

# JANUS FME Exterior Transponder.

## The high performance exterior transponder for cars and trucks.



Kapsch's family of JANUS® exterior transponders are an exceptionally flexible solution for IAG-protocol applications where interior-mounted transponders cannot be used. The JANUS FME (Front Mount Equipment) replaces the ROADCHECK LPT (License Plate Transponder). There are 21 million E-ZPass® transponders in service.

### Scalability

JANUS exterior transponders are designed for high performance in both lane-based and open road toll collection environments, enabling agencies to migrate seamlessly to open road applications as resources permit.

### Durability, Longevity & Value

With a battery design life of 11 years, JANUS exterior transponders deliver optimum life cycle cost, and can be transferred between vehicles, expanding their usability and allowing for unit recycling as resources permit.

### Reliability

The JANUS transponders are designed to deliver unparalleled performance under the most challenging of circumstances:

- Vehicle speeds up to 100 mph

- Multiple lane, open road applications
- Stop and go bumper to bumper traffic
- Snow, rain, and fog

### Multiple Applications

- Electronic toll collection
- Parking payment
- Traffic monitoring
- Access control
- Any ITS application enabled by location-based vehicle identification

### Key Benefits

- IAG interoperable for function and performance
- Designed for lane-based and open road toll collection
- Lower life cycle costs than one-use permanently mounted tags
- Recyclable to new accounts
- Portability between vehicles



| Technical Specifications:      |  |
|--------------------------------|--|
| <b>Operating Frequency:</b>    | 915 MHz nominal center                           |
| <b>Dimensions (W x H x D):</b> | 8.4 x 1.8 x 1.1 in.<br>21.5 x 4.57 x 2.8 cm      |
| <b>Weight:</b>                 | 3.6 oz.<br>103 g                                 |
| <b>Case Color:</b>             | Black  |
| <b>Data Capacity::</b>         | 256 bits   |
| <b>Data Format:</b>            | Manchester Keyed Carrier                         |
| <b>Error Checking:</b>         | 16-bit Cyclic Redundancy Check (CRC)             |
| <b>Data Rate:</b>              | 500 kbps ± 10 % (uplink/downlink)                |
| <b>Operating Temperature:</b>  | -40°C to +75°C<br>-40°F to +167°F                |
| <b>Storage Temperature:</b>    | -40°C to +75°C<br>-40°F to +167°F                |
| <b>Vibration:</b>              | SAE J1455, 1.5 g                                 |
| <b>Shock:</b>                  | SAE J1211  |
| <b>Power Source:</b>           | Internal lithium battery                         |
| <b>Design Life:</b>            | 11 years   |
| <b>Mounting:</b>               | Exterior – SAE J1455, waterproof                 |
| <b>Regulatory:</b>             | FCC Part 90 and Part 15, Industry Canada RSS-137 |
| <b>Compatibility:</b>          | IAG protocol                                     |

### Kapsch Group

The Kapsch Group and its entities Kapsch TrafficCom, Kapsch CarrierCom and Kapsch BusinessCom are specialised in the future-oriented market segments of Intelligent Transportation Systems (ITS) and Information and Communication Technology (ICT). Kapsch. Always one step ahead.

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