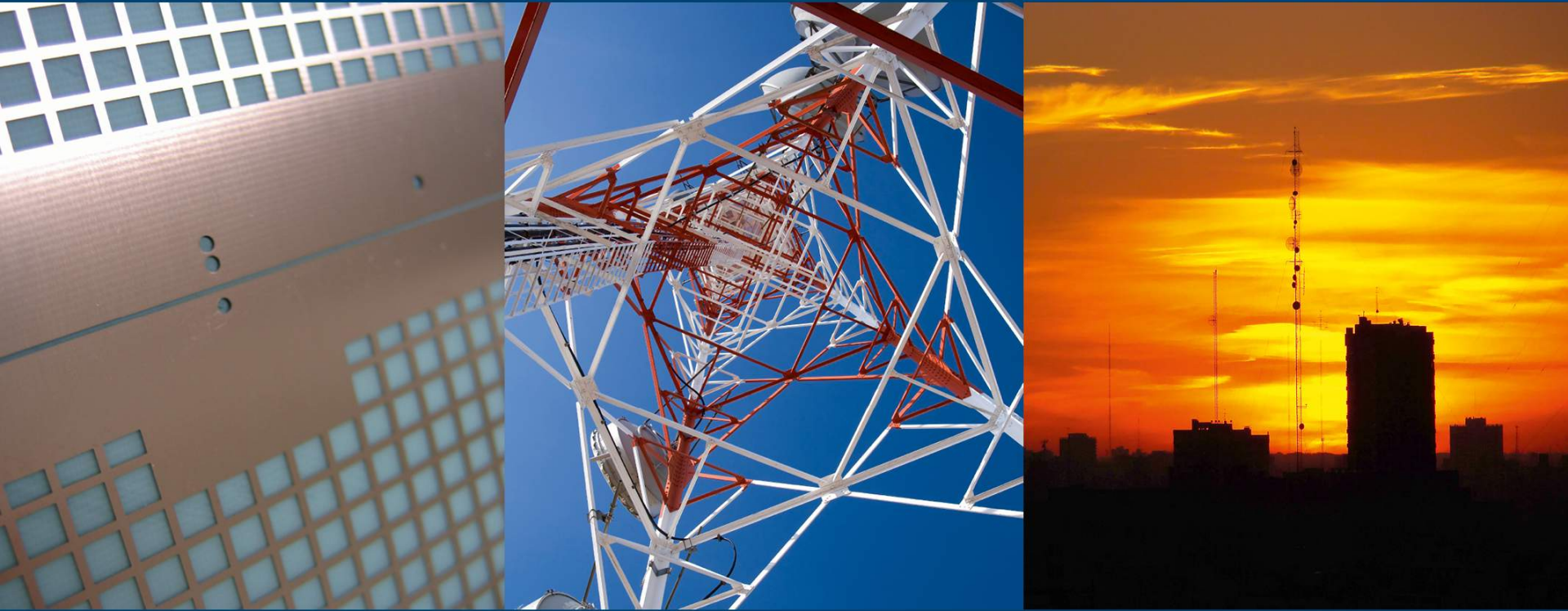


# MiniSystem Combiner (MSC)



# The MSC

The MiniSystem Combiner (MSC) is an innovative solution that simplifies the design, quotation, procurement and installation of RF combining for applications requiring 1-4 RF channels.



PMR....Linking....Network Sites....DMR....Telemetry....Trunking....DPMR....In-Plant....Voice....Remote Sites....Conventional....Data

- The MSC simplifies system design by;
  - catering for most standard frequency sub-bands, channel spacings and frequency separations....
  - using high quality bandpass filtering to provide necessary Tx-Rx system isolations....
  - supporting high, medium and low power transmitters - and in continuous duty cycle operation....
  - using dual stage Tx isolators, minimising intermodulation (IM) ....
  - including a low-noise high-performance receiver preamplifier with user-adjustable gain, for improved system sensitivity....
  - being analogue and digital compatible, and supporting future network migration paths between technologies....

- The MSC simplifies system quotation by;
  - allowing the RF combining portion of system quotations to become “a black box”, with quotations being able to be completed with minimal effort....
  - providing “typical” modular RF combining configurations at a fixed cost, that can be easily included in system quotations....
  - allowing supporting installation, maintenance and spares costing to be quickly determined “per-site”, and simply multiplied for multi-site designs....
  - allowing these benefits to be re-used in subsequent quotations to realise improvements in bid preparation effort and costs....

- The MSC simplifies system procurement by;
  - reducing the number of “standard” model numbers that need to be set up and processed for ordering....
  - allowing these standard configurations to be more readily “stocked” for reduced delivery lead-times....
  - innovative design approach and the use of the latest technologies reduces product cost and purchase pricing....
  - the flexibility of the product allowing equipment suppliers to hold their own stocks locally, to provide ex-stock delivery to their customers, reducing manufacturing and freight delays....

- The MSC simplifies system installation by;
  - its compact size, reducing the required rack space ....
  - using common connector types for RF, power and alarm connections, making stocking of connectors more convenient....
  - its convenient rear panel layout - with connectors, grounding studs, gain adjustments and LED indicators all readily accessible for easy of connection and cable routing....
  - The re-assurance of ongoing maintainability, with Periodic Maintenance Inspections (PMIs) and other maintenance procedures being simplified by the consistency of the MSC format when deployed across the multiple sites within a network....

# Installation

- The MSC series uses generic 19inch rack mounting to provide a convenient radio system RF combining “building block”. It uses readily available connectors on all inputs and outputs, making it easy to install and maintain....



# Installation



- The MSC conveniently connects to a site's base stations and antenna system, simplifying installation and reducing installation time and cost.
- The MSC's compact size enables efficient use of 19in rack space, and easily accessible rear panel connectors assist interconnecting rack cabling layout.



# Availability

- The MSC is available;
  - in two and four channel capacity configurations....
  - in VHF (132-174MHz), UHF (380-520MHz) and 800MHz sub-bands....
  - in models that support a (single) Tx/Rx antenna, or separate Tx and Rx (dual) antenna systems....
  - for operation from an external +11 to +28VDC power supply....
  - a 110-240VAC mains plug pack supply is available....
  - with alarm relay output monitoring DC power failure and receiver preamplifier fault conditions....

Alternate frequency bands and options will be released in the future

# Summary



The MiniSystem Combiner (MSC) is an innovative approach to simplifying the design, quotation, procurement and installation of RF combining.

Its compact size and convenient layout is compatible with both analogue and digital radio technologies.

# More Information

- **MiniSystem Combiner Product Briefs**

<http://www.rfiwireless.com.au/multicoupling-monitoring/minisystem-combiners.html>

- **MiniSystem Combiner Product Overview**

[http://www.rfiwireless.com.au/multicoupling-monitoring/minisystem-combiners/minisystem-combiner-ms3840-0405-sp.html#tab\\_downloads](http://www.rfiwireless.com.au/multicoupling-monitoring/minisystem-combiners/minisystem-combiner-ms3840-0405-sp.html#tab_downloads)

- **MiniSystem Combiner Manual, PDFs and Downloads**

[http://www.rfiwireless.com.au/multicoupling-monitoring/minisystem-combiners/minisystem-combiner-ms3840-0405-sp.html#tab\\_downloads](http://www.rfiwireless.com.au/multicoupling-monitoring/minisystem-combiners/minisystem-combiner-ms3840-0405-sp.html#tab_downloads)