



# ENGINEERING SERVICES AUSTRALIA

**Kordia™ engineering is a key part of the Kordia™ offering, and provides engineering expertise throughout Australasia and around the world.**



Our dedicated, experienced team of technical personnel are focused on delivering complete engineering solutions to clients.

From design to implementation and maintenance, our full service offering covers all areas of radio frequency engineering across digital and analogue, MF, HF, VHF and UHF radio, TV and other broadcast and telecommunications systems.

Our technical expertise is backed up by professional project management. Each contract has its own project manager who ensures the delivery of reliable, robust solutions—on time, on budget and to agreed specifications and quality.

Meeting project and client targets means we often work in extreme conditions and remote locations and we understand—and know how to meet—intricate compliance regulations.

We are continually adopting new technologies and extending our service offering. The recent establishment of a dedicated rigging team in Australia allows us to perform a wider range of tasks and offer customers end-to-end broadcast and telecommunications solutions.



## KORDIA™'S ENGINEERING SERVICES AND EXPERTISE INCLUDE:

- Concept planning
- Consultancy and technical evaluation
- Project management and turnkey solutions
- Construction and ancillary systems
- Operations, maintenance and network surveillance
- Total network and facilities management

## EMR MEASUREMENT AND TOWER INSPECTION

- EMR measurement from 100 kHz to 18 GHz
- Reporting on EMR levels for personnel, no go zones, power down zones—based on ARPANSA RPS3 standard

- Structural inspection and condition reporting of masts and towers, including repair cost estimates
- RF protection suits protect our team of climbers and EMR measurers—minimisation of down-powering effects to end users
- NATA-accredited for RF surveys, compliance with ISO/IEC17025:2005, laboratory no. 15036
- EMR prediction from 100 kHz to 60 GHz
- Modelling software using human phantom to test effects on human body
- Impact predictions for before/after new service delivery
- Preparation of formal documentation required by statutory bodies

- In-field audits comparing predicted to actual levels
- NATA-accredited for RF predictions for ray tracing and complex RF modelling, compliance with AS/NZS/IEC 17020

## COVERAGE PREDICTION AND SURVEYING

- Antenna modelling, field strength level mapping, population analysis
- Vehicles with 10m masts carry out equipment tests and compare against predicted results
- Antenna pattern reconstitution and validation against specification



**RF SAFETY CONSULTANCY SERVICES**

- Development of RF safety policies
- Auditing RF safety
- Community presentations and consultation
- Technical advice and research
- Public liaison and awareness

**TRANSMISSION SYSTEMS**

- Specification, procurement, factory acceptance testing, design, installation and commissioning for digital and analogue MF, HF, FM and TV systems
- Assessment, specification, procurement, factory acceptance testing, installation and commissioning
- Rapid response team for faults, diagnosis and disaster recovery
- Specialised consultancies, e.g. spectrum planning, frequency assignment, licensing and interference investigation

**ANTENNA SYSTEMS**

- MF, HF, TV, FM, DAB, satellite, microwave and linking antennas
- Design and specification, installation, commissioning and fault finding
- Modelling of antennas, radiation patterns and propagation
- Design and implementation of multiple services into one antenna for MF
- High and low power broadcast combiners and antennas
- Assessment, specification, procurement, factory acceptance, installation and commissioning
- Rapid response team for faults, diagnosis and disaster recovery
- Promoting and installing DRM

**INFRASTRUCTURE AND FACILITIES MANAGEMENT**

- Assessment, specification, procurement, factory acceptance testing, installation and commissioning
- Ventilation and cooling—for both equipment and buildings
- Electrical—emergency power plants, switchboards, reticulation, earthing, lightning protection
- Buildings and roads

**RF TRAINING**

- RF awareness training
- RF measurement training

**SATELLITE, PIE AND SCADA SYSTEMS**

- Programme Input Equipment (PIE) design and assembly
- Equipment supervisory system design and implementation
- Satellite antenna foundations, dish assembly and alignment

**SPECIALIST RIGGING SERVICES**

- Design, supply and installation of new structures, towers, guyed masts and monopoles
- Design and analysis of existing structures
- Supply and installation of antenna mounts and foundation materials
- Demolition of towers, masts and monopoles
- Complete turnkey solutions in broadcast, telecommunications, microwave, satellite and trunk radio
- Other civil works including roads, retaining walls, building construction
- Service delivery to broadcast and telecommunications companies as well as radio communication/SCADA provision to gas, oil and mining industries

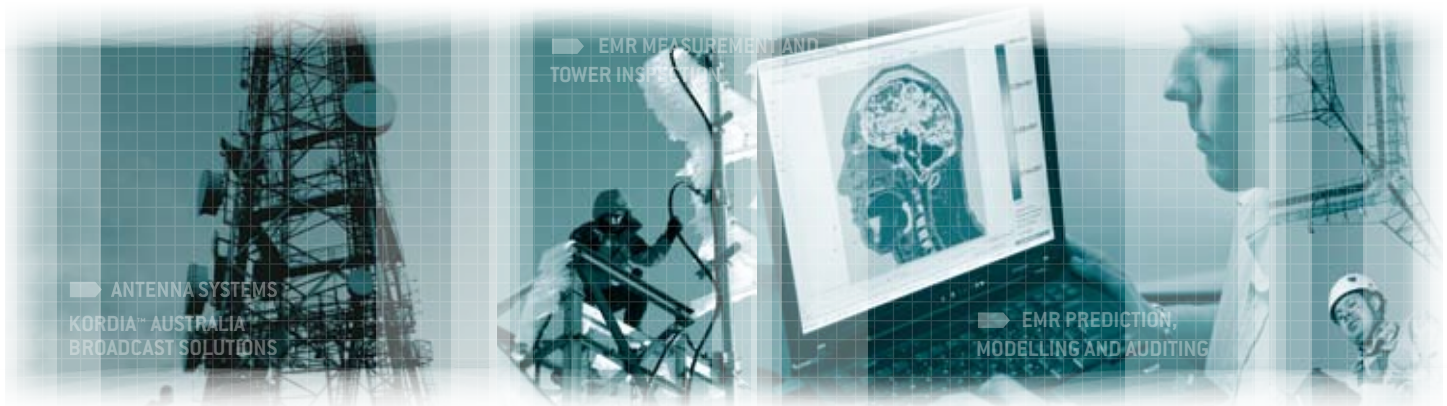
**OUR CUSTOMERS IN AUSTRALIA INCLUDE:**

2GB, 2KY,2UE, 4BC, ABC, ACMA (Australian Communications and Media Authority), ARN, AusAid, Austereo, Broadcast Australia, Bureau of Meteorology, CRA (Commercial Radio Australia), Australian Customs, DMG Radio Australia, DCITA (Department of Communications, Information Technology and the Arts), GSM Association, Macquarie Radio Network, MMF (Mobile Manufacturers Forum), NBN, Prime, Radio New Zealand, RG Capital Radio, SBS, Solomon Islands Broadcasting Group, TCI (Total Communications Infrastructure Ltd), Telstra, United Nations, Vodafone, WIN, WorldAudio and the World Bank.

**FOR MORE INFORMATION, PLEASE CONTACT:**

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ANTENNA SYSTEMS  
KORDIA™ AUSTRALIA  
BROADCAST SOLUTIONS

EMR MEASUREMENT AND  
TOWER INSPECTION

EMR PREDICTION,  
MODELLING AND AUDITING