RFID for RAILWAY

**Automatic Vehicle Identification**

**Automatic Vehicle Location**

- High speed identification,
- Well-defined id. areas,
- Interference immunity,
- Warranted life-time,

**HYPER X™**

2.45GHz

Robust, Fast and Reliable ID.

Real Time Tracking,
Operator Monitoring,
Terminal Management,
Passenger Information,
OPERATING PRINCIPLE

The reading antenna emits a carrier wave at 2.45GHz without modulation. This incident wave is reflected by the tag only - i.e. passive mode:
• The tag life time is constant regardless of the number of read sequences
• The tags are identified at the same distance with regard to one reference reader

MAIN FEATURES

SEMI PASSIVE TAG
Long life
Harsh environment model
Tag programmed to customer requirements

DIRECTIONAL IDENTIFICATION
Well-defined identification areas with directional and small antennas
Precision

HIGH SPEED
Identification over 100km/h (60mph).
Flash Identification.

LONG RANGE
Identification from a few centimeters to over 10 meters (30 feet)
Flexibility

TAG INSTALLATION
Tag mounted against metallic surfaces.
Easy installation

MULTIPLE-READERS
Many readers can be installed in the same area without interference

RAMDOM FREQUENCY ALLOCATION
Identification using frequency hopping.
Avoid the interference

INSTALLATION
Unobtrusive antennas
Easy integration

IMMUNITY
Identification relatively insensitive to environment
Total data integrity.

INTERFACES
ISO2 - CLOCK & DATA
WEGAND 26 BITS - DATA 0 & DATA 1
RS232/422/485 - JBUS™ MODBUS™

READER LINE

<table>
<thead>
<tr>
<th>ANTENNA PATTERNS</th>
<th>0.5 - 1m (2-3 feet)</th>
<th>2m (6 feet)</th>
<th>3 - 4m (9-12 feet)</th>
<th>5 - 7m (15 - 20 feet)</th>
<th>8-10m (25-30 feet)</th>
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<tbody>
<tr>
<td>22° x 45°</td>
<td></td>
<td>LML_4054</td>
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<td>90° x 90°</td>
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<td>LMB_6012</td>
<td>LMB_6013</td>
<td>LML_4013</td>
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