



Our focus is innovating
security where you need
it most



Distinguish individuals or minor
details in your stadium



BOSCH

Invented for life

Clear overviews plus precision detail when needed

Sports stadium operators across the world are facing increasingly challenging crowd control issues. You must reliably monitor overall crowd situations, zoom-in on what is important, quickly identify known trouble-makers, and record vital evidence in detail. On top of all this you must ensure that your customers – the fans – can enjoy the game without feeling spied on. Now you can answer all these needs better than ever, with the latest integrated solution from Bosch.

Zoom-in on the detail without losing the bigger picture

PTZ cameras are the traditional way to monitor sports fans. However, with PTZ cameras your operator has to switch his attention from one camera to another to get an overview. Also, when zooming in he loses part of that overview. But with 4K ultra HD cameras, combined with Bosch Video Management System (BVMS) software and integrated Coherent Synchro software, he can keep the complete overview in one window, and zoom-in to the required level of detail in another. That's because the cameras stream full resolution 12 megapixel video that allows the operator to zoom in to the smallest relevant detail. Simultaneously the cameras provide a second low resolution video stream, allowing the advanced software to stitch the images of those cameras together

for a large overview. The result? Clear and complete crowd overviews at all times, with the ability to zoom-in instantly and capture extreme detail for fail-proof identification of individuals, and undeniable evidence in court.

Fans enjoy a better experience

4K ultra HD cameras can be placed up to 200 meters away from the crowd, on the opposite side of your stadium. This means that your video surveillance cameras are unobtrusive to the people being watched and never interfere with the fans' experience.

Operators become more effective

Camera control is user-friendly and intuitive. This means that your operators can focus on what is important – not on learning how to operate the video system. It also means that more people can use the system, adding flexibility to your operation. Also, because we record the 12 megapixel streams, zooming-in on detail is now possible during recorded playback: perfect for forensic searches and for evidence in court.

Costs are minimized

The cameras and lenses used in this special sports stadia set-up come from our standard product portfolio. And, thanks to the high reliability of these cameras, your service and maintenance costs are also minimized.



Detailed images – in all conditions

Your spectator areas will often have a mix of dark and bright lighting areas in the same scene. This makes high-quality video images difficult to achieve. On top of that, rain or fog may blur the images. And in high winds, the cameras may vibrate. But all of these challenges are answered with the Bosch sports stadia 4K ultra HD cameras.

► Wide Dynamic Range

Even in high-contrast scenes or when looking from dark locations into well-lit areas, the 4K ultra HD cameras provide an exceptionally wide dynamic range of 108db to capture more detail in both highlights and shadows.

► Best-in-class sensors

We use superior low-light sensors and image processors in our cameras – the best in the security industry. These ensure usable images, even in challenging weather conditions.

► Intelligent Auto Exposure

Our 4K ultra HD cameras incorporate advanced Intelligent Auto Exposure, which continuously adjusts camera settings to always ensure optimal image contrast. This maximizes the image usability and enables your operators to more easily identify people and objects of interest.

► Smooth flowing video

Even with a 12 megapixel video stream, combined with a second lower resolution stream, our 4K ultra HD cameras provide a smooth, flowing frame rate of 15 fps, to ensure useable images of all movements.

► Additional stability and reliability

Robust brackets add stability by preventing camera-shaking when high winds blow or when the crowd celebrates. Also, because each camera has its own power supply cable and network interface, there is no single point of failure for groups of cameras.

What products do you need?

- Multiple DINION IP ultra 8000 MP cameras with telephoto lenses of 75mm, 50mm, or 35mm – depending on stadium size.
 - Provides identification (250 pixels per meter) at up to 200 meters
 - Supports a high frame rate to capture moving objects
 - Offers two output streams to meet different quality demands (lower resolution for overview, higher resolution for details and recording)
 - We can advise on how to calculate the number of cameras you will need and on how to configure them. A typical 35,000-seat stadium will require around 64 cameras.
- BVMS with integrated Coherent Synchro stitching software
 - The stitching software from Coherent Synchro offers a smooth virtual PTZ experience, which adjusts the quality to best support either overview or zoom-in.



Bosch Video Management System (BVMS)



DINION IP ultra 8000 MP with telephoto lens

Long distance identification
to easily identify objects at great distance, ideal for stadiums

Security all round

In addition to our video surveillance systems, we offer a full line of security products and accessories, as well as a variety of tools to help you specify and design the optimum system for your operation. You can rely on our renowned quality and reliability, backed by a three-year warranty, and a world-class training and technical support. Also, compatibility with third-party products is assured, thanks to ONVIF¹ and our Integration Partner Program.

For additional information please refer to our website or contact one of our sales representatives.

A tradition of quality and innovation

For over 125 years, the Bosch name has stood for quality and reliability. Bosch is the global supplier of choice for innovative technology, backed by the highest standards for service and support.

Bosch Security Systems proudly offers a wide range of security, safety, communications and sound solutions that are relied upon every day in applications around the world, from government facilities and public venues to businesses, schools and homes.

¹ ONVIF (Open Network Video Information Forum) ensures interoperability between different products, regardless of manufacturer.

Bosch Security Systems

To learn more about Video Systems please visit www.boschsecurity.com/hdsecurity

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