



iCan System®

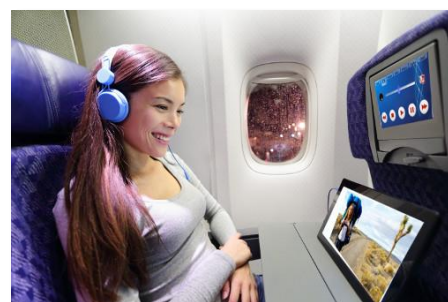


iCan System® is a powerful and modular architecture, associated with a line of customizable equipment for In-Flight Entertainment and Cabin Management Systems for aircrafts and helicopters.

iCan System® has been developed using our own funds, and is now deployed by manufacturers and OEMs on various aerospace programs all around the World.

Oxytronic iCan System® In-Flight Entertainment allows to:

- display real-time flight information through our iCan Moving-Map equipment : position and direction of the aircraft, altitude, outside temperature, distance from destination point, local time... and enjoy a real-time 3D color map,
- have a private conversation with the pilot through our wireless noise-cancellation iCan Phone equipment,
- stay connected using the aircraft Satcom and our iCan Com module,
- listen to your favorite opera on your iPod in an amazing audio comfort, thanks to our wireless Active Noise Reduction iCan Headset,
- watch Video-On-Demand on our iCan Screen HD color displays, and share these moments with other passengers thanks to our multiple-displays broadcasting equipment,



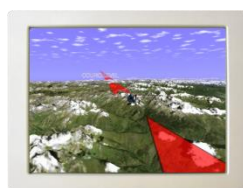
... and many other functionalities, developed according to Client's specifications, for an unmatched aircraft connectivity.



But also, because our **iCan System® for Cabin Management** focuses on improving passengers' experience, users can:

- control all multimedia volumes,
- control cabin temperature,
- control light dimming,
- control windows shading and Up&Down of the cockpit/cabin separation window (helicopter version),
- manage intercommunications and audio/video broadcasting,

... all by using our iCan Touch color displays and our user-friendly application software, developed according to the Client's specifications.



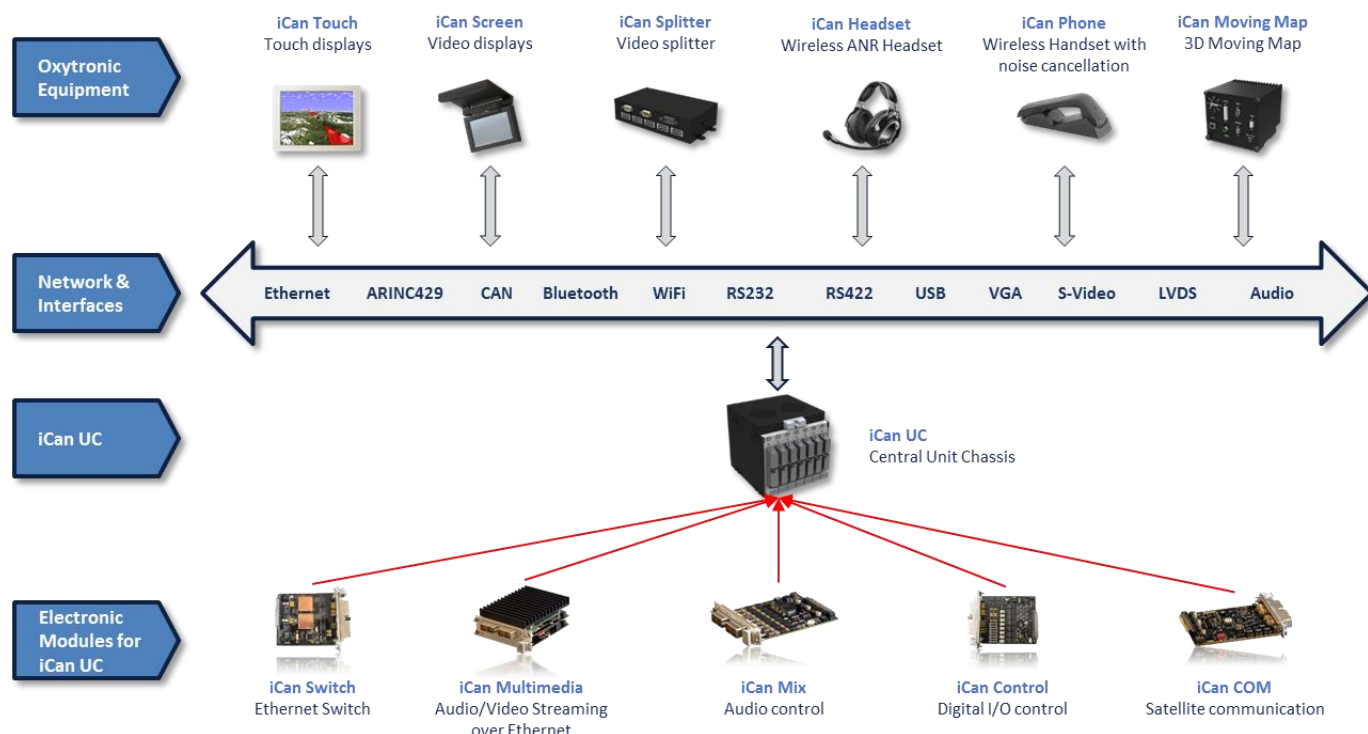
More information:

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iCan System® Architecture and Equipment



Oxytronic Equipment



iCan Touch

A set of ruggedized multipurpose LCD touch displays* for monitoring or controlling peripherals in the aircraft.



iCan Screen

HD displays* specially designed for viewing multimedia contents in the aircraft.



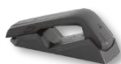
iCan Splitter

Equipment splitting 1 video analog input through 10 LVDS channels



iCan Headset

Wireless ANR (Active Noise Reduction) headset.



iCan Phone

Wireless handset with noise cancellation system.



iCan MovingMap

High resolution geolocalization 3D system.

Modules for iCan UC



iCan UC

The main chassis controlling all iCan System operations through specialized electronic modules.



iCan Multimedia

This module streams multimedia content over the Ethernet network through several synchronized video displays.



iCan Switch

16 channels Ethernet switch.



iCan Mix

Multiple audio channels control (volume, mute...) with priority management.



iCan Control

Digital I/O control (lights, temperature, relays...).



iCan COM

Communication with multiple interfaces (SATCOM, ARINC, CAN, RS...).

* Our displays are available in several formats and technologies.

Design Services - Building your own IFE/CMS

Starting from the Client specifications, we:

- define which architecture, Oxytronic modules and equipment are best-suitable
- bring necessary modifications (hardware, software, mechanical) to our products
- develop the software application to build your full IFE/CMS
- integrate, qualify and manufacture the system.



Oxytronic Added-Value

Reducing costs and time-to-market:

- all our modules and equipment are standard products, certified and already installed in various programs
- only adaptations and application software are provided as design services
- all our modules and equipment are designed and manufactured internally in Aubagne.

Easy integration in any aircraft and helicopter:

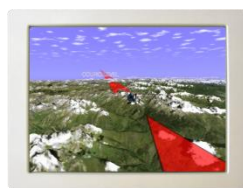
- iCan System® is a modular and flexible architecture providing most widely spread communication protocols, video and audio standards in aircrafts and helicopters
- iCan System® can be easily integrated with the aircraft on-board network thanks to the iCan Com module.

Oxytronic Markets

- VIP Helicopters, Business Jets and specific equipment for Commercial Aircrafts.
- Military Vehicles and Boats
- Private Yachts

Oxytronic References

- | | |
|-------------|------------|
| ▪ H175 VIP | ▪ A320 VIP |
| ▪ H225 | ▪ B737 |
| ▪ AS365 VIP | ▪ A320 |



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iCan UC V2

iCan Central Unit



Hardware:

The **iCan UC V2** is the Central Unit of our iCan System® containing Oxytronic iCan modules: iCan Mix, iCan Control, iCan Com, iCan Multimedia, iCan Switch.

iCan UC offers the possibility to rack up to 8 modules. All modules are linked in the unit by the CAN bus and/or Gigabit Ethernet.

Oxytronic can design specific modules according to customer specifications.

Software:

The **iCan UC V2** also contains the application software that runs on a Nvidia Tegra2 processor and acts as the true conductor of the whole iCan architecture. Application software is developed by Oxytronic according to customer's functional specifications.



Technical specifications

Power Supply:	12 VDC to 32 VDC
Power consumption:	20 W Max. without cards
Operational Temp. Range:	-40°C / +85°C
Connector:	Amphenol SIM 2 modules (20 pts and 8 pts)
Module spaces:	8
Qualification	RTCA DO-160F
Note:	Active cooling with fans

Interfaces

1 x external Ethernet 10/100 BaseT
 1 x internal Gigabit Ethernet
 1 x internal CAN bus 2.0 for communication with cards with integrated 120 Ω termination
 4 pin programming (for software configuration)

Physical specifications

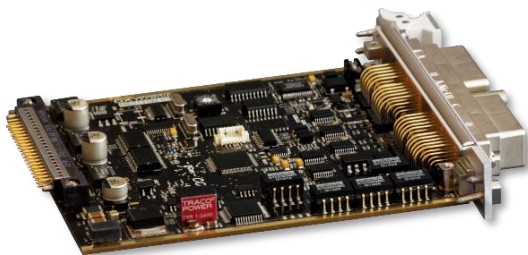
Size (L x H x D mm):	223.7 x 192.7 x 157
Weight (kg):	2.1 (without modules)

More information



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iCan Com

Multi-Protocol Communication Module



The **iCan Com** module is an interface card between the iCan System® and the outside. This card integrates various communication ports and protocols to ensure maximum compatibility with external devices such as a SATCOM Tip & Ring, an Apple iDevice or the ARINC429 of the aircraft.

A specific software can be loaded into the **iCan Com** module to be fully compliant with your special functional requirements.



Technical Specifications

Power Supply:	12 VDC to 32 VDC
Power consumption:	8 W Max.
Operational Temp. Range:	-45°C / +70°C
Connectors:	4 Amphenol modules SIM 20 pts
Data Loading:	Bootloader via the CAN bus
Qualification:	RTCA DO-160F

Interfaces

- 1 x external CAN bus
- 1 x internal CAN bus 2.0 for communication with iCan UC
- 1 x RS485
- 2 x RS422
- 1 x ARINC 429
- 1 x RS232
- 3 x discrete inputs and 1 discrete output GND/OC
- 5V output for personal device power supply
- Satcom Interface :
 - 1 x audio input & output
 - 1 x SPDIF input & output
 - 1 x Tip&Ring with DTMF generator for dialing

Physical specifications

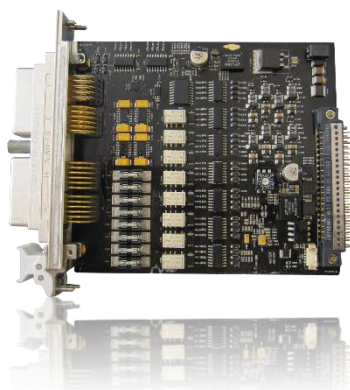
Size (L x H x D mm):	153.9 x 128.5 x 19.9
Weight (g):	180

More information

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iCan Control

Digital I/O Module



The **iCan Control** card is for CMS (Cabin Management System) and allows to control external peripherals to the iCan architecture with the CAN bus.

iCan Control is able to control all the hardware aspects of the comfort management or logic control of external systems.

Examples:

- Buttons are connected to discrete inputs
- Lightings are connected to PWM
- Electric seat can be controlled through the relays
- Air conditioning can be controlled via the digital voltage source



Technical Specifications

Power Supply:	12 VDC to 32 VDC
Power consumption:	8.4 W Max.
Operational Temp. Range:	-40°C / +85°C
Connector:	Amphenol 4 modules (3x SIM 30 pts + 1x SIM 20 pts)
Data Loading:	Bootloader via the CAN bus
Qualification:	RTCA DO-160F

Interfaces

1 x internal CAN bus for iCan UC communication
 8 x relays (2A per contact)
 4 x Digitally controlled voltage outputs 0-5V (2mA)
 8 x PWM outputs type GND/OC up to 2A
 17 x opto-isolated digital inputs type GND/OC
 2 x opto-isolated digital outputs

Physical specifications

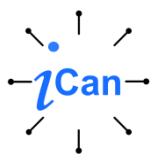
Size (L x H x D mm):	153.9 x 128.5 x 19.9
Weight (g):	195

More information



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iCan Mix

Audio Mixer Module



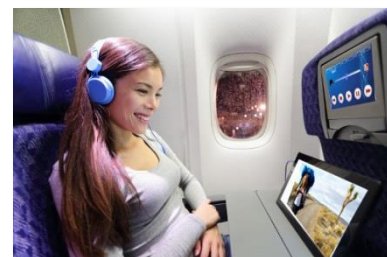
The **iCan Mix** module has 16 audio inputs and 16 audio outputs, entirely configurable via the CAN bus.

With this module you can route and mix any inputs to any outputs, set input volume, output volume, activate quiet function...

Microphones can be powered directly by the module.

Voice detection function is integrated in the card for each input.

Make your own interphony system!



Technical Specifications

Power Supply:	12 VDC to 32 VDC
Power consumption:	5.6W Max.
Operational Temp. Range:	-45°C / +85°C
Connector:	Amphenol 4 modules SIM 20 pts
Amplification / attenuation:	+/-30 dB per channel
Output impedance:	600 Ohms per channel
Data Loading:	Bootloader via the CAN bus
Qualification:	RTCA DO-160F

Interfaces

- 1 x internal CAN bus for iCan UC communication
- 1 x inter-mix bus (to connect two iCan Mix cards and extend capabilities)
- 7 x stereo audio inputs (or 14 mono inputs)
- 8 x stereo audio outputs (or 16 mono outputs)
- Up to 16 powered microphone inputs
- Up to 1 SPDIF OUT and 1 SPDIF IN

Physical specifications

Size (L x H x D mm) :	153.9 x 128.5 x 19.9
Weight (g):	180

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iCan Multimedia

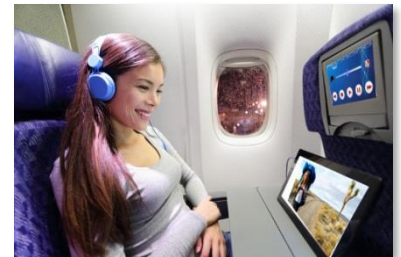
Multimedia Server Module



iCan Multimedia is a high quality media server that allows to stream videos and music. This device supports analog video sources (Composite and S-video signals inputs with its associated stereo analog audio) and streams the source on the Ethernet.

In addition, a SSD hard drive allows to store all your movies and music.

A dedicated software synchronizes audio and video for all displays connected to the **iCan Multimedia** (broadcast mode). VOD is also possible. The **iCan Multimedia** is compatible with all iCan displays.



Technical Specifications

Power Supply:	18 VDC to 32 VDC
Power consumption:	30W Max.
Operational Temp. Range:	-45°C / +85°C
Connector:	Amphenol 4 modules SIM 20 pts
Data Loading:	Via USB 2.0 and Ethernet
Processors:	Intel Atom + Nvidia Tegra 3
Storage:	SSD hard drive 256 Go
Qualification:	RTCA DO-160F
Note:	This card uses 2 slots in the iCan UC rack

Interfaces

4 x audio inputs
1 x audio output
4 x analog video inputs (3 Composite and 1 S-Video)
1 x VGA output
1 x USB port

Physical specifications

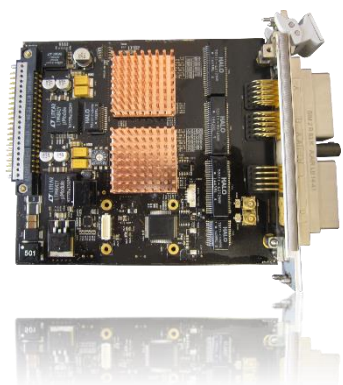
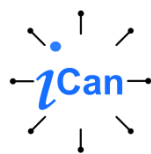
Size (L x H x D mm): 158.5 x 128.5 x 40.4
Weight (g): 760

More information



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iCan Switch

Ethernet Switch Module



The **iCan Switch** card allows extending Ethernet capability of the aircraft. Up to 14 Ethernet ports 10/100 Mbits are available and 1 WiFi access point. With this card you can connect your personal electronic device to the iCan System® in order to increase possibilities of interaction. Connect our iCan Displays and iCan Touch to have full benefit of our system.



Technical Specifications

Power Supply:	12 VDC to 32 VDC
Power consumption:	20W Max.
Operational Temp. Range:	-45°C / +85°C
Connector:	Amphenol 3 modules SIM 20 pts + 1 module SIM Quadrax
Data Loading:	Bootloader via the CAN bus
Qualification:	RTCA DO-160F

Interfaces

14 x Ethernet ports 10/100 Mbits/s
1 x WiFi access point 2,4 GHz (default) or 5 GHz
1 x internal Ethernet for iCan UC V2 (1 Gbit/s)
1 x internal CAN bus for iCan UC communication

Physical specifications

Size (L x H x D mm):	153.9 x 128.5 x 19.9
Weight (g):	250

More information



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