



Solutions. Technology. Simple.

## Airo® I-Safe™ 28



- **ATEX Zone 1, IECEx Zone 1 (World Certification)**
- **Super-rugged - IP67, MIL-STD-810-F/G**
- **eButton™ - Emergency Response Service**
- **Intrinsically safe 3.2 MP digital camera**
- **Data Capture (Optional): Barcode, RFID, Smartcard, Biometric scanner, Zigbee wireless**

The Airo® I-Safe™ 28 is designed and manufactured to meet the highest standards of safety under international standards, including the US Underwriters Laboratory Standard 913 (UL-913), the EU ATmosphères EXplosives (ATEX) Directive, and the IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEx System), which together provide Airo's world-wide certification coverage for global enterprises. These are highest level certifications, for instance the ATEX certification is under standard EN 60079-11 the ATEX assessment criteria for Zone 1 explosive atmospheres carrying the Marking: ATEX II 2G Ex ib IIC T4 (IECEx Gb). In addition, the Airo® I-Safe™ 28 operates on 600+ HSPA+/UMTS networks worldwide. This combination enables workers in hazardous

gas and dust environments around the world to maintain communications, run applications and capture mission critical data in a small, lightweight, use-anywhere smartphone, with confidence.

### Features

**Thousands of Business Specific Applications:** Airo® handsets run the software used by all the world's top corporations, from Microsoft Office and Outlook, to applications written specifically to address problems in Compliance, Regulation, Operations, Lone Worker Protection and Emergency Response.

**Super-Rugged for Enterprise Use:** Tested tough to very high standards - IP67 certification means excellent dust, dirt and water resistance, while MIL-STD-810-F/G ratings for Drop, Shock, Vibration, Humidity, Water, Sand & Dust means its tough enough for the U.S. Military, or your workforce. Drop it on a concrete floor or in a muddy jobsite without missing a step.

**Best-in-Class GPS Capture:** Not only does Airo® give you very precise location information and blazing fast Time-To-First-Fix, you also get anti-jamming technology to further ensure good, clean, geo-located data to run your enterprise, and keep track of human assets.

**Emergency Response:** When activated by a user, eButton™ simultaneously delivers location data and connects a voice call at the push of a button, launching a proprietary "Triage" function that allows users to communicate in a customised protocol to designated response centers, keeping your field forces and business safer.

**Global Remote Management:** Airo® devices enable Mobile Device Management so you can manage all your devices including things like user rights and privileges, response escalation, messaging protocols, remote device management, tracking/location, geo-fencing (inclusion/exclusion), routing, rescue service provisioning, enterprise peripheral data management, and remote login/logout dead man alert, among others to generate maximum value in the place where things happen... the work site.

**Superior Security:** In a time when wireless communications are easily intercepted, Airo® offers 256 AES voice and data encryption to ensure that private information remains private and controlled, while devices can be remotely wiped or bricked in order to provide even more security.

**Intrinsically Safe High Res 3.2 MP Digital Camera:** In times of high regulation and record keeping demands, the camera is useful to capture visual data, like pictures of conditions on the ground, video of problem areas, or even to capture barcodes without an unwieldy enterprise device.

**Field Force Management:** The perfect tools for managing your human assets, Airo® devices run all the best logistics, route planning and assets tracking programs, and are built for PTT use. Excel at intelligent scheduling and dispatching of assets to different locations, while minimising costs and maintaining great customer service.

**Proprietary Middleware Service:** Airo® middleware enables highly secure, low latent (worldwide), low cost, two-way data communications that allow you to integrate beneficial back-office applications (your custom app, third-party app, etc.) into your mobile environment, lowering TCO and creating greater control and consistency across your IT infrastructure.

**Ongoing Support:** You can act with confidence knowing that the Airo® I-Safe™ 28 will be around. Support is planned for three years and the popularity of the device ensures it. For ease of use and incorporation, leasing and Premium Care are offered.

# Technical Specifications

## PHYSICAL SPECIFICATIONS

Super Rugged Monoblock  
Base Dimensions: 142.2mm x 68mm x 24.4mm  
Weight: 296 grams  
Display Type: Resistive Touch (works with gloves)  
Size: 2.8 inch diagonal (320x240)  
Color: TFT, 16 million colors, luminous  
Color Depth: 16 bit/pixel  
Backlight: Low Power LED  
Keyboard: QWERTY Touchscreen, Alphanumeric  
Expansion Slot :2 Gigabyte microSD slot  
Audio Enhanced Audio with Noise Cancellation  
Dedicated Speakerphone  
Audio jack 3.5mm Barrel Jack  
Notifications Alert LED's, Audio Notices, Vibratory Notices

## ENVIRONMENTAL

Certifications Ingress Protection 67  
Military Standard 810 F/G  
Achievements Temperature: -20C to 50C (-4F to 122F)  
Drop: 1.25 M drop to concrete 26 times  
Shock: 20 G's peak  
Vibration: 0.001 g2/Hz at 12.5 Hz, 0.034 g2/Hz at 20-40 Hz, 0.0000057 g2/Hz at 200 Hz, 1 hr/axis duration  
Humidity: 95% for 48 hours  
Water: 26.5 Liters of water per 929 cm2  
Sand/Dust: Zero ingress of sand/dust  
Sealing: Meets and exceeds IP 67 performance

## PERFORMANCE SPECIFICATIONS

Operating System: Microsoft Windows Embedded Handheld 6.5  
CPU: Marvell® XScale PXA270, 640 MHz  
Instruction Set - ARMv5TE  
Memory: ROM Type - Flash EEPROM  
RAM - 128MB  
Flash - 128MB  
2GB microSD Capacity

## BATTERY

Type: Lithium Ion Polymer  
Capacity: 1960 mAh at 3.7V  
Standby Time: 250 hours  
Talk Time: 6 hours (WAN)

## NETWORKS

Five Band UMTS 800/850/1900/AWS/2100 MHz  
Quad Band GSM 800/850/1800/1900 MHz  
UMTS/HSPA+, 3GPP Release 6/7

## WI-FI

Radio: Tri-Mode IEEE® Wi-Fi 802.11 a/b/g/n  
Security: WPA2, 802.1x, EAP-TLS/TTLS, PEAP/LEAP, EAP-FAST  
Voice-Over-IP (VOIP) Ready

## DATA

HSDPA/HSUPA data rate: DL-3.6/7.2/14.4 Mbps  
UL- 2.0/5.76 Mbps

UMTS data rates: DL and UL Max 384 kbps

Bluetooth®: Class III & IV v2.1

USB v2.0 (miniUSB) High Speed - Host & Client

## INTRINSIC SAFETY CERTIFICATIONS

Underwriter Laboratories UL 913 - Class 1 Division 1 Rating  
ATEX Zone 1  
IECEX Zone 1 (World Certification)  
Canadian Standards Authority CSA-C22.2 No. 157-92

## NETWORK-INDEPENDENT GPS

Integrated standalone with A-GPS  
2 Meter or better Accuracy  
6 Second or better Time-To-First-Fix  
Hybrid GPS/SBAS engine (WAAS, EGNOS, MSAS)  
20K real-time correlations  
Variable-length integration for superior performance  
-162dBm for deep-indoor & poor GPS signal  
-148dBm from cold start  
<1.5µW standby power  
Anti-jamming technology  
Extra-low power consumption/location fix

## INTRINSICALLY SAFE CAMERA

Type: 3.2 megapixel color  
Focus: Autofocus  
Video: up to 30 FPS  
Resident Data Capture: Photo, Video, 2D/1D Barcode

## DATA CAPTURE (Optional)

Barcode: Common Linear Codes and Other Linear Codes  
Postal Codes  
2D and Stacked Linear Codes  
Optical Character Recognition Fonts  
RFID: Low Frequency 125 - 134.2 kHz tags  
High Frequency 13.56 MHz tags  
Ultra High Frequency 860-960 MHz tags  
HID eProx  
Smartcards: Read and Write Capable  
Memory Cards, Processor Cards, Proximity Cards  
Biometric Scanner: FIPS compliant capture of fingerprint data  
Zigbee Wireless: Standard Zigbee firmware or Customized Zigbee Firmware  
Dex: Serial I/O connectivity - RS232 (custom formats available)

## WARRANTY

Standard 1 year warranty against defects in workmanship and materials from date of shipment for unmodified devices operated under normal/proper conditions.

Extended 3 Year Warranty Available.

Premium Service Available.

## OPTIONAL ACCESSORIES

Charging - International plugs, Car Chargers, USB  
Vehicle Mounts  
Silicon Jackets, Holster Cases, Spare Batteries, Spare Stylus

## OPTIONAL SERVICES

GroupLocate™  
GroupCommand™  
eButton™ - Emergency Response Service  
Mapping Client Application with Group View  
Remote Upgrade with On-The-Fly Update  
Web-Based Device Management  
Situational Awareness System™  
Push-To-Talk: OMA PoC PTT Private Client  
AES 256 Encryption  
Language Packs

