B41 [2600MHz]	B48 [3500MHz]	
	Bands: 1.4/3/5/10/15/20MHz DL 4x4 MIMO (bands B41/B48)		

DATA RATES

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

MAXIMUM TX POWER

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

MOBILE

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

HARDWARE

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

PHYSICAL INTERFACES (PORTS, LEDS AND BUTTONS)

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

OTA (OVER-THE-AIR)

OTA	Remote software update over cellular network (5G, 4G or 3G)
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POWER

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

MAIN INTERNAL ANTENNA 2x2

Use	Either for transmission (TX) as reception (RX)
Polarization	+/- 45°
Type	Directional antenna
Gain	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

Use	Used only for reception (RX)
Polarization	Vertical
Type	2 omnidirectional antennas with spacial diversity
Peak gain:	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

ENVIRONMENTAL

Temperature	-22 up to 140 °F
Protection	IP-65

INTERNAL WIFI

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

OPTIONAL WIRELESS ROUTER - AX3000

Standards	Wi-Fi 6 IEEE 802.11ax/ac/n/a 5 GHz IEEE 802.11ax/n/b/g 2.4 GHz
Speed	5 GHz: 2400 Mbps (802.11ax) 2.4 GHz: 574 Mbps (802.11ax)
Operating modes	Router and access point
Interface	1x Gigabit WAN Port/3x Gigabit LAN Port
Coverage	Beamforming and 5 5dbi antennas
Mesh	Yes
CPU	1GHz Dual-Core CPU
Wi-Fi encryption	WPA, WPA2, WPA3, WPA/WPA2-Enterprise (802.1x)
Certifications	FCC, CE, RoHS
Wi-Fi transmission power	< +30dBm(2.4 GHz & 5.15 GHz~5.825 GHz)

PACKAGE CONTENTS



1 Amplimax Ultra



1 POE (Power Over Ethernet)



Optional AX3000 router



1 24 VDC/1A power supply (POE)



1 ethernet cable 4.5 ft long



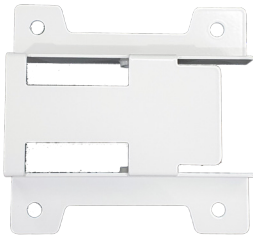
1 ethernet cable 49.2 ft long



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)



1 12VDC/1.5A power supply (Router)

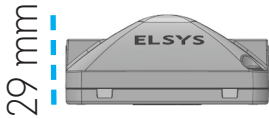
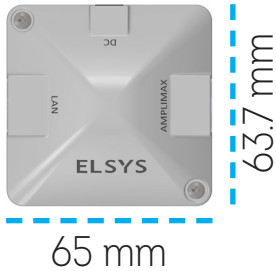
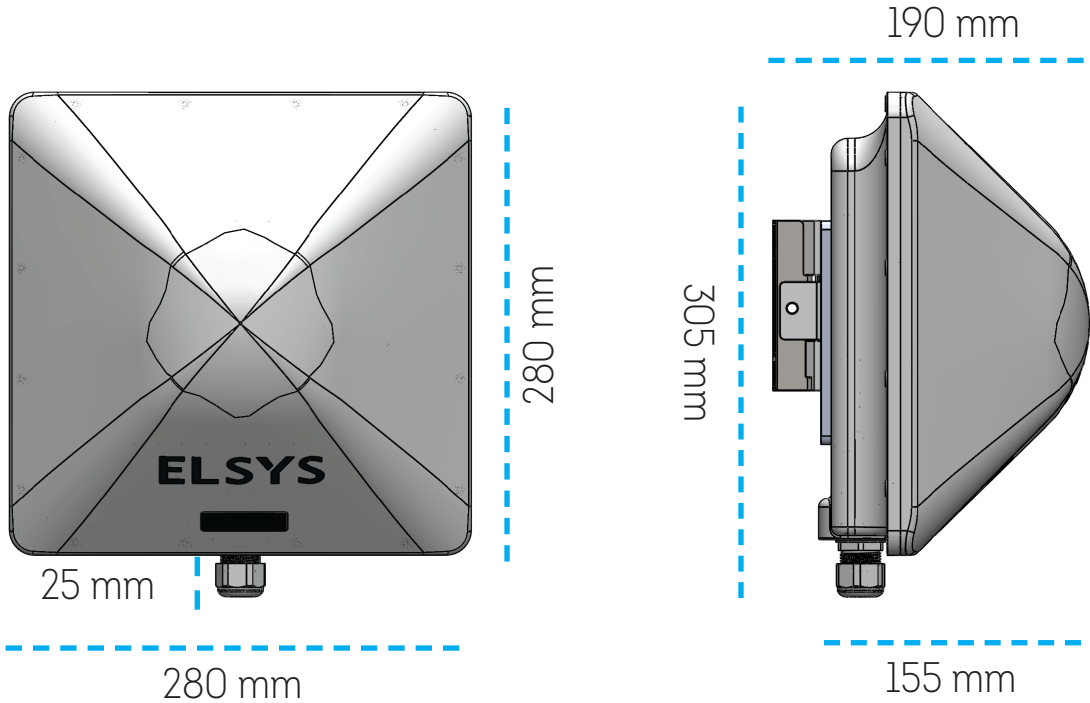
DIMENSIONS AND WEIGHT

Dimensions

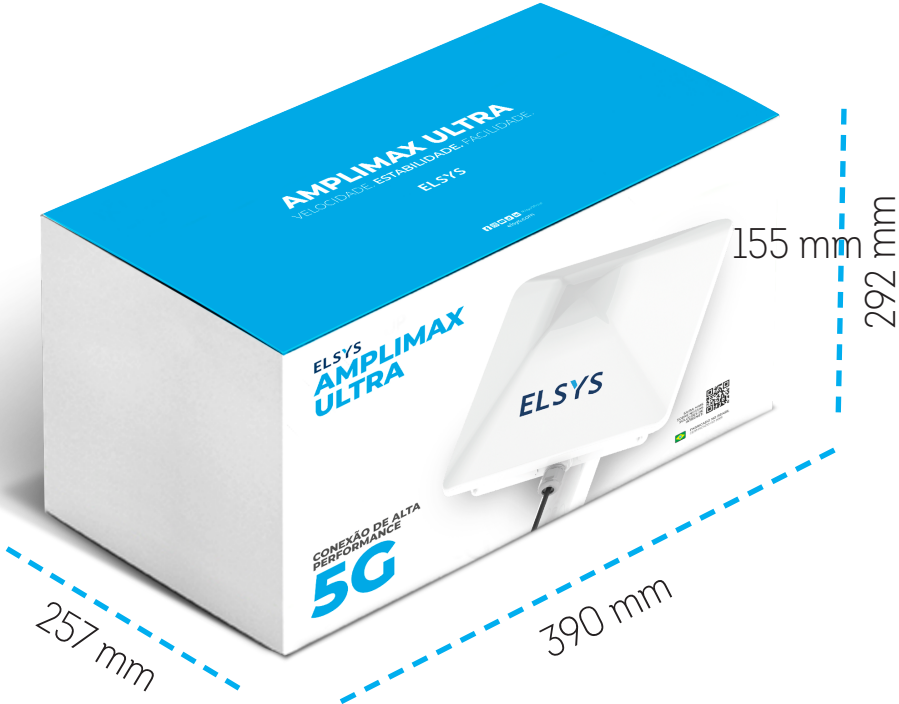
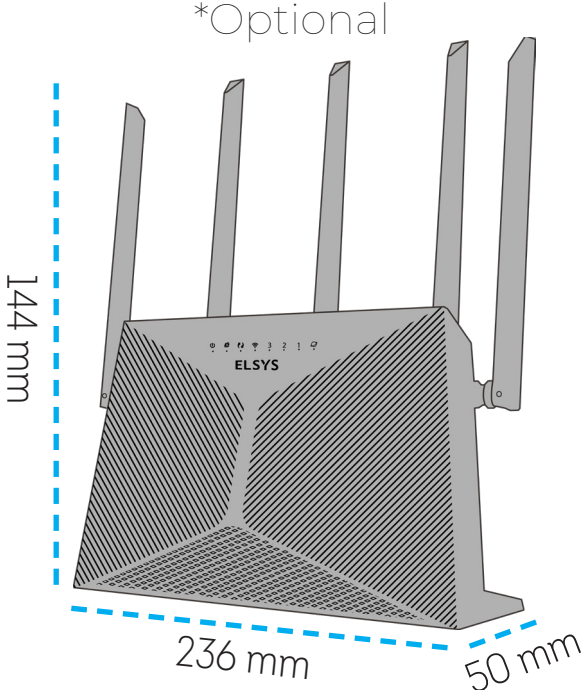
AMPLIMAX: 280 x 280 x 190 mm (height x width x depth)
POE: 29 x 65 x 63.7 mm (height x width x depth)
ROUTER: 50 x 236 x 144 mm (height x width x depth)
PACKAGE: 292 x 390 x 257 mm (height x width x depth)

Weight

AMPLIMAX: 4.18 lb
POE: 0.10 lb
OPTIONAL ROUTER: 0.78 lb
PACKAGE: 9.14lb / 9.92 lb

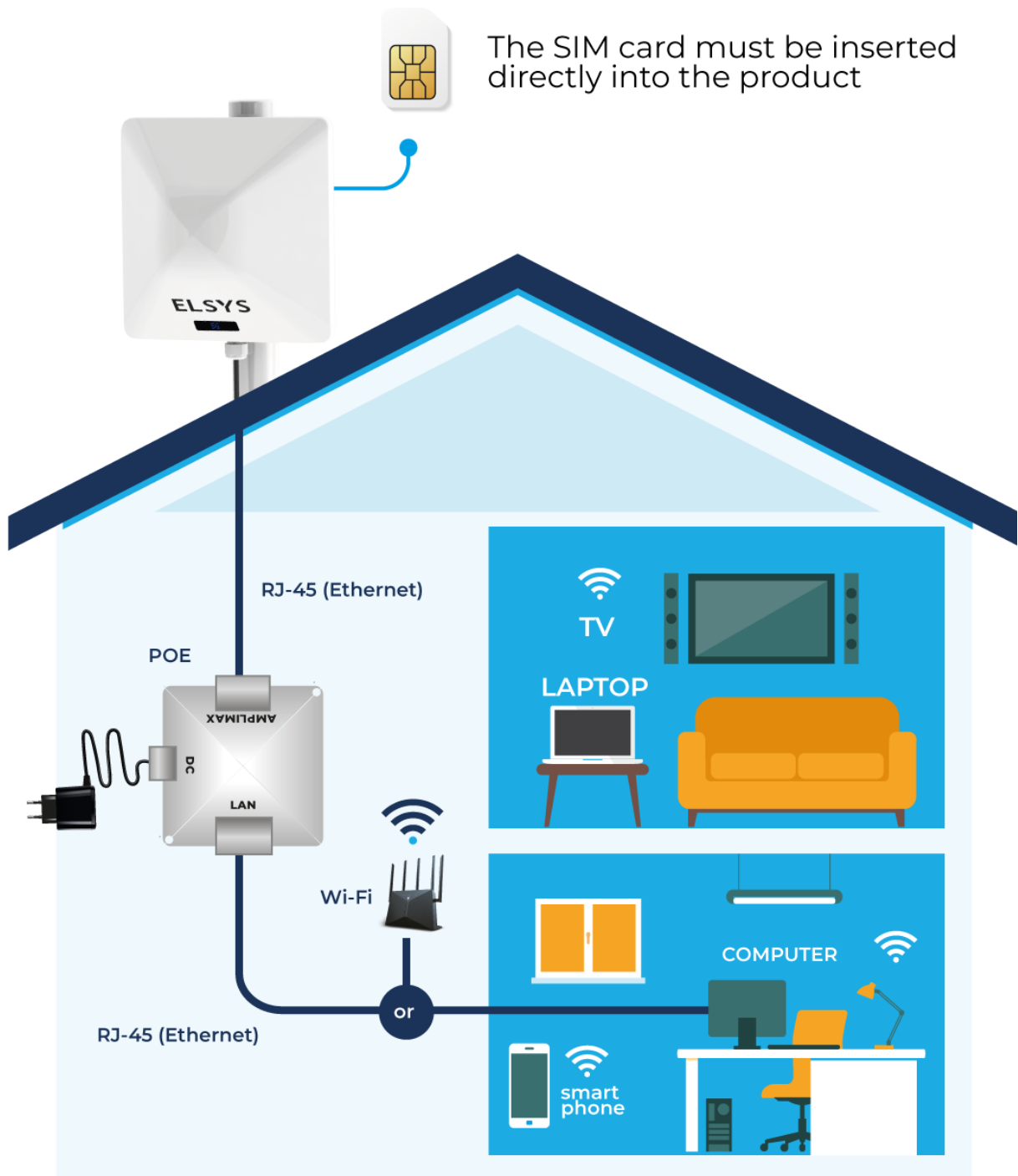


DIMENSIONS AND WEIGHT



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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