



RF OVER FIBRE - AUSTRALIAN OPEN TENNIS

Rf over Fibre products offer coverage extension and efficient distribution for all wireless, media, and data services

INTRODUCTION

Rf over fibre products offer a diverse application set where users can extend the coverage of Wireless Microphones, Land Mobile Radio, Wireless Cameras, CCTV, and Data to name a few.

Be it short distances, or long haul to remote campuses, Rf over fibre can provide an efficient means to getting content to remote areas or extending the service area of wireless media devices.

[D2N](#) is proud to distribute the [RF Optic](#) range of Rf over Fibre and Optical Delay Line products.

Suitable Industries:

Broadcast

Satellite

Audio Visual

Venues

Places of Worship

Mining

Defence

Land Mobile

Telemetry - SCADA

Telco

GEARHOUSE BROADCAST & THE AUSTRALIAN OPEN TENNIS LAND MOBILE COMMUNICATION

[Gearhouse Broadcast](#) are the current broadcast facilitator for the [Australian Open Tennis](#) competition. Supplying all Broadcast technology for the host and unilateral broadcasters, along with a multi-site UHF communications platform encompassing voice, and camera telemetry.

Utilizing Gearhouses extensive Hytera fleet, they designed and installed 28 repeaters running a mixture of analogue and DMR services, all interfaced to Riedel and RTS talkback systems. In addition to this was 12 Simplex services also interfaced, and lastly 3 telemetry services for remote Rf cameras. System design was built around multiple 4 and 6 port transmission combiners and a suite of receive multi-couplers feeding the repeater network. Remote units were feed via local antennas with audio coming back via MADI/Fibre interfaces.

As with many large scale Rf systems that need to operate over a large geographical area, coverage is a challenge, with handheld transmission being the most likely fail-point. To alleviate this risk Gearhouse installed two pairs of [Rf Optics 2.4GHz LNA](#) devices enabling wide area receive throughout the site.

The site was a set of multiple venues and many outside courts that require UHF coverage, these venues have rooms below ground level where coverage is a must. In the past Gearhouse have employed typical dipole antennas fed via copper and had mixed results with certain underground areas simply not enjoying good service delivery. However, for the 2016 competition, site wide coverage was achieved by using the Rf Optic devices.

The devices connect via single mode fibre with SC-APC connectors and power via a 5VDC plug pack.

D2N APPLICATION NOTE

JANUARY 2016

Given the low operating voltage there are several options for powering the device, be it solar, battery, or a suitable 240v plug pack style supply.

The devices are packaged in a robust small form factor casing, alternatively they can be supplied in a rack mount enclosure for more permanent installations.



Rf Optic 2.4GHz LNA Audio-Video Module

In Summary:

By inserting the Rf over Fibre chains into the receive circuit we realised an immediate improvement in service delivery of the entire Tennis precinct. UHF Land Mobile Communications is an ideal fit for the Rf over Fibre solution offering wide band, and low noise. The ability to remote antennas to a more suitable installation location is today, key to delivering high quality coverage.

D2N carry demo stock enabling customers to trial the units before committing to purchase. Pricing is below \$3000AUD for the 2.4GHz set. Optional modules offer up to 20GHz of bandwidth, suiting the most diverse set of circumstances. D2N is registered with the ACMA to manage Regulatory Compliance Mark certification (what was the C-Tick certification) which the Rf Optic product range is compliant.

D2N APPLICATION NOTE

JANUARY 2016

Second generation modules now offer USB connectivity for remote and local monitoring of modules.

For more information, please head to our web page:

<http://d2n.com.au/services/equipment-sales/>

Other application notes can be found here:

<http://d2n.com.au/services/equipment-sales/application-notes>

Or to discuss your requirements please contact D2N on +61428-003-663 or email us at d2naus@bigpond.com

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