

One Step Ahead.

Be first in your market—with trendsetting mobile products and solutions.

Hazardous Rated Mobile Devices
by Pepperl+Fuchs



Your automation, our passion.

 **PEPPERL+FUCHS**

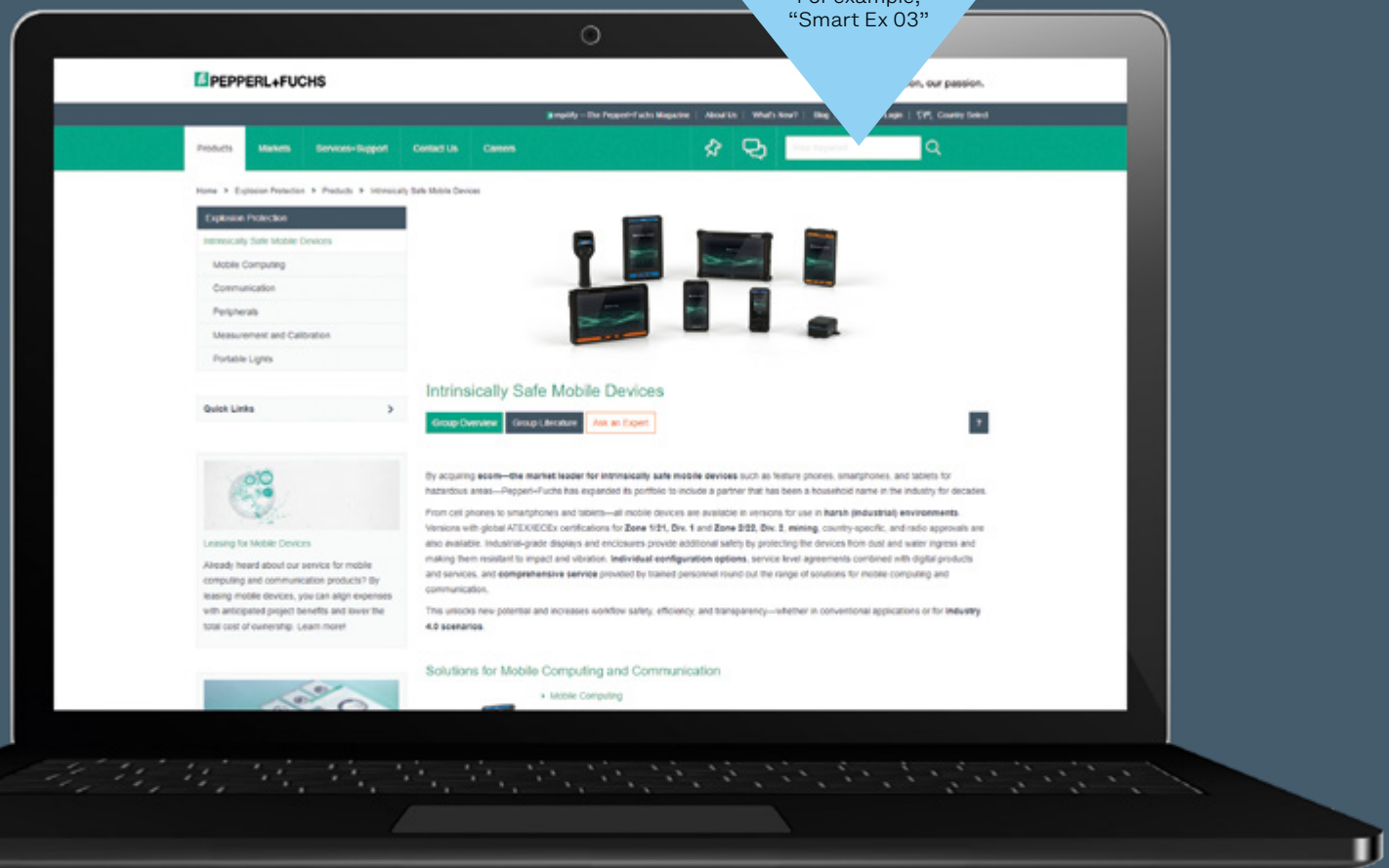
Find Your Mobile Device in Just a Few Clicks

Go online. Specify your requirements. Select your device. You can find the right solution for your application in just a few clicks. If you have any questions, our experts are available to take your call.

Online Search on the Pepperl+Fuchs Website

Enter the model number in the search field on the Pepperl+Fuchs website and get to your product selection immediately. Model numbers can be found in this brochure in the technical data summaries. Or you can navigate through our range of product families and groups. Product selectors help you find the right device.

For example,
“Smart Ex 03”



For more information, visit
pepperl-fuchs.com/pf-mcc

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Using Synergies. Combining Expertise for Mobility beyond Company Boundaries.

Enterprise Mobility Solutions from Pepperl+Fuchs are geared towards the requests and needs of our customers and pave the way for future-oriented digitalization. They offer a competitive solution concept and portfolio from a single source to enable the next level of enterprise-centric digitalization. This opens up completely new possibilities and increases the safety, efficiency, and transparency of processes in both conventional and IIoT applications—increasing the value of networked solutions for mobile employees, digital transformation, and therefore Pepperl+Fuchs Enterprise Mobility.

Enterprise Mobility

Digitalizing Hazardous Areas. Enabling Connectivity. Enhancing Enterprise Mobility.

Pepperl+Fuchs Is Paving the Way to Digitalization.

The **Pepperl+Fuchs brand ecom** is a leading manufacturer of comprehensive intrinsically safe solutions for mobile computing and industrial communication in potentially hazardous areas. The company has demonstrated its technological expertise with a number of innovations and tried-and-tested mobile solutions—from hazardous area-rated smartphones, cell phones, and tablets to accessories such as wireless headsets and barcode scanners with more than 500,000 devices in use worldwide. The new Digital Products and Services platform and enterprise mobility management system completes the portfolio.

Aava Mobile Oy from Pepperl+Fuchs is a leading innovator in the global enterprise tablet and handheld market. The Aava engineering team develops both industrial tablets and handhelds for and with a variety of vendors. With hundreds of thousands of devices in use worldwide, Aava Mobile Oy is a leader in the industrial mobile device market, offering rugged tablets for tasks that go beyond the use of consumer tablets. Aava Mobile Oy has been part of the Pepperl+Fuchs Group since 2021.

Customers around the world know the **Pepperl+Fuchs** Group as a pioneer and innovator in electrical explosion protection and sensor technology. Building on decades of experience and technical leadership, the company develops components and solutions tailored to the needs of its customers.

Cellular Technology

5G technology is a revolutionary advance in connectivity. It enables lightning-fast downloads, seamless streaming, and supports new technologies such as augmented reality (AR) and the Internet of Things (IoT). It holds vast potential for industry and makes our hazardous area-rated devices ideal for use in maintenance and servicing work.

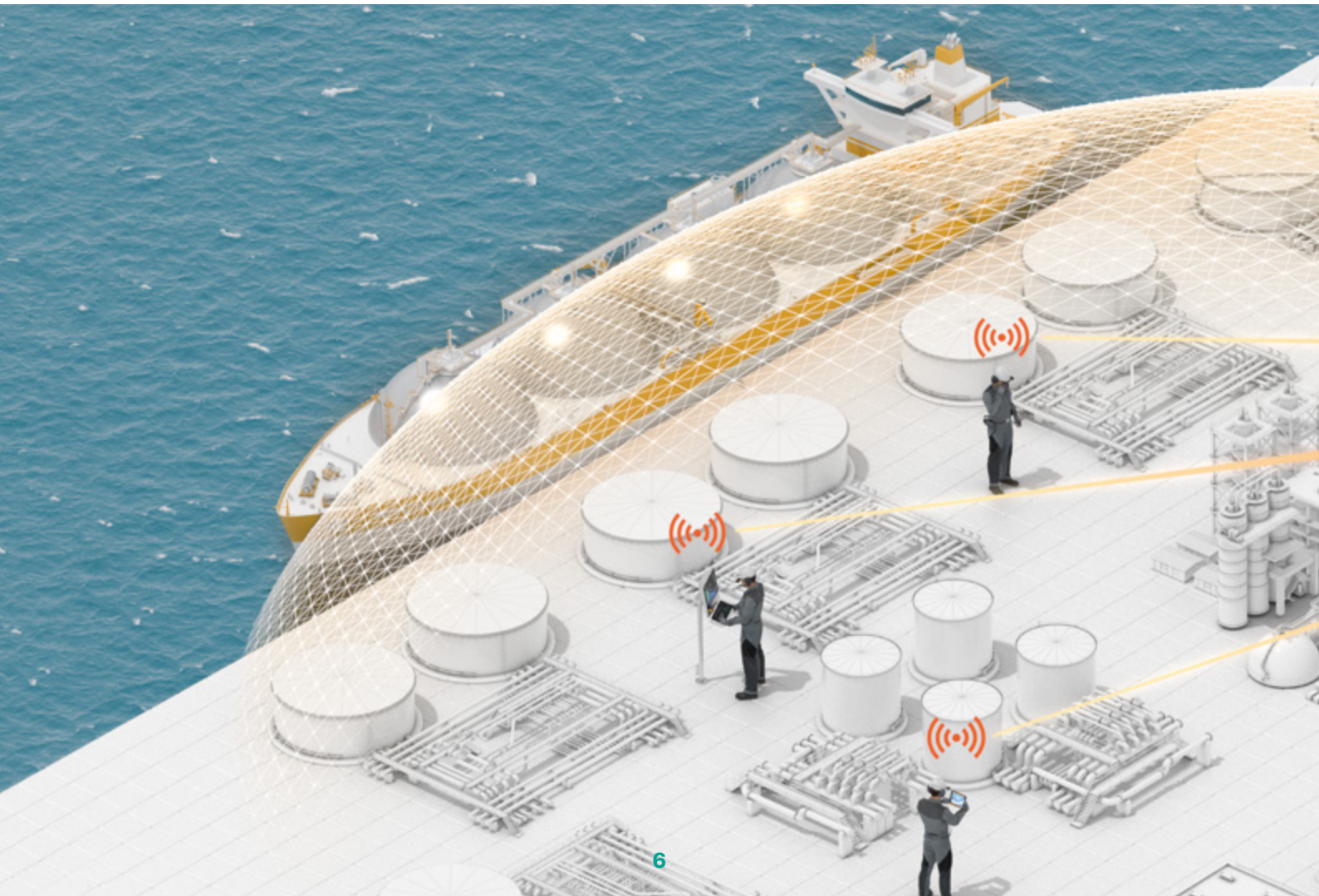
There are three different types of network technologies:

Public Networks

These are the familiar, traditional cellular networks. Many public networks have been supporting 4G LTE for a while and are now supporting 5G to further improve data throughput, low latency, and a better overall experience.

Private/Campus Networks

These networks are structurally similar to the public networks with some differences. One of these differences is the radio frequency bands that it operates on and who can access these networks. In addition to a much wider area of coverage than a Wi-Fi network can provide, a private cellular network can provide enhanced security protecting sensitive data.

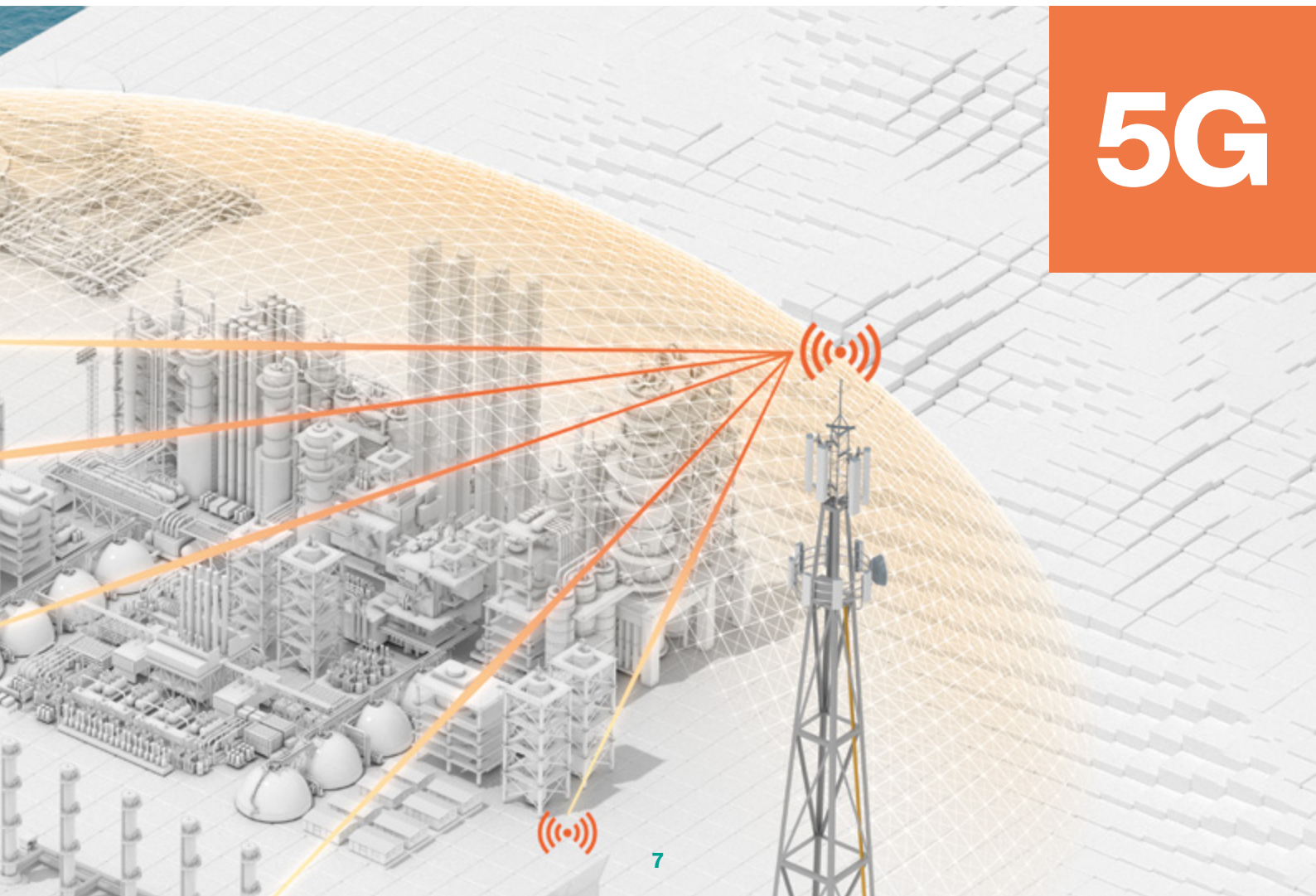


Network slicing

While supported to some extent in 4G, 5G adds many advantages and features that 4G is not able to support. In a 5G environment, network slicing is a method of using a common physical infrastructure to support multiple virtual and independent networks. This allocation can be adjusted depending on the needs of the application, allowing for better control of the network and a better experience with a given amount of radio frequency bandwidth. Each virtual network can have its own requirements, quality of service (QoS), security and latency requirements, all optimized for the function of the virtual network.

Advantages

- Highest security and reliability for users
- High data throughput with low latency
- Precise localization of objects in the field



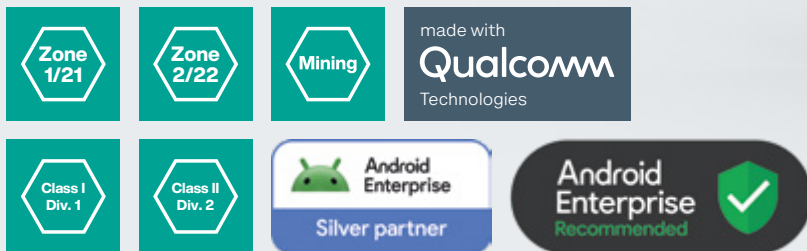
Enabling the Digital Transformation

High Performance

- Qualcomm 6490 Processor
- 8 GB RAM, 128 GB storage
- 5G, 4G, 3G, and 2G
- WWAN
- Wi-Fi 6E ready
- Bluetooth® 5.2
- GPS, GLONASS, Galileo, QZSS, BeiDou
- NFC

Power

- Powerful replaceable battery for a full working day (4400 mAh)



Today, skilled industrial workers play important roles in critical industries such as energy, manufacturing, and chemicals. The fusion of digital technology and IoT heralds a new era for them, enabling a connected workforce. Our mobile worker concept leverages mobile devices, asset tracking, analytics, and wearables to enhance their efficiency and safety. The launch of the new hazardous area-rated 5G smartphone Smart-Ex 03 takes mobile workers to a new level.

Camera

- 13 MP camera fit for use cases
- 5 MP front camera

Dedicated Keys

- User-programmable buttons for special functions, e. g. push-to-talk, camera, alarms
- Ergonomics, usability, and key position

Operating System

- Android 13
- Android™ Enterprise Recommended

Connectivity

- USB 3.1 Type-C
- Quickly and easily connected to monitor and accessoires via Desktop Mode

Features

- 6-inch display: robust Gorilla Glass 3, high contrast and readable in sunlight
- Slim protective frame
- Smart battery concept
- Improved audio connection with additional pins
- Dual SIM (eSIM/Nano SIM)
- Part of holistic accessory concept
- Future-oriented for AR applications or digital processes
- Three-year service contract available

Our many years of experience guarantee safety, performance, and reliability, delivering a sophisticated, smart solution for any digital application scenario from the experts in explosion protection, mobile computing, and telecommunications technology.

With the global service and support structure and remote support provided by Pepperl+Fuchs, sales specialists and system application engineers are available in more than 80 countries worldwide to solve any challenge.



For more information, visit
pepperl-fuchs.com/pf-smart-ex-03

Better Informed and Fully Supported

The Smart-Ex 03 offers companies advanced technology and outstanding connectivity, especially in industries such as oil and gas, chemicals, petrochemicals, pharmaceuticals, energy, and mining. In line with the Pepperl+Fuchs “Enterprise Mobility” concept, the smartphone ensures maximum efficiency in terms of digitization and cost savings.



Application: Seamless and Effective Troubleshooting

Industrial communication depends on reliable data transmission from the field to the control level. The mobile worker receives an error message on the 5G Smart-Ex 03 smartphone. Using unique identifiers, they can check which component sent the error message and gain access to valuable data from the field device sent via Ethernet-APL. A management system makes it possible to manage systems and order spare parts from any location.



Watch the video:
pepperl-fuchs.com/pf-troubleshooting



Application: Digital Work Order Management

The Smart-Ex 03 enables the digitalization of various business processes, such as work order management for planning and prioritizing work orders. In this process, mobile workers receive work orders on their smartphones, each containing a list of work steps that need to be completed to fulfill the order. This allows companies to guide their mobile workers through the entire work order process. In this way, digital work order management maximizes worker efficiency and simplifies the repair or maintenance of equipment in plants.



Watch the video:
pepperl-fuchs.com/pf-digitalworkorder



Application: Push-to-Talk Group Call

The Smart-Ex 03 enables encrypted and therefore secure, push-to-talk group calls with multiple people at different locations over 5G. This communication feature, supported by our device via a third-party app (not integrated), enables remote support for mobile workers and helps to carry out service and maintenance tasks in the field.



Watch the video:
pepperl-fuchs.com/pf-pttgroupcall



Tab-Ex® 03

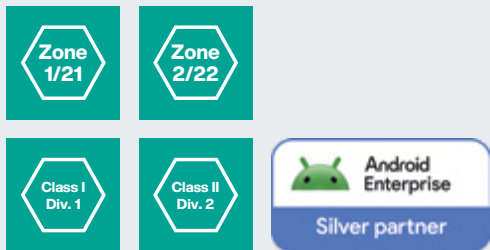
High Security Standards, Complete Protection

Operating System

- Android™

Connectivity

- Wi-Fi 802.11 a/b/g/n/ac/ax (2.4 G +5 GHz), HE80, MIMO, 1024 QAM
- Bluetooth® 5.0
- Wi-Fi Direct
- NFC EMV L1



By combining Samsung Knox with the Android operating system, the Tab-Ex 03 from Pepperl+Fuchs ensures the security of company data and processes. The device belongs to a select group of mobile devices that are part of the Android Enterprise Recommended (AER) program.

*4G LTE available on WWAN models only

Two Cameras

- 13 MP camera with autofocus and LED flash
+ 5 MP front camera
- Optional: No camera

Power

- Powerful Li-ion Battery 5050 mAh (Typical)
4900 mAh (Rated)

Dedicated Keys

- Free programmable key, e.g., for emergency calls, alarms or push-to-talk (PTT)

Memory

- 4 GB RAM
- 64 GB internal memory
- Optional: microSD (up to 1024 GB),
512 GB installed

Samsung DeX

- Connect to keyboard, mouse, and monitor

Extended Temperature Range

- -20 °C ... +55 °C

Features

- Based on Samsung's state-of-the-art Galaxy Tab Active3
- Android Enterprise Recommended
- Ideal 8" slim and lightweight design but at the same time better performance
- Reliable security update plan
- Designed for extreme temperatures from -20 ... +55 °C.
- Water and dust resistant
- Free programmable key ("red button") e.g. for emergency calls, alarms or push-to-talk (PTT)
- Google ARCore

Google's AER program includes manufacturers and service providers that meet high standards for device performance, usability and security. This addresses the desire for customized, flexible hardware devices combined with easy-to-manage software and a nearly seamless security architecture.



For more information, visit
pepperl-fuchs.com/pf-tab-ex-03

Tab-Ex® 03

The Next Generation of 8" Android Tablets for Use in Hazardous Areas

The rugged, highly secure Tab-Ex 03 tablet, suitable for hazardous areas, continues the success story of the 3rd generation of the 8-inch Tab-Ex series. The device features a slim and lightweight design with a powerful operating system that provides the tablet with industry-leading performance in hazardous areas. Samsung DeX Mode transforms the compact tablet into a desktop-like computer, and additional accessories, peripherals, digital products, and services ensure maximum flexibility.



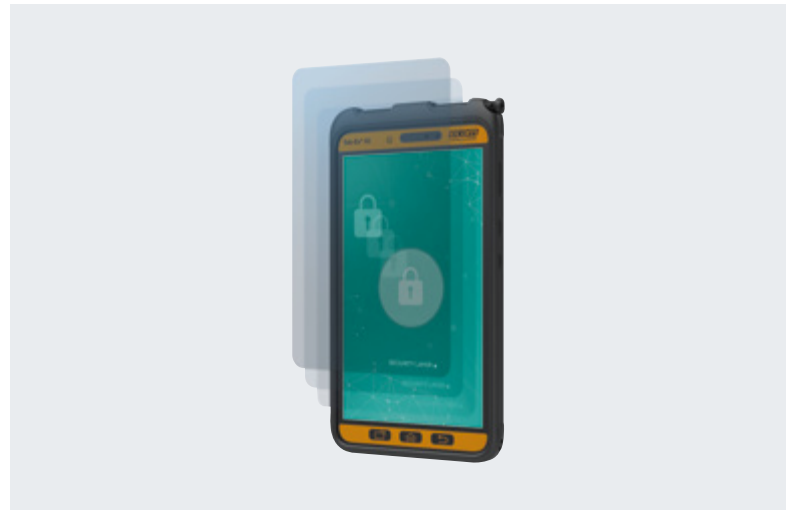
Total Reliability, Assuring User-Friendliness

The 8-inch Android tablet Tab-Ex 03 comes in a slim and lightweight design. Despite the slim form factor the tablet ensures high performance for use. The multitouch display can be operated with an S Pen and with gloves, and offers optimal readability even in direct light. From indoor pharmaceutical applications to harsh ambient conditions, the Tab-Ex 03 is designed for use in temperatures ranging from -20 °C to +55 °C and in the most demanding industries. As a proven product for industrial and harsh environments, it stands for a long-term strategic partnership with Samsung.



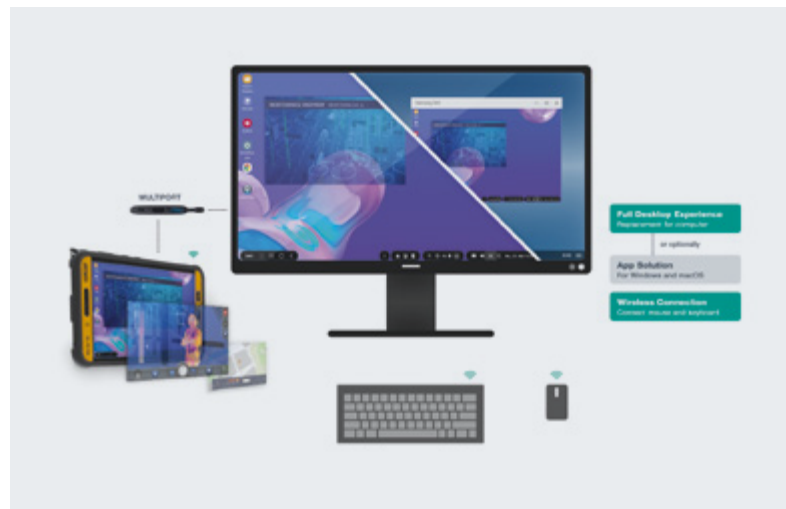
Advanced Security, Protecting Data and Device

Based on Samsung's state-of-the-art Galaxy Tab Active3, the device ensures high data and device security via Google Android™ operating system and Samsung Knox. The Tab-Ex 03 supports all Knox features such as mobile enrollment, configuration management, and E-FOTA. Besides biometric authentication and a baseline protection against malware, privacy hacks and more, the basic device, Samsung Galaxy Tab Active3, is part of the Android Enterprise Recommended (AER) program. Devices awarded with Android Enterprise Recommended fulfill the highest performance and security requirements of Google.



Efficiency to Go, Taking Mobile Working to New Dimensions

Via Samsung DeX Mode, the Tab-Ex 03 can be quickly and easily connected to a keyboard, mouse, and monitor in the office, providing a full desktop experience and offering with its one-device-strategy a cost-saving, equal alternative to desktop PCs. Charging and data transfer take place via a pogo pin connector. Special keys on the new Tab-Ex 03 can be customized—for example, as an emergency key for maximizing safety. Google ARCore™ is used to implement important augmented reality applications, such as remote support and training, and tailor-made tools for predictive maintenance. These features support quality assurance and make plants safer. The Digital Products and Services platform completes the solution with ready-to-use devices optimized for individual requirements.



High Security Standards, Complete Protection

Certification

- NEC/CEC
- ATEX/IECEX
- Class I, Division 2 Group A-D T5

Operating System

- Android™

Memory¹

- 4 GB RAM/64 GB Storage
- 6 GB RAM/128 GB Storage

Samsung DeX

- Connect to keyboard, mouse, and monitor for a desktop-like experience

Dedicated Keys

- User-programmable buttons (alarm key, camera, etc.)



By combining Samsung Knox with the Android operating system and 5G, the Tab-Ex 04 Pro from Pepperl+Fuchs ensures that company data and processes are secure. The multilayered security of the Knox platform work together to protect against viruses, malware, and similar threats.

¹Variations in storage/memory possible depending on country/region.

Two Cameras

- 13 MP camera with autofocus and LED flash + 8 MP camera

Power

- Powerful replaceable battery (7600 mAh)

Extended Temperature Range

- -20 °C ... +55 °C (DZ2)
- -20 °C ... +50 °C (D2)

Ports

- Pogo pin for power supply and data transmission
- USB-C

Connectivity

- Wi-Fi standard 802.11 a/b/g/n/ac /ax (2.4 G + 5 GHz)
- Wi-Fi 6
- Bluetooth® 5.2
- GPS, GLONASS, Beidou, Galileo, QZSS
- B48 (US model only)
- 4G LTE and 5G available on WWAN models only¹

Biometric Authentication

- Fingerprint sensor for Div. 2



For more information, visit
pepperl-fuchs.com/pf-tab-ex

Features

- Rugged 10.1" (25.66 cm) tablet for hazardous areas
- Fast data connection with 5G and Wi-Fi 6
- Latest available Android™ version
- 13 MP rear camera + 8 MP front camera
- Replaceable SIM

For additional security and convenience, the device offers biometric authentication via facial recognition and a fingerprint sensor (only applies to the D2 version).

Tab-Ex® 04 Pro

The World's First 10", 5G Android Tablet for Hazardous Areas

The Tab-Ex 04 Pro expands the Tab-Ex® Pro series as the world's first and only 10-inch, 5G Android tablet. The rugged, highly secure tablet is based on Samsung's state-of-the-art Galaxy Tab Active4 Pro and comes in a slim and lightweight design. The tablet's 10-inch screen is ideal for demanding applications. Samsung DeX Mode provides an operating mode that is similar to a standard desktop mode. Additional accessories, peripherals, digital products, and services ensure superior flexibility.



High Performance. Optimized User Experience Design.

The new 10" Android tablet features a slim and lightweight design. The practical 10-inch widescreen is made for demanding applications or web-based content and can be operated with gloves and the Samsung S Pen.

Designed for use in temperatures from -20 °C to +55 °C, it is a proven product for industrial and harsh environments and stands for a long-term strategic partnership with Samsung.



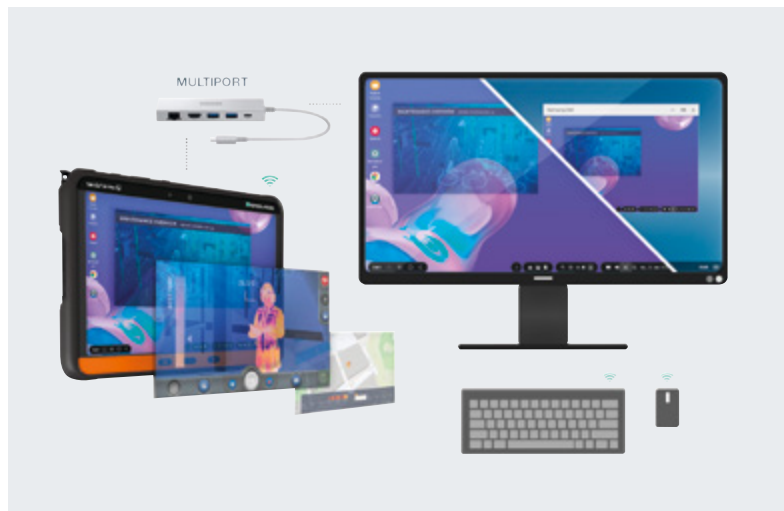
Cutting-Edge Technology for Industry 4.0.

With the largest display in its class, it is ideal for viewing and interacting with web-based and augmented reality content and apps, even in hazardous areas. A Qualcomm processor enables high data throughput and low latency. Sensitive corporate data can be protected by highly secure and dedicated 4G LTE and 5G campus networks.



Impressive Performance, Ideal for Mobile Workers.

Via Samsung DeX Mode, the tablet can be quickly and easily connected to a keyboard, mouse, and monitor in the office, transforming the tablet into a practical, user-friendly desktop-like computer. Charging and data transfer take place via a pogo pin connector. Google ARCore™ is used to implement important augmented reality applications, such as remote support and training, and tailor-made tools for predictive maintenance.



Defines What a Complete Tablet PC Should Look Like

Processor

- Intel® Core i5-1235U, 12. Gen.

Operating System

- Windows® 11 Pro

RAM

- 16 GB (4800 Mhz, DDR5)
(32 GB optional)

Internal Data Memory

- 256 GByte NVMe PCIe SSD
(512 GB optional)

Power

- Li-Ion battery (3900 mAh)
■ Up to 8.5 hours of battery life



The device combines a robust design and large screen size with superior performance and supports field service applications in all industries as a supplement or even replacement for a desktop PC, laptop or wall-mounted display.

Two Cameras

- 2 MP front-facing camera
- 8 MP rear camera with flashlight

Communication

- Supports 4G LTE/Intel® Wi-Fi 6E AX211 (802.11 ax)
- Augmented Reality
- Bluetooth® 5.3
- GPS, Glonass, Beidou, Galileo
- Optional: 1 × Nano SIM

I/O Ports

- 1 × Thunderbolt® 4
- 1 × USB 3.2 Gen 2 (Type A)
- 1 × Micro-HDMI
- 1 × Audio in/out (combo jack)
- 1 × microSD card (microSDXC)
- 1 × DC-In jack

Connectivity

- 1 × Docking connector (35-pin Pogo)

Features

- 11.6" widescreen display readable in sunlight
- Capacitive multitouch screen
- 1-D/2-D barcode scanner (optional)
- 8.0 MP auto focus rear camera with LED Flash Light/2.0 MP front camera
- Optional high-capacity battery
- 6 buttons (2 user-definable keys)

Once your work in the field is completed, the Pad-Ex 01 P12 transforms into your PC via the optional desktop docking interface, allowing seamless integration into your office and corporate networks.



For more information, visit
pepperl-fuchs.com/pf-pad-ex-01

Pad-Ex® 01 P12

Windows® 11 Tablet: Rugged Mobility at Its Best for Zone 2/22 and Div. 2

The Pad-Ex 01 P12 is extremely robust and features the latest 12th Gen Intel® processors with Intel® Iris® Xe graphics, providing outstanding performance and graphics via its compact form factor. In addition, high-speed data transfer with Thunderbolt™ 4, Intel® Wi-Fi 6E and Bluetooth® 5.3 ensures smooth, jam-free processing.



Rugged Revolution Thin, Light, and Strong.

The Pad-Ex 01 P12 with its ultra-compact form factor has IP64 degree of protection, is drop tested from three meters and certified to MIL-STD-810H and MIL-STD-461F standards for maximum protection against the ingress of dust, dirt, and water. With its additional display protection, it offers complete protection against the harsh environments field workers face and minimizes strain on the body during long working hours.



Connectivity—Fast and Flexible.

With 4G/LTE wireless connectivity increasingly being used in hazardous areas, the Pad-Ex 01 P12 enables fast and seamless access so users can quickly access the information they need for the task at hand. For locations without Wi-Fi or 4G access in the field, the Pad-Ex 01 P12 offers up to 256 GB of SSD storage to meet your on-board data storage needs, backed by an i5 to ensure your applications run as smoothly and efficiently as possible.



Mobile Worker Benefits

As the centerpiece of the Mobile Worker concept, the Pad-Ex 01 P12 also supports the latest Bluetooth standards and enables real-time connection to both Bluetooth SmartReady Low Energy 5.3 (BLE) devices and older Bluetooth devices. This allows the mobile worker to benefit from the extended capabilities of the Pad-Ex 01 P12, such as data acquisition and measurement/monitoring devices, headsets, AutoID, and Bluetooth beacons for localization. Once work in the field is complete, the Pad-Ex 01 P12 becomes a PC via the optional desktop docking interface and can be seamlessly integrated into your office and company network.



Innovative Solutions from a Single Source

Pepperl+Fuchs offers a range of coordinated peripherals, accessories, and software solutions as an ideal complement to the Smart-Ex 03.



Applications 4.0

- Inspection/maintenance
- Asset management/tracking
- Collaborative working
- Scanning/auto ID
- Process automation/operations
- Lone worker protection/localization (GeolP)
- Engineering/installation
- Augmented reality (AR)
- Security/safety
- Push-to-Talk over cellular (PTToC)



Software

- User management
- Customized roles and rights
- Android Enterprise Recommended (AER)
- Android zero-touch
- Kiosk mode
- APKs
- API/3rd party



Hardware

Peripherals

- Scanner
- Camera
- Headset

Certification

- Ex certifications
- Regulatory
- Wireless certifications

Accessories

- Desktop charger/docking
- Spare battery
- Case
- Cradles



Safety

- Mobile worker
- Assets
- Data



Support

- Sales and application engineering
- Service level agreements
- Security patches
- Software updates



Digital Products and Services

- Preconfiguration/staging
- Mobile device management (over-the-air)
- Device analytics



Digital Products and Services

Digital Products and Services is a solution that combines automated staging, mobile device management, and device analytics. It can also be used as a full-fledged enterprise mobility management system if required.

At the customer's request, ecom's mobile devices can ship from the factory with predefined custom configurations such as security settings, applications, and wireless setup. This allows devices to be used anywhere in the world immediately upon delivery.

The devices can be managed via the ecom online platform and updated remotely at any time during operation without having to be sent to local IT staff or the head office.

Cloud servers hosted in Germany meet the highest data protection standards and guarantee high data availability and security.

One-time staging and enrolling can also be done internally via ecom production servers. If required, device diagnostics and analytics can collect real-time operational data and fault analyses to continuously monitor device statuses and fix malfunctions preventively or immediately.

Additionally, the platform analyzes historical data to detect critical software events, installations, and other safety-critical processes. A statistical accumulation of events can be used to establish correlations and causalities between software errors, geographical data, and Wi-Fi coverage, for example.

Digital Products and Services is a ready-to-use service that ensures quality and security for all devices. This saves time and valuable resources.

Staging and Enrolling

eCSL—Custom Service Load

- Custom device preconfiguration
- Delivered ready to use

Configuring and Management

eMDM—Mobile Device Management

- Update devices around the world simultaneously

Device Diagnostics

- Analytics help avoid problems and correct errors



Peripherals for Use in Hazardous Areas

In addition to the mobile computing and communication portfolio, users can choose from a range of complementary peripherals. Intelligent devices such as the intrinsically safe RSM-Ex 01 remote speaker microphone or the SM1P headset extend the range of mobile devices and are ideal for future IIoT applications.



Audio

Bluetooth® Headset SM1P

Users of the SM1P Intrinsically Safe headsets benefit from clear communication using its wireless capabilities as well as face-to-face communication while still protecting their hearing and remaining aware of the surrounding work environment.

It's the perfect solution for your hazardous environments such as explosive chemicals and fuels as well as combustible powders. The SM1P series is the next generation, intrinsically safe headset.

AutoID

Scanner Ident-Ex® 01

Using a unique modular design, the Ident-Ex 01 can be specifically configured to the customer's requirements by selecting different head modules. When requirements change, the head module on the unit can be replaced by one of the ecom-approved service centers.

For an overview of all currently available head modules, please have a look at the Ident-Ex 01 configurator at

ecom-ex.com





Available as a wireless Bluetooth or wired connection

Audio

Remote Speaker Microphone RSM-Ex 01

The RSM-Ex 01 comes with IP65/67 degree of protection and integrated noise-reduction function. It provides clear, high-volume audio (up to 103 dB). The RSM is intuitive and easy to use, even when wearing gloves.

The new 3.5 mm plug is intended for industrial applications and offers a rugged design, a safety screw for attaching the plug to a smartphone, and compatibility with current and future ecom products.

Additional headsets can be connected using the standard 3.5 mm plug.

Localization

BLE Beacon Loc-Ex® 01

BLE beacons are small radio beacons that emit a signal at periodic intervals. The Bluetooth® 4.0 standard makes the beacons compatible with most smartphones and tablets, and they can be recognized at distances up to 200 m (geolocation).

Mobile devices can evaluate beacon signals and interact with the user or other programs by using special applications. They can be mounted directly onto a suitable surface or with the optional mounting base.



Your automation, our passion.

- Industrial Sensors
- Industrial Communication and Interfaces
- Enterprise Mobility
- Hazardous Area Products and Solutions

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Pepperl+Fuchs Quality

Download our latest policy here:

www.pepperl-fuchs.com/quality