

# Data sheet

## ZIGPOS Badge



- Battery powered e-paper badge with IEEE 802.15.4 communication
- Designed for RTLS with pinpoint accuracy and for long lasting battery life
- RFID transponder; 802.15.4/a transceivers with antenna diversity
- ZIGPOS eeRTLS™ and ZIGPOS Home™ compatible module with integration in ZIGPOS Sensor-Actuator-Cluster-Library
- Credit card design and lightweight for convenient handling
- Update over the air functionality for the integrated software stack
- API for wireless display updates
- Adjustable measurement intervals and update cycles
- LED indications can be configured
- Compatible to ZIGPOS Gateway 2.4, Router 2.4 and Tag families
- Rechargeable via  $\mu$ USB or wireless Qi (optional)



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### SPECIFICATION ZIGPOS Badge

Item #	300502
Accuracy (line of sight)	30 cm at 500 MHz bandwidth, 1 m at 83 MHz bandwidth
Identification	MAC address, RFID ISO/IEC-14443-3-Standard
Ranging Frequencies	3,5 – 6,5 GHz Ultra-Wide Band, 2,4 GHz ISM Band
Transmission Power (max.)	-41,3 dBm UWB, 3,5 dBm ISM
Power Supply	Rechargeable 450 mAh Li-Ion battery
Current Consumption	active < 150 mA / inactive < 2 $\mu$ A
Capacities	100000 – 600000 positions per battery
Update Rate	max. 10 Hz
Power Supply	$\mu$ USB (5V), optional: Wireless Charging (Qi)
Data Rate	250kbit/s standard, up to 6 Mbit/s
Communication	IEEE 802.15.4/a compatible, range up to 500m LOS
Enclosure	95 x 52 x 9 mm, available in black/white
Weight	46 g
Environment, IP class	0°C to +45°C Operating Temperature, IP 44
Certification	CE, (FCC & CCC pending)
Updates	ZIGPOS over the air
Peripherals	E-paper display (2.7"), 264 x 176 pixels 9 axis inertial sensor 8 Mbit Flash, Reed-switch 3 x LED (red, charging $\mu$ USB, green)