GEMone
corp.

Introducing
GEM Sapphire V2

Comprehensive and instant live equipment-monitoring

ONE PLATFORM – UNLIMITED POSSIBILITIES

The latest product release from GEM, the new Sapphire V2, is another step ahead in the forklift telematics industry. Built to meet the demands of companies running fleets of industrial equipment, our products help you manage your assets under a single platform, seamlessly integrated with your business systems.

The GEM Sapphire V2 provides a rugged and versatile forklift-centric mobile-computing platform for a variety of Mobile Asset and Equipment User Management requirements.

GEM's robust Sapphire V2 platform is based on Android architecture, offering you a fully managed, flexible and proven solution. Its multi-platform reporting is suitable across a wide range of applications including forklifts, fleet vehicles and industrial equipment.

COMPLIANCE SOLUTIONS COVERED

The ability to remotely monitor equipment and driver activities helps your business to achieve compliance through:

- ✓ proactive management
- ✓ improved processes
- ✓ streamlined workplace practices.

GEM offers advanced, country-specific compliance solutions in North America, Australia and Europe and the Sapphire V2 meets all requirements for Occupational Health and Safety (OSHA) regulations.

The simple-to-use system is packed with safety enhancements, with the ability to:

- ✓ easily control drivers' licenses and training requirements
- ✓ complete mandatory driver operational checklists electronically prior to operation (replacing old paper methods).

Our customers achieve broad efficiencies, increased driver safety, and workforce and equipment optimization.
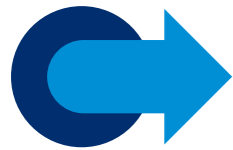
GREAT DESIGN – ADVANCED FEATURES

Cut operational costs

The GEM Sapphire V2 device provides a solid and cost-effective design by simplifying operational tasks, significantly extending product life expectancy, and lowering the total cost of owning your equipment.

Sapphire LCD plus compatible

On the surface, the Sapphire V2 contains all the features and functions of the current Sapphire LCD plus. Both reporting to the same user interface, they can happily be used individually or side-by-side on the same site.

Next generation additions

Look closer and see a range of standard enhancements that the Sapphire V2 includes, such as a light sensitive 7" color capacitive touchscreen display and a plug-in 80 volt compatibility with an IP65 rating. Take advantage of further enhancements with optional extensions, add-ons and accessories, including cameras and a DVR for recording purposes.

Built tough

While serving as an advanced fleet management solution, the Sapphire V2's rugged design is built to withstand rough commercial forklift environments, including operating in a wide range of temperature and weather conditions; withstanding vibrations and shock; and chemical resistance.

Packed with features

We've taken the Sapphire LCD telematics device to the next level. Added to all the practical and functional features of the original device is a features list that puts this system many years ahead.

SAPPHIRE V2 SOFTWARE SERVICES

The Sapphire V2 hardware is supported by a superior software solution. The new Sapphire V2 continues to report to the existing GEM Sapphire user interface. This renowned cloud-based platform provides advanced software tools to remotely manage all equipment and driver requirements expected in demanding forklift applications.

As a result, you can simply add the new Sapphire V2 unit into an existing Sapphire LCD location and both modules report to the same user interface.

Android software now also supports many additional applications, as well as remote, over-the-air system firmware updates and upgrades while the Sapphire V2 is still deployed in the field. All this allows OEMs and their customers to keep devices relevant – anywhere, anytime.

INTUITIVE DRIVER COMMUNICATION

Driver communication is intuitively simple, with driver access-control via a pin code or RFID swipe card, an interface with on-board sensors and devices, and the ability to send and receive driver messages. In addition, customizable reporting metrics are in place, and an individual OSHA start-up questionnaire comes as standard.

SETTING NEW STANDARDS IN RAPID LIVE EQUIPMENT-REPORTING

AUTOMATIC REPORTING

Instant set up
Set up a single installed unit with ease – the GEM Sapphire V2 immediately accesses available GSM or WiFi networks, and interacts with a selected range of devices and on-board sensors for live equipment reporting.

Simple reporting
Enjoy simple reporting via online dashboards, trend graphs, emailed reports and alarms, with the option to set up API integration into your own business system.

INSTANTLY UNLOCK THESE FEATURES

Minimal involvement – automatic reporting means there is no need for a project champion to manage this process.

Ongoing support – keep operating costs down with ongoing support from the GEM One team.

Instant access to information – access specific vehicle, site and customer reporting, customized to deliver the exact information you need.

Automatically set KPIs – change negative habits and improve operator performance.

GEM SAPPHIRE V2 SPECIFICATIONS

⚙ GENERAL SPECIFICATIONS

Remote Monitoring Systems for industrial equipment. Customized forklift business solutions

Enclosure: **IP65** Enclosure – **IP** rated as "dust tight" and protected against water projected from a nozzle. Supplied with RAM adjustable mounting kit

Cables and Connectors: IP68

Power Source: 12-80 Volt power input plus surge protection

Flexible: Firmware upgradeable remotely to keep up with any future new features

Wireless Interfaces: Cell 3.5G and 4G LTE, Wi:Fi (802.11 b/g/n) also GPS and Bluetooth 4.0

Certifications: FCC / IC USA and Canada, CE European, Pb Free, ROHS, MIL Standard, ISO7637 and J1455

🖵 LCD DISPLAY FEATURES

Capacitive Touch Color LCD: 7" Color TFT LCD, WVGA (800 X 480)

Display Backlight Multi-level backlight (white LED)

Touch Screen CTP: Capacitive touch panel

Light Sensor: Configurable for device backlight adjustment

Internal Microphone: High sensitivity, noise filtered and Speaker – Mono, 1 x 3W 90 dB Multi-level volume control

Customized Screen Options: Feature your company logos, pictures, diagrams etc

Multi Language Options: All languages available

Technician Diagnostics Screen: Displays and confirms which inputs and relays are connected. Also module displays serial number, firmware version, current impact setting, confirms network connection and network name.

Equipment Details Screen: Displays Fleet No., Asset Number, Machine Category, Model Type, Department and Last Operator logged in

Driver License Expiry: Countdown of license expiry on-screen

Settings: Adjust onboard impact-sensitivity setting

Help Screens: FAQs, Date & Clock

Supervisor Settings: Lockout and impact sensor-adjustment slide bars on-screen

Network: Signal strength displayed

Session Time: Current driver's time on unit and last message received

📶 ENVIRONMENTAL
The Sapphire V2 complies with the environmental conditions of MIL-STD-810F, SAE-J1455 and IEC 60529 as follows:

Shock & Random Vibration, according to SAE-J1455 **Mechanical shock** (operational & crash safety), according to SAE-J1455

Thermal Shock: -40°C/F ~ +85°C +185°F, according to MIL-STD-810F

Temperature: (operating) -20°C -4°F ~ +70°C +158°F, according to MIL-STD-810F

Flammability 5VB according to UL94 Sealing (IP65) according to IEC60529

Chemical resistance to: Gasoline, Diesel Fuel, Salt Water, Washer Solvent, Anti-Freeze water mixture, Soap detergents, Engine Oil, Alchohol

⊟ COMMUNICATION

Cellular: 4G LTE / 3.5 GSM / 802:11 – Standard cell or Wifi

GPS and Bluetooth: Standard

Global Network Options Available: Cover any mobile network across the globe.

Penta-band Multiband Device: Flexibility across multiple network bands.

Small Antenna: Unobtrusive and no extra cabling. Penta-band hinged wide-band high efficiency antenna.

Larger Whip Antenna: For very poor network areas 250mm (10") whip antenna.

🖥 SOFTWARE

Cloud Web-User Interface: No requirement to load any software on computers.

Multi-Tiered Access: Control access-level settings per user.

Unlimited: No restrictions on interface users. Access levels controlled by username and password.

Administration: Ability to manage own site-administration or our Helpdesk will do it all for you.

🔑 DRIVER ACCESS METHODS

In-Built PIN Code: Benefit of a touchscreen display, keypad is built-in.

GEM Swipe Card Access: Option is built into the LCD enclosure.

HID Card access: Option is also built into the LCD enclosure. Any site card needs to be tested as many HID variants exist.

Other site card readers: Plug-in readers can be added to suit other card types. All cards require testing first.

SAFETY & COMPLIANCE

Pre-Start Checklist: Critical and non-critical question settings. Cannot start unit until all pre-start questions answered.

Post-Start Checklist: Critical and non-critical question settings.

Randomized Checklist Questions: Questions are randomized every time a checklist is started.

Site Compliance Check: As opposed to equipment safety check this is a site-specific safety check. Ideal for high numbers of casual staff.

Checklist Failure Email or Text Alert: Alerts are sent when an operator fails a checklist.

Checklist Automated settings: Set specific times – four slots per day or at start of shift or by each new driver.

Lockout of driver after failed Critical Question: Requires Supervisor override.

Impact Sensor: In-built multidirectional G-force measurement

Impact Direction: Indicative direction relative to equipment from impact reported.

Impact Alarm: Activate a light, buzzer, creep speed or switch on a third-party speed sensor, if fitted, after impact over a predetermined level.

Impact Email or Text Alert: Alerts are sent when an impact exceeds the alert threshold.

Driver Messaging: Send an individual or group of units a unique message. Message will only display when vehicle is stopped. Driver can acknowledge with a selection of four responses including one custom response.

EQUIPMENT MANAGEMENT

Ignition time: Key hours

Digital Inputs: Use as a timer for seat, traction, lift, engine hours, for example, or as an alert for temperature or coolant alarms

Equipment Management Optional Items:

Weight Indicator: Display digital current weight. Tare load ability.

Hydraulic pressure sensor: Measure laden verses unladen activity or overload alert

BMS – Plug In or Bluetooth options: Battery Monitoring System. For electric equipment, measure battery status such as: battery voltage, electrolyte level, temperature, cycle count.

CanBus: OEM option to integrate directly into the vehicle management system

Keyless Start: Robust ignition switch replaces standard key barrel. Three-Position Off / Ignition / Start Lever Actuator

Idle timer shut off: Shut unit off after X minutes of driver off-seat

Impact alert flashing light/siren: Impact over selected threshold activates warning, when unit is turned off driver is locked out until Supervisor overrides.

Seat Belt Lockout: Vehicle will not start unless seat belt is connected. Requires a seat belt with a switch which we can provide.

GPS Geo-Fence: Set up virtual zones around buildings for equipment control and location. Can also switch speed limiter or flashing light on entry or exit to building.

GPS Impact Plotting: Plot high impact areas on a map. Ideal for larger sites.

GPS Location: Mapping for equipment location, routes traveled. Both street and satellite views.

INSTALLATION

Increased Voltage capability for direct connection to 80 Volt units

OEM Looms: Looms supplied for factory OEM install. Custom fittings available to improve fitting time.

LCD mounting bracket: Standard kit is an adjustable RAM mount: a 100mm (4.3") arm with a 50mm (2") round base.

Overhead Guard Sandwich Panel: Aluminum sandwich panels for mounting to an overhead guard.

HOW YOU CAN ORDER GEM SAPPHIRE V2

Get ahead of your competitors by contacting GEM One.

Email ✉ **sales@gemonecorp.com** or call ☎ **+1(844) 275-2801**

gemonecorp.com

FC CE Pb RoHS compliant