

**unitronix**  
THE EMBEDDED EDGE



**Rugged Computers, Monitors & HMIs**

## Rugged and industrial computers, monitors and HMIs customised to unique applications.

VarTech Systems manufactures rugged and industrial computers, monitors and HMIs customised to unique applications. Their products are built-to-specification to meet their application's needs, offering reliable performance in a diversity of settings.

A U.S.-based company, nearly all of their production process occurs under one roof at their Manufacturing and Research Facility in Clemmons, North Carolina. In-house engineering, manufacturing, and assembly teams allow them to offer faster lead times than the competition, on average.

Incorporated in 1989, VarTech Systems has a nearly 35-year history of providing HMI products to companies around the world.

They are RoHS compliant, ISO 9001:2015 certified and ITAR-registered.

Their core values are excellence, accountability, teamwork and integrity.

### All Products

VarTech Systems engineers, manufactures, and assembles rugged and industrial computers, monitors, and HMIs. All orders are **built-to-spec** for unique customer needs. These HMI products are used in nearly every industry, and the features are always customised to the end users' application.

Their units offer options high-bright and touchscreen displays, NEMA and IP ratings, EMI protection, and shock and vibration protection. Many customers choose VarTech over the competition for their hazardous area HMIs and their abilities to meet Mil-Spec standards.



### All-Weather

#### Ultra-Rugged NEMA 6 and IP67 Protection Ratings

The All-Weather, HMI is most often used in marine and outdoor environments, it offers heavy-duty protection against the ingress of dust and water with NEMA 6 and IP67 ratings. All-Weather computers and monitors are ready to face rain, snow, and extreme temperatures.

#### Ready for Extreme Outdoor Weather

In addition to NEMA and IP protection, the All-Weather offers customisability to reliably operate in extreme high and low temperatures ranging from -30° Celsius to 60° Celsius (-22° Fahrenheit to 140° Fahrenheit).

The All-Weather is your best choice if you need a weatherproof computer or monitor for the Arctic cold, desert heat, or tropical humidity.

#### High-Bright Sunlight-Readable Touchscreens

With sunlight-readable displays and available touchscreen options that can operate reliably when wet, including with gloves, VarTech's All-Weather rugged monitors and computers are perfect for operator interface applications in outdoor applications.

#### MIL-STD Specifications Available

Possessing options for EMI protection, shock and vibration resistance, TPM removable computers, MIL-DTL 38999 connectors, and sunlight-readable displays, the All-Weather is customisable to meet requirements for military applications such as placement in naval vessels and off-road vehicles.



### Reasons to Choose DiamondVue

#### NEMA and IP Protection

They offer NEMA 4 and IP65 or NEMA 4X and IP66 protection, DiamondVue industrial computers and monitors are protected against the ingress of dust and water.

#### Numerous Mounting Options

Key to why the DiamondVue is one of their most popular products is its over half-a-dozen mounting options. DiamondVue includes the following mounting styles: VESA, RAM, rack, chassis, console, console extreme, panel with studs and panel with clips.

#### Wide Range of Display Sizes

A facet setting apart the DiamondVue is its wide range of display sizes. The 6.5" display is perfect for small spaces, while the 32" units offer a large display in settings where process operation and monitoring is the application's focus.



## FieldStation

Engineered, manufactured, and assembled in the United States, VarTech Systems 15" rugged all-in-one FieldStation portable military computer is designed to support mission-critical field and ground-mobile applications.

### Key Features

Mil-Spec Features for Defence Applications

Built to meet MIL-STD standards and requirements, the FieldStation computers are implemented as rugged field computers in the world's toughest environments.

Able to be equipped with satellite communications systems, target acquisition radar, and night vision features for field surveillance and enhanced situational awareness, the products are made for keeping soldiers safe and providing them with the tactical edge on the battlefield.

### Security for Combat Operations

Essential to military applications, secure computing features are an essential aspect of the FieldStation's specifications. Our units include the option for a TPM removable computer to remove and save classified information in the rare instance that the device would need to be left behind or destroyed.



When a FieldStation computer will not be faced with the risk of data loss, an embedded computer is available.

### Durability for the Battlefield

Made for rugged specifications with a milled aluminium enclosure, the Mil-Spec FieldStation computer is weather-

resistant, offering IP67 protection. The computer's enclosure prevents the ingress of dust.

The unit's durable touchscreen utilises VBOND optical bonding technology to increase resistance to impact damage.

### Functionality in Extreme Temperatures

The FieldStation military computer system can be customised to be reliably operate in extreme temperatures ranging from -20° Celsius to 70° Celsius ( -4° Fahrenheit to 158° Fahrenheit). The wide temperature ranges in which our mission-critical units are capable of serving soldiers offer solutions for military applications in diverse climates across the globe.

### Sunlight-Readable for Outdoor Environments

Offering sunlight-readable displays, the FieldStation's LCD display offers military personnel consistent, clear view-ability in outdoor tactical military applications.

### Reliable Computing Power

Utilising Windows 32 or 64-bit operating systems, these embedded computers have the options for powerful and reliable Intel Quad-Core CPUs or Intel i7 CPUs. RAM memory options include 8 GB or 16 GB, and the SSD hard drives can be equipped with either 128 GB or 1 TB of storage.

Across the board of their products, unique specifications are available according to the needs of each application.



## ToughStation Computers, Monitors, and HMIs



Designed to withstand extreme environments, VarTech's ToughStation product line offers reliable computers, monitors, and HMIs.

### Reasons to Choose ToughStation: Ready for Hazardous Areas

When your company needs a reliable HMI system in a C1D1 or C1D2 area, look no further than VarTech's ToughStation product family. Designed with safety as the number one priority, these fully sealed and purge-protected units offer dependable hazardous area HMI solutions. In addition, they have upgrade options for wide temperature ranges, so your system is ready for extreme heat or cold.

### Wide Range of Display Sizes

A common reason why customers choose VarTech's ToughStation units is their broad options for display sizes. Display sizes range from 10.4" to 43" among the ToughStation product family's options.

### High-Bright Sunlight-Readable Displays

Whether you need an HMI for an outdoor application like a drilling platform or a bright indoor setting like an industrial facility, ToughStation computers and monitors can be upgraded with high-bright LCD technology.

### Industrial Touchscreens

Always built-to-spec, these units are often equipped with rugged touchscreens, including those compatible with protective gloves, which the end users of these HMIs often wear at their workstations.

### Reliable Computing

Available with Intel i7 processors and up to 32 GB of RAM, ToughStation computers and kiosks offer a reliable HMI solution ready for operation in nonstop industrial applications.

### **ToughStation Kiosk**

VarTech Systems' ToughStation HMI kiosks are designed for optimal reliability in industrial environments requiring operator interfaces.

#### **Kiosk Available Sizes**

- Ergonomic Enclosure/ 15" – 21.5" LED back-lit LCD
- Panel Enclosure/ 15" – 21.5" LED back-lit LCD
- Recessed Enclosure/ 15" – 21.5" LED back-lit LCD

#### **Key Features**

NEMA and IP Protection

ToughStation kiosks offer NEMA 4X and IP66 ratings to protect the internal components from the ingress of dust and water. Housed in a stainless steel enclosure, the HMI kiosks are an effective solution resisting corrosion in washdown environments such as food and beverage production facilities.

#### **Fully Sealed Keyboards and Peripherals**

Fully sealed silicone or membrane keyboards provide an operator interface while protecting the HMI from environmental factors.

Always customised to the unique needs of each customer's application, these industrial kiosks offer numerous options for peripherals including security-focused biometric fingerprint scanners and RFID readers. ToughStation kiosks can also be equipped with function buttons, thermal printers, and touchpads to meet additional end-user needs in a wide range of environments.

#### **Ready for Extreme Temperatures**

With options including upgrades equipping the HMI for use in extreme temperatures, these kiosks offer reliable functionality in the freezing cold and the blistering heat.

ToughStation kiosks' rugged components allow for operation in temperatures ranging from -20° Celsius to 60° Celsius (-4° Fahrenheit to 140° Fahrenheit).

#### **High-Bright Touchscreen Displays**

Ready for bright factory settings or outdoor installations, their HMI kiosks' high-bright sunlight-readable displays offer clear visuals in all kinds of applications.

In addition to keyboards and peripheral devices, ToughStation computers and monitors are often equipped with industrial grade touchscreen solutions including resistive, PCAP, and the ultra-durable ArmorTouch.

#### **Display sizes range from 15" to 21.5".**

Mounting Options

Often ordered with their versatile pedestals and arm mounts, including swing and swivel arms, they customise every unit to the customer's requirements. Traditional mounting tabs are also available.

#### **Industries Using ToughStation Kiosks**

##### **1: Manufacturing**

ToughStation industrial kiosks are used in manufacturing facilities across the world. Relied upon as operator interface terminals, the HMIs keep factories running 24/7 with up to 32 GB of RAM.

##### **2: Food Processing**

An HMI perfect for washdown areas, our ToughStation kiosks have integrated sealed keyboards and options for function buttons, RFID readers, and touchscreens compatible with gloves and styluses.

##### **3: Life Sciences**

Customisable to meet the stringent requirements of life sciences applications, these industrial kiosks come in stainless-steel enclosures with NEMA 4X and IP66 ratings, protecting the unit from corrosion in the face of frequent chemical sanitation processes.



### **WeighStation**

Part of the ToughStation product family, the WeighStation functions as an unattended truck weigh scale kiosk for efficient operations in the nonstop transportation industry.

#### **Key Features**

Weather-Resistant with NEMA 4 or NEMA 4X and IP65 or IP66 Protection

Contained in a NEMA 4 or NEMA 4X enclosure, the WeighStation is made for outdoor use in the trucking industry. With IP65 or IP66 protection against water and dust ingress and options for a locking or non-locking front enclosure door, they are reliable kiosks for daily scale operations.

In addition, the products have internal component options allowing for operation in extreme heat or cold so that no matter what climate in which your unattended truck scale system is located, around-the-clock functionality will not cease.

#### **Sunlight-Readable for Outdoor Usage**

Typically coming with sunshades and high-bright sunlight-readable LCDs, the kiosks' specifications, which are customised to the needs of each application, are always ready for outdoor applications.

#### **Available as a Monitor or Computer**

The weigh scale HMI can be a monitor or a computer for increased flexibility according to the needs of a customer. Offering computers made to handle the software running your equipment, they can engineer a custom solution to meet the needs of your operation.

#### **Designed for Unattended Kiosk Usage**

Unattended truck scale kiosks are ideal for applications in which efficiency is the most critical part of your process. Whether or not drivers are able to stop on the scale, the computer can synchronise with your scale calibration technology to accurately measure data and keep vehicles moving.

#### **Capturing Required Data**

Offering a control console with a simplified user interface, these kiosks include RFID technology and barcode scanners as needed. In addition, they are often equipped with cameras to record vehicles stopping and passing through your station. >>>

Microphones and speakers are also available with the WeighStation in the case that a driver must communicate with a remote operator upon arriving at the kiosk. Rugged touchscreen options are an additional feature that the WeighStation can be upgraded with.

Remote Management via LTE Mobile Connectivity  
Remotely gathering the data from your company's unattended truck scales is as necessary as their driver-facing functionality. Designed for efficiency in the nonstop transportation industry, these computers are remotely manageable via wired connection or 4G-LTE mobile network connectivity.



### Hazardous Area Kiosk

Designed for safety in hazardous area applications, VarTech Systems' ToughStation HMI kiosks offer a reliable, high-performance computing solution for C1D1 and C1D2 environments.

#### Hazardous Kiosk Available Sizes:

- Ergonomic Enclosure: 15" – 21.5" LED back-lit LCD
- Panel Enclosure: 15" – 21.5" LED back-lit LCD
- Recessed Enclosure: 15" – 21.5" LED back-lit LCD

#### Key Features

Purge-Protected and Fully Sealed for Hazardous Areas

When you need a C1D1 kiosk for operating and monitoring systems in extreme environments, these HMI systems, available as monitors or computers, are engineered to keep users safe.

#### Type X or Type Z Purge Systems

Class 1 Division 1 area kiosks feature a Type X purge system, a requirement for environments where ignitable concentrations of flammable gas can be present under typical conditions.

VarTech's ToughStation C1D2 kiosks feature a Type Z purge system. All their hazardous area HMIs are non-incendiary, protecting the internal components in the case of an explosion. NEMA 4X enclosures with IP66 ratings are standard for these hazardous area kiosks.

### Touchscreen Displays

Available with screen sizes ranging from 15" to 21.5", these panel enclosure and recessed keyboard enclosures have options for durable, rugged touchscreens, including those compatible with gloves.

#### Three Enclosure Options

VarTech's hazardous area HMI kiosks come in three standard enclosures. Each enclosure comes with a front access door for occasional maintenance.

#### Fully Sealed Keyboards

Two of our three ergonomic enclosure styles possess an integrated keyboard. Ready for hazardous area operation, those keyboards are fully sealed.

#### High-Bright Sunlight-Readable Displays

Whether you need a sunlight-readable display for an outdoor setting or indoor manufacturing environment, the high-bright monitors and computers are excellent for either environment.

VarTech's HMI kiosks also include rugged touchscreens for the rigorous operational demands of hazardous areas.

#### Industrial Pedestal Mounts and Arm Mounts

Often ordered with their versatile pedestals and arm mounts, the latter of which include swing and swivel arms,

we customise every ToughStation kiosk to the customer's requirements.



### Industries Using ToughStation Hazardous Area Kiosks

#### 1: Life Sciences

Available with a touchscreen compatible with gloves, these workstation kiosks are effective HMI solutions for pharmaceutical environments such as labs.

#### 2: Manufacturing

A reliable solution for operating and monitoring machinery and processes in factories with C1D1 or C1D2 areas, these products offer complete solutions customisable to the needs of applications in industrial environments.

#### 3: Oil, Gas and Energy

Reliable in the often harsh conditions of oil and natural gas production facilities, the ToughStation HMIs include options for extreme temperature upgrades, allowing them to operate in outdoor areas with freezing temperatures or intense heat.



### Custom HMI's

VarTech Systems' rugged and industrial computers, monitors, and HMIs are always built-to-spec for the needs of each customer's application.



When an especially unique product has been needed, VarTech has developed custom HMI solutions for numerous companies.

#### Accommodating Unique HMI Needs

Their Ordering, Design and Manufacturing Processes

VarTech's Project Coordinators work carefully to assess the specifications required by each customer before recommending solutions. When a unique HMI product is needed, their Research and Development staff work with Unitronix to design a unit with specifications meeting your exact needs.

#### ISO 9001:2015 Quality Control Process

As an ISO 9001:2015 certified company, when creating any unit for a customer, they thoroughly test every component and function of each unit before it leaves the manufacturing facility to ensure that all features will be reliably operable long-term.

#### Features Customisable to Your Application

Mil-Spec and Mil-STD Computer Features

Their FieldStation, ToughStation and All-Weather are all used by branches of the U.S. military. Their availability to meet MIL-STD requirements such as MIL-DTL 38999 connectors support the units readiness for military applications.

Features of these computers and monitors customisable to military applications include EMI protection, shock and vibration protection, NVIS displays, and sunlight-readable displays. They also offer custom mounting solutions such as heads-up display mounts for constrained spaces in off-road military vehicles and naval vessels.

#### Function Buttons for Operator Interfaces

VarTech Systems offers computers and monitors ready for C1D1 and C1D2 areas. Coming in a wide range of display sizes, our hazardous area HMIs are designed for safety and offer custom peripherals including function buttons to serve as stop and start buttons for controlling industrial processes.

### Security-Centric HMI Peripherals

Across the industries we serve, security, particularly related to user access, is a top concern. VarTech's industrial HMIs offer security-focused peripherals such as RFID readers to scan employee IDs, biometric fingerprint scanners, and security cameras.

### Speakers, Microphones, and Thermal Printers

Most commonly used in their WeighStation weigh scale kiosk, their ability to add speakers and microphones to these HMIs allow for users of the operator interface to communicate with individuals in other locations; this is especially useful for hazardous areas where employees within the hazardous area must communicate with coworkers beyond the C1D1 or C1D2 area's restrictions.

In applications requiring paper record-keeping or the printing of barcode labels, their capabilities to add thermal printers to their HMIs solve the issue of having to go to yet another manufacturer to come up with a single solution.



### Industries Served

VarTech Systems' industrial HMIs, computers, and monitors are used in a diverse range of applications across industries; our versatility in building every product to unique specifications is a driving factor in this.

Customers they serve over and over again represent industries including :

#### Food Processing

Washdown area-ready, these HMIs with stainless-steel enclosures are customisable for applications within food and beverage processing facilities.

#### Life Sciences

Their aseptic stainless-steel HMIs are designed to safely and securely monitor processes in life sciences industry applications, including hazardous areas.

#### Manufacturing

HMIs, computers and monitors are built to handle the pressures of manufacturing facilities efficiently, monitoring and operating processes 24/7.

#### Marine Environments

Offering the ultimate weatherproofing technology, their NEMA and IP-protected computers and monitors offer reliable performance in wet environments such as aboard marine vessels.

#### Military & Defence

Meeting MIL-STD specifications as needed, their rugged military computers and monitors are ready for military applications, including offroad vehicles, naval vessels and portable units for frontline soldiers.

#### Oil, Gas, and Energy

VarTech's HMIs, ready for hazardous areas as needed, are relied upon for operator interface applications across the oil, natural gas, energy production, and energy and fuel distribution industries.

#### Transportation

VarTech serves the nonstop transportation industry with HMIs ready for indoor and outdoor applications through features such as sunlight-readable displays and rugged touchscreens.

## Need Assistance?

**Are you baffled, confused or even bemused by all the LCD's on the market and don't have enough spare time to wade through the cacophony of data sheets!**

## Talk to us and outline your requirements for a rugged computer, monitor or HMI

Unitronix are an innovative engineering-capable distributor and manufacturer of rugged, embedded computing solutions for military, aerospace and high-end industrial applications. We have a lot of technical experience and worked alongside VarTech for many years. Together we have supplied rugged, reliable long term solutions for our customers that are deployed in harsh environments.





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