RFID has always delivered the convenience of hands-free scanning with little or no human intervention. Intermec has taken that to the next level by adding the convenience of mobility with the IV7 Vehicle Mount RFID Reader. The IV7 is part of an award-winning family of Intermec readers that include several handheld and fixed-mount form factors.

As Intermec’s first packaged forklift-mountable RFID reader system, the IV7 is designed for serial attachment to any Intermec fixed vehicle mount computer. Both devices are built to withstand the rigors of harsh, industrial environments and are sealed to IP65 ratings. The Intermec vehicle mount computer, acting as the local host for the IV7, provides network management and security. The built-in DC-DC converter handles the noisy input power environment.

While portal mounted readers are capable of capturing pallet and carton data, the tagged items must be brought to the reader. Enterprises often need the flexibility to read RFID tags in certain and not-so-certain locations which may not be near the location of a fixed reader. The IV7 not only delivers the flexibility of “read where you need,” but also a cost advantage over portal reader systems wherever the number of dock doors is significantly larger than the number of fork trucks.

Commercial and government supply chains will find the IV7 ideal for pick and put away applications. The Intermec vehicle mount computer can command the IV7, equipped with a location tag-sensing antenna, to scan for RFID tags when a pallet is picked up. The IV7 captures not only the location of the pallet pick up, but also through what doorway it passed, the path the forklift traveled and where the pallet will be placed.

The wireless capability of the vehicle mount computer combined with the snappy reads of the IV7 mean that warehouse management systems are automatically updated with location status as the truck moves through tag-equipped zones, as well as with shelf location data when the pallet is dropped off or retrieved.

The IV7’s cast aluminum housing has built-in cable strain relief features, and with pre-drilled holes in the base plate, is designed for either U-bolt or flexible strap attachment to many makes of fork trucks. The IV7 can be mounted in any position on the vehicle within 3.5 m (10 ft.) of the vehicle battery or power source such as a terminal strip. The communication to the vehicle mount computer is via RS232 cable and connection.

- Specifically designed for mobile-mount applications
- Supports ISO 18000-6B and EPC Gen 2 RFID protocols
- Rugged cast aluminum alloy housing, sealed to IP65
- Designed for serial attachment to Intermec’s vehicle mount computers
- General purpose inputs/outputs

Product profile

IV7

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Physical Description
The IV7 is a rugged RFID tag reader designed to be mounted on a vehicle for mobile use and operation in the same harsh environment as the Intermec vehicle mount computer.

Compatible Intermec Vehicle Mount Computers
CV30
CV41
CV60
CV61

Physical Characteristics of the Reader
Length: 34.3 cm (13.5”)
Height: 9.5 cm (3.75”)
Width: 23.6 cm (9.3”)
Weight: 3.08 kg (6.8 lbs)

Standard Features
4 Antenna Connections
4 General Purpose Inputs/ 4 Outputs

Passive UHF Tag Protocols
ISO 18000-6B, EPC UHF Gen 2/ISO 18000-6C.
Configurable for mixed or single tag-type operation.

Power
Supply: Vehicle DC power 12 to 60V, 4.5 A maximum

Software
Application software for IV7 will reside on the “host” vehicle-mount computer. Application program interface (API), Basic Reader Interface (BRI), demonstration and example applications software are included in the RFID Resource Kit, available through Intermec’s Developers’ Library.

RF Characteristics
Antenna Connections: Four mono-static RF ports. FCC - Reverse SMA, ETSI - Standard SMA.
Output Power: 10 to 30 dBm, adjustable in 1 dBm calibrated increments
Frequency Ranges: FCC (902-928 MHz) or ETSI (865-868 MHz), factory configured to meet regional regulatory requirements

Communications Interface
RS232

Accessories
Vehicle-mount DC power cable kit
Antennas, and antenna cables

Environment
Operating Temperature:
-25°C to 55°C (-13°F to 131°F)
Storage Temperature:
-30°C to 75°C (-22°F to 167°F)
Humidity (non-condensing): 10% to 90%
Shock and Vibration Protection: Withstands standard material handling vehicle environments. Meets or exceeds MIL STD 810F
Environmental Rating: IP65

Safety & Regulatory Approvals
ANS INCITS 256:1999 (R2001) - Parts 2, 3.1 & 4.2
ANSI MH10.8.4
ISO/IEC CDI8000 Part 4
ISO/IEC WD18000 Part 6
• US/C UL Listed
• TÜV/GS Licensed
• CB Report for EN 60950, addressing all national deviations
• FCC OET Bulletin 65, FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields
• CENELEC ENS0364/ENS0357, European RF Exposure standard
• AS/NZS 2772.1, Australia/New Zealand RF Exposure standard
• Mexico NOM 19

Restrictions on Use
Some approvals and features may vary by country and may change without notice. Please check with your local Intermec sales office for further information.

Intermec reserves the right to make changes without notice to any products herein for any reason at any time, including but not limited to improving the reliability, form, fit, function or design. Please contact Intermec for current price list and availability.