

Kontur Air

A true air-launched ground penetrating radar (GPR) antenna array, designed for accurate and cost-effective 3D subsurface assessments.



Kontur Air™ is an innovative true air-launched antenna array with patented technology, used worldwide for high-speed pavement assessment, airport and railroad inspection and landmine/improvised explosive device (IED) detection. Kontur Air™ creates added value by enabling collection of wide swaths of true 3D GPR data at any speed without risk of damage to the equipment and with minimal need for traffic management and lane closures. The result is unmistakable: quick, precise, and highly cost-effective surveys and a safer work environment for site personnel.

Kontur Air™ provides unsurpassed resolution at shallow depths as well as deep ground penetration due to an ultra-wideband antenna operation over a continuous 40 MHz to 3000 MHz frequency range (ETSI). This, in combination with the unique antenna array design with up to 41 channels, allows the user to collect data in a true 3D data cube with crystal clear resolution at all depths.

The antenna array is typically mounted 30 cm / 12 inches above the ground surface and is equipped with a standard 5/8" thread mount for easy mounting of a global positioning system (GPS) antenna or Total Station prism.

Key features and benefits

Superior resolution at high speed – ideal for near-surface data acquisition when acquisition speed is crucial.

Data collection at traffic-speeds minimizes the need for traffic management and lane closures.

Ultra-Wideband technology provides detailed survey data at all depths.

Capture wide swaths of survey data in one pass.

Support for multi-offset data recording.

Built-in GPS receiver for coarse positioning and precise GPS timing.

Delivered in rugged shipping container for safe storage and transportation.

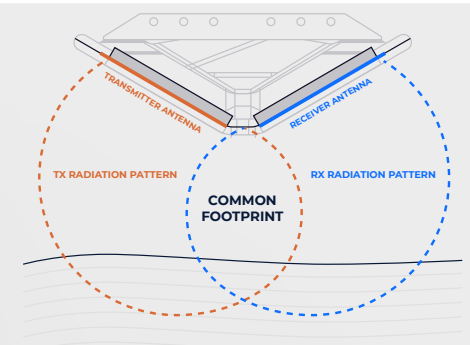
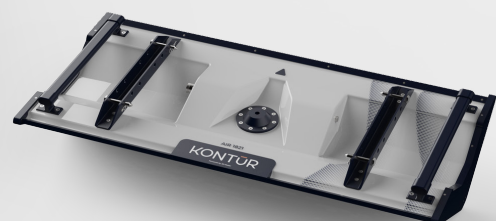


Figure 1 Antenna principle.



Technical specifications

	A0909	A1821	A2125	A2429	A3341
Number of channels	9	21	25	29	41
Effective scan width	0.675 m 2,2 ft	1.575 m 5,2 ft	1.875 m 6,2 ft	2.175 m 7,1 ft	3.075 m 10,1 ft
Size (L x W x H m)	1.0 x 0.6 x 0.2	1.9 x 0.6 x 0.2	2.2 x 0.6 x 0.2	2.5 x 0.6 x 0.2	3.4 x 0.6 x 0.2
Weight	22 kg	32 kg	37 kg	42 kg	50 kg
Transport container size (L x W x H m)	1.1 x 0.7 x 0.3	2.0 x 0.7 x 0.3	2.3 x 0.7 x 0.3	2.6 x 0.7 x 0.3	3.5 x 0.7 x 0.3
Transport container weight	41 kg	60 kg	68 kg	76 kg	105 kg

Applicable to all antennas

Frequency range ETSI: 40 - 3000 MHz
FCC: 150 - 3000 MHz

Channel spacing: 75 mm/ 3 in
(Cross line)

Note: Other sizes are available on a custom order basis. Contact the Kontur team, for additional details at sales@kontur.tech

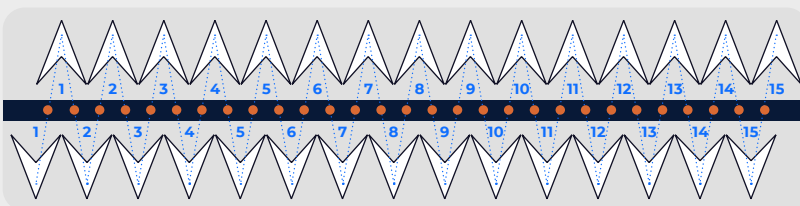


Figure 2 Displacement of elements and channels of the standard scan pattern for A2429. Other antennas have identical spacing, but different numbers of channels that are strictly dependent on antenna width.

Application areas

PAVEMENT INVESTIGATION

High-speed true 3D data collection and inhouse developed analysis algorithms provides invaluable insights into the quality of pavement networks.

AIRPORTS

Ideally suited for aviation environments, Kontur Air™ provides a repeatable large scale evaluation method, covering multiple applications.

RAILWAYS

Integration of Kontur Air™ into railway surveys provides additional subsurface insights, for example ballast thickness, contamination and more, all collected at high speeds.

UNEXPLODED ORDNANCE (UXO)

Due to the true air-launched design of Kontur Air™ antenna arrays and the capability to detect objects at all depths, Kontur Air™ is widely used in UXO surveys, helping to create a safer environment.

Accessories

- **Two-wheel, light-weight trailer**
- **Hitch mount – designed for EU size 50mm hitch**
- **Antenna cables – in 3m, 6m or 8m length**
- **DMI/Odometer with wheel adapter**

Related Kontūr products

- **Kontur Ground™**
- **Kontur Deep™**
- **GeoScope™**
- **Examiner™ Software**