

## RFID / Barcode / Mobile Applications for Inventory Management

*Supply Chain / Distribution / Logistics / Delivery / Reporting*



### SLS RFID Solutions Key Differentiators

We are a passive RFID (RAIN RFID) – focused company founded in 2005

SLS offers turn-key RFID supply chain solutions: tags, tag encoding/printing services, dock-door portals (smartPORTAL™), overhead-readers (gateway readers), handheld readers, printers, software (both application and embedded) and installation services

SLS offers Wave® antenna technology trademarked by NeWave® Sensor Solutions, Inc. – which far outperforms circular polarized antennas

Manufacturing facility at our HQ in Howell, MI

Custom antenna enclosures and portals

Over 3000 dock doors deployed across U.S., Mexico and Canada

Focus on industrial supply chain, especially automotive

## Wave® vs. Patch Antenna Comparison

### Why SLS RFID Solutions Uses **Wave®** Antenna Technology

#### Circular Polarized Patch Antenna



The circular patch antenna projects a far beam in a conical pattern which, when used in dock door portal applications, lends itself to cross-reads and stray reads - reading tags on assets other than those going through that particular doorway.

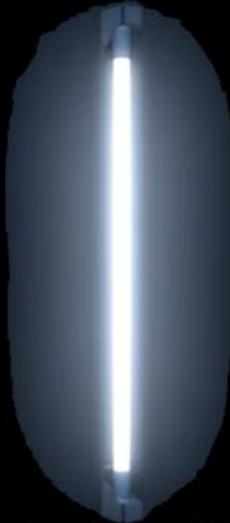
# Wave® Antenna

## Beam Comparison



Multiple RF beams per antenna

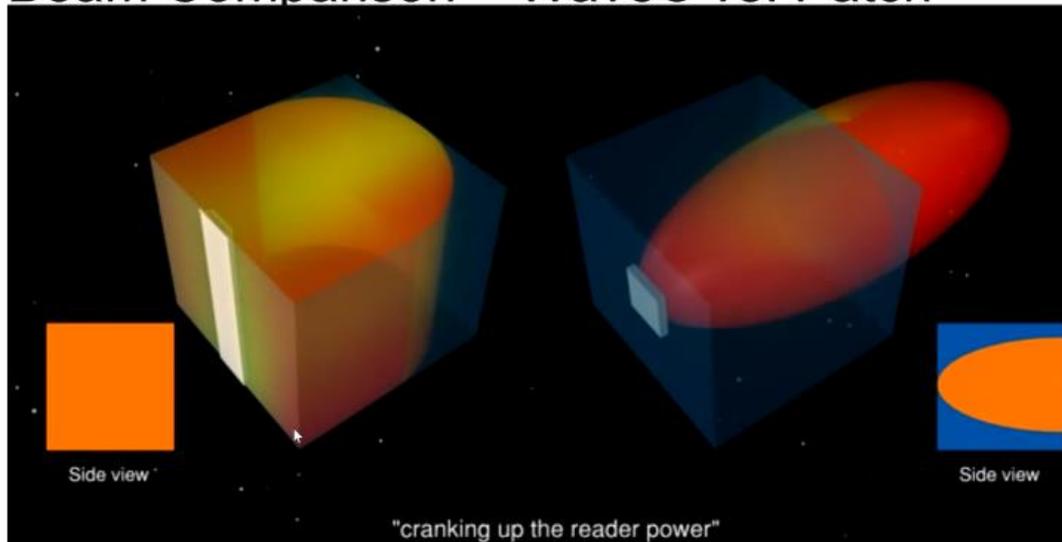
Reads tags in all orientations



The Wave® antenna pattern, like a fluorescent light, projects a cylindrical pattern.

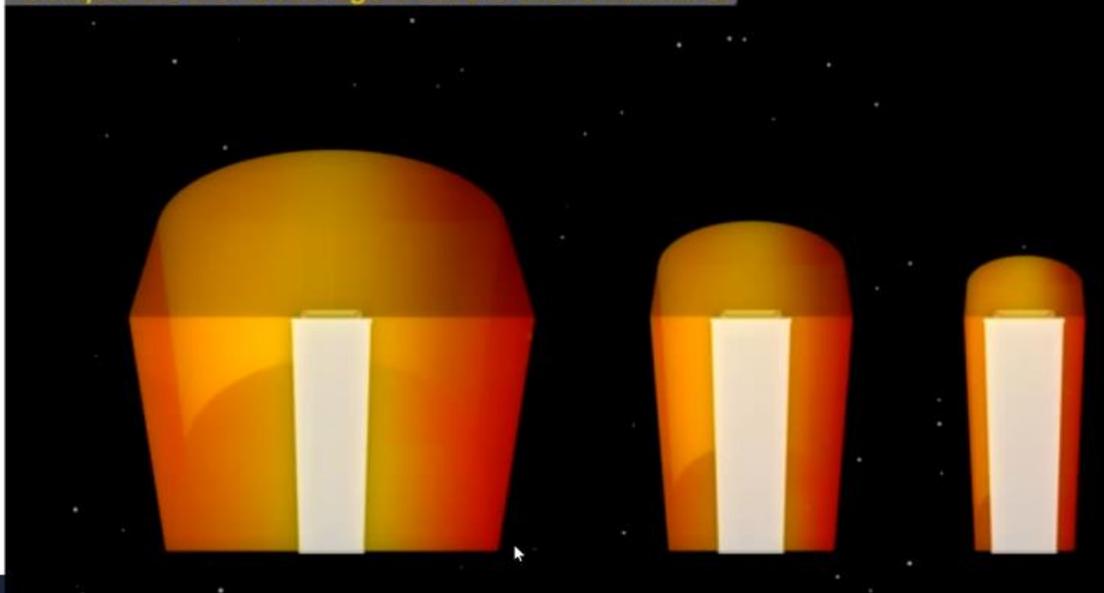
The Wave® Antenna integrated in the SLS smartPORTAL™ embodies a radically new concept in RFID antenna design. Unlike a patch antenna that radiates a single beam in a given direction, the antenna is designed to uniformly illuminate a volume of space with an intense, yet constrained, RF read field. The Wave® antenna element also radiates in a multi-linear phase pattern – thus the tag is illuminated with RF from many different phase angles which enables higher read rates regardless of tag orientation.

## Beam Comparison – Wave® vs. Patch



The Wave® Antennas are unique in covering all three tag orientations within a user defined zone up to a 10x10x10 foot zone. The Wave® antenna design creates a wide-angle lens effect which covers all three polarizations at once and are designed to work in high fading and multipath environments to provide superior UHF zone coverage.

### *Oblique View of Coverage from the Wave® Antenna*



The SLS smartPORTAL™ enclosures include antenna back planes to direct signal into the designed read zone and eliminates adjacent dock-door reads while providing floor-to-top-of-door coverage at all RF-transmitted power levels.