



## Rapid Transit

### Antenna and Reception Solutions Enabling Underground Wireless Connectivity

**Challenges:** As global wireless connectivity coverage expands underground rapid transit passengers have come to expect the same robust, high quality and reliable 3G/4G LTE and Wi-Fi connections they experience above ground in offices, homes and other private and public venues. Some of the key challenges associated with providing seamless, dependable and high performance wireless connectivity underground are: Physical size and span of the underground rapid transit system, the volume of passenger ridership and trackside stations served on 24/7 basis and the extremely harsh and challenging operating environment.

**Featured Antenna and Reception Solutions:** Laird provides OEM and market based antenna and reception solutions designed specifically to meet and exceed the specific application and infrastructure requirements of the transit authority, end to end system integrator and ultimately the rapid transit passengers and service personnel. Laird utilizes proprietary design tools to develop esthetically neutral, IP67 dirt /dust tight sealed and temporary water immersion rated antenna solutions that deliver consistent high performance and extended useful life in this harsh underground environment.

The Laird PAS69273P Low PIM indoor /outdoor directional panel delivers excellent signal radiation and DownLink (DL) throughput within the engineered coverage area and can support 3G/4G LTE and 2.6 GHz Wi-Fi frequency bands. The Laird HCR69273N3 and Phantom TRA6927M3 also support 3G/4G LTE and 2.6 GHz Wi-Fi frequency bands and provide excellent signal radiation throughput within the engineered coverage area when a more compact, omni-directional radiation pattern is desired. For applications that only need to support the 2.4 - 2.5 GHz / 4.9 - 5.8 GHz Wi-Fi frequency band the YE240015 fully enclosed yagi antenna provides excellent performance and rugged durability in the harsh underground environment.

#### Benefits:

- Improved passenger experience = increased ridership. The robust, highly dependable high-speed wireless network powered by Laird antenna solutions keeps riders connected as they travel through the rapid transit system - even underground.
- Increased passenger and service personnel safety. The availability of wireless connections throughout the engineered coverage area ensures that passengers and service personnel can call Public Safety and Emergency Responders when and where the situation dictates.
- Laird proprietary designs and advanced testing methods provide antenna solutions that deliver excellent performance and extended life in the harshest environments. Minimizing ongoing maintenance cost and maximizing infrastructure ROI.



Laird PAS69278P



Laird HCR69273



Laird TRA6927



Laird YE240015



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Laird warrants to the original end user customer of its products that its products are free from defects in material and workmanship. Subject to conditions and limitations Laird will, at its option, either repair or replace any part of its products that prove defective by reason of improper workmanship or materials. This limited warranty is in force for the useful lifetime of the original end product into which the Laird product is installed. Useful lifetime of the original end product may vary but is not to exceed five (5) years from the original date of the end product purchase.



# What Sets Us Apart



## MISSION

*A trusted partner delivering technology to the world through innovation, speed, & reliable fulfillment.*



## VISION

*A world where smart technology enables virtually everything to sense, think and communicate; transforming our way of life and empowering us to do more than we can imagine*



## CULTURE

*Working as a global team of talented individuals to make a difference for our employees, business partners and our world*

*We have an unwavering commitment to being honest and ethical in all situations and treating each other with dignity and respect.*

*We create an open and engaging environment that thrives on high energy, adaptability and delivering on our commitments.*

*Laird is a place with great opportunities for personal and professional growth for those who work hard, are willing to learn and deliver results.*

**29**

**engineering and manufacturing sites globally**

**18**

**customer/market awards in 2013-14**

**10Bn**

**parts supplied to one client**

**115+ year heritage**

**9,000 employees in 50 locations covering 5 continents and 19 countries across the globe**



DESIGN



RAPID PROTOTYPING



PRODUCTION



SCALE



SOFTWARE



SYSTEM INTEGRATION



SERVICE

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