

# Product overview

The best performance in any environment



## Description

RAY is a **high-speed, industrial grade, point-to-point microwave link**. Thanks to its exceptional resistance to interference, RAY provides the most **stable links** even on **busy sites**. A **Full Outdoor Radio**, it is ideal where high performance links with **maximum reliability** are required. Designed with attention to detail and implementing all relevant **state-of-the-art** concepts, this high quality microwave link provides **excellent performance** characteristics.

RAY has been on the market since 2009 and is used in **thousands of installations** from the poles to the equator.

**RAY3**, the 3rd generation of RAY, was released in 2019, setting a new standard and providing significant improvements in data speed and security features with up to **1 Gbps FDD** available. Using RAY's option of **asymmetric channels**, the user can **maximise spectrum availability** making RAY3 a leading choice for license free bands.



## Applications

RAY is used by **Internet Service Providers** as well as global **Telco operators** for both backbone and last-mile microwave links. With its exceptional resistance to interference it is particularly effective on busy sites. It is also commonly used in backbone applications.

RAY was specifically selected from a number of microwave radios to deliver reliable service over an **18km** distance and **hilly terrain**, providing a reliable communication link for the **UAE General civil aviation authority**. RAY also provides connectivity for an island wide **National Disaster-Emergency Two-Way Mobile Communication System** for the **Jamaican government**.

Such applications are only possible because of the suitability of **RAY** in challenging conditions, **exceptional sensitivity** permitting links over **long distances** and the heavy duty industrial build of RAY producing **extremely** high levels of **reliability**.



## RAY links

- Resistance to interference
- Reliability over distance
- Mobile friendly management
- Standalone installation
- RAY Tool app



Product details

## Typical Applications

- Backbone
- Last mile
- Security/Surveillance
- Traffic management
- Connecting remote sites



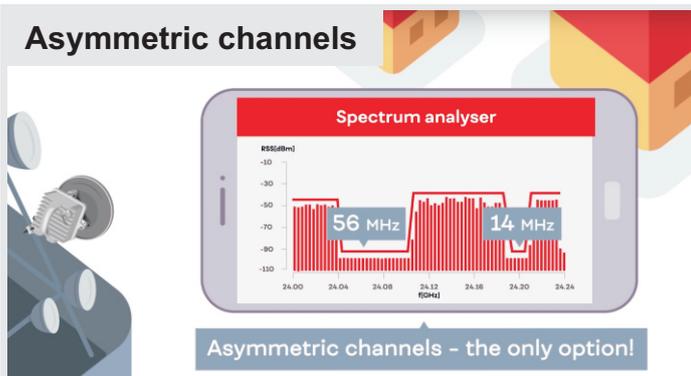
References

## Customer Benefits

### Performance

RAY is renowned for its ability to work in challenging conditions, offering the **highest network throughput in any environment**. Our in-house development team excel in developing units that provides market leading **resistance to interference**. Thanks to **narrow channels**, RAY provides **high speed links over extreme distances** and can also be used when only **limited spectrum** is available.

### Asymmetric channels



This advanced technology allows RAY to **optimise** the **spectrum** available. In addition RAY's **built in Spectrum analyser** allows the user to identify and maximise free channel availability, especially useful for free band applications. Standard microwave links can only use the same bandwidth and data speed in both directions. RAY offers the option of **different bandwidth and different data speeds in each direction** allowing RAY to make full use of the available spectrum. On a busy site this could make the difference between a microwave link being installed or not. With RAY3, **multiple links** can be deployed from the **same site** because of the asymmetric channel flexibility.

### Security

Advanced **Physical, Management, Access control and Data security** mechanisms, maintain **network integrity** in line with the robust modern demands of **cyber security**. **Peer stations** can be paired and **permanently monitored** against a unique serial number. Different Management access options are available, based on customer preference and allowing different levels of secure access to be set.

### Reliability

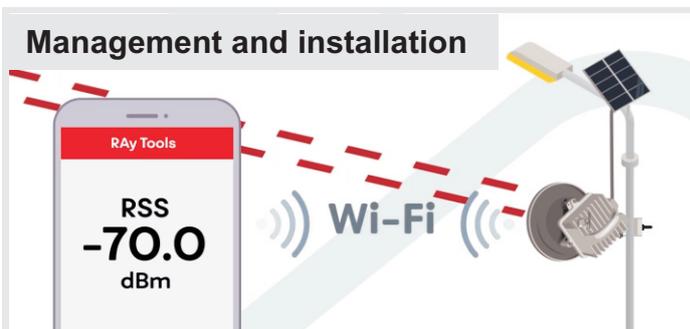


RAY comes with a rugged **die-cast aluminium** case and only uses heavy duty **industrial components**. Every single **unit** is fully **tested** in our own **climatic chamber** and in a **real data traffic environment**. Exceptional electrostatic **surge protection** provides just one more feature **built in** to RAY that further establishes our reputation for outstanding reliability which is at the heart of RACOM's overall philosophy and has an enviable reputation in the market.

### Full Outdoor & Solar ready

Fully tested to work reliably in all conditions, RAY is designed for **direct mounting** to the parabolic **antenna**. Its **small size** and **light weight** make it **easy to handle**. RAY has **low power consumption** and voltage requirement, specifically designed for use at remote sites and is **solar ready** for this purpose.

### Management and installation



A favourite feature of field engineers, **RAY tools mobile App** is used for **link calculation** and to **align antennas** and **manage the link**, all from a mobile phone. **Acoustic output** allows the **antenna alignment** to be done within minutes without any need to check a display. With a highly intuitive interface and designed to allow **seamless installation and setup**, the RAY microwave radio is designed with field engineers in mind.