

UMTS Antenna Line Products from the World's **largest Antenna Supplier**



• Outstanding XPol and VPol technology Ideal concept for subsequent upgrading Reduced number of antennas per site



Antennen · Electronic

• 1710-2170 MHz

• 1710-2170/1710-2170 MHz

Features:

- XPol and XXPol technology
- 33°/45°/65°/88° half power beam widths
- With adjustable, fixed or no electrical downtilt
- Optional upgrading to a remote electrical tilt version by using a separate control unit

With Kathrein's multi-band antennas the active frequency range is extended to 1710-2170 MHz. The antennas are suitable for operation in all three nets as GSM 1800, CDMA 1900 (PCS) and UMTS which can lead to a considerably reduced number of antennas needed by network operators. In the case of 2-multi-band versions, two identical antennas are integrated into one radome for independent downtilting.



• 806 (824)-960/1710-2170 MHz

A further reduction in the number of antennas and an improvement of the optical impact is possible by using our completely new dualband antennas.

All the current world-wide mobile communication networks can be served simultaneously using only one antenna per cell.

Due to the wide frequency range of the highband system the dual-band antennas are also suitable for triple-band application. For this purpose a wide range of combiner products are available.

Features:

- XXPol technology
- 65° half power beam width
- Versions with 88° half power beam width are being developed
- With and without adjustable electrical downtilt for both frequency ranges separately
- Optional upgrading to a remote electrical tilt version by using a separate control unit



Triple-band Antennas

- 806-960/1710-1880/ 1920-2170 MHz
- 824-960/1710-2170/ 1710-2170 MHz

Features:

- XXXPol technology
- 65° half power beam width
- With adjustable electrical downtilt for three different frequency ranges separately
- Optional upgrading to a remote electrical tilt version by using a separate control unit

Kathrein's unique antenna technology combines three different frequency ranges installed into just a single radome.

With Kathrein's triple-band antennas, containing two radiating systems and integrated filter components, the mechanical dimensions are only slightly larger than those of a pure GSM 900 antenna.

You can also choose Kathrein's triple-band antennas made up of three radiating systems. This offers the possibility of using just one antenna for CDMA 800/GSM 900, GSM 1800, CDMA 1900 (PCS) and UMTS.



Multi-band Combiners

Kathrein offers a wide range of co-siting filter and combiner solutions for GSM 900, GSM 1800 and UMTS.

Features:

- Suitable for co-siting purposes
- Reduces infrastructure costs
- Enables feeder sharing
- Suitable for indoor or outdoor applications
- Available as a single unit, or for XPol antennas, as a double unit
- Can be used as a combiner or in reciprocal function
- DC by-pass function between all ports
- Wall or mast mounting
- Low insertion loss
- High isolation
- DC stop available as accessory
- Versions with built-in DC stop, built-in lightning protection and high input power







Dual-band Combiner 806-960/1710-2170 MHz GSM 900/(GSM 1800 + UMTS)

Dual-band Combiner 1710-1880 MHz/1920-2170 MHz GSM 1800/UMTS

Triple-band Combiner 880-960/1710-1880/ 1920-2170 MHz GSM 900/GSM 1800/UMTS

Double Tower Mounted Amplifier (DTMA)

Features:

- UMTS full-band double dual-duplex tower mounted amplifier
- Double unit for easy use with XPol antennas
- AISG versions, including RET (Remote Electrical Tilt) support, or current window alarming
- Excellent noise figure, low insertion loss
- Additional radome for optimal weather protection



Kathrein's DTMA can minimize initial investments and speed up roll-out since fewer sites are needed and higher degree of flexibility with the site location is possible.

The use of Kathrein's DTMA leads to enhanced coverage and improved voice quality, resulting in fewer dropped calls and an increase in revenue.



Features:

- 3x 65° half power beam width
- 3x 18 dBi gain
- Wideband range 1710 – 2170 MHz
- Adjustable electrical downtilt
- Service zone for installation of following components:
 - Jumper cables
 - Remote Control Units (RCU)
 - Splitters for combining the three sector patterns into one omni pattern
 - Three Double Tower Mounted Amplifiers (DTMA) as one multipack

To meet the growing demands for unobtrusive site installation, Kathrein provide a tri-sector antenna in one single fiberglass pipe. The electrical features of each sector will correspond to those as created by single antennas. Through the homogenous design of this antenna and the possibility of concealing other components, this new antenna system offers an optically pleasing and electrically sophisticated solution.



Remote Electrical Tilt (**RET**) System

Network planing is becoming ever more complicated, especially with the advent of 3G. The challenge for wireless network operators is to balance coverage, capacity, call quality and costs, in order to gain maximum revenue from their network. The possibility of coverage adjustment through the vertical antenna pattern is thus a very important aspect for mobile communication planners.

Kathrein's Remote Electrical Tilt (RET) system represents the latest antenna system technology.

Components for Remote Electrical Tilt



- Central Control Unit (CCU)
- Remote Control Unit (RCÚ)
- DC power and signal splitter
- Control Cables
- Lightning Protection Device
- Earthing Clamp

Optional:

- Smart Bias Tee
- Double Tower Mounted Amplifier (DTMA)



New slimline RCU, with reduced dimensions and daisy-chain functionality is being developed.

The Portable Control Adapter (PCA) is specially designed for portable applications and for use by installers and maintenence staff.



It is a simple device for running the RCU attached to the Kathrein base station antennas, and for adjusting the vertical electrical downtilt locally.



Kathrein's overall RET system works in accordance with the AISG (Antenna Interface Standards Group) standard.

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The Kathrein Group

Kathrein is an international enterprise active in antenna and communications technology. For more than 80 years our group of companies has been developing, producing and marketing a wide range of antenna systems and signal processing products. Always being one step ahead in technology has ensured that Kathrein is the leading company in the world market.

More Information?

ˈVisit

http://www.kathrein.de

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