





TUFF View by Motium is a compact, robust, lightweight, fixed mount LCD touch monitor designed to provide a high quality, sophisticated rugged solution that is built to last in even the toughest of industries.

Motium's TUFF View has been specifically designed to ensure successful vehicle deployment in the harshest environments.

# **Key Features**

#### Sunlight Readable Touch Display

Motium's sunlight readable display uses ultra-efficient, high-brightness LED backlighting combined with projected capacitive touch technology.

#### **Extensive Options**

Offers one VGA input, two composite video inputs, picture-in-picture, and digital inputs for external control.

## **Rugged Environment Design**

A wide voltage input range with transient and surge protection to ISO 7637.

## Flexible PC Integration

TUFF View offers unrivalled flexibility and can be integrated with any PC and industry-standard video camera.

## Intelligent Design

Boasts industry-standard VESA mounting points, water and dust resistance (IP65), and low power consumption.

## **Multiple Sizes**

Available in 8.0-inch and 10.4-inch screen sizes.





# **Customised Solutions**

Designing and manufacturing our own technology means we can tailor our products to your specific needs. From white label customisation through to custom hardware and beyond, contact us for a truly bespoke TUFF solution.

## **Ongoing Support**

We create strong, long-lasting partnerships with our customers. We offer comprehensive and ongoing support and guidance for effective installation and efficient use of all products.

# Contact Us

For product enquiries or further information about the entire TUFF product range, contact us at **sales@motium.com**.



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#### SPECIFICATIONS

DISPLAY		
Viewable Area	8.0-inch: 162mm (W) x 121.5mm (H), 4:3 (20.32cm) diagonal. 10.4-inch: 210.4mm (W) x 157.8mm (H), 4:3 (26.416cm) diagonal.	
Native Resolution	8.0-inch: 800 x 600; dot pitch – 0.2055mm x 0.2055mm. 10.4-inch: 1024 x 768; dot pitch – 0.2055mm x 0.2055mm.	
Contrast Ratio	8.0-inch: 500:1 typical. 400:1 minimum. 10.4-inch: 1200:1 typical. 900:1 minimum.	
Colours	8.0-inch: 18-bit (262, 144). 10.4-inch: 24-bit (16,777,216).	
Response Time	8.0-inch: Ton – 10 ms typ. Toff – 15 ms typ. 10.4-inch: Ton – 30ms typ. Toff – 11ms typ.	
Brightness	<ul> <li>8.0-inch: 1,400 nits typ.</li> <li>10.4-inch: 1,200 nits typ.</li> <li>This value only applies to indoor performance. The effective outdoor performance is greater than 1,600 (8.0-inch) / 1,400 (10.4-inch) nits. (1 nit = 1 Cd/m2.)</li> </ul>	
Viewing Angle	8.0-inch H: 140° typ, 120° min; V: 50° typ, 40° min. 10.4-inch H: 176° typ, 160° min; V: 176° typ, 160° min	
Touch	10-point projected capacitive on 1.8mm glass with anti-glare surface coating. Optional anti-glare, anti- reflection and anti-fingerprint surface coating available.	
CONTROLLER		
Video Input	VGA: Analog RGB, 0.7Vp-p. DDC Support. Composite Video: NTSC, PAL-B, PAL-D, PAL-G, PAL-I, PAL-K.	
VGA Input Resolutions	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024. The monitor automatically scales the input signal.	
Video Input Resolutions	PAL: 625 lines. NTSC: 525 lines. 160 x 120, 320 x 240, 640 x 480, 768 x 576, 800 x 600, 1,024 x 768, 1,280 x 1,024. The monitor automatically scales the input signal.	
Input Frequency	50Hz, 60Hz and 70Hz. 60Hz is recommended.	
Configuration	On-Screen Display (OSD) includes: Image Colour, Image Formatting, Source Selection & Picture-In- Picture, Backlight Management, Power Management, Audio, OSD Management, About.	
VIDEO CONFIGUR	VIDEO CONFIGURATION	
Display Options	Full-screen VGA. Full screen (reversible) composite video.	
Picture-In- Picture	VGA background with adjustable size and location for composite input source.	
External Input Control	Monitor can automatically select a composite input source or Picture-In-Picture mode. For instance, to activate a camera when the reverse gear on a vehicle is selected.	

<b>USER INTERFACE</b>	
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Monitor Controls	Brightness Up and Down, OSD Menu/Input Selection, Volume Up and Down.
Keypad Lock	Monitor controls can be disabled individually preventing operators from having access to the associated features.
Menu Lock	The monitor menu can be locked with a code preventing operators from having access to the settings in the monitor.
AUDIO	
Control	Control of monitor volume thorugh OSD menu.
Speaker	Front panel mounted mono speakers. Speakers are intended for connection to a PC or media device for voice commands, operator feedback and warning tones.
PHYSICAL CHARACTERISTICS	
Mounting	75mm VESA compatible mounting holes on the rear panel.
Dimensions	8.0-inch: 215mm x 183mm x 37mm. 10.4-inch: 263mm x 244mm x 42mm. Plus 18mm for connector body. Plus 54mm when connector is mated.
Weight	8.0-inch: 1.0kg. 10.4-inch: 1.25kg.
Shipping Package	8.0-inch: Dimensions – 260mm x 210mm x 85mm; Weight – 1.25kg. 10.4-inch: Dimensions – 308mm x 270mm x 90mm; Weight – 1.45kg.
Temperature	Operating: -40°C to +75°C. Storage: -40°C to +85°C.
Humidity	10% to 90% RH, non-condensing.
Certification	C-tick. Other certifications available upon request.
POWER	
Power Supply	Input voltage range 8 VDC to 45 VDC.
Power Consumption	14w max.
Accessory Control	Accessory input for power on/off control. This input is different to power on/off button. Using this input results in zero off-state power consumption.
Power Management	The monitor has timing options for no video input shutdown and accessory off shutdown.
Transient Protection	Load dump and other transients specified in ISO-7637
SUPPORT	
Warranty	Motium displays carry a 24-month return-to-base, limited hardware warranty. Additional 12- and 36-month warranties available.

#### **ORDERING OPTIONS**

The TUFF View is available in standard models and can also be customised with a variety of options. OEM branding options are also available. Minimum order quantities may apply.

Quick Connect (QC) cable assemblies must be ordered separately. Standard and custom options are available.

Contact Motium for order codes. Specifications subject to change without notice.