

## Poynting provides higher internet speeds and ‘fixed wireless’ access reliability in rural Wainui, Auckland, NZ



### Project Info:

**Customer**  
Welch Family Home

**Location**  
Wainui, Auckland, New Zealand

**Local Supplier & Consultant**  
RealZeal Solutions t/a Lumenate  
<https://lumenate.co.nz/>

**Poynting Product:** LPDA 92 LTE

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### The Challenge

Wainui is a rural area in New Zealand, which relies on the mobile cellular network for wireless telecommunications services, as DSL & Fiber services are not available. The existing Yagi solution was slow and unreliable with vast distances between cellular towers complicating wireless connectivity. The limited cellular coverage is further impacted by patchy, fluctuating signal levels for the area.

### The Solution

The customer implemented Poynting’s cross-polarised configuration of the LPDA92 high-gain Log Periodic Dipole Array (LPDA) antenna, which successfully obtained sufficient signal level, whilst suppressing surrounding interference due to the directionality of the antenna.

The LPDA antenna is not only a highly efficient and reliable antenna, but is also known for its high gain over a wide bandwidth, which is able to enhance the coverage for current and future cellular technologies within the 698MHz to 3GHz bands.

### Background

Wainui is an area within the Auckland Region in New Zealand, with undulating terrain of hills and forest. Wainui was one of the first areas of New Zealand that was populated with English, Scottish & Irish settlers in the 1800s.

### The Result

Poynting’s solution using the cellular mobile network, converts the mobile networks’ data service in the area into a Wi-Fi solution, allowing the residents to enjoy seamless and uninterrupted Wi-Fi experience.

Signal reliability improved with the deployment of the cross-polarization technology helping to minimize fading and variances due to RF signal fading and diverse weather conditions.

### The customer said:

“... Suffice to say that [the end customer] is blown away with the results! As am I. The speeds and reliability are significantly improved – night and day really!”

