

MILITARY SOLUTIONS

DEFEND. PROTECT. PERFORM

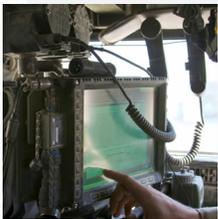
Optimized for maximum performance and reliability, Touch International's military products combine cutting edge touch technologies with specialized display enhancements and value-added solutions to deliver powerful results. Adhering to strict military requirements for land, air and marine applications, Touch International's military display solutions deliver pin-point accuracy and fast response times while withstanding excessive vibration, intense dust storms, temperature extremes and more.

APPLICATION REQUIREMENTS

By integrating display enhancements and other value-added solutions, Touch International is able to conquer environmental challenges and improve display functionality and performance.



Cockpit Controls



- High Temperature
- Low Reflection
- High Altitude
- Fire Extinguisher
- Low Emissions
- Low Toxicity



Hand-held Devices

- Restricted Video Images
- Sunlight Readable
- High-Bright Display
- NVIS Compliant
- Works with On-Screen Contaminants



Unmanned Aerial Vehicles



- Reduced RF Noise
- Restricted Video Images
- High Temperature
- NVIS Compliant
- Sunlight Readable
- Fire Retardant



Vehicle Instrument Panels

- EMI/RFI Shielding
- Glove Activated
- NVIS Compatible
- Secure Against Vibrations
- Optimized Light & Video Images



Contact a sales representative at Touch International today for additional information about our Military Display Products and Solutions.

Military Device Manufacturer

RUGGEDIZED MOBILE TOUCH SCREEN COMPUTING DEVICE



Background

Defense manufacturer with focus on battlefield electronics wanted to develop a ruggedized and mobile touch computer.

Challenges

The engineers developed a 10.4" sunlight readable, ruggedized mobile computer with advanced software that served ground troops with communication, navigation and more. It would be exposed to a multitude of elements through various terrains.

Summary of issues to consider

1. Touch sensing with heavy gloves.
2. Use in a wide operating temperature range.
3. Pass military EMI/RFI emissions requirements.
4. Able to perform through elements a ground troop encounters (dirt, water, vibration, etc)
5. Multi-touch with gestures mainly for pinch/zoom/flick during navigation and radar viewing.

Solution

After considering the customer's stringent requirements and the harsh environment, Touch International leveraged their recently released PCAP Plus technology and designed a custom touch screen that featured:

1. Two-finger multi-touch with pinch/zoom/flick/rotate.
2. Ability to operate with heavy gloves and any pointing device.

3. Full MIL-STD-461E/F compliance for EMI/RFI requirements.
4. Full functionality with dirt/grease/vibration/water, including completely submerged.

While TI's PCAP Plus touch screen already met their operating temperature requirements, TI designed and optically bonded a transparent LCD heater to further extend the operating temperature of the display, resulting in "instant on" even in extreme cold.

By offering a highly engineered customized solution that ensured complete functionality in the harshest environments, TI was able to provide the customer with a durable solution that would outperform their competitors' devices for years to come.