

# Aprisa FE

## Secure, narrow channel, point-to-point Ethernet radio ETSI licensed bands



### Aprisa FE: Smart, cost effective, narrow channel, point-to-point Ethernet radio for low capacity linking and backhaul of DMR and industrial monitoring and control

New technologies, such as digital land mobile radio, need IP connectivity while cyber security concerns are driving the need for protected operation as standard even in low end applications. Aprisa FE introduces cost effective, secure IP over Ethernet linking, while utilising the industry proven VHF, UHF and 900 MHz licensed bands – the mainstay for lower capacity linking and backhaul for public safety, transport and utility industries globally.

- **High capacity:** delivering an industry leading combination of capacity and distance the Aprisa FE provides data rates of up to 240 kbit/s in 50 kHz licensed channels.
- **Advanced IP connectivity:** selectable L2 Bridge or L3 Router modes, with VLAN, QoS and filtering attributes to support narrow bandwidth channels and mission critical traffic while meeting increasing security and IP network policy requirements.
- **Secure:** with its defence in depth approach, including AES encryption, authentication, L2 / L3 address filtering and L4 port application filtering and user access control, the Aprisa FE protects against vulnerabilities and malicious attacks.
- **Link efficiency:** adaptive modulation and forward error correction maintains the integrity of the wireless connection to ensure maximum capacity delivered continuously under varying atmospheric conditions.
- **Reliable and robust:** incorporating 4RF standard distance engineering RF design techniques, Aprisa FE maintains its high power output and performance over a wide temperature range without de-rating, delivering robust performance and long term reliability.
- **Easily managed:** an easy to use GUI supports full management of both local and remote terminals via HTTPS, and SNMP support allows network-wide monitoring and control via a third party network management system.



#### The Aprisa FE in brief

- Licensed narrow channel point-to-point Ethernet radio
- VHF, UHF, 900 MHz licensed bands
- Ethernet – 4 port Layer 2 and 3
- Software selectable 12.5 kHz, 25 kHz, 50 kHz channel sizes
- Gross data rates up to 240 kbit/s
- Full duplex operation
- Internal and external pass band duplexer options
- 256, 192 or 128 bit AES encryption
- Adaptive coding modulation: QPSK to 64 QAM
- Advanced forward error correction
- Dedicated alarm port
- –40 to +60 °C operational temperature
- 434 mm (W) x 295 mm (D) x 44.45 mm (H) (dependent on duplexer type)
- ETSI and ACMA standards compliant

#### Aprisa FE applications

Low cost, low capacity, digital mobile radio base station backhaul:

- Mid-tier public safety, first responders
- Taxis, buses and public transport
- Construction, mining and utility service vehicles
- Backhaul for third party RoIP (radio over IP linking) legacy analog adapters
- ETSI DMR, Motorola MOTOTRBO™ IP Site Connect systems, TaitNet™ DMR, NXDN™ Conventional IP link applications

Remote control, monitoring and site security applications throughout a range of public safety, critical infrastructure and utility industries:

- SCADA point-to-multipoint radio base station to master station linking
- AMI / AMR high density data concentrator backhaul
- Renewables monitoring and disconnect
- Traffic management and electronic sign telemetry
- Agriculture and weather station linking
- Site security alarms, tower management, remote transmitter shutdown
- Low-rate high resolution CCTV and automatic number plate reader backhaul (ANPR)

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