

Antenna Datasheet - SmartPass Lane Beacon

1. Antenna Manufacturer

The SmartPass Lane Beacon uses a proprietary integral 3x4 Rotman Lens patch antenna array etched on the circuit board. The antenna is custom designed and tested using state-of-the art equipment by TransCore's research and development engineering group located at 8600 Jefferson St. NE, Albuquerque, NM, 87113.

2. Antenna Summary

The antenna was designed exclusively for this product. It is integral to the SmartPass Lane Beacon and it is not accessible to the end user. The end user has no means to substitute the antenna with another antenna. The antenna described in this document was installed in the equipment under test during regulatory compliance testing. The same integral patch antenna array described herein represents the production antenna configuration for the SmartPass Lane Beacon. No alternate antenna was used for regulatory compliance measurements unless specifically identified in the applicable test report.

The antenna creates 3 different beams. Beam 1 has a peak gain within the operating frequency band of 5.24 dBi. Beam 2 has a peak gain within the operating frequency band of 7.38 dBi. Beam 3 has a peak gain within the operating frequency band of 5.62 dBi.

3. Antenna Gain Summary

Beam Number	Antenna Maximum Gain @ Frequency
1	5.24 dBi @ 2456 MHz
2	7.38 dBi @ 2464 MHz
3	5.62 dBi @2424 MHz

4. Additional Information

Proprietary information regarding antenna design and operation are provided in the Confidential Theory of Operation exhibit and other Confidential documents.