

FEATURES

- **Integrated reader with external antenna connector**
- **Reads eGo tags**
- **Ideal for high-speed tolling and electronic vehicle registration applications**
- **Also suitable for parking, security access, and mCommerce**
- **915 MHz RF band operation**
- **Compatible with TransCore's Amtech-brand toll antennas**
- **Similar system interface as TransCore's SmartPass readers**
- **Selectable RF output power**
- **Wiegand capability**
- **Weatherproof enclosure**

Encompass[®] 2 Reader Model 2201



TransCore's Encompass[®] 2 Reader Model 2201 is an integrated 915 MHz radio frequency identification (RFID) reader designed to be used with a high-performance external antenna. The unit includes a radio frequency (RF) module, digital signal processor (DSP), power supply, I/O ports, serial communications interface, and an external antenna connector. The reader is ideal for high-speed tolling and electronic vehicle registration applications where the 64-bit ID tag read mode allows tags to be read at highway speeds. The reader is also suitable for parking, security access, and *mCommerce* applications with a requirement to read TransCore's eGo tags.

The Encompass 2 Model 2201 reads TransCore eGo tags (64-bit tag ID only or 128 bits of specially programmed data), which are compliant with ANSI INCITS 256-2001 and International Organization for Standardization (ISO) 18000-6B standards. It can also read tags formatted to Wiegand format. Custom Wiegand 26-bit to 56-bit (inclusive) formats can be developed to match identification card formats used by existing security systems.

The Encompass 2 Model 2201, configured with an external antenna, transmits an RF signal that is reflected back from an RF tag. The Encompass 2 Model 2201 then decodes the tag data carried by the reflected signal. This data is transmitted to a local host computer for processing.

The Encompass 2 Model 2201 is compatible with TransCore's Amtech[®]-brand toll antennas and uses a similar system interface as TransCore's SmartPass[®] readers.

Encompass[®] 2 Reader Model 2201

COMMUNICATIONS

Frequency Range

902 to 928 MHz capable
912.5 to 919 MHz FCC-authorized in United States

RF Control

By sense input or host command

Read Performance

Read performance varies depending on reader and antenna configuration and environment. See Figure 1.

Consult TransCore for antenna selection.

I/O Control

Input: Two independent dry contact closures for sense circuits

Output: Two independent Form-C contacts

Communications Interface

RS-232 with Wiegand or RS-422 with Wiegand-compatible host interface

POWER REQUIREMENTS

Input Power

16 to 20V AC, 47 to 63 Hz, or 16 to 28V DC

Output Power

2 W maximum to 200 mW minimum, selectable in 1dB steps

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.fcc.gov/Forms/Form601/601.html for more information.

FCC ID: FIHXXXXXXXXXXXX (See product label for actual ID number.)

Users in all countries should check with the appropriate local authorities for licensing requirements.

COMPLIANCE

RF Interference

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

Safety

The Encompass 2 Model 2201 complies with the requirements of Underwriters Laboratories UL-1950, Standard for Safety of Information Technology Equipment.

HARDWARE FEATURES

Antenna Interface

RF coax, Type N female connector

PHYSICAL

Dimensions

Size: 15.5 x 15.5 x 3.25 in (39.4 x 39.4 cm)

Weight: 7.7 lb (3.5 kg)

Mounting Location

Pole or wall mount

Indoor or outdoor

Enclosure

The reader is environmentally sealed in a tamper-proof, polycarbonate housing.

ENVIRONMENTAL

Operating Air Temperature

-40°F to +131°F (-40°C to +55°C)

Humidity

100% condensing

Vibration

0.5 G_{rms}, 10 to 500 Hz

OPTIONS

Power/Communications Cable Accessory Kits

Cable Accessory Kits allow flexibility in installing the Encompass 2 Model 2201. Include the part number when ordering.

Part number 58-1620-001: Connector with 5 ft (1.5 m) cable

Part number 58-1620-002: Connector with 20 ft (6.1 m) cable

Wall Mount Bracket

A wall mount bracket is used to install the Encompass 2 Model 2201 on a flat surface. Include the part number 54-1620-001 when ordering.

Transformer

A Class C transformer (part number 76-1620-005) is available to allow 110V AC to 18V AC conversion. Include the part number when ordering. A Class C (part number 76-1620-008) 220V AC to 18V AC transformer is available by special request.

Training

Installation, operation, and maintenance training for TransCore authorized dealers is available through TransCore. For details, call (972) 733-6010.

DOCUMENTATION

Encompass[®] 2 Reader System Guide for Model 2210 and Model 2201

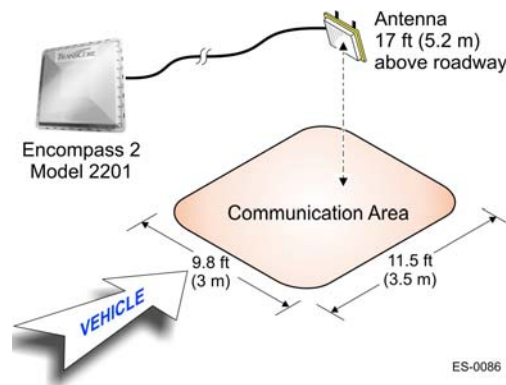


Figure 1 Example Coverage Area



For product information call: 1.800.923.4824 or 214.461.4031 (outside the U.S.) Fax 214.461.6478

www.transcore.com

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