TransCore’s Encompass® 6 Multiprotocol Reader is a fully integrated, self-contained 915 MHz wireless radio frequency identification (RFID) reader that is compatible with multiple industry standard protocols. The Encompass 6 is designed for high performance applications including open road tolling, parking and security access, electronic vehicle registration (EVR), rail applications, and traffic management.

The Encompass 6 Multiprotocol Reader can be integrated into an on-site lane controller or NEMA enclosure. The optional mux module allows the Encompass 6 reader to multiplex up to 4 antennas.

The Encompass 6 is compatible with any of the following standard protocols:

**Read Only:**
- American Trucking Associations (ATA)
- California Title 21

**Read/Write:**
- eGo® ISO 18000 6B
- Interagency Group (IAG/TDM)
- Super eGo (SeGo)
- ASTM v6

The Encompass 6 synchronizes with other Encompass 6 readers for multiple lane and multiple reader environments using either wired or GPS-based wireless synchronization.

### Features
- Multiprotocol
- Can be integrated into an on-site lane controller or NEMA enclosure
- 915 MHz RF band operation in North America
- Ethernet and RS-232 communications
- Multiplex up to 4 antennas
- Tag read buffering up to 500,000 tag transactions in non-volatile memory
- Software controlled RF power

### Applications
- Open Road Tolling
- Parking
- Security Access
- Electronic Vehicle Registration
- Rail Applications
- Traffic Management
## COMMUNICATION

<table>
<thead>
<tr>
<th><strong>Frequency Range</strong></th>
<th><strong>Encompass 6</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Downlink:</strong> 911.75 to 919.75 MHz adjustable in 0.25 MHz steps</td>
<td>-40°F to +158°F (-40°C to +70°C), integrated unit</td>
</tr>
<tr>
<td><strong>Uplink:</strong> 902.25 to 903.75 MHz and 910.00 to 921.50 MHz adjustable in 0.25 MHz steps.</td>
<td>-40°F to +131°F (-40°C to +55°C)</td>
</tr>
</tbody>
</table>

**RF Control**
Programmable with host command

**Communications Interface**
Ethernet, RS-232

**Antenna Interface**
50-ohm SMA connector

**Read/Write Range**
Read performance varies depending on operating protocol, tag and reader configuration, and environment

## POWER REQUIREMENTS

<table>
<thead>
<tr>
<th><strong>Input Supply Voltages</strong></th>
<th><strong>Input Power</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DC: 19 to 30V DC</td>
<td>DC or AC: 40 watts maximum</td>
</tr>
<tr>
<td>AC: 19 to 27V RMS @ 47-63Hz</td>
<td></td>
</tr>
</tbody>
</table>

**In-rush Current**
8 amps max, duration ≤ 25 ms

## PHYSICAL

<table>
<thead>
<tr>
<th><strong>Dimensions</strong></th>
<th><strong>Weight</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reader Only: 14.5 x 8.6 x 3.0 in (36.8 x 21.8 x 7.6 cm)</td>
<td>Reader Only: 6.5 lb (2.9 kg)</td>
</tr>
<tr>
<td>NEMA Enc: 18.6 x 18.0 x 10.6 in (47.2 x 45.7 x 25.4 cm)</td>
<td>Reader, NEMA enclosure, and mounting plate: 32.0 lb (14.5 kg)</td>
</tr>
<tr>
<td>NEMA Enclosure Mounting Plate: 22.0 x 16.7 x 0.10 in (55.8 x 42.4 x 0.25 cm)</td>
<td></td>
</tr>
</tbody>
</table>

## ENVIRONMENTAL

<table>
<thead>
<tr>
<th><strong>Operating Temperature</strong></th>
<th><strong>Humidity</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Encompass 6: -40°F to +158°F (-40°C to +70°C)</td>
<td>95% non-condensing</td>
</tr>
<tr>
<td>Encompass 6 in NEMA Enclosure: -40°F to +131°F (-40°C to +55°C)</td>
<td></td>
</tr>
</tbody>
</table>

**Storage Temperature**
-40°F to +185°F (-40°C to +85°C)

## COMPLIANCE

**RF Interference**
Units have been tested and are verified to Part 15 of the FCC rules for a Class A digital device.

**Safety**
Complies with the requirements of Standard for Information Technology and Telecommunications Equipment (UL60950 Third Edition)

Meets the limits established by RSS-137, Location and Monitoring Service (902-928 MHz), of the Industry Canada Standards

## OPTIONS

<table>
<thead>
<tr>
<th><strong>Enclosure</strong></th>
<th><strong>Wireless Reader Synchronization</strong></th>
<th><strong>Multiple Lane Operation</strong></th>
<th><strong>External Device Control</strong></th>
<th><strong>Training</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NEMA 4X enclosure</td>
<td>GPS module</td>
<td>Antenna multiplex module</td>
<td>Digital input/output module</td>
<td>Installation, operation, and maintenance training for TransCore authorized dealers is available through TransCore.</td>
</tr>
</tbody>
</table>

## LICENSING

**Equipment License**
The user is required to obtain a Part 90 site license from the FCC to operate the unit in the United States. Access the FCC Web site at [www.wireless.fcc.gov/uls](http://www.wireless.fcc.gov/uls) for more information.

**FCC ID:** FIHMPI6000A
Users in all countries should check with the appropriate local authorities for licensing requirements.

For more information:

**Sales Support**
800.923.4824

**Technical Support**
505.856.8007

transcore.com