



Private 5G Network Services

Reliable. Secure. Yours Only.

Unique Micro Design's (UMD) Private 5G Network Services deliver the next generation of wireless connectivity, engineered for enterprises ready to take control of their communications infrastructure. As part of UMD's Wireless Engineering Services, we provide end to end design, deployment and integration of secure, high performance Private 5G cellular networks, tailored for industrial and enterprise environments.

This service has been built to Australian regulatory standards under the Australian Communications and Media Authority (ACMA) guidelines. UMD's Private 5G solutions operate on dedicated spectrum, provide superior coverage and deliver assured performance through the installation of a Private 5G Infrastructure.

Our expert engineers deliver a fully managed 5G ecosystem that unlocks new efficiency and control across your operations, overcoming common Wi-Fi limitations in coverage, latency, interference and reliability. This enables deterministic Quality of Service (QoS), edge connectivity and enhanced security for mission critical, IoT and mobile applications.

Private 5G Network Services:

- **RF Systems Engineering and Design:**

Spectrum analysis, cell planning, and radio propagation modelling for coverage determination and ACMA compliance.

- **Managed Licensing:**

Full management of the ACMA frequency coordination and licensing application process.

- **Network Systems Integration:**

Seamless integration of 5G RAN and Core (5GC) to edge computing systems.

- **Access Infrastructure:**

Supply, installation and optimisation of Private 5G infrastructure including secure network backhaul.

- **End Device Enablement:**

Configuration and interoperability testing for 5G enabled user equipment, gateways and IoT devices.

Private 5G Network Advantages:

- Stronger security and data privacy
- Ultra-low latency and high performance
- Optimised for high-density device deployment
- Full control over the network
- Operational efficiencies
- Enhanced speed
- Purpose built for industrial use cases
- Superior, reliable coverage



5G Making A Difference Across A Range Of Industries:

UMD Private 5G is ideal for indoor industrial and enterprise environments where reliable, scalable connectivity is key to digital transformation.



Warehousing



Supply Chain Operations



Manufacturing Facilities



Smart Infrastructure

Comparison Table

Feature	Private 5G	Wi-Fi	Public 5G
Security	Very high (on-prem, SIM based)	Moderate	High, but shared
Latency	Ultra-low	Variable	Low, but depends on the carrier
Coverage	Excellent across large sites	Limited	Wide, but not site specific
Device Density	Very high	Moderate	Very high
Control	Full	Full	Limited
Best For	Industrial, mission critical	Office, general use	Public connectivity

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Power your business with the speed, reliability and security of Private 5G