



THE KINEXON E-PAPER TAG - RECHARGEABLE

Real-time localization with integrated e-Ink display

The KINEXON ePaper Tag is the Ultra-Wideband basic component for a paperless material and goods handling in industry.

The ePaper solution combines high-precision UWB localization technology with smart process visualization. The KINEXON ePaper Tag can be placed on workpieces and load carriers without leaving any residue to track their entire value-added process. In addition, an integrated display automatically informs about production steps that have already been completed and those that are still pending. As a result, all information is digitized, repeated and printing processes are eliminated.

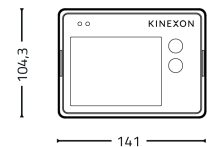
KINEXON ePaper solution is flexible and provides complete control and maximum flexibility for dynamic production.

USE CASES

The combination of high precision real-time localization and smart visualization is the key to a paperless production:

- ePaper-based workflow-instructions for shop floor employees
- Real-time interaction through configurable button (e.g. signal for replenishment)
- Dynamic labeling with current status of the product or material
- Digitization of all production & process relevant information

DIMENSION [mm]



KEYFACTS

RF SPECIFICATIONS

Positioning Principle	Real Time Location System (RTLS), Radio-based, Ultra-wideband (UWB)
Frequency range	UWB (IEEE 802.15.4): 3 - 5 GHz, 6 - 7 GHz
Positioning Update Rate	Configurable, typically 1 Hz in motion, 0.1 Hz in standstill
Positioning Data	3D (x, y, z)
Positioning Accuracy	< 20 cm (depending on environment), MAE

PHYSICAL SPECIFICATIONS

Display	4.2", 85 x 64 mm (400x300 pixel) 2-color: black/white, update time 3 s (25 °C) 3-color: black/white/red, update time 14 s (25 °C)
Button	Two buttons for manual event trigger (event sent via RF)
Indicators	Two LEDs (Status and Action)
Accelerometer	3-axis, +/-2 g to +/-16g, up to 200 Hz
Battery	Built-in 2.750 mAh lithium-ion rechargeable battery
Battery Lifetime	Up to 1.9 years on a single charge (depending on update rate)
Wireless Charging	Yes
Charging Time	~ 16 hours for a full charge to 100%
Material	Acrylonitrile styrene acrylate (ASA)
Weight	180 g
Dimensions	141 x 104,3 x 14,2 mm (168,8 x 104,3 x 24,6 mm including mounting bracket)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0 °C to + 50 °C incl. battery 0 °C to +30 °C incl. battery during charging
Storage Temperature	-20 °C to +30 °C incl. battery
Protection Class	IP67
Regulatory Compliance (cert. ongoing)	FCC Part 15 subpart C 15.250 (for indoor and outdoor use) ETSI EN 302065-1 ETSI EN 303883 ETSI TS 103361 SRRC Draft EN 301 489 - 1, -33 EN 61000-4-2, -4-3 EN 62479 1999/519/EC UN 38.3 IEC 62133