

# PRODUCT SPECIFICATIONS

**GigaCore<sup>30i</sup>**

## 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 reduces 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.

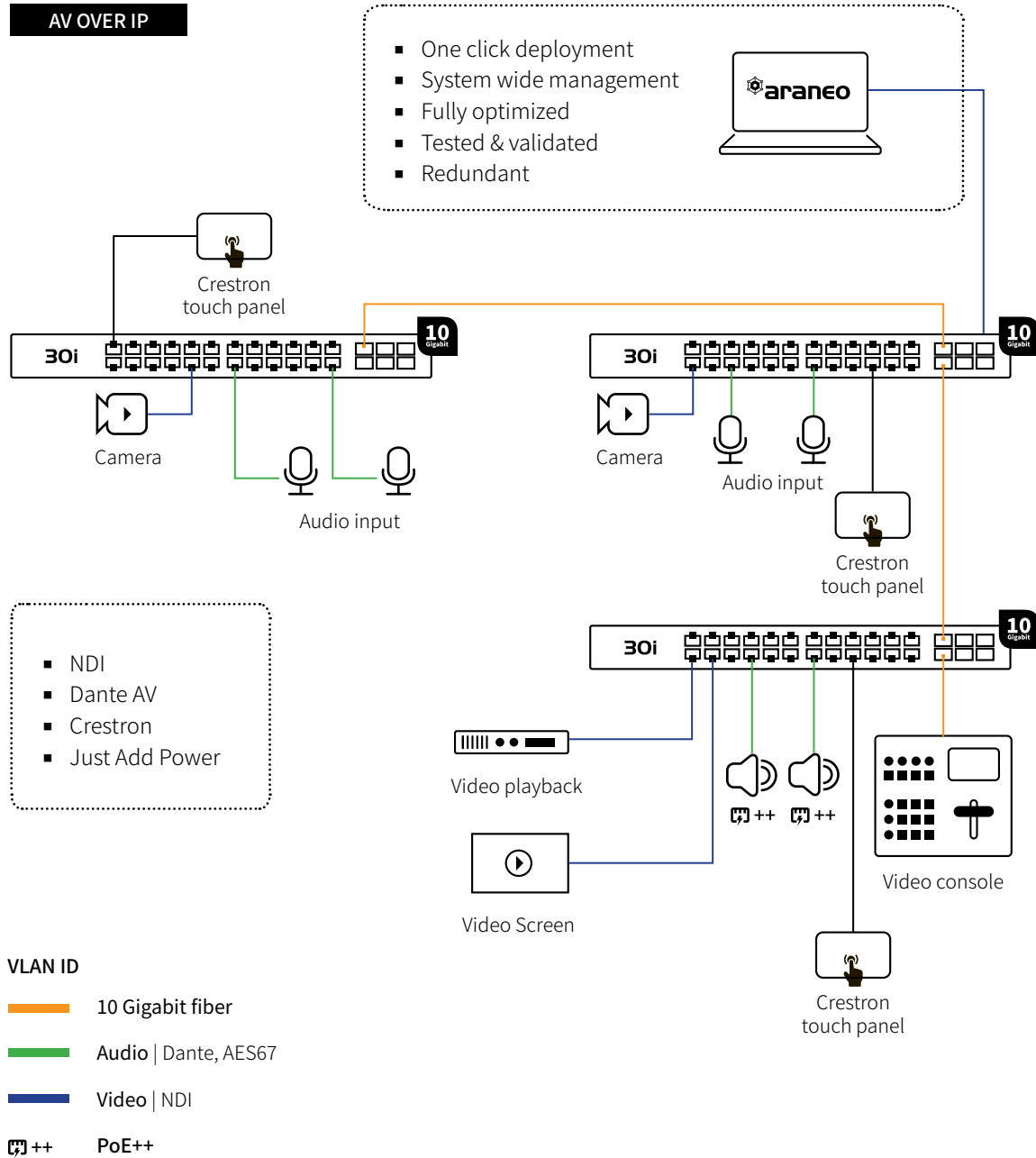
#### Applications:

- 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

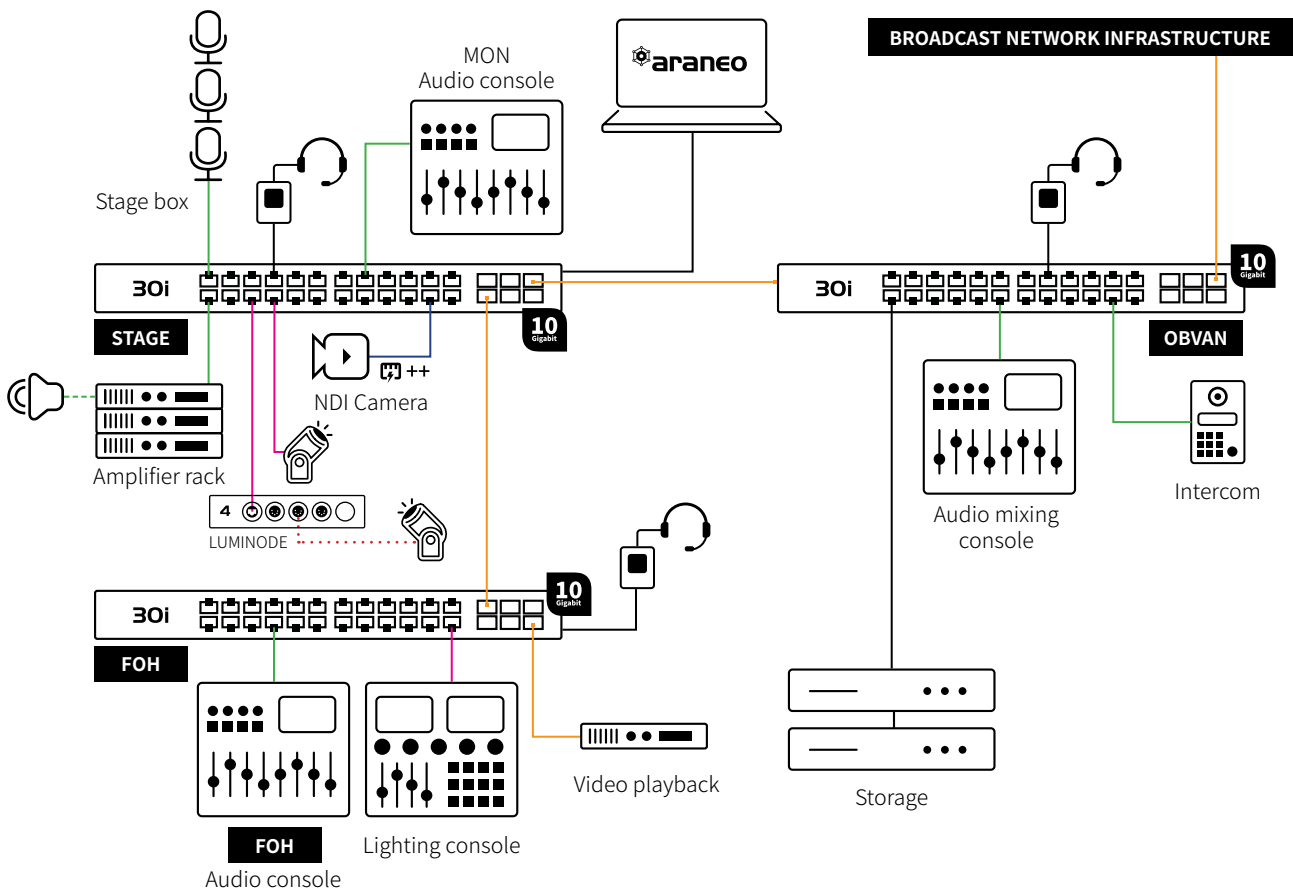
Product name:	Part numbers:
GigaCore 30i - 24x1G - 6x10G(SFP+)	LU 01 00077-10-1S1
GigaCore 30i - 24x1G - 6x10G(SFP+) - 2nd PSU 100W	LU 01 00077-10-2S1
GigaCore 30i - 24x1G - 6x10G(SFP+) - PoE++	LU 01 00077-10P-1S5
GigaCore 30i - 24x1G - 6x10G(SFP+) - PoE++ - 2nd PSU 500W	LU 01 00077-10P-2S5
100W PSU GigaCore	LU 70 00639
500W PSU GigaCore	LU 70 00640

## 2. APPLICATION DIAGRAMS



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### CONVERGED



#### VLAN ID

- |   |  |
|---|--|
| <span style="color: orange;">—</span> 10 Gigabit fiber    | <span style="color: pink;">—</span> Light   sACN |
| <span style="color: green;">—</span> Audio   Dante, AES67 | <span style="color: red;">•••</span> DMX         |
| <span style="color: blue;">—</span> Video   NDI           | <span style="color: blue;">⏏ ++</span> PoE++     |

### 3. TECHNICAL SPECIFICATIONS

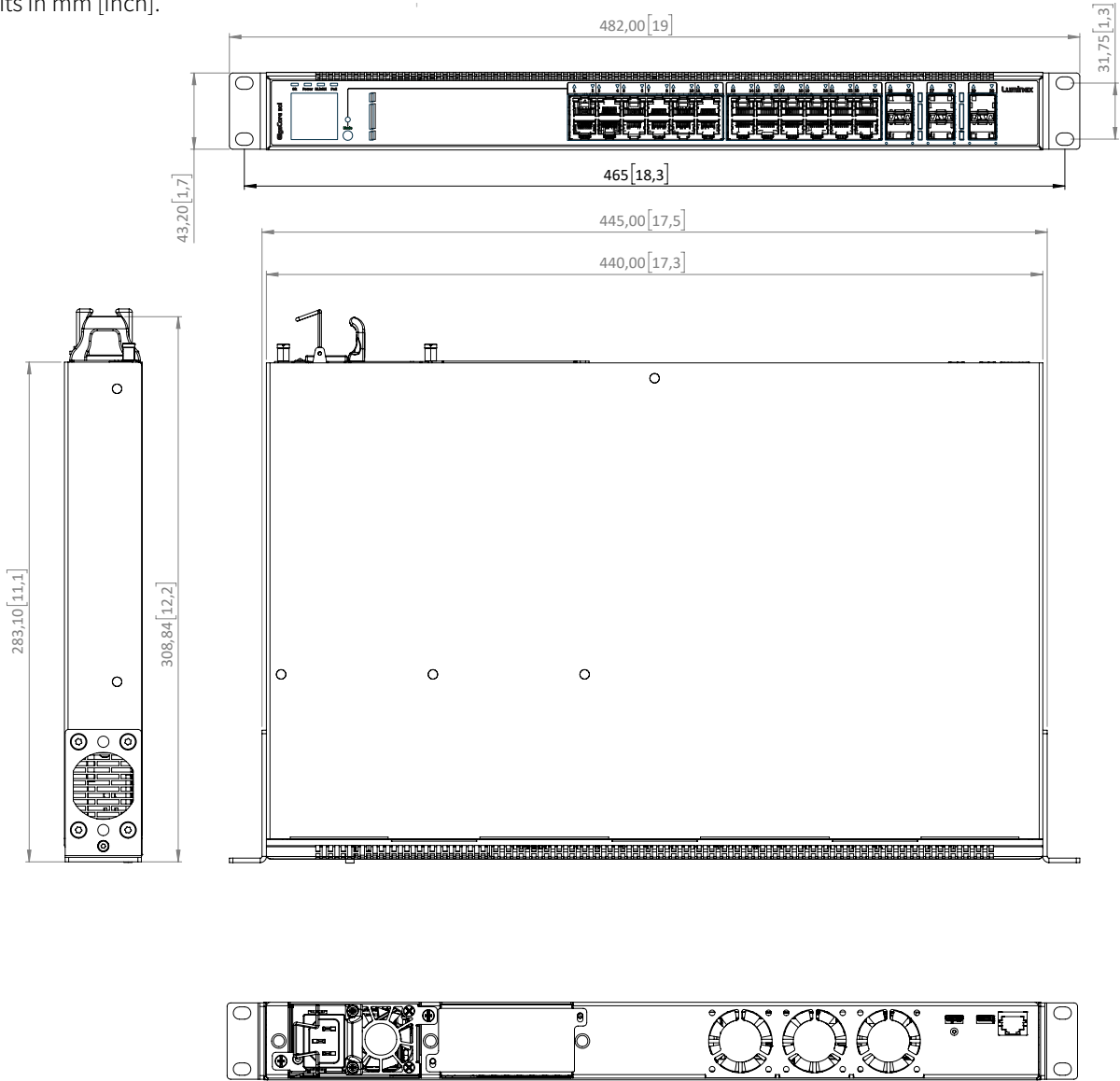
<b>MECHANICAL</b>		<b>GigaCore 30i</b>
Enclosure	Robust all metal housing	
Dimensions (WxDxH)	482x283,1x43,2 mm (482x308,8x43,2 mm with inserted PSU)   19x11,14x1,7 inch (19x12,15x1,7 inch with inserted PSU)	
Material thickness	2 mm	
Mounting type	Rack mount	
Weight (no PSU inserted)	3920 g	
Weight PSU	800 g	
Packaging dimensions	545 x 335 x 125 mm	
Packaged weight	5,9 kg	
<b>CONNECTIVITY</b>		
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 1x for each inserted power supply (max 2)	
Backup power	IEC 1x for each inserted power supply (max 2)	
Backup PoE	IEC 1x for each inserted power supply (max 2)	
<b>TEMPERATURE MANAGEMENT</b>		
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	
<b>USER INTERFACE</b>		
Device status	4x RGB LED • Device • Power • PoE supply • Redundant links (RlinkX)™	
Dynamic labeling	E-ink Display	
Fiber port status	2x RGB LED Port Speed/Activity Port Status • Group indication • Redundant Link • Link Agregation	
Cu port status	2x RGB LED Port Speed/Activity Port Status • Group indication • PoE • Redundant Link • Link Agregation	
<b>FIBER PORT SPECIFICATIONS</b>		
Port speed	10G BASE-X or 1000 BASE-X	
Port sensing	Fixed speed	
<b>CU PORT SPECIFICATIONS</b>		
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: <ul style="list-style-type: none"> <li>• Priority per port</li> <li>• Consumption vs Class/LLDP based</li> </ul>
Power limit	<ul style="list-style-type: none"> <li>• Total power budget firmware limit – port shutdown at overload based on port priority</li> <li>• Per port hardware and firmware power limits based on classification – port shutdown at overload</li> </ul>
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 IEEE 802.3at PoE+ IEEE 802.3bt PoE++ 90W 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 802.1ad LACP IEEE 802.1ab LLDP IEEE 1588-2008 PtPv2 IEEE 802.1 BA-2011 IEEE 802.1 Q-2011 IEEE 802.1 AS-2011
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 REAC 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 Adress table	16384 entries
Adress learning / aging	Self learning, Auto aging
Switching troughput	168 Gbps
IGMP Querrier	Yes (V1 V2)
IGMP Snooping	Yes, enabled by default (V1 V2 V3)

<b>MANAGEMENT</b>	
Configuration	Built-in webUI (easy/advanced)
Network wide configuration	Yes, with Araneo software
Firmware upgrades	Via WebUI or Network Wide with Araneo - Contingency option with second FW file stored
<b>POWER</b>	
Power input	100-240 VAC
Backup power	Yes with slide in PSU
Backup PoE	Yes with slide in PSU
<b>ENVIRONMENTAL</b>	
Operating temperature	0 to +50 °C
Storage temperature	-10 to +70 °C
<b>APPROVALS</b>	
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**

Units in mm [inch].





**GigaCore 30i**



**PSU GigaCore 30i**

