



## Rainford EMC Hardened Audio and Video Systems

### EMC Hardened Audio and Video System

During EMC testing it is important to monitor the device under test (DUT) without interfering with the measurement during emission tests. On the other hand, the monitoring system has to withstand the high field strengths during immunity testing.

All devices — from a small electric shaver to a huge truck - that hold electronic components of any kind are subject to compliance testing and so the requirements are manifold. PONTIS EMC hardened audio and video products cover the whole range of applications.

### Field Proven Quality MADE IN GERMANY

Since 1995 PONTIS offers EMC hardened devices 'Made in Germany'. Our Audio and Video systems are installed in test sites all over the world. The extremely low defect rate is the result of a consequent quality management and intensive testing.

### State of the Art Technology

EMC Shielded housing, specially filtered power supply and signal transmission via fibre optics are common to all our products. For that reason the emission is way below the standard limits and the immunity is above the usual requirements (up to 200V/m CISPR 22 Class B).



Only the finest components find the way into our products. Thus we can ensure that the mechanical and even more the optical features of our camera systems are outstanding.

The quality of the lens and the CCD chip in the camera module are crucial for a good surveillance system. Where suitable we use pentax® lenses and 1/3" CCD cameras to gain the best possible resolution and light sensitivity.

### The Right Solution for Every Test Set-Up

Our wide variety of different products offers a suitable for every test set-up from small chambers for pre compliance to huge military or automotive test sites.

We offer cameras from a very small manual version to special versions with zoom lenses up to 10 times optical zoom and a focus which allows to view objects the size of a matchbox from as far as 30 m.



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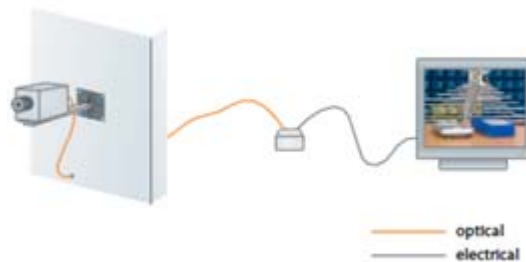
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### Small Chamber (3m): Manual Camera System

For a small chamber a manual camera that transmits the video signal via fibre optic to a converter, which connects to a monitor, is the right solution. Once the zoom and focus are set, the user may observe the whole chamber.

This configuration is also suitable for special arrangements, where a small DUT has to be watched very closely.



### Standard Application 5m Chamber: Remotely Controlled Camera System

For the use in a larger chamber, where a lens cannot capture the whole room, it is required that the zoom and focus of the camera can be adjusted from the control room, if the antenna and the DUT have to be monitored, a pan and tilt unit is very useful. The camera as well as the pan/tilt unit are connected to a controller, with which the user can manipulate the devices very easily. The monitor is also connected to the controller.



### Compact and Flexible: Dome Camera

The camera is shielded up to 60V/m. Although the optical resolution and light sensitivity is minor to the larger versions, its flexibility and small size make it an ideal cost effective alternative for small to medium sized chambers.

Almost 350°pan, a tilt angle of 90° and 32 times optical zoom make it a real all-round solution.



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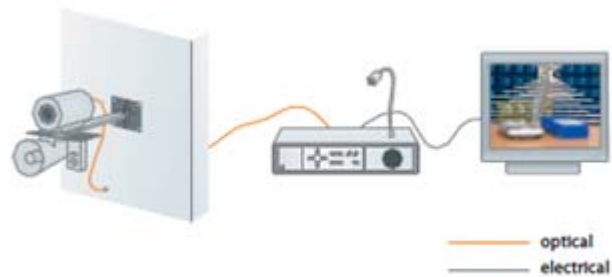
#### Acoustic Surveillance and Intercom System

In many cases it is necessary that noise or acoustic signals issued by the DUT have to be monitored. For that purpose we offer an EMC hardened audio system, which connects a microphone and a speaker in the chamber with a microphone and a speaker in the control room. Thus it is possible to hear what is going on during the test and also communicate with persons in the chamber.

An automatic gain adjust and automatic switching between listener and talker make the communication smooth and easy.

This system can be integrated in the video system or used separately. All signals are transmitted via fibre optics.

For detailed acoustic surveillance we offer a digital version with a calibrated transmission line, which can be used to measure the actual sound level in the chamber.



#### Multi Controllers

In larger test sites it is often requested that more than one camera and/or intercom systems are controlled from one workplace. We offer controllers to drive up to 6 cameras and/or 6 audio interfaces. Special versions are available on request.



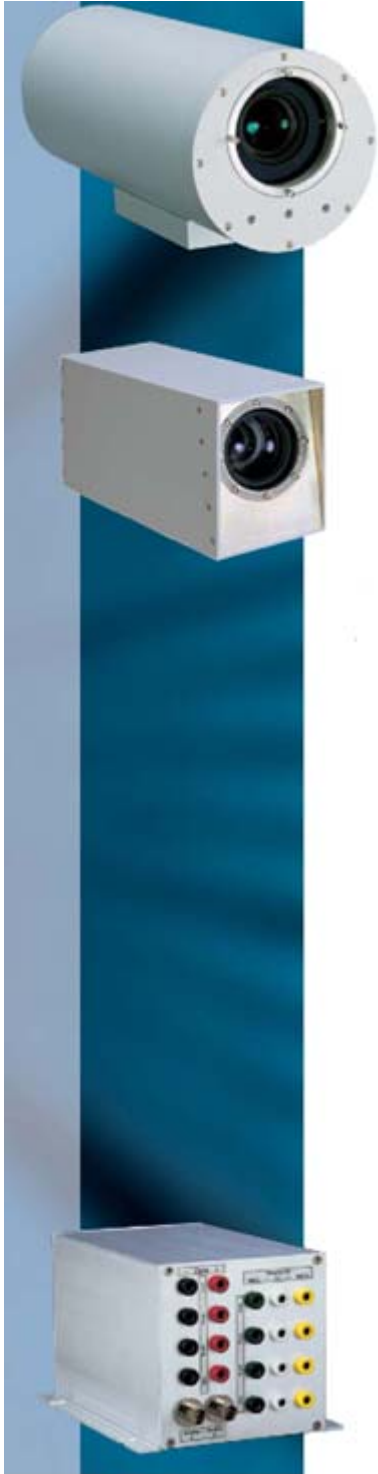
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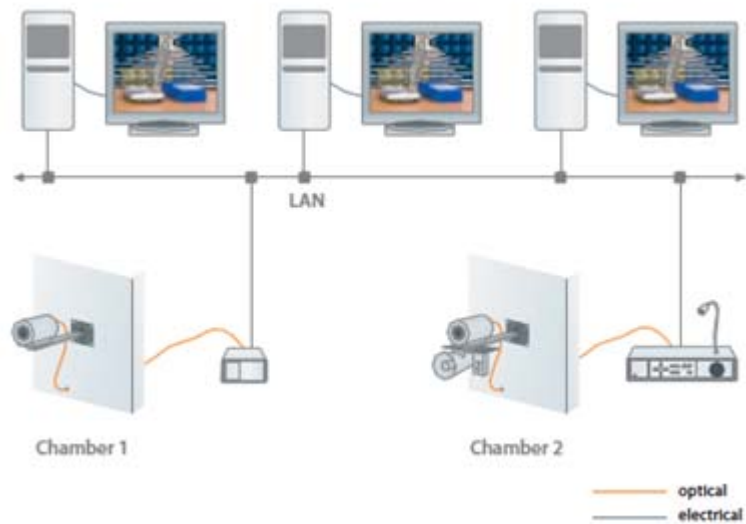
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#### Networking and Documentation: IP Camera Controller

If the cameras have to be accessed from different workplaces, we offer a camera system that is integrated into the office network (LAN). The signals coming from the chamber are converted to an IP conform format by a network video controller. The picture of the camera system can be viewed on every PC in the network.

This allows the user not only to see the picture, but he can easily store pictures for the documentation on the PC. In addition it is possible to set an alarm for special regions of interest. If a change in the picture occurs in that region, the video will be automatically stored and an alert is generated. This is very useful for immunity testing.



#### Fibre Optic Interfaces

In complex testing environments it is often needed that electrical signals have to be transmitted into the chamber or out of the chamber to the test equipment. For that purpose we offer a variety of different interfaces that convert electrical signals into optical signals and back.

Such the signal can be transported via fibre optics and is immune against electrical fields. Among others we offer interfaces for digital and analogue signals, Ethernet and video.



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### Overview of Products

#### Video

<b>CAM 100 Pxxx</b>	Remotely Controlled (max. 110 x Optical Zoom, 200V/m, 18GHz, Automatic/Remote Aperture, Optional Close Up Lens)
<b>CAM 90 Pxxx</b>	Remotely Controlled (max. 15 x Zoom, 200V/m, 18GHz, Automatic/Remote Aperture, Optional Close Up Lens)
<b>CAM 8</b>	Remotely Controlled (26 x Zoom, 200V/m, 18GHz, Automatic/Remote Aperture)
<b>CAM 85-Dome</b>	Remotely Controlled (32 x Zoom, 60V/m, 18GHz, Integrated Pan/Tilt, Compact, Dome Type Housing)
<b>CAM 70 Pxxx</b>	Remotely Controlled (10 x Zoom, 200V/m, 18GHz, Automatic Aperture)
<b>CAM 71 Pxxx</b>	Remotely Controlled (10 x Zoom, 60V/m, 18GHz, Automatic Aperture)
<b>CAM 60 Pxx</b>	Standard Manual Focus (200V/m, 18GHz)
<b>CAM 30 Pxx</b>	Miniature Manual Focus (200V/m)
<b>CAM 20 Pxxx</b>	Miniature, Fixed Focus

Note: ALL cameras are available for PAL and NTSC.

#### Controllers for Video and Audio

<b>CON 8</b>	Video Network Controller
<b>CON 4xx</b>	Video only up to 6 Cameras
<b>CON 4LAN</b>	Video Network Controller
<b>CON 9LAN</b>	Video Network Controller with Audio
<b>CON 6xx</b>	Video only with Aperture Control
<b>CON 5xx</b>	Video and Audio up to 4 Cameras and 2 Audio Intercoms
<b>CON 7xx</b>	Video and Audio with Aperture Control
<b>CON 3xx</b>	Audio only up to 6 Audio Intercoms

#### Fibre Optic Interfaces

- Shielded Digital Input/ Output (TTL) fo88TTL
- Shielded Analogue and Digital Inputs foCMU
- Shielded Ethernet (up to 1Gbit/s) foEthernet
- Shielded Multi-meter foMM
- Shielded Video foVGA

Other Interfaces on Request



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