



Smart radio for smart networks



Utility and critical infrastructure networks in more than 130 countries use radio communications equipment from 4RF Limited. Combining excellent RF performance with a standards-based approach, superior reliability and ease of use, 4RF develops best in class wireless products. 4RF provides point-to-point and point-to-multipoint radios, all distance-engineered for unbeatable real world performance. Customers include utilities, public safety, homeland security and military organisations, oil, gas and mining, transport, and telecommunications operators. All research, development and manufacturing activities are carried out in 4RF headquarters in New Zealand, where the company was established more than ten years ago.

- Cost-effectively extend the reach of your communications with point-to-point and point-to-multipoint radio solutions
- Future-proof design with flexible support for range of serial and IP / Ethernet interfaces, combined with unbeatable reliability
- Superior technology, service and support from the global market leader, with presence in more than 120 countries

Why is 4RF technology special?

It simply performs in the real world, reliably and cost-effectively. All of our products have been designed and built with our world-leading RF technology, with every element optimised for maximum performance. Add our rigorous attention to detail and quality that ensures the industry-leading reliability that you need for your critical communications.

With their future-proof architecture, all products support a flexible range of both analogue and digital interfaces and are easily managed with our web-based software. We only use licensed frequency bands to ensure interference-free operation, and operating only below 3 GHz means that the weight and cost of supporting infrastructure such as antennas is minimal. Robust and reliable, our products withstand temperature extremes, both hot and cold. Finally, our superior technology combines with a sound business case to deliver the best possible price-performance for your applications.

Who uses 4RF equipment?

Anyone who needs to reliably and cost-effectively extend the reach of their communications. This could be covering a long distance to a rural or remote location, rolling out new monitoring and control infrastructure, or simply reaching somewhere you haven't been able to get to before due to problems such as harsh terrains, challenging landscapes or inhospitable climates.

Our vast range of customers include utilities; oil, gas and mining companies; all types of telecommunications operators; transport operators; public safety, military and peacekeeping organisations; and private enterprises and government.

How are 4RF products used?

The applications for our products are as varied and limitless as the types of customers we have, ranging from the mundane (yet essential) such as linking two buildings together, to the exotic (and extra challenging), such as providing always on Internet access to a constantly rotating floating platform in the middle of the ocean.

Other applications include monitoring and control of utility network assets and pipelines; providing broadband communications offshore to oil rigs; and backhaul of analogue or digital mobile radio traffic such as Tetra or P25. Our products are also used to backhaul any type of telecoms traffic, be it mobile cellular, WiMAX or POTS, or to deliver telephony or DSL bandwidth into rural exchanges. They are also used to interconnect private communications and signalling networks.

What products do 4RF offer?

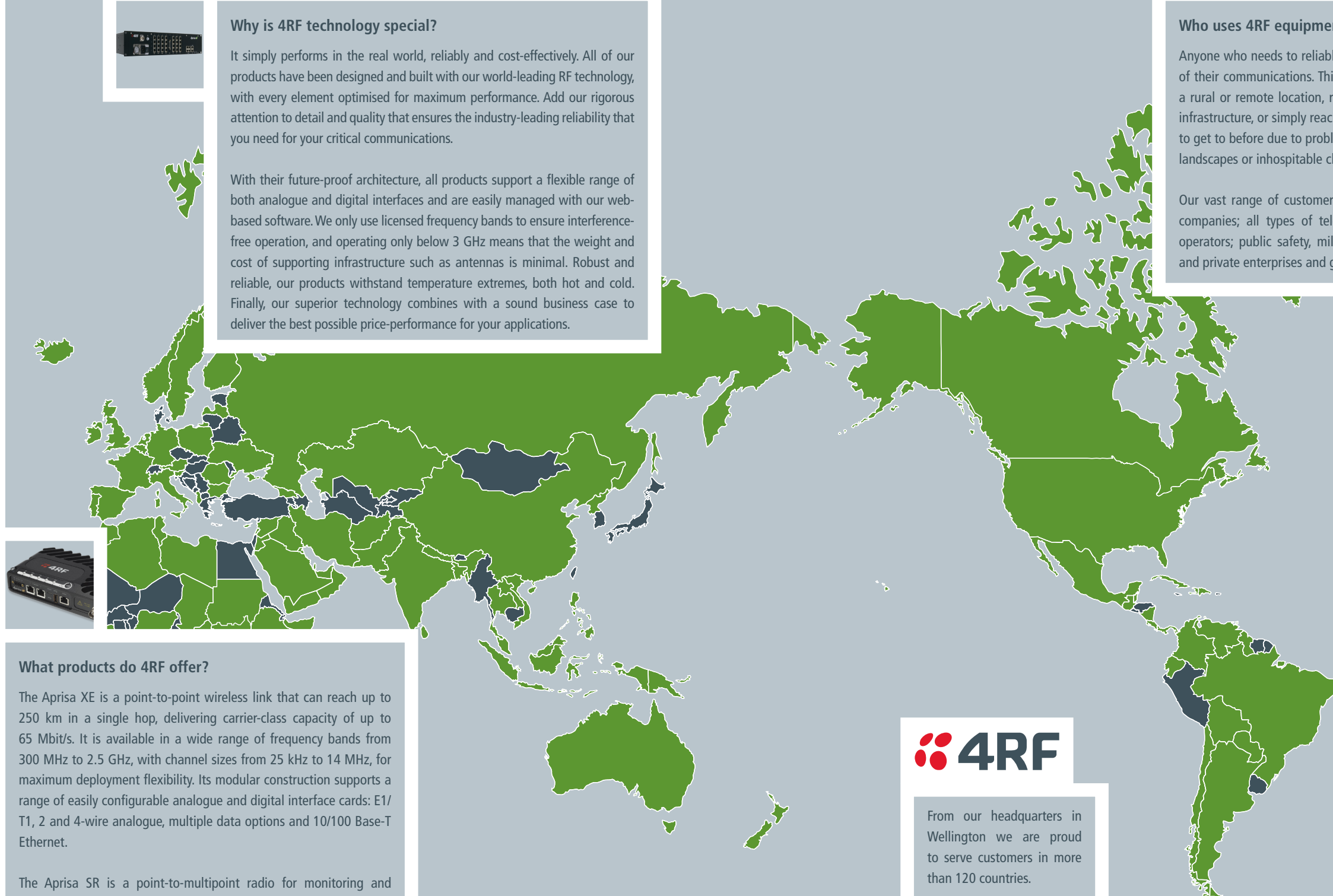
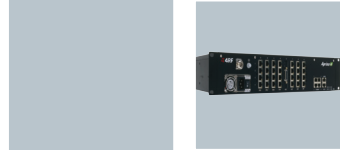
The Aprisa XE is a point-to-point wireless link that can reach up to 250 km in a single hop, delivering carrier-class capacity of up to 65 Mbit/s. It is available in a wide range of frequency bands from 300 MHz to 2.5 GHz, with channel sizes from 25 kHz to 14 MHz, for maximum deployment flexibility. Its modular construction supports a range of easily configurable analogue and digital interface cards: E1/T1, 2 and 4-wire analogue, multiple data options and 10/100 Base-T Ethernet.

The Aprisa SR is a point-to-multipoint radio for monitoring and control communications. Available in the 136 to 174 MHz and 400 to 470 MHz licensed bands, it supports both serial and IP / Ethernet traffic, supporting a seamless transition from legacy communications to an IP-based world. Along with its superior RF for maximum traffic efficiency, the Aprisa SR embodies industry-leading cyber security measures.



From our headquarters in Wellington we are proud to serve customers in more than 120 countries.

... we reach the world





More about 4RF



We own all the **intellectual property** that makes our products unique and we continue to invest substantially in R&D. We do our own engineering and manufacturing so we can insist on the best quality, and our rigorous testing process ensures that you get long term reliability and unbeatable performance in your communications infrastructure.

We don't just ship product. With our expertise in path profiling, RF networking, interference analysis, traffic distribution and site surveying, we work closely with you to plan and optimise every detail of your network to ensure its performance and efficiency once equipment is deployed.



Our **first-class customer services** team is distributed around the world to provide local service to you. This team provides both pre- and post-sales support, from answering technical questions to providing advanced technical training.



Don't just take our word for it...

We aren't able to list all of our customers and installations, due to confidentiality and security issues. However, from our most northerly deployment in Alberta, Canada (where average temperatures range from -24°C in winter to +23°C in summer) to our most southerly deployment on New Zealand's South Island, and with customers in over 120 countries, there will certainly be a 4RF deployment near you...

A few of our best known customers are:

- **British Gas and Shell** in the oil and gas industry
- **Utilities EDF** in France, **Eskom** in South Africa and **Iberdrola** in Spain
- Global telecoms operators **British Telecom** and **Telefonica**
- **Military and peacekeeping organisations** throughout the world
- Transport operators **PT Kereta API** in Indonesia and the **USA's Washington State Department of Transportation**.

And many, many more...

We are more than happy to share information about some of our deployments that are most relevant to your industry or application: just ask your local sales or support representative.

ABOUT 4RF

Operating in more than 130 countries, 4RF provides radio communications equipment for critical infrastructure applications. Customers include utilities, oil and gas companies, transport companies, telecommunications operators, international aid organisations, public safety, military and security organisations. 4RF point-to-point and point-to-multipoint products are optimized for performance in harsh climates and difficult terrain, supporting IP, legacy analogue, serial data and PDH applications.

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