

FRANKCAS X2 Server Appliance

1U Rackmount On-Premises Controller — Lighting, Energy & Air Quality

PART NO.
FC-X2-SRV-1U

FORM FACTOR
1U 19" Rackmount

DEPLOYMENT
On-premises / edge

The FRANKCAS X2 Server Appliance is the hardware that runs the X2 platform on site. It is a fanless 1U rackmount controller that sits in the comms room, talks to your Casambi gateways over the local network, and keeps lighting control, energy metering, indoor air quality and emergency lighting compliance running whether or not the building has an internet connection.

Because it is on-premises, control and historical data stay inside the building. Four Gigabit Ethernet ports and two SFP fibre cages let it be placed on a segregated services VLAN, bridged to the BMS network, and linked over fibre between plant rooms — without routing lighting traffic through the corporate LAN.



FC-X2-SRV-1U front panel — console · USB 3.0 · ETH0-ETH3 Gigabit · SFP1-SFP2 fibre · power and HDD indicators

1U RACKMOUNT

FANLESS

4 × GIGABIT LAN

2 × SFP FIBRE

4 × sceneCOM

ON-PREMISES

RUNS WITHOUT THE CLOUD: Scenes, schedules, circadian curves, sensor logic and emergency test scheduling all execute on the appliance. If the internet drops, the building carries on behaving exactly as commissioned — and the data recorded during the outage is still there when the link returns.

KEY FEATURES & BENEFITS

- Runs the complete FRANKCAS X2 platform on site
- Fanless, no moving parts except the SSD — silent and low maintenance
- 4 × Gigabit Ethernet for network segregation and BMS bridging
- 2 × SFP cages for fibre links between plant rooms or buildings
- Operates fully offline — no cloud dependency for control
- Serves the X2 web interface to any browser on the network
- 4 sceneCOM controllers direct-attached, up to 10 via a switch
- Local historian retains energy, air quality and test records
- Supports up to 10 Casambi gateways and around 2,500 devices
- REST API and MQTT northbound to BMS, cloud or dashboards
- Console port and remote access for support without a site visit

SYSTEM SPECIFICATION

COMPUTE

Processor	Intel Core i5, quad core
Memory	16 GB DDR4 (32 GB option)
Storage	512 GB NVMe SSD (1 TB option)
Operating system	Linux, hardened FRANKCAS build
Application	FRANKCAS X2 v2.0, pre-installed

FRONT I/O

Ethernet	4 × 10/100/1000 Mbps RJ45 (ETH0-ETH3)
Fibre	2 × SFP cages (1 Gbps)
Console	1 × RJ45 serial console
USB	USB 3.0 Type-A
Indicators	Power, HDD activity, GPIO status

X2 PLATFORM MODULES INCLUDED

- Overview / command centre
- Scenes
- Floor Plan
- Compliance
- Circadian
- Commissioning
- Groups
- Emergency lighting
- Analytics
- Maintenance
- Devices
- Sensors
- Air Quality
- Schedules
- Settings



TRIDONIC SCENECOM INTEGRATION

The four Gigabit ports let four Tridonic sceneCOM application controllers be connected directly to the appliance, one per port, with no additional network hardware. Up to ten sceneCOM controllers are supported in total by adding a managed switch.

SCOPE OF THE sceneCOM LINK:

sceneCOM is used for DALI emergency lighting monitoring and air quality data only. All lighting control — scenes, groups, dimming, schedules and circadian — remains on the Casambi network.

SCENECOM CONNECTIVITY

Direct-attached	4 × sceneCOM, one per Gigabit port
Maximum supported	10 × sceneCOM via managed switch
Connection	Ethernet RJ45, sceneCOM web interface

DATA COLLECTED

Emergency lighting	Test schedules and per-fitting results (IEC 62034)
Air quality	IEQ sensor data via DALI part 306
Not used for	Lighting control (stays on Casambi)

CAPACITY & PERFORMANCE

Casambi gateways	Up to 10 — lighting control
Tridonic sceneCOM	4 direct-attached · up to 10 via managed switch — emergency and air quality only
Connected devices	Up to approximately 2,500 (10 networks × 250 nodes)
Sites / buildings	Multi-site from a single appliance
Concurrent users	Unlimited on the local network; role-based access control
Data retention	Configurable; typically 24 months on the standard 512 GB build
Client access	Any modern browser — desktop, tablet, or FC-SCTP-10-B touch panel
Northbound integration	REST API, MQTT, BACnet/IP (via gateway)
Sizing note	Larger estates supported by additional appliances or the 32 GB / 1 TB build

PHYSICAL & ENVIRONMENTAL

MECHANICAL

Form factor	1U 19" rackmount, rack ears fitted
Cooling	Fanless convection
Construction	Steel chassis, black finish
Mounting	Standard 19" rack or cabinet shelf
Protection	IP20 — indoor comms room use

POWER & ENVIRONMENT

Input voltage	100-240 V AC, 50/60 Hz
Power supply	External PSU, 12 V DC
Operating temp.	0 ... +40 °C
Storage temp.	-20 ... +60 °C
Humidity	5 ... 90 % non-condensing

COMPLIANCE, WARRANTY & SUPPORT

STANDARDS

Approvals	CE, UKCA, RoHS, WEEE
Safety	EN 62368-1
EMC	EN 55032 / EN 55035

WARRANTY & SUPPORT

Hardware warranty	3 years return to base
Software	X2 licence and updates per agreement
Support	Remote diagnostics, firmware updates

ORDERING INFORMATION

FC-X2-SRV-1U	X2 Server Appliance — i5 / 16 GB / 512 GB SSD — standard build
FC-X2-SRV-1U-XL	X2 Server Appliance — i7 / 32 GB / 1 TB SSD — large estate build
FC-X2-LIC-ENT	X2 Enterprise software licence (per appliance, annual)
CGW-001-PSU	Casambi Cloud Gateway — one required per Casambi network
28003778	Tridonic sceneCOM evo DA2 — emergency test scheduling and DALI sensing
FC-SCTP-10-B	10.1" wall-mounted Android touch panel — optional front end

SPECIFYING X2

Every X2 installation is sized against the Casambi network count, the sceneCOM count and the data retention required. Send a floor plan or fixture schedule and we will return an appliance specification, a gateway and sceneCOM count, and a commissioning plan. Contact sales@frankcas.co.uk.