

ELSYS AMPLIMAX ULTRA

5G Smart Antenna for
high-performance FWA



OUR PURPOSE IS
**CONNECTING PEOPLE TO
TRANSFORM LIVES**

For almost a decade innovating and bringing connection to over a million people in 40 countries

TECHNOLOGY

The 5th generation of mobile network technology has arrived with impressive results. The main breakthrough, of course, is speed. Compared to the previous generation, 5G can reach **speeds up to 20x higher!**

In addition, network latency is much lower, with amazing response times. For these reasons, the technology comes to revolutionize the Fixed Wireless Access market (FWA) and **Elsys is a pioneer and protagonist in the market.**

A large graphic on a blue background. The text '5G' is written in large, bold, light blue letters. Behind it, the word 'TECNOLOGIA' is written in a smaller, semi-transparent font. The background features a network of white lines and dots, with several blue arrows pointing in various directions, suggesting connectivity and technology.

5G

4G+

TECHNOLOGY

Also known as **4.5G**, this technology has brought significant improvements to the 4G network.

With the possibility to work with the combination of several carriers from one or several towers (carrier aggregation), **4G+ delivers much higher performances in terms of speed and stability**, being an excellent option for FWA and redundancy.



WHAT IS IT?

AMPLIMAX ULTRA is a 5G outdoor CPE for FWA. It is an outdoor modem with an integrated high-gain 4x4 MIMO antenna.

Developed focused on high performance, the device captures cellular network signal in 5G, 4G or 3G technologies and **delivers stable ultra-fast internet connection.**

APPLICATIONS



Fixed ultra-fast internet access via mobile network in urban areas



Failover for critical systems



Security systems, monitoring or speed traps



Long range internet

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APPLICATIONS

MAIN CONNECTION IN URBAN AREAS



Locations where infrastructure does not allow or makes it difficult to use wired options, such as buildings without space for fiber or small businesses in malls.



Suburbs and outlying areas where there are no wired options;

APPLICATIONS

TEMPORARY INFRASTRUCTURE

Sites with high demand in a short period:



Concerts



Exhibitions



Sports events



Fairs



Construction

APPLICATIONS



REDUNDANCY



Monitoring systems for critical process in industry



Financial systems



Pharmacy



Hospitals



Franchises

APPLICATIONS

MONITORING AND SECURITY



Security cameras away from the main connection source



Speed traps



Third-party services in companies where the internet cannot be shared for security reasons



Alarm systems

APPLICATIONS



LONG RANGE

Places with no wired structure and far from mobile phone towers:



Rural areas



Remote areas



Vessels



Campsites



Hotels, hostels and BnBs



Motorhomes

HOW IT WORKS?



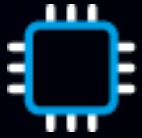
The SIM card must be inserted directly into the product

OVERVIEW

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GREATER SIGNAL RANGE
8X MORE RANGE COMPARED
TO INDOOR MODEMS



QUALCOMM
SDX62 CHIPSET



**ULTRA-FAST
SPEED**
CAN REACH MORE
THAN 1 GBPS,
WHETHER ON 4G
OR 5G



**HIGH GAIN
DIRECTIONAL MIMO
4X4 ANTENNA**
600 TO 4000 MHz



**PROTECTION
AGAINST WATER
AND DUST**



ULTRA SPEED

FIBER SPEED

WIRELESS COMFORT

Ultra-fast speeds, whether on 4G+ or 5G.



	5G SA	5G nSA	4G LTE FDD	4G LTE TDD
Downlink:	2,47 Gbps	3,47* Gbps	1,6 Gbps	1,6 Gbps
Uplink:	900 Mbps	660 Mbps	211 Mbps	211 Mbps

* Limited by 2.5 Gbps port

HIGH PERFORMANCE WITH 4G+ (4.5G)

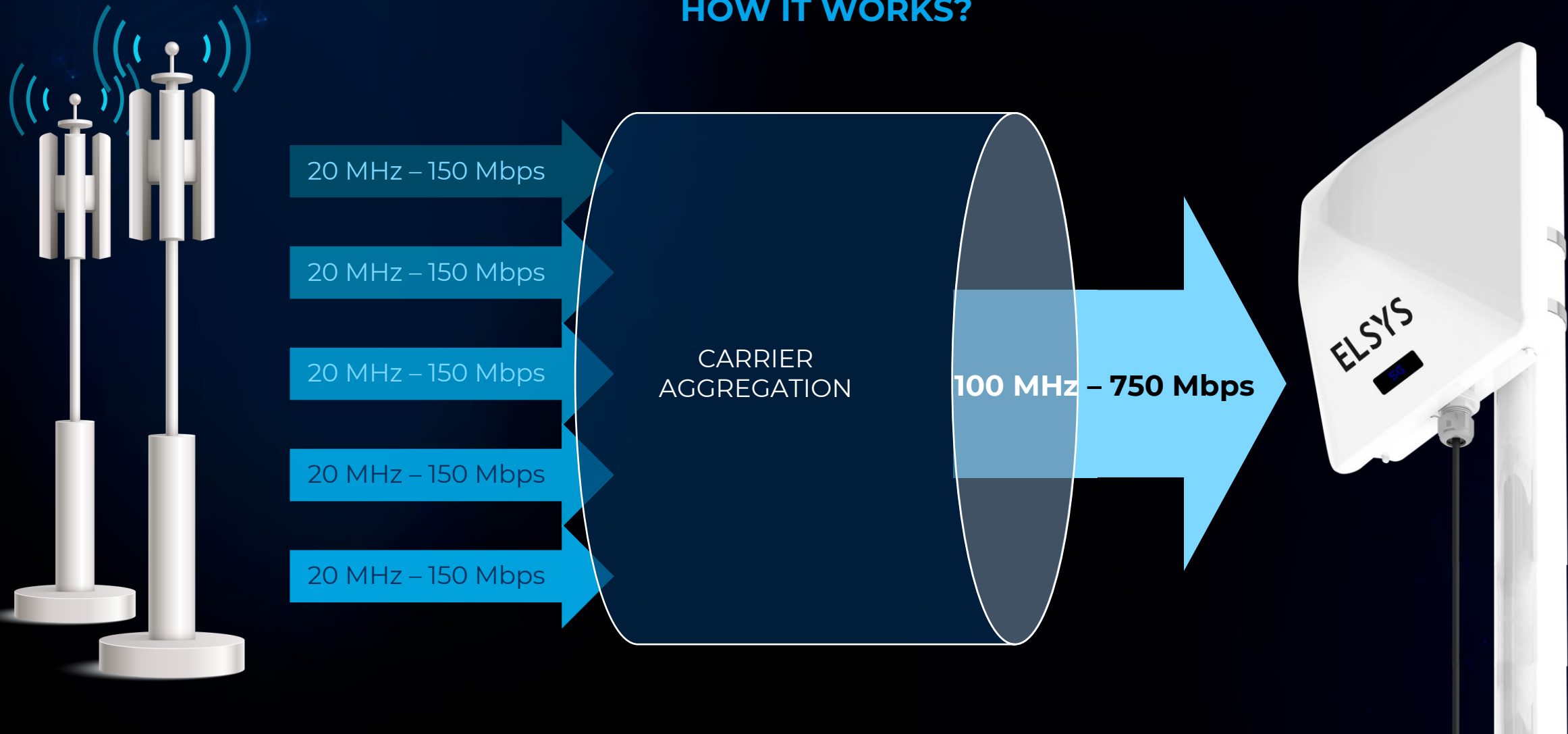
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In addition to the incredible performance delivered on 5G, AMPLIMAX Ultra **also delivers fiber speeds on 4G**. That's because, in addition to excellent signal pickup, the device can work with carrier aggregation, resulting in the high speeds and stability that an FWA requires.

CARRIER AGGREGATION

HOW IT WORKS?



MIMO 4X4

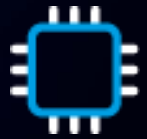
AMPLIMAX ULTRA is a **4x4 MIMO (Multiple Input, Multiple Output)** device, which means that it has 4 antennas that work simultaneously to receive data. In practice, this ensures **much more speed and stability.**

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STATE-OF-THE-ART TECHNOLOGY

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QUALCOMM'S SNAPDRAGON X62 IS THE WORLD'S FIRST 5G 10 GIGABIT CHIPSET AND THE FIRST 3GPP RELEASE 16 MODEM-ANTENNA SOLUTION.



LEADER IN ENERGY EFFICIENCY



UNMATCHED DATA SPEEDS



HIGHER COVER



STATE-OF-THE-ART TECHNOLOGY

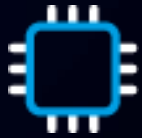
SNAPDRAGON is Qualcomm's family of chipsets. It is one of the most widely used SoCs (System-on-a-Chip) lines worldwide. Snapdragon processors are based on **ARM** architecture and can be found in cell phones, notebooks, tablets, headsets and even cars.

The line has topped the incredible mark of being **present in more than 2 billion AI-enabled products.**



HIGH-END TECHNOLOGY

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QUECTEL RG520N MODULE

LGA 5g sub-6 module. It supports 5g nSA and SA modes with option 3x/3a and option 2 network architectures and is compatible with 4g/3g networks.

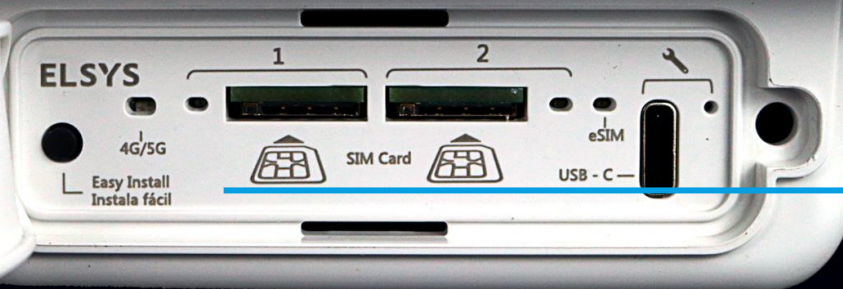


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2 SIM Cards + eSIM = INFINITE POSSIBILITIES

In addition to having two SIM card slots, the AMPLIMAX Ultra also has the possibility of eSIM, which allows the loading of up to **20 electrical profiles**. This allows **redundancy** in the device itself, as well as the **combination of franchises** to meet the most demanding needs.



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SMART DISPLAY AND AUDIBLE AID

SMART DISPLAY WITH EASY INSTALL AND BLIND SEARCH FUNCTIONS

Blind Search: Before inserting a SIM card, you can identify the carrier that has the strongest signal and the best technology in the region.

Easy Install: With the SIM card inserted, a beep assists in pointing the AMPLIMAX in the direction of the antenna.



BAND COVERAGE

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5G SA	5G nSA	4G LTE FDD	4G LTE TDD
n2 [1900MHz]	n2 [1900MHz]	B2 [1900MHz]	B41 [2600MHz]
n5 [850MHz]	n5 [850MHz]	B4 [1700MHz]	B48 [3500MHz]
n14 [700MHz]	n14 [700MHz]	B5 [850MHz]	-
n25 [1900MHz]	n25 [1900MHz]	B12 [700MHz]	-
n30 [2300MHz]	n30 [2300MHz]	B13 [700MHz]	-
n38 [2600MHz]	n38 [2600MHz]	B17 [700MHz]	-
n41 [2600MHz]	n41 [2600MHz]	B25 [1900MHz]	-
n48 [3600MHz]	n48 [3600MHz]	B26 [850MHz]	-
n66 [1700MHz]	n66 [1700MHz]	B30 [2300MHz]	
n71 [600MHz]	n71 [600MHz]	B66 [1700MHz]	
n77 [3700MHz]	n77 [3700MHz]	B71 [600MHz]	

GAIN

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MAIN ANTENNA

SECONDARY ANTENNA

617 to 960 MHz	7 dBi	600 to 960 MHz	0.5 dBi
1710 to 1910 MHz	7,9 dBi	1710 to 1910 MHz	3.1 dBi
1920 to 2700 MHz	10 dBi (1920 MHz) 10 dBi (2310 MHz) 8 dBi (2700 MHz)	1920 to 2700 MHz	4 dBi
3300 to 4200 MHz	9 dBi	3300 to 4000 MHz	4.2 dBi

OUTDOOR X INDOOR CPEs

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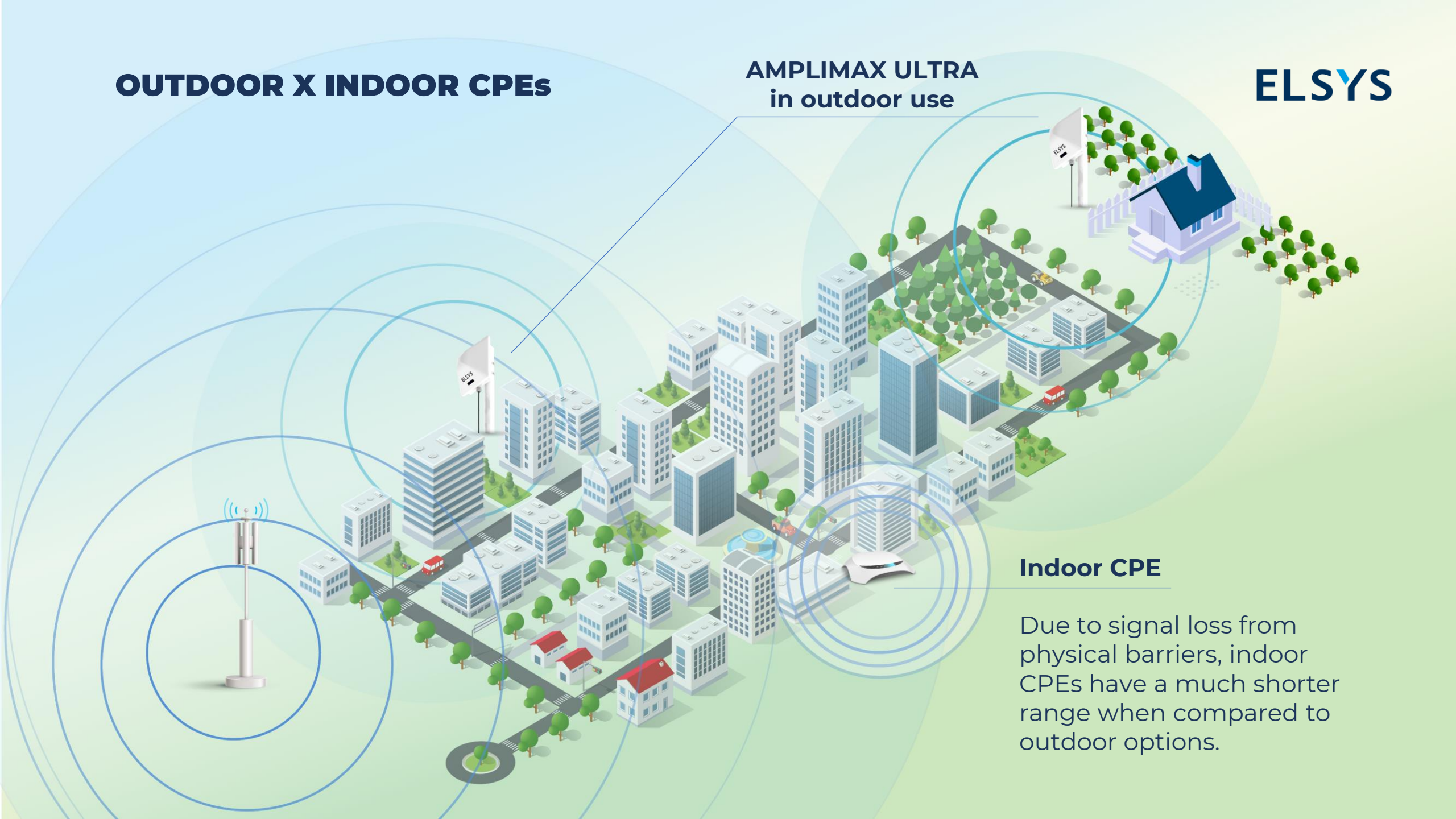
While Indoor CPEs suffer greatly from signal loss due to physical barriers, an outdoor CPE takes full advantage of the power of its antennas in picking up signal. **AMPLIMAX Ultra** is **IP65** certified and fully prepared for outdoor use.

Indoor CPE

OUTDOOR X INDOOR CPEs

AMPLIMAX ULTRA
in outdoor use

ELSYS



Indoor CPE

Due to signal loss from physical barriers, indoor CPEs have a much shorter range when compared to outdoor options.

OUTDOOR X INDOOR CPEs

AMPLIMAX ULTRA
in outdoor use

ELSYS

INDOOR CPEs

In addition to the previous points, another major difference between indoor and outdoor devices is the need for mobile network infrastructure. To serve a specific number of indoor devices, in general, 2 to 3 times more infrastructure is needed compared to the same number of outdoor devices.



In other words, with the **same structure** it is possible to serve areas **2 to 3 times denser** when working with outdoor devices.

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INDOOR CPE



OUTDOOR CPE



BENEFITS FOR EVERYONE

	Consumers / Businesses	Carriers	Internet providers
Reduction in the need for wired infrastructure	✓		✓
QoS assurance	✓	✓	✓
SLA assurance		✓	✓
Ease of installation	✓	✓	✓
Reduction of infrastructure for cellular network		✓	

PACKAGE CONTENTS

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1 AMPLIMAX Ultra



1 POE (Power over ethernet)



1 24 VDC/1A power supply



1 ethernet cable 4.5 ft long



1 ethernet cable 49.2 ft long



1 wall support

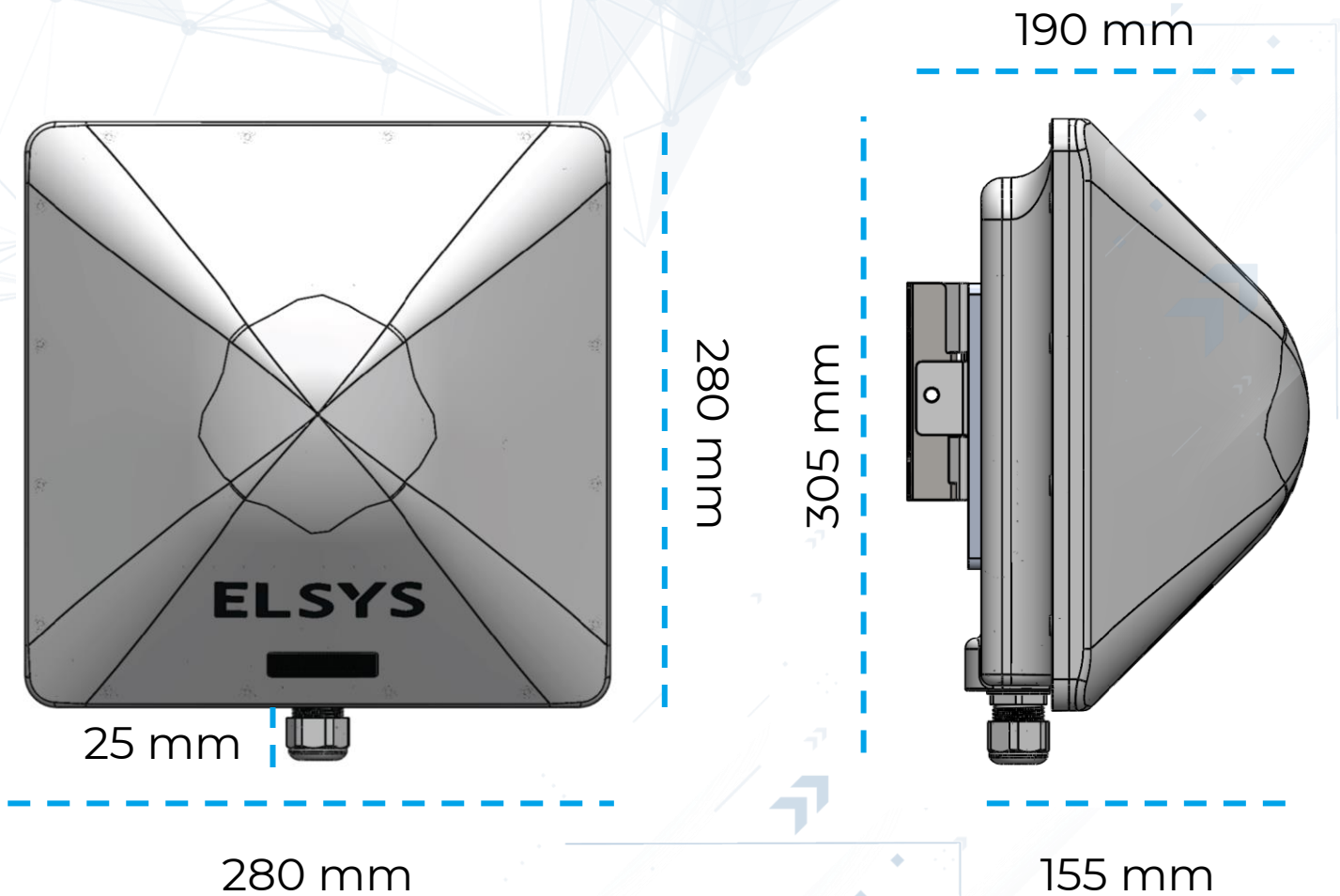


2 metal clamps



2 plastic clamps

PRODUCT DIMENSIONS



AMPLIMAX



POE

WHAT IS THE BEST TECHNOLOGY?

	4G	5G	Satellite	Radio	Fiber
Average download speed	25 Mbps	300 Mbps	112 Mbps	5 Mbps	440 Mbps
Download peak rate	1 Gbps	20 Gbps	300 Mbps	30 Mbps	40 Gbps
Average latency	50 ms	5 ms	50 ms	80 ms	4 ms
Professional installation required				X	X
Approximate installation time	20 min	20 min	3 hours	3 hours	1 hour
Interferences from the climate					

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Thank you!



     /ElsysOficial