

# FMCU™

## Ruggedized Controller

### Freedom of Movement Control Unit

Functionality, versatility, portability, intuitive control and data accessibility are all driving the needs of soldiers in combat today. The face of the battlefield is changing and the demands on portable control systems are changing as well.

The patented FMCU controller from Ultra Measurement Systems, Inc. leverages the knowledge and skill sets of today's soldiers by providing a familiar game-style control unit in a highly reliable, theater-proven design with full, redundant weapons control capability. With limited instruction and training on the functionality and outputs, soldiers can be ready to control unmanned systems and weapons, or to engage in critical ISR missions, faster and more successfully than ever. Now available with a ruggedized flat panel LCD, situational awareness is increased and non-line of sight operation is supported.



#### FEATURES:

- Lightweight, rugged, environmentally resistant design
- Sealed, ruggedized, mappable controls
  - (2) High-precision Hall Effect Mini Joysticks
  - (2) Single Detent Triggers
  - (1) 4-way Switch
  - (10) Momentary Pushbuttons
- 2 optional "dead man" switches
- Quick-change modular options using RCC™\* technology
  - Sunlight-readable, LED backlit LCD
  - 5" screen standard with 6.4" and touch screen options
  - Custom switch modules for mission specific applications
- System configurable for RS-232, RS-422 or USB output
- Mounting bracket for fixed position operation
- Custom output, switch, connector, cable and color options available (consult factory)

\* RCC™ reconfigurable control, is a patented technology that facilitates field repair and upgrades.

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### Applications:

UAV, UGV, UUV & USV guidance & payload control

Weapons control

Turret control

Remote Weapons Station (RWS) control

Guided munitions

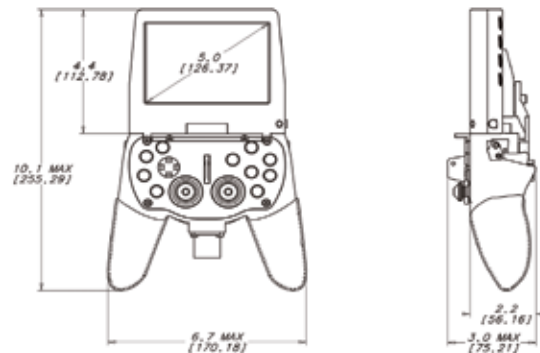
Mission controls

Hand-held C4I inputs

Robotic control

Camera control

### Standard Dimensions



US PATENT NUMBERS: 7,471,216 / D533,142

### General Specifications:

Enclosure Material	Aluminum alloy
Weight	1.5 ± 0.3 lbs without LCD 3.0 lbs max with LCD
Power Supply	+5 VDC ±5% 100 mA max from USB Port
Operating System	USB 2.0 for Windows XP Linux available
Insulation Resistance	10 meg Ω @ 50 volts DC per Mil-STD-202
LCD Resolution	VGA 640 x 480 Max XGA 1024 x 768
LCD Brightness	800 NITS, adjustable

### Environmental Specifications:

Sealing	IP65, resistant to jetting water (standard) IP67, submersible to 3 ft (optional)
Altitude	15,000 ft, operational 40,000 ft, non-operational
Temperature	-32°C to 61°C, operational -40°C to 71°C, non-operational
Humidity	10 - 100% RH @ 17°C to 27°C
Vibration	20 – 2000 Hz overall 7.7 grms, 3 mutually perpendicular axes
Shock	40 g max (3 half sine, 6 axes)
Sand/Dust	Resistant to ambient sand/dust per Method 510.4
Salt Fog	Resistant to ambient Salt Fog per Method 509.4

**Ultra**  
ELECTRONICS

#### Ultra Electronics

Measurement Systems Inc.  
50 Barnes Park Road North, Suite 102  
Wallingford, CT 06492  
Tel: 203.949.3500  
Email: sales@ultra-msi.com  
www.ultra-msi.com  
www.ultra-electronics.com

#### Ultra Electronics

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