

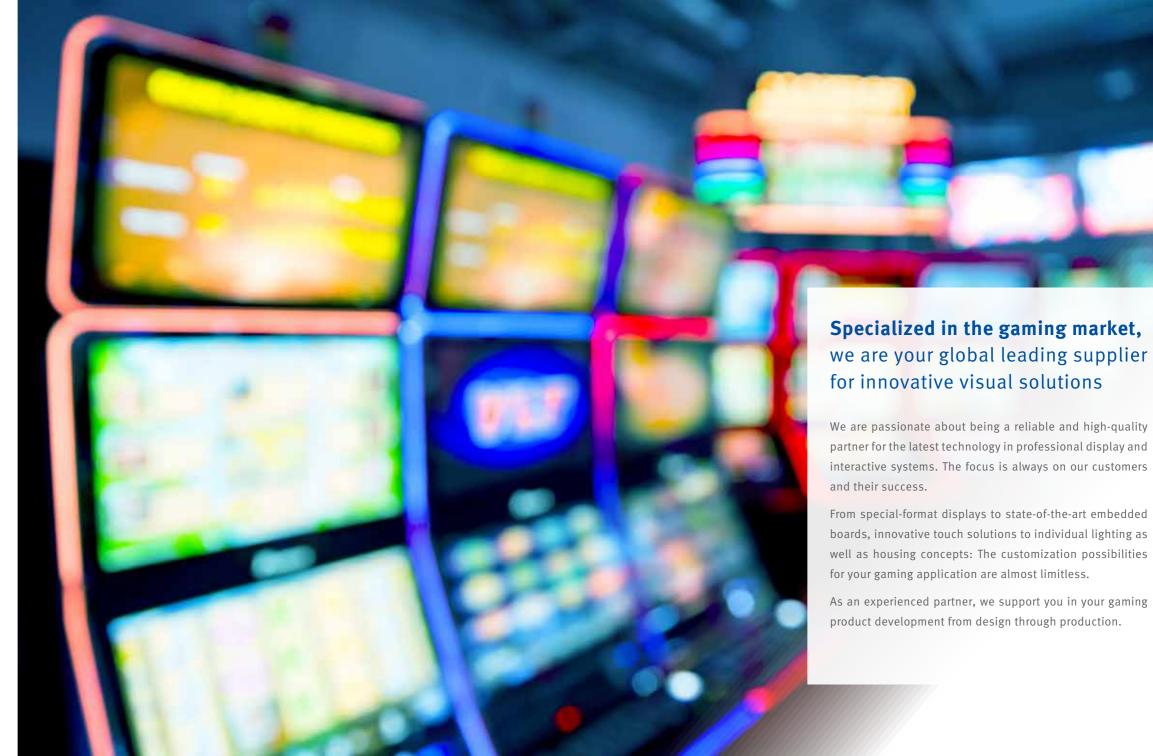
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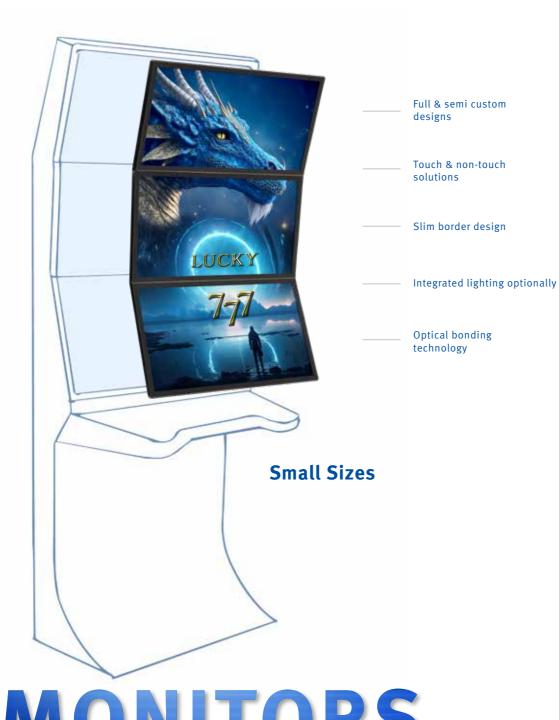
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### **DATA MODUL Services**

- Lifecycle Management
- **OEM Solutions**
- Bonding Technologies
- DATA MODUL worldwide





## **Closed / Open Frame Monitors** Our Monitor Solutions for Small Sizes from FHD up to 4k

Discover a world of opportunities with our monitor solutions specifically designed for small sizes. From slot machines to ETG (electronic table games) and kiosks, our monitors excel across diverse applications. Your success is our priority, and our team is here to assist you in finding the perfect monitor solution that aligns with your requirements.

## **Your Advantages** at a glance







Brilliant picture performance

High contrast

proof







Vandal-

operation

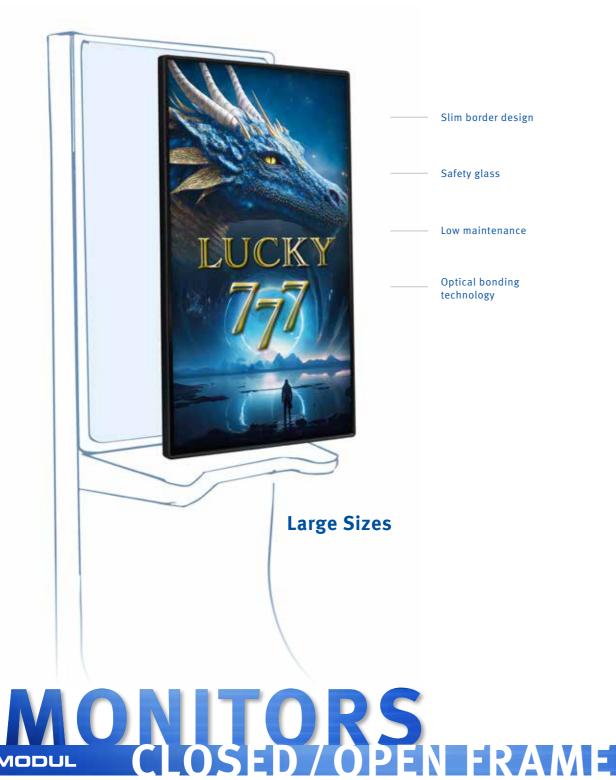
Easy integration

Portrait & landscape

## **Technical Specifications**

### Closed / Open Frame Monitors

Size	21.5"	23.8"	27"	31.5"	27" 4k/UHD	31.5" 4k/UHD	
Resolution	1920 x 1080				3840 x 2160		
Brightness	300 cd/m <sup>2</sup>	250 cd/m²	300 cd/m²	400 cd/m <sup>2</sup>	400 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>	
Touch Technology	PCAP				PC	CAP	
Video Inputs	DVI, DP				2x DP,	2x HDMI	



## **Closed / Open Frame Monitors** Our Monitor Solutions for Large Sizes

Experience the possibilities of our large-sized monitor solutions, thoughtfully designed to fullfil your needs. Seamlessly present your content and captivate your audience with interactive features, all displayed in stunning 4K (UHD) resolution. Whether it's slot machines, kiosks, or jackpot displays, with our customer-focused approach we ensure the perfect fit for your applications.

## **Your Advantages** at a glance







Brilliant picture performance

High contrast

Vandalproof

Portrait &

landscape



operation

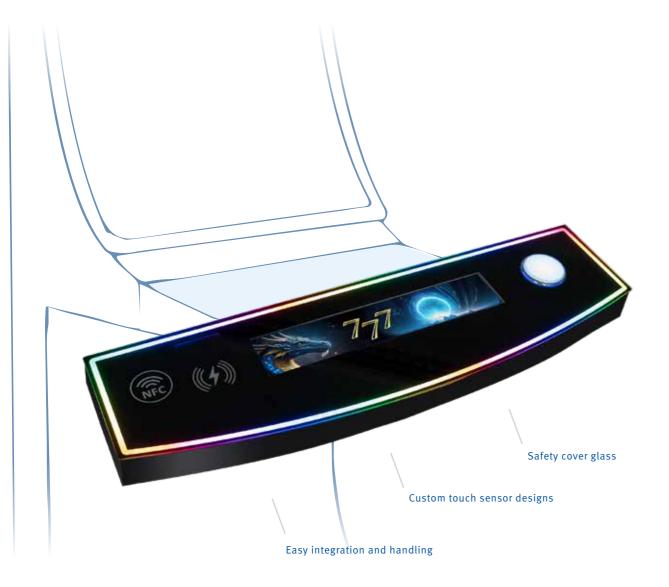


4k/UHD

## **Technical Specifications**

## Closed / Open Frame Monitors

Size	43"	50 <b>"</b>	55 <b>"</b>			
Resolution	3840 x 2160					
Brightness	500 cd/m <sup>2</sup>					
Outline Shape	Flat					
Touch Technology	PCAP					
Video Inputs	2x HDMI, 2x DP					



## **Our Button Deck Monitors -**Designed & manufactured inhouse

Elevate your gaming experience with our innovative button deck solutions, seamlessly integrated into games and cabinets. Enhancing player interaction during betting, it guarantees a seamless and immersive experience with every win, loss, and break. Meticulously custom-built to meet the highest standards, our button deck monitors delivers unmatched reliability, stability, and versatility, making it the perfect addition to your gaming setup.

## **Your Advantages** at a glance







Brilliant picture performance

High contrast

Vandalproof







operation

Easy integration

Special features

## **Technical Specifications** of our Button Deck Monitors

Size	13.3"	15.6"	19.1"		
Resolution	1920 x 1080	1920 x 1080	1920 x 360		
Brightness	400 cd/m <sup>2</sup>	400 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>		
Touch Technology		PCAP			
Video Inputs	DVI, DP				





### **Curved Solutions** Our J- & C-Curved Monitors

Discover the defining symbol of high-end casinos: curved monitors. Offering a captivating and seamless display of content on one screen, they optimize space while delivering an unmatched level of interactivity. Enjoy stunning clarity with 4K resolution, bringing every visual element to life. Our large format curved monitors present versatile opportunities across diverse casino applications, from slot machines and entertainment kiosks to sports betting, lottery, and bingo. Embrace the immersive world of curved technology and elevate your casino experience with our curved solutions.

## **Your Advantages** at a glance







Brilliant picture performance

High contrast

Vandalproof







4k/UHD

operation

Easy integration

## **Technical Specifications** of our J- & C-Curved Monitors

Size	43"	49"	55"		
Resolution	3840 x 2160				
Brightness	300 cd/m <sup>2</sup>	350 cd/m²	350 cd/m <sup>2</sup>		
Outline Shape	С	J			
Radius	R1500	R1500	R1500		
Video Inputs	2x HDMI, 2x DP				



### **LED Solutions**

## Create a stunning ambience for a unique gaming experience

Immerse your casino interior in an enchanting atmosphere with our LED solutions. Designed to catch customers' eyes even in busy environments, these mesmerizing displays create an exciting ambiance that enhances the overall experience. Tailored to your specific interior design needs, we offer a range of LED display solutions, including curved, spherical, strip and more. Let our LED displays elevate your casino space and set the stage for an unforgettable visual experience.

## Your Advantages at a glance







Brilliant picture performance

High contrast

24/7 operation



Low power consumption



High viewing angle

## **Technical Specifications**Flexible LEDs

Pitch	1.2mm	1.5mm	1.6mm	1.8mm	2mm	2.5mm	3mm	4mm
Resolution	96 x 192	76 x 152	72 x 144	64 x 128	60 x 120	48 x 96	40 x 80	30 x 60
Technology	SMD							
Application	Indoor							
Dimensions	120 x 240mm							
Brightness	> 600 cd/m²							
Op. Temp.	-10°C to 40°C							

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## **LCD Videowalls**Elevate your sports betting

Upgrade your sports betting venue with the captivating technology of high haze LCD videowalls. Enjoy stunning imagery and a seamless display that brings every moment to life, making every second of the game unforgettable. With unmatched clarity and brilliance, LCD videowalls set the stage for a unique betting atmosphere. Take your sports betting experience to new heights and leave a lasting impression on your visitors.

## Your Advantages at a glance







Brilliant picture performance

High contrast

Ultra narrow bezel



Very light weight



High viewing angle



Portrait & landscape

## **Technical Specifications**

### TFT LCD Videowalls

	_			-	-			
Diagonals	46"	49"	55"	55"	55"	55"	55"	
Application		Indoor						
Brightness	500 cd/m <sup>2</sup> 500 cd/m <sup>2</sup> 700 cd/m <sup>2</sup>							
Resolution		1920 x 1080						
AA to AA	3.5mm			1.8mm	0.9mm	1.8mm	0.9mm	
Op. Temp.	0°C to 40°C							

## **DATA MODUL Services**

Lifecycle Management

LOGISTICS

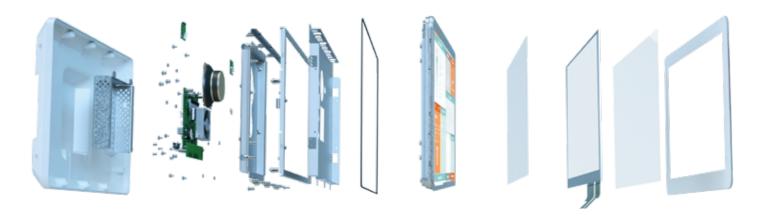
CONSULTATION From the isseries by **series production,** we stand

... and accompany every step until the final product realization and beyond. In addition to our expert advice in the areas of display, touch, embedded and systems, we offer individual project management and develop solutions together with our customers that are optimally tailored to the requirements of the respective gaming application. Based on that, we attach particular importance to profound quality management: From product pre-tests in our climate and EMC chambers to documentation, test reports and certifications, we offer full support. Thus, we ensure a fast, efficient and sustainable realization of every project.

PROTOTYPING

### Modular Product Portfolio -

Our core competences combined in a unique product





### **Systems**

- > Open frame, rackmount monitors & Panel PCs
- > Modular concepts up to OEM solutions
- > IP protection class
- > Customized housing & design solutions
- > Software customization & GUI design



## Embedded

- > x86 & ARM based embedded solutions
- > Extensive embedded distribution portfolio
- > COM, SBC & carrier boards
- > eMotion LCD controller boards
- > Software development



### Display

- > TFT, OLED, LED, MIP, E-Paper, FALD etc.
- > Extensive display distribution portfolio
- > Diagonals from below 1" up to 110"
- > Different form factors
- > Fully & semi customized displays



> Resistive, PCAP, Infrared & SAW

Touch

- > Inhouse developed touch sensor & controller solutions
- > Multi-touch, water, glove & EMC tuning
- > Customized glasses & inhouse optical bonding
- > Enhancement with haptics, force, gesture control etc.



## **Discover our OEM Solutions** for high performance gaming experiences

We offer our customers extensive market and product knowledge and advise on special product design requirements such as enclosure materials, temperature, humidity or vandalism protection. We also offer technical support during the product qualification and approval process and take care of document (PCN, EOL) and obsolescence management.

### **Glass Variations**

- > Standard and customer-specific glasses
- > Various printing, hardening & surface treatment methods
- > Float glass, high ion, exchange glass, plastic, etc.

#### **Housing Concepts**

- Open frame and floating-mount monitors for easy integration in cabinets
- > Stand alone monitors for wall and ceiling mount
- > Monitors with customized plastic housing
- > LED framed monitors
- > IP and vandalism protection

### **Lighting Concepts**

- Integration of intelligent LED stripes with homogenous lighting in customized housing
- > DATA MODUL LED PCBA design
- Inhouse developed control software for individual LED lighting settings

### Qualification & Certification

- > Safety IEC/EN 62368-1
- > CB report and certification
- > EMC/EMI
- > MET certification
- > UL certification

### **Additional Features**

- > Accessories such as power supplies, cables etc.
- > Proximity & Ambient Light Sensor
- > Artificial Intelligence (AI)
- > NFC / Bluetooth
- > Audio & camera integration
- > Barcode scanner
- > Haptic feedback
- > Knob on display
- > Inductive charging lay

## The second **Button Deck Monitor Proof of Concept Product Features** > 19.1" stretched panel with 1920x360 resolution > PCAP sensor (DATA MODUL design) Cover glass 5mm > Translucent print for LED lighting concept & function symbols

- > eMotion LCD controller board (DP, DVI)
- > DATA MODUL controller board for intelligent LEDs
- > Inductive charger



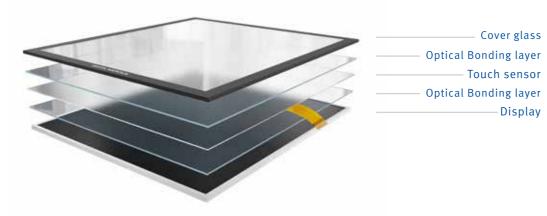
Touch display with special features

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### All Bonding Technologies

### from one source

In our international production facilities, we apply decades of bonding expertise. We provide state-of-the-art OCA, LOCA, air, gel and hybrid bonding processes and can thus offer customized touch display solutions directly from a single source. Clean room, production and development capacities of several thousand square meters allow us to act quickly and flexibly and to manufacture products at the highest quality level.



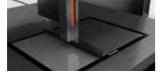
### **Optical Bonding**

Depending on the components, the prevailing environmental conditions and the scope of the project, we select the appropriate optical bonding process. All processes are carried out inhouse and under cleanroom conditions.



#### LOCA / OCR

- > Liquid adhesion
- > Can be used for cover glass, glass-based sensor & display



#### Hybrid bonding

- > Liquid adhesion with slit coating
- Optimised for high volume projects



### OCA

- > Pressure-sensitive adhesive
- > Can be used for foil sensors, optical filters on the cover glass



#### Air gap

- Double-sided industrial adhesive tape in the form of strips
- Applicable for resistive / PCAP touch on display



## Structural Bonding

For the bonding of housings with cover glass, touch units or touch displays, we rely on advanced fully automated manufacturing methods. These methods are called structural bonding and ensure an efficient and precise connection.



### Pick & place

> Camera-based assembly of cover glass / touch units with housings or displays



#### Gap filling

> Measurement & filling of the gap between the housing & the cover glass / touch unit



#### Hot melt

> Bonding of housing with cover glass / touch units by means of reactive polyurethane

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## **Local for Local** – Why choose DATA MODUL as your supplier?

Since our founding in Munich in 1972, we deal with the fascination of displays and are represented worldwide with several production and logistics locations as well as sales offices in promising growth markets.

In our 50 years of existence, we have specialized in different market requirements and meet the high quality demands with various certifications. The basis for this is provided by an interplay of distribution components, in-house developments, our own production and worldwide logistics concepts in order to supply our customers in a cost-efficient and timely manner.

At DATA MODUL, 600 employees put their heart and soul into bringing visual communication between human and machine to the next level. Thanks to a good infrastructure throughout the USA, we offer our customers an all-round service consisting of consulting, development, prototyping, bonding technologies, quality management, series production, logistics and application service on-site.



# International Production Sites> 40,000 square metersproduction & logistics area



### Weikersheim (Germany)

In the middle of Germany, our technology flagship awaits with a total area of more than 23,000 square meters. Here, we combine flexible production lines, state-of-the-art manufacturing islands, prefabrication, mechanics, logistics and prototype construction as well as all bonding technologies at one location. In Weikersheim, we employ around 200 people.







### Hauppauge (USA)

From concept to design and prototyping to production and certification: With our subsidiary DATA MODUL Inc., close to New York City, and widespread Sales office all over the US, we follow our "local for local" philosophy to provide system engineering and high-quality support on-site. For more than 25 years, DATA MODUL Inc., we stand as your one stop solution provider.



Sales location

Production & logistics

### Lublin (Poland)

Extended bonding capabilities and lean logistics processes: In 2019, we opened our latest DATA MODUL production site in Lublin, Poland, equipped with state-of-the-art machinery. On around 14,000 square meters, our 150 employees manufacture according to German quality standards. This strengthens our position as Europe's market leader.



### Shanghai (China)

Local assembly according to German quality standards on a total area of around 2,000 square meters in Shanghai: Also our production site in China follows our high-quality approach and enables us to serve the needs of local markets and our globally operating customers based in Asia efficiently and quickly. In China, we are proud to count 25 talents to our team.

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