PRODUCT SPECIFICATIONS

GigaCore 30i **10 Gigabit**

MADE IN **BELGIUM**

1. APPLICATIONS

10 Gigabit Ethernet switch

The GigaCore 30i is a **10 Gigabit** Ethernet switch, dedicated to AV integration, installation and touring, designed to support the most advanced AV protocols. In combination with the Araneo software platform, GigaCore 30i is the ideal solution to deploy an entire AV network with one click in any fixed installation.

Each GigaCore can be configured through an intuitive built-in AV Web UI but also, System-Wide management across the Luminex network is possible with the Araneo network monitoring, planning and management software. Araneo will boost your productivity and confidence in the network and reduce commissioning times significantly.

GigaCore 30i is an indispensable part of any AV network where reliability and a quick and easy setup are needed. As a user, you don't need to make choices nor tradeoffs as GigaCore handles most AV protocols for you out of the box: Pre-defined QoS/DiffServ (Quality of Service) settings, optimized IGMP (Internet Group Management Protocol) per group (VLAN) and pre-defined yet editable groups (VLANs) to easily separate your network in different applications making converged networks obvious, easy and reliable. Also included out of the box is the advanced, automated redundancy protocol RlinkX that ensures **redundant** links and **ring** topology within your GigaCore network.

Bandwidth, connectivity, and port availability are not an issue anymore with **6 x independent SFP+ ports** capable of data transfer speeds of up to **10 Gbps** and 24 x 1Gbps ports.

Time synchronization is crucial in many applications and with GigaCore 30i you have a hassle free **PTPV2 enabled** switch which will work for most major audio protocols (e.g. AES67, ST2110, Dante, Q-sys/Q-lan, …) without the need for making any complicated device settings. Entertainment installations constantly push the limits, and the need to deploy PoE powered devices is continuously increasing. GigaCore 30i provides an

answer to these scenarios by offering **PoE++ on all ports** (90W per port with a total PoE budget of up to 1000W) as an option.

With 2 available slots to accept optional hot swappable slide-in power supply units, the question of **redundant power** is solved in one and the same 1U rack space. Great care has been taken to ensure silent operation by means of intelligent fan control, giving you more install options with peace of mind that no live audience or recording session would be disturbed.
For installations where a clean front panel is required, an optional 19" flush mount LED panel can be connected to a rear-mounted GigaCore 30i.

Applications:

- Large system integrations
- Theaters
- Concert halls
- Convention centers
- Sports arenas
- Broadcast and recording studios and OB vans
- Cruise ships
- Theme parks
- Hospitality installs (hotels etc)
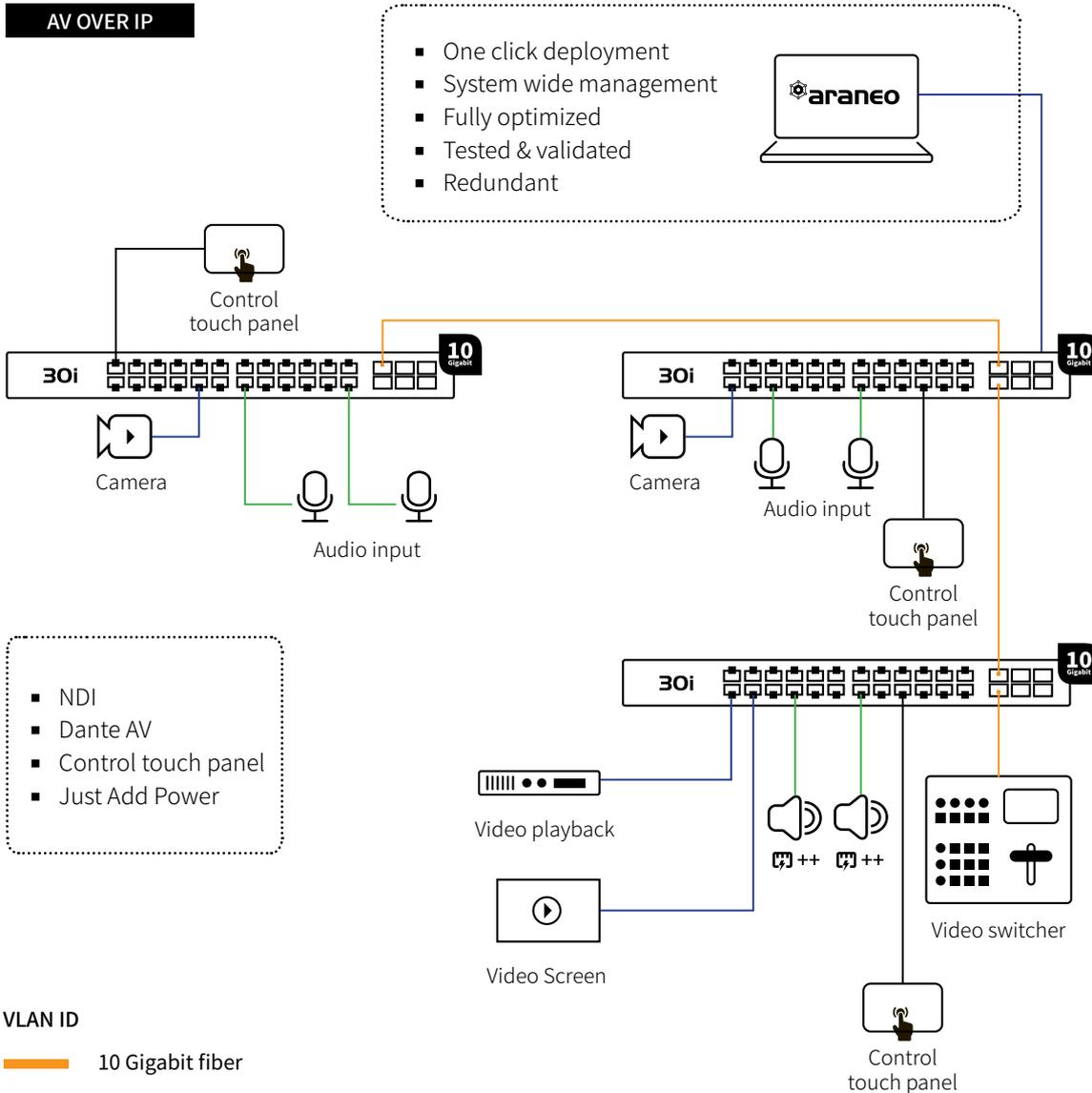- Houses of worship
- And other fixed installations

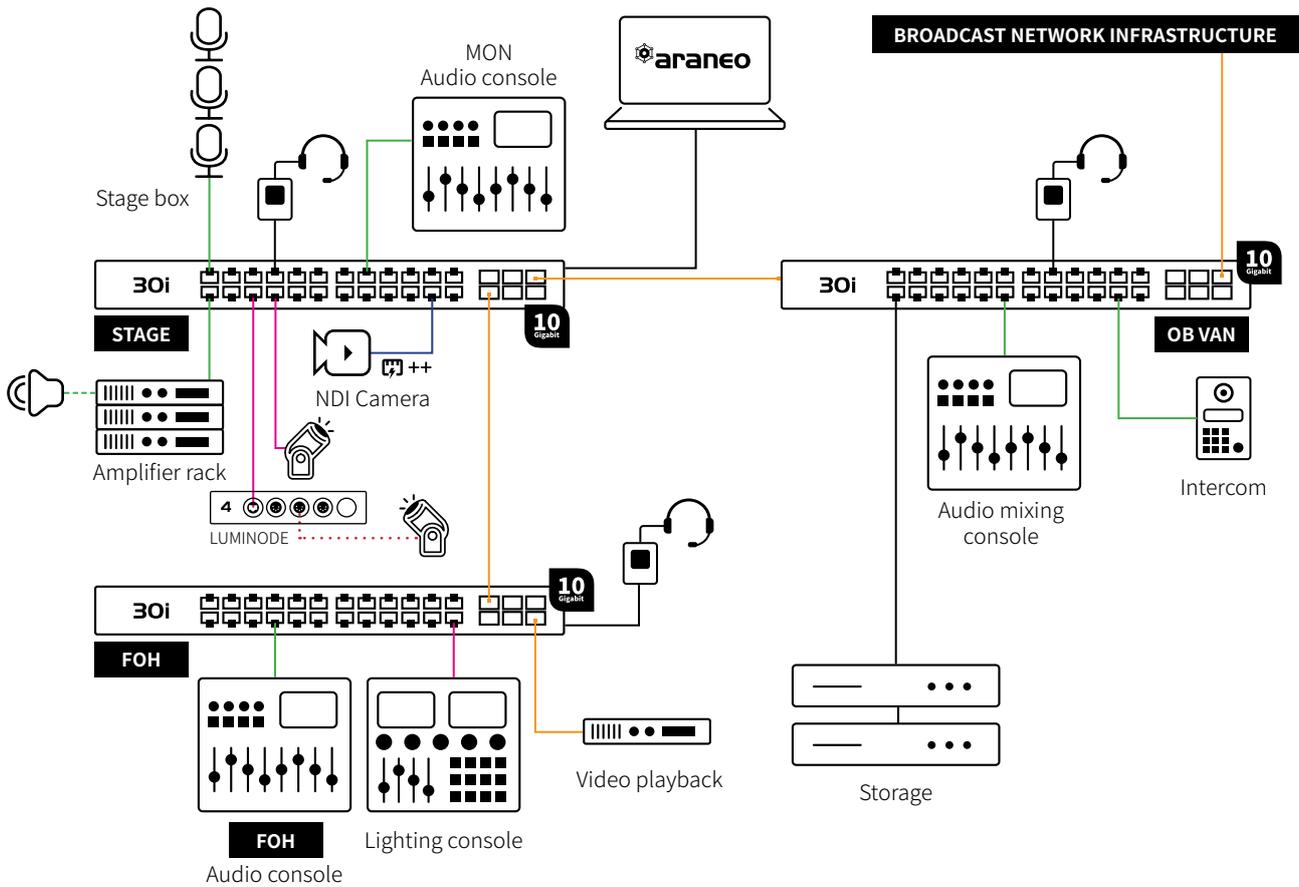| ORDERING INFORMATION	
Product name:	Part numbers:
10 Gbit versions	
GigaCore 30i – 10Gbit – 24x1G – 6x10G(SFP+)	LU 01 00077-10-1S1
GigaCore 30i – 10Gbit – 24x1G – 6x10G(SFP+) – 2nd PSU 100W	LU 01 00077-10-2S1
GigaCore 30i – 10Gbit – 24x1G – 6x10G(SFP+) – PoE++	LU 01 00077-10P-1S5
GigaCore 30i – 10Gbit – 24x1G – 6x10G(SFP+) – PoE++ – 2nd PSU 500W	LU 01 00077-10P-2S5
Slide in PSU's	
GigaCore Slide-in PSU 100W	LU 70 00639
GigaCore Slide-in PSU 550W	LU 70 00640

2. APPLICATION DIAGRAMS

AV OVER IP

- One click deployment
- System wide management
- Fully optimized
- Tested & validated
- Redundant

araneo

Control
touch panel

30i

Camera

Audio input

30i

Camera

Audio input

Control
touch panel

- NDI
- Dante AV
- Control touch panel
- Just Add Power

30i

Video playback

Video Screen

Video switcher

Control
touch panel

VLAN ID

—— 10 Gigabit fiber

—— **Audio** | Dante, AES67

—— **Video** | NDI

++ PoE++

2. APPLICATION DIAGRAMS

CONVERGED

Stage box

MON
Audio console

araneo

BROADCAST NETWORK INFRASTRUCTURE

30i

STAGE

10 Gigabit

Amplifier rack

NDI Camera

++

LUMINODE

30i

OB VAN

10 Gigabit

Audio mixing
console

Intercom

30i

FOH

10 Gigabit

FOH
Audio console

Lighting console

Video playback

Storage

VLAN ID

⎯⎯	10 Gigabit fiber	⎯⎯	Light | sACN
⎯⎯	Audio | Dante, AES67	● ● ●	DMX
⎯⎯	Video | NDI	++	PoE++

3. TECHNICAL SPECIFICATIONS
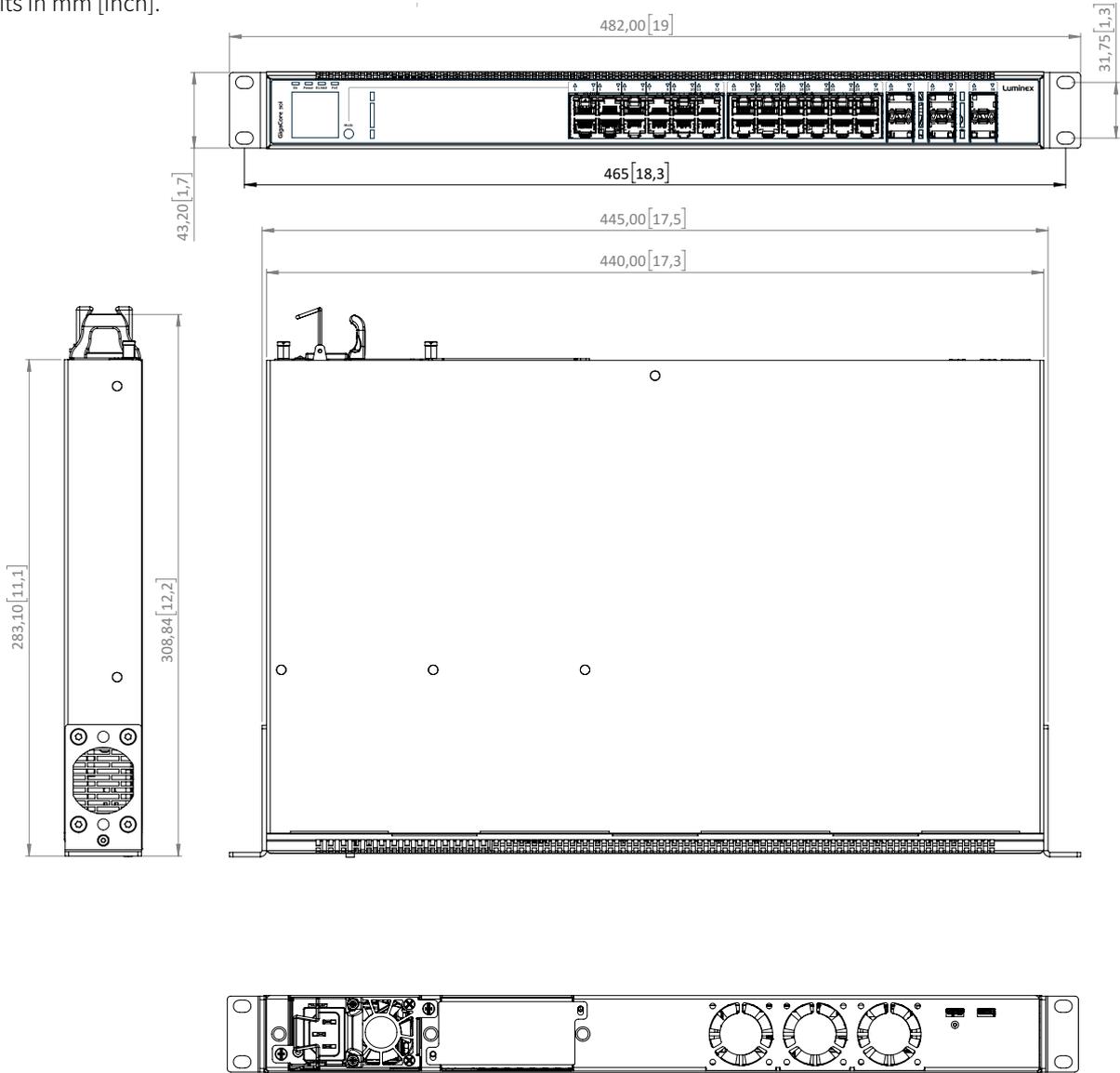
MECHANICAL	
Enclosure	Robust all metal housing
Dimensions (WxDxH)	482x283,1x43,2 mm (482x308,8x43,2 mm with inserted PSU) | 19x11,14x1,7 inch (19x12,15x1,7 inch with inserted PSU)
Material thickness	2 mm
Mounting type	Rack mount
Weight (no PSU inserted)	3,92 kg
Weight PSU	0,78 kg (550W) / 0,64 kg (100W)
Packaging dimensions	545 x 335 x 125 mm
Packaged weight	5,86kg (1x100WPSU), 6,5kg (2x100WPSU), 6Kg (1x550WPSU), 6,78kg (2x550WPSU)
CONNECTIVITY	
Network	6x 10 Gbps / 1 Gbps SFP+ cages on front panel, independent from other ports 24x Gigabit (10/100/1000 BASE-T) copper RJ45 on front panel
Serial	1x USB C
Extension	1x LED extension port
Power	IEC (C14) 1x for each inserted power supply (max 2)
Backup power	IEC (C14) 1x for each inserted power supply (max 2)
Backup PoE	IEC (C14) 1x for each inserted power supply (max 2)
TEMPERATURE MANAGEMENT	
Intelligent control	Yes
Number of fans	3x + 1x for each inserted power supply (max 5 fans)
Position of fans	Rear panel
Airflow direction	Front to rear
USER INTERFACE	
Device status	RGB LED • Device • Power • PoE supply
Dynamic labeling	E-ink Display
Fiber port status	2x RGB LED Port Speed/Activity Port Status • Group indication
RJ45 port status	2x RGB LED Port Speed/Activity Port Status • Group indication • PoE
FIBER PORT SPECIFICATIONS	
Port speed	10G BASE-X or 1000 BASE-X
Port sensing	Fixed speed
CU PORT SPECIFICATIONS	
Port speed	10/100/1000 BASE-T
Port sensing	Auto Negotiation
Auto crossover	MDI/MDIX (allows use of straight or cross wired cable)
Auto sensing	Full or Half Duplex (Gigabit is Full Duplex)

POWER OVER ETHERNET	
Standards	802.3af
	802.3at
	802.3bt
PoE Ports	802.3af, 802.3at, 802.3bt
	On ports 1-24
Total PoE power budget	500 W (1x slide in PSU)
	1000 W (2x slide in PSU)
LLDP Support	Yes
Power allocation	User configurable:
	• Priority per port
	• Consumption vs Class/LLDP based
Power limit	• Total power budget firmware limit – port shutdown at overload based on port priority
	• Per port hardware and firmware power limits based on classification – port shutdown at overload

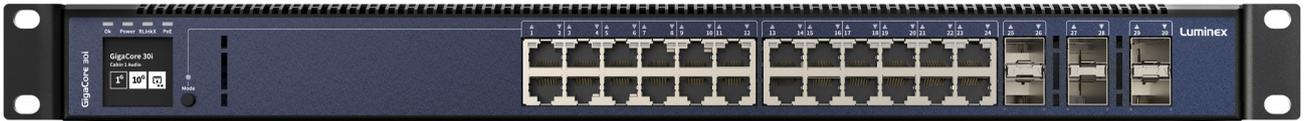| SWITCH FEATURES	
Boot time	45 s
Redundant links	Yes
Group function	Yes
Ethernet compliance	IEEE 802.2
	IEEE 802.3
	IEEE 802.3u
	IEEE 802.3x Flow Control
	IEEE 802.3ab Gigabit Ethernet
	IEEE 802.3af PoE(optional)
	IEEE 802.3at PoE+(optional)
	IEEE 802.3bt PoE++ 90W(optional)
	IEEE 802.1p CoS
	IEEE 802.1d Spanning Tree
	IEEE 802.1w Rapid Spanning Tree
	IEEE 802.1s Multiple Spanning Tree
	IEEE 802.1Q VLAN
	IEEE 802.1ab LLDP
	IEEE 1588-2008 PTPv2
Jumbo frames	Yes, supported up to 12000 MTU (with restrictions when using AVB)
Supported protocols	Avnu AVB/Milan (Available in future FW update)
	Dante
	RAVENNA/AES67
	Ethersound
	Q-SYS/Q-LAN
	sACN
	ArtNet
	MANet
	HogNet
	RTTrPL (BlackTrax)
	…
Audio protocol compliance	Yes, low jitter and hardware timestamping (IEEE 1588-2008)
Ethernet switch type	Full non- blocking wire-speed switching performance
Memory	Flash 1 Gb RAM – 8 Mb NOR flash 4 Gb EMMC storage
Mac Address table	16384 entries
Address learning / aging	Self learning, Auto aging
Switching throughput	168 Gbps (10Gbps versions)
IGMP Querrier	Yes (V1|V2) (V3 compatible)
IGMP Snooping	Yes, enabled by default (V1|V2|V3)

MANAGEMENT	
Configuration	Built-in WebUI
Network wide configuration	Yes, with Araneo software
Firmware upgrades	Via WebUI or network wide with Araneo - Contingency option with second FW file stored
POWER	
Power input	100-240 VAC
Backup power	Yes with 2nd slide in PSU
Backup PoE	Yes with 2nd slide in PSU 550W
Power consumption	Max 50W - Max 1050W (Depending on PoE and PSU configuration)
ENVIRONMENTAL	
Operating temperature	0 to +50 °C
Storage temperature	-10 to +70 °C
Humidity (non condensing)	5 to 95% RH
APPROVALS	
Electromagnetic emissions and immunity	FCC Part 15 CFR 47 class A
	CAN/ICES-003
	EN 61000
	EN 55032
	EN 55024
Safety	IEC 62368-1
	EN 62368-1
	UL 62368-1
	CAN/CSA-C22.2 No. 62368-1
Certificates and approvals	cSGSus Mark (UL)
	CE Mark
	UKCA Mark
	CB Certificate
Green	RoHS
	REACH

GigaCore 30i - 10G

Units in mm [inch].

482,00 [19]

31,75 [1,3]

465 [18,3]

43,20 [1,7]

445,00 [17,5]

440,00 [17,3]

283,10 [11,1]

308,84 [12,2]

GigaCore 30i - 10G

PSU GigaCore 30i - range