



**DRASS MULTIMEDIA SYSTEM** provides the safest and most advanced multimedia technology in the hyperbaric environment. The Commercial TV sets and computers are intended for use at sea level pressure.

When used inside a hyperbaric chamber, they have a short life expectancy and are subject to frequent failures. Such failures result in a high risk of environmental contamination for divers, being subject to toxic emissions and electrical hazards which pose a particular risk in a pressurized and confined space.

A sound safety policy should therefore not allow the use of equipment containing batteries, commercial capacitors and other specific components (such as commercial monitors, tablets, notebooks, personal music players and mobile phones) within the hyperbaric environment.

Drass Research & Development Team brings to the market a state of the art range of LED monitors with enhanced safety measures that ensure their compatibility and longevity within the hyperbaric environment. This superior technology allows the touchscreen monitors to withstand high pressure environments.

Drass Multimedia is an essential enhancement for a saturation chamber complex, being supplied with all internal and external ancillaries and required components, including hardware and software. It comes fully pre-configured and thus presents the end user with a customised turn-key solution.

Primarily, this multimedia system greatly increases the effectiveness of diving operations. As a collateral benefit, this multi-purpose device doubles up as an entertainment unit - providing downtime relaxation between working shifts.

For mission preparation, divers can watch live and recorded footage from their team on the job. This improves operation stage awareness and enables divers to share details and plan during pre-dive briefing and post-mission debriefing.

The diver or patient inside the hyperbaric chamber has the possibility to safely operate a virtual desktop whilst on the job or during relaxing downtime - connecting to the internet, watching movies, listening to music, and sending communications to the world at large via email and skype.

Private and Public Multimedia stations can be purchased:

- stand alone hyperbaric PC with 24 VDC power supply (only 2 wires required);
- web connected hyperbaric PC with 24 VDC power supply and Ethernet (3 shielded twisted pairs required);
- complete solution with Virtual Machines on each hyperbaric PC and external Multimedia server.



### PUBLIC MULTIMEDIA (iFUN PLUS)

Public Multimedia is intended as communal points for the divers to access multimedia content together, and these are commonly installed in living areas of saturation chambers and big TUPs, in a position offering best visibility. These "iFun Plus" monitors consist of 21.5 inch large touchscreens with ambient microphone and speakers.

The package is arranged to be installed in a diving chamber. The system is considered as Diver Personal Equipment so, although not required for the operability of the Diving Operations, it has to comply with DNV general requirements in terms of voltage and materials used within confined areas - and the electrical penetrators within the system are DNV certified (NV Product Certificate).

Drass range of products provides two lines of the hyperbaric monitor: Public Multimedia "iFun Plus" and Private Multimedia "iFun".

A dedicated Multimedia Server can be provided together with all ancillaries to connect all parts of the Multimedia System.

### TECHNICAL SPECIFICATION

<b>Power Supply</b>	18-36 Vdc
<b>Connector</b>	Neutrik MRM12
<b>OS</b>	Windows 7 Windows 8.1 Windows 10 Windows Embedded 7 Windows Embedded 8
<b>Color</b>	Black and Silver
<b>Dimension</b>	543 x 340 x 56 mm
<b>Weight</b>	6Kg
<b>Type of fixing</b>	VESA100
<b>Operating temperature</b>	0°C ~ +50°C
<b>Storage temperature</b>	-30°C ~ +70°C
<b>IP</b>	IP32
<b>Working pressure</b>	30bar
<b>Certification</b>	CE, RoHS UNI EN ISO 9001 2004/108/EC e 2006/95/ EC



### PRIVATE MULTIMEDIA (iFUN)

Private Multimedia, known as "iFun", are 10.4 inch handheld touchscreens equipped with a headset and individually assigned to each diver.

The package is arranged to be installed in a diving chamber. The system is considered as Diver Personal Equipment so, although not required for the operability of the Diving Operations, it has to comply with DNV general requirements in terms of voltage and materials used within confined areas - and the electrical penetrators within the system are DNV certified (NV Product Certificate).

Drass range of products provides two lines of the hyperbaric monitor: Public Multimedia "iFun Plus" and Private Multimedia "iFun".

A dedicated Multimedia Server can be provided together with all ancillaries to connect all parts of the Multimedia System.

### TECHNICAL SPECIFICATION

<b>Power Supply</b>	18-36 Vdc
<b>Connector</b>	Neutrik MRM12
<b>OS</b>	Windows 7 Windows 8.1 Windows 10 Windows Embedded 7 Windows Embedded 8
<b>Color</b>	Black and Silver
<b>Dimension</b>	293 x 252 x 46.5 mm
<b>Weight</b>	1.3 Kg
<b>Type of fixing</b>	N/A
<b>Operating temperature</b>	0°C ~ +50°C
<b>Storage temperature</b>	-30°C ~ +70°C
<b>IP</b>	IP55
<b>Working pressure</b>	30bar
<b>Certification</b>	CE, RoHS UNI EN ISO 9001 2004/108/EC e 2006/95/ EC





### MULTIMEDIA SERVER

Public and Private Multimedia stations can be connected to the outer area via a dedicated Ethernet link for each one. On the outer area all Ethernet links are then routed (using Ethernet Gbit switches) to a central Multimedia Server installed in Sat Room, capable to control up to a maximum of 30 Multimedia stations (24 Private plus 6 Public).

Each station is represented on the Multimedia Server by a dedicated VM (Virtual Machine). Thanks to this, Private and Public Stations are all identical and they represent just the interface to access the VM on the Multimedia Server. This means that each station can be used to access all VMs (Virtual Machines) just by using appropriate login credentials (username and password) - moreover, when replacing any one of the stations, the new one will not require any preliminary setup.

Each Virtual Machine comes with licensed Windows 8 pre-installed and fully operable, with at least 30GB of available space to store additional software and documents.

Please find below main characteristics of a 24-station Multimedia Server (subject to variation depending on availability at the time of installation):

- Maker/Model: IBM X3650 M4
- CPU: No 2 CPUs 12 C Xeon @2,7 GHz
- RAM: 128 GB
- HDD: six HD SAS @ 600GB (RAID 5) – total space about 3TB
- Power Supply: two redundant power supply
- Virtualization: Citrix XenDesktop VDI Edition with Active Directory

COMMERCIAL CODE	CONFIGURATION	COMPOSITION
97CD-05-01-01-00-00	Public Multimedia for 2DDC	- No 2 Hyperbaric "iFun Plus", with hyperbaric speaker and power/signals connector; - No 2 Drass signal chamber penetrator with DNV Product Certificate; - Multimedia server and power supply control panel
97CD-05-01-02-00-00	Public Multimedia for 3DDC	- No 3 Hyperbaric "iFun Plus", with hyperbaric speaker and power/signals connector; - No 3 Drass signal chamber penetrator with DNV Product Certificate; - Multimedia server and power supply control panel
97CD-05-01-03-00-00	Public Multimedia for 4DDC	- No 4 Hyperbaric "iFun Plus", with hyperbaric speaker and power/signals connector; - No 4 Drass signal chamber penetrator with DNV Product Certificate; - Multimedia server and power supply control panel
97CD-05-01-04-00-00	Public Multimedia for 5DDC	- No 5 Hyperbaric "iFun Plus", with hyperbaric speaker and power/signals connector; - No 5 Drass signal chamber penetrator with DNV Product Certificate; - Multimedia server and power supply control panel
97CD-05-01-05-00-00	Public Multimedia for 6DDC	- No 6 Hyperbaric "iFun Plus", with hyperbaric speaker and power/signals connector; - No 6 Drass signal chamber penetrator with DNV Product Certificate; - Multimedia server and power supply control panel
97CD-05-01-06-00-00	Public Multimedia for TUP	- No 1 Hyperbaric "iFun Plus", with hyperbaric speaker and power/signals connector for TUP; - No 1 Drass signal chamber penetrator with DNV Product Certificate for TUP; - Multimedia server and power supply control panel