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.
**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:

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.