

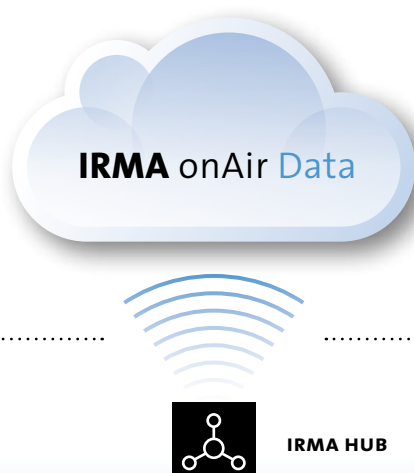
IRMA onAir Kit

EN

IRMA onAir comprises the counting data interfaces in the cloud and the equipment for the vehicle fleet. The IRMA onAir Kit describes the components fitted into the vehicles. These are, among others, the passenger counting sensors IRMA MATRIX which are installed above the doors and

connected to a mobile transmission unit – the IRMA Hub. The data logger IRMA Hub records counting results for each halt with a time stamp and geolocation information, from which the data sets are assembled and made available in the cloud via APIs.

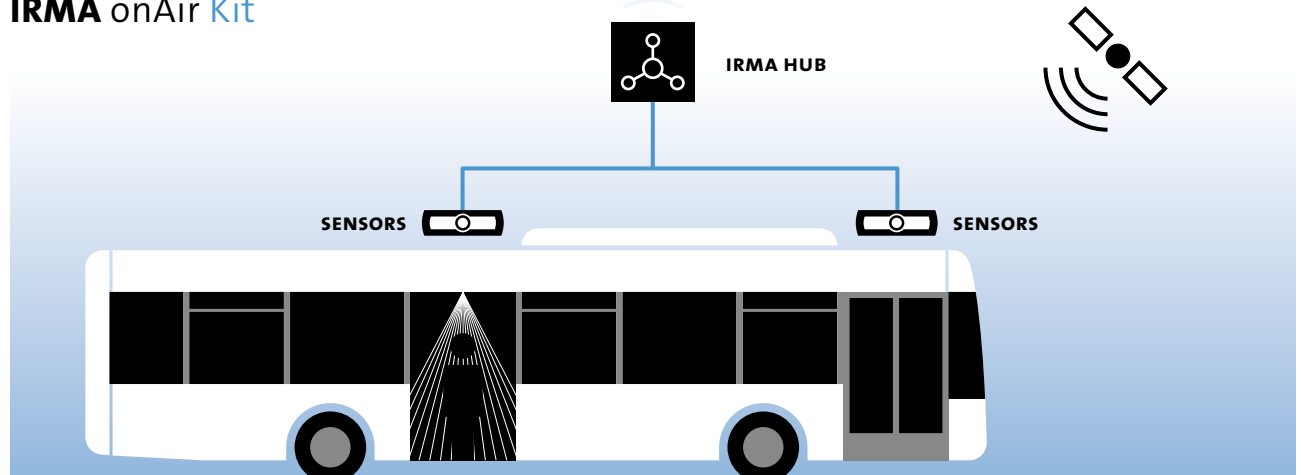
IRMA onAir Cloud






IRMA onAir Data

Cloud-based solutions for receiving, storing and transfer of counting data, status data and system information.

IRMA onAir Kit



TECHNICAL DATA IRMA HUB

Dimensions	• W x H x L: 138 mm x 27 mm x 92 mm	Power supply	• 24 V DC from the vehicle on-board network
Protection class	• IP54 acc. to EN-60529	Weight	• approx. 150 g
Approval for cars	• ECE homologation		up to 2 SIM cards
Radio communication	• WLAN (802.11 b/g/n) • GSM (2G GPRS, 3G UMTS)		Real-time data transmission
Internal memory	• 270,000 records for counting data and waypoints • Optional: Max. 32 GB SD Card		Support
Service interfaces	• Wireless remote servicing • USB 2.0		
GNSS receiver	• NAVSTAR GPS, GLONASS, Galileo, Beidou • 72 channels		



IRMA Hub

IRMA Hub is a mobile data logger which is connected to IRMA MATRIX counting sensors via CAN cabling. The counting data recorded are stored in the internal memory (4GB eMMC) of the IRMA Hub until they are transmitted to the cloud via a secure connection. Data transmission is wireless via mobile radio communication (2G, 3G) or WLAN.

Up to two SIM cards ensure that network and provider changes do not impair availability, while the satellite location (NAVSTAR GPS, GLONASS, Galileo, Beidou) reliably relays the exact position of the vehicle. Digital inputs for the connection to door contacts and door control systems improve the recognition of stops.

IRMA MATRIX



The IRMA MATRIX sensor – featuring a reliable and highly accurate technology, and which has already been proven in the market – is used for passenger counting. A sensor matrix of 500 pixels enabling the IRMA MATRIX sensor to measure the distance to the object and record it three dimensionally yields an accurate image of the entire door area.

This is possible thanks to the time-of-flight (TOF) technology which determines the distance from the object based on the travel time of the light signal.

The system concept enables reliable counting despite adverse environmental influences such as constantly changing lighting conditions, humidity or dirt. This allows the detection of the presence, shape and movement of persons in the sensor's field of view with a high degree of accuracy. In addition, a distinction can be drawn between children, adults and certain objects based on body height and further parameters.

The IRMA MATRIX sensor meets even the most stringent demands of passenger counting thanks to its high degree of accuracy in detecting stops.

on board
on the spot
onAir

iris-GmbH | Ostendstrasse 1–14 | 12459 Berlin | Germany
Telephone: +49 30 58 58 14-0 | E-mail: mail@irisgmbh.de

 twitter.com/irma_onair

 [linkedin.com/company/irma-onair](https://www.linkedin.com/company/irma-onair)

www.IRMAonAir.com