# Dome
# Technical rider

# Introduction

The Satosphere is a 210-degree immersive projection dome.

The audio system consists of 93 high-frequency speakers and 10 low-frequency subwoofers using the DANTE protocol and can be matrixed according to the event's diffusion needs.

It can accommodate a crowd of approximately 130 seated or 500 standing individuals.

The area outside the dome is called the foyer, where furniture, lighting, projectors, televisions, and speakers can be installed.

To be validated on a case-by-case basis with the technical director.

# Audio

The Satosphere is equipped with a 93.5–channel independent audio system.

Spatialization tools can distribute both stereo tracks and more complex spatialization algorithms.

The system uses the DANTE protocol, and the signal is processed by a Q–SYS DSP optimized for the space.

Whether for playback or live performances, it is possible to adapt to the needs and creative tools of the artists.

Several pieces of equipment can also be added inside the dome or in the foyer for speeches or multimedia installations.

Please refer to the equipment list and validate your projects with the technical director and the audio immersion manager.

# Audio

## Sound system

| DESCRIPTION | MANUFACTURER | MODEL | QUANTITY |
|---|---|---|---|
| Full Range 2-way Speakers | Meyer Sound | "ULTRA-X23-XP | 5 |
| Full Range 2-way Speakers | Meyer Sound | ULTRA-X20-XP | 24 |
| Full Range 1-way Speakers | Meyer Sound | MM4-XP | 64 |
| 8 channels MM4 PSU | Meyer Sound | MPS-488HPe | 8 |
| Main LFE | Meyer Sound | 900 LFC | 6 |
| Quad LFE | Meyer Sound | 600 HP | 4 |
| Mixing Console | Yamaha | QL-1 | 1 |
| Audio Processor | QSC | Q-SYS Core 510i | 1 |
| Digital Audio Matrix | NTP Technology | DAD Core 256 | 1 |
| 32 Channels Digital Audio Converter | Tascam | ML-32D | 1 |
| 16 Channels Digital Audio Converters | Tascam | ML-16D | 6 |
| Extra PA Speakers (active) | Meyer Sound | ULTRA-X40-XP | 2 |
| Extra Full Range Speakers | Nexo | PS10 | 4 |
| Extra Speakers Amplifier | Nexo | NXAMP4X1 | 1 |

# Video

The Satosphere is equipped with 8 Christie 4K projectors at 34,000 lumens covering 210 degrees.

Video servers can stream 4K by 4K files or acquire signals via SDI or NDI with their 10G network card.
Two performance servers with Resolume Arena and

TouchDesigner software are also available for VJs and artists.

3D stage rendering through Unreal Engine or Unity is possible with NDI plugins.

The servers are also connected via DANTE for synchronization and audio reactivity.

Please discuss the possibilities with the technical director and the video immersion manager for all details.

# Video

## Projection System

| DESCRIPTION | MANUFACTURER | MODEL | QUANTITY |
|---|---|---|---|
| 34 000 lumens laser 3 DLP RGB 4K native Projector | Christie | Gryffin 4K32-RGB | 8 |
| Multimedia Server | VYV | Photon V11 | 1 |
| DP – Fiber Converter | Christie | Christie Link | 8 |
| Network KVM | Black Box | Emerald 4K | 8 |
| USB 3.1 over CAT-x Extender | Black Box | ICU504A | 1 |
| MIDI Controllers | Korg | NanoKontrol 2 | 2 |
| HDMI to NDI Converter | NewTek | Spark Plus 4K | 1 |
| | | | |

## Video Servers

| VIDEO SERVER 1 | | | |
|---|---|---|---|
| RAM 64 Gb DDR5 (2x32 – Total 128 Gb) | Kingston | | 2 |
| GPU 48 Gb | PNY Technologies | NVIDIA RTX A6000 | 1 |
| OS Windows 11 | Microsoft | Windows 11 | 1 |
| 10G Network Interface | Asus | XG-C100C | 1 |
| Resolume Arena | Resolume | 7.13.2 | 1 |
| TouchDesigner | Derivative | 2022 Pro | 1 |

| VIDEO SERVER 2 | | | |
|---|---|---|---|
| CPU i9-13900k | Intel | LGA1700 | 1 |
| RAM 64 Gb DDR5 (2x32 - Total 128 Gb) | Kingston | | 2 |
| GPU 24 Gb | PNY Technologies | NVidia RTX A5500 | 1 |
| OS Windows 11 | Microsoft | Windows 11 | 1 |
| 10G Network Interface | Asus | XG-C100C | 1 |
| Resolume Arena | Resolume | 7.13.2 | 1 |

## Distribution

| DISTRIBUTION | | | |
|---|---|---|---|
| SDI Clock | Ross | SRG-2200 | 1 |
| Digital Amplifier | AJA | C10DA | 1 |
| SDI Matrix | AJA | Kumo 1616 | 1 |
| HDMI to 12G SDI Converters | AJA | HA5-12G | 4 |

# Lx and infra

## Lightning

| DESCRIPTION | MANUFACTURER | MODEL | QUANTITY |
|---|---|---|---|
| Fixed LED Bars | | | 48 |
| Opto-splitter | Chauvet | Data Stream 4 | 1 |

## Networking

| DESCRIPTION | MANUFACTURER | MODEL | QUANTITY |
|---|---|---|---|
| 52 ports Network Switch | Netgear | M4300-52G | 1 |
| 48 ports Network Switch | Netgear | M4300-48X | 1 |
| 24 ports Network Switch | Netgear | M4300-28G-POE+ | 2 |
| 10 ports Network Swich | Pathport | VIA10 | 2 |
| KVM Manager Unit | Black Box | KVM Manager | 1 |

## Power Units

| DESCRIPTION | MANUFACTURER | MODEL | QUANTITY |
|---|---|---|---|
| Power Supply and Battery | APC | Smart-UPS 5000 | 3 |

# Thanks!

## Contacts

### ALEXANDRE AUCHÉ

**Directeur de la programmation**
Directeur of booking

**aauche@sat.qc.ca**

### JULIEN LANTHIER

**Directeur technique**
Technical director

**jlanthier@sat.qc.ca**