The TIA Portal represents the intuitive, efficient and proven engineering framework for all automation tasks.

SIMATIC HMI Mobile Panels wireless
Flexible configuration of effective ranges and zones via the SIMATIC WinCC visualization software

usa.siemens.com/mobile-panels

Answers for industry.
Wireless operation and monitoring: complete security – anytime, anywhere

Whether during setup or maintenance, or in productive operation: flexibility and comprehensive information at the machine are important factors in order to reduce costs, improve production efficiency and increase availability throughout the system. The conditions for this are created by portable, wireless operating devices. These provide visual contact with the process and immediate access to precise information, making it possible to respond to specific situations instantaneously. The innovative SIMATIC HMI Mobile Panels 277 IWLAN offer particularly flexible solutions for applications requiring additional safety functions – to protect persons, machines and the environment.
Innovations by the world market leader
As the world market leader in operating and monitoring, Siemens offers the SIMATIC Mobile Panel 277 IWLAN, the first wireless operating device with full HMI and safety functionality. This innovative Mobile Panel meets the highest requirements in terms of flexibility and security. It combines three technologies of Totally Integrated Automation, the open system architecture from Siemens: namely mobile operation and monitoring, Industrial Wireless LAN (IWLAN) and integrated safety.

The SIMATIC Mobile Panel 277 IWLAN offers you a wealth of crucial benefits, regardless of sector or application.

Highlights

- State-of-the-art IWLAN based on PROFINET
- Mobile use at all operating locations in the plant with direct visual contact to the process
- Safety Integrated – emergency stop and acknowledgment buttons for safe operation to SIL 3/PL e
- High availability through virtually uninterrupted transfer of safety-critical radio signals from one access point to another (iPCF-MC, rapid roaming)
- Non-stop operation through powerful batteries and flexible battery change concept
- Definition of person- and location-specific HMI authorizations
- Use of transponders for effective range limitation or RFID technology for local device identification
- Key switch for ensured authorized operation
- Flexible configuration of effective ranges and zones using the display software SIMATIC WinCC in the TIA Portal
**SIMATIC Mobile Panel 277 IWLAN: ergonomic, efficient and robust**

With the SIMATIC Mobile Panel 277 IWLAN you can rely on maximum flexibility and maximum user convenience. Thanks to its high IP65 degree of protection, it is dust-proof and splash-proof and its dual-walled construction and rounded casing make it extremely shock-resistant – with a drop height of over 1 meter. This innovative device is available with and without safety functionality and offers you many benefits.

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**Safe**
- Fail-safe variants with two 3-stage acknowledgment buttons (safety switch) and an emergency stop button

**Convenient**
- 18 function keys – these can also be configured as direct keys with rapid response time
- Ergonomically designed and lightweight for fatigue-free operation
- Clearly laid out and easily accessible operating elements
- Two ergonomic illuminated push-button keys for assigning to the most frequently used functions

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### Samsonite: fail-safe mobile operation and monitoring in the logistics center

For around 100 years, Samsonite has been a world market leader in innovative travel products and accessories. The company’s European headquarters is in Oudenaarde, Belgium. This is also where the logistics center for the European market is based. A year after the successful modernization of a central sorter, Samsonite implemented an additional PROFINET-based automation solution in a new logistics center in Belgium – complete with safety system and wireless operation. A wireless, fail-safe SIMATIC Mobile Panel 277F IWLAN is now used for flexible, on-site operation of the sorter in the slow-mover warehouse.

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Further references on the Internet at:
- [www.siemens.com/simatic-mobile-panels](http://www.siemens.com/simatic-mobile-panels)
- [https://webservices.siemens.com/referenzen](https://webservices.siemens.com/referenzen)
Integrated safety function: SIMATIC Mobile Panel 277F IWLAN

For applications with increased safety requirements for humans and machines, the SIMATIC Mobile Panel 277F (Failsafe) IWLAN with safety function is recommended. The device, which has IEC 61508 TÜV certification, facilitates compliance with the highest safety requirements according to the relevant standards: EN 62061 up to SIL 3, EN ISO 13849-1 up to PL e as well as EN 954-1 up to Cat. 4.

Mobile operation and monitoring in IWLAN networks: The following options are supported

- **Application with Mobile Panel 277F IWLAN (RFID tag)**
  - Location-independent operation and monitoring possible: zones can be defined using transponders.
  - In addition, operating and monitoring functions can be blocked or released – depending on the zone in which the user is located – or automatic open picture / close picture can be enabled.

- **Application with Mobile Panel 277F IWLAN (transponder device)**
  - Location-independent operation and monitoring possible: zones can be defined using transponders.
  - Login to the effective range via cost-favorable RFID card (Moby D MDS 100)

- **Application with Mobile Panel 277F IWLAN (transponder device)**
  - Location-independent operation and monitoring possible with additional fail-safe operation (safety): transponders can be used to define effective ranges in which safety-related operating functions are required.
  - Functionality as shown in the second picture is possible in addition: fail-safe operation.

**IWLAN range**

In the plant’s IWLAN range, the operator panel communicates via a wireless network – also in fail-safe applications when using an F-CPU. The emergency stop button is effective in this range.

**Effective range**

Via the Simatic WinCC engineering software, effective ranges for safety-related machine operation can be defined during configuration. An effective range is defined by means of RFID tags or formed with transponders.

The transponders are mounted in the machine’s vicinity and facilitate detection of the mobile system’s current position in the plant. As soon as the operator panel is located within an effective range and login has been completed, fail-safe operation is supported via the acknowledgment buttons.

**Zone**

The user can define zones in which specific functions are configured – e.g. operation authorizations for entering or exiting a zone.

**Rapid Roaming**

The device may also be used in large-scale plants that are covered by a number of access points. As soon as the contact to the currently connected access point deteriorates, switchover to another access point within reach is effected via the iPCF-MC protocol. Radio signals that are themselves safety-critical, such as from emergency stop or acknowledgment buttons, or direct keys, are transmitted without interruption. This ensures uninterrupted smooth operation.
New possibilities based on IWLAN

Wireless solutions based on IWLAN are becoming increasingly important in machines and systems. Where high demands are placed on communication, users rely on deterministic radio and the leading industrial Ethernet standard PROFINET. IWLAN and PROFINET, with fail-safe PROFIsafe profile, make safety-related communication possible – even wirelessly. We offer you everything you need to implement reliable solutions on the basis of IWLAN. Our applications, tested by TÜV and IFA (institute for industrial health and safety), show that you can reliably reconcile safety and cost-savings with our range of products.

A plus for reliability:

**SCALANCE W**

SCALANCE W represents a complete product range for IWLAN with various access points. The ruggedness of all components sets new standards for machine-level applications. High degree of protection IP65, resistance to vibration and permissible operating temperature range from -40 to +70 °C represent essential features of our offering.

SIMATIC Mobile Panels 277F IWLAN support excellent integration in our offered IWLAN infrastructure – on the basis of SCALANCE W access points. This supports the assembly of 2.4 GHz IWLAN networks and 5 GHz IWLAN networks specifically designed for industrial applications on the basis of PROFINET and PROFIsafe.

Your partner in IWLAN

We will support you in the planning and implementation of your IWLAN network and can help in all matters concerning safety requirements: with applicable fail-safe, TÜV-certified products and systems, and with our continuously updated knowledge of international standards and requirements.

**RFID tag device**

For applications with alternative safety equipment (e.g. robot cells with fences, pressure-sensitive mats or light curtains), the SIMATIC Mobile Panel 277F IWLAN RFID tag device is available. The log-in for the relevant operating areas is done on the RFID tag by means of chip cards (Moby D Smart Cards). The cards are configured quickly and easily by means of a start-up dialog in the Mobile Panel. All other device functions correspond to the transponder variants.

**Fail-safe control and communication**

The use of a fail-safe SIMATIC controller with the STEP 7 Distributed Safety optional package is necessary for the SIMATIC Mobile Panel 277F IWLAN. The controller allows standard and safety-related programs to be operated on just one CPU. In connection with PROFINET, the safety-related PROFIsafe protocol facilitates fail-safe communication with the SIMATIC Mobile Panel 277F IWLAN via IWLAN.

For example, when the E-STOP button is operated, the F-CPU (for example) triggers the immediate shutdown of the machines allocated to it – irrespective of the effective areas.

**Safety Integrated: Highlights at a glance**

With the SIMATIC Mobile Panel 277F IWLAN and the fail-safe SIMATIC automation system, you can take advantage of all the benefits of Safety Integrated: safety engineering that falls completely within the framework of Totally Integrated Automation. You will benefit from an integrated, total system of safety engineering and standard automation. Standardized engineering and continuous communication and diagnostics save considerable amounts of time and costs – in programming, start-up and maintenance.

As your partner, we offer a comprehensive range of trainings and services throughout the entire lifecycle of safety-technical systems and machines.

Discover more:

www.siemens.com/sitrain

SITRAIN
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Experience maximum mobility for operation and monitoring!

SIMATIC HMI – take a look!