



HYMATA

ANT 51

### Overview

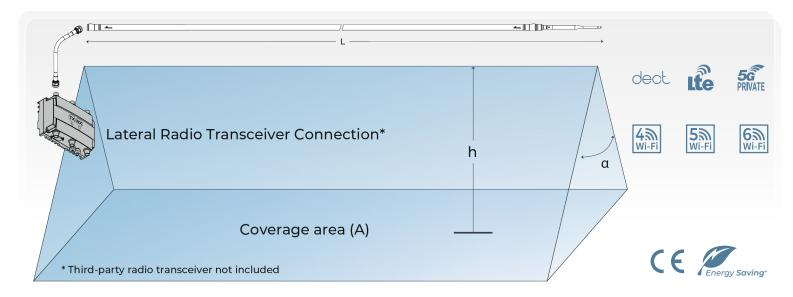
Kymata delivers a groundbreaking solution for indoor and outdoor radio coverage in extensive logistical and industrial areas. Kymata Antennas and Amplifiers effectively and economically resolve signal issues, ensuring superior performance. With intuitive management through a web interface and SNMP, complete and immediate control of industrial wireless networks is achievable.

### ANT5L Series Antennas

The ANT5L antenna is a customizable, broadband, single-branch solution with a lateral connection for the radio transceiver. It ensures extended and consistent radio coverage performance over a wide frequency range from 1.5 to 6GHz. This antenna is ideal for a variety of applications, including Wi-Fi 802.11a/b/g/n/ac/ax, 4G/5G mobile networks, and DECT1900.

The ANT5L integrates seamlessly with any Wi-Fi 802.11a/b/g/n/ac/ax access point, whether new or existing, and is compatible with any radio device operating within the 1.5 to 6GHz frequency range that features a removable external antenna. Optimized for frequencies from 1.5GHz to 6GHz, the ANT5L ensures uniform signal distribution across the area of interest.

With customizable lengths ranging from 20 to 70 meters and an included lateral access point connector, the ANT5L series provides flexible installation options. Additionally, these antennas can be mounted on ceilings using specialized Kevlar mounting kits, which are available separately.



Definition of design parameters for selecting the most suitable model according to specific requirements

L = total length of the antenna

h = height above ground level of the antenna

A = nominal coverage area with average signal strength on the ground >-82dBm

a = nominal antenna aperture angle

#### **Related Accessories**

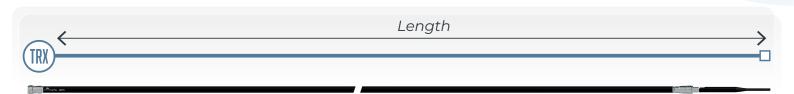
Mounting Kit: MKTIHI — MKT60I — MKTIHO — MKT60O — MKTIHX — MKT60X Jumpers: JMPRPSMANM — JMPNMNM Integrated Passive Devices: IPD11HS — IPD11CS Amplifiers: AMP2 — AMP5 — AMP2SM — AMP5SM Diplexer/Coupler: IPD25D — IPD3BAND

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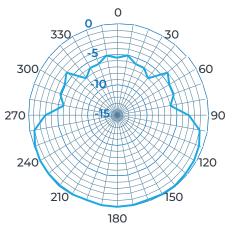
## Technical specifications

Product Code	ANT5 L20	ANT5 L30	ANT5 L40	ANT5 L50	ANT5 L60	ANT5 L70
Operating Band	1.5 GHz ~ 6.2 GHz					
TRX Connector Position	Lateral					
Overall Length L	up to 20 m	up to 30 m	up to 40 m	up to 50 m	up to 60 m	up to 70 m
Coverage Area (A) @ 2.4 GHz @ h = 8 m	1.100 m <sup>2</sup>	1.650 m <sup>2</sup>	2.200 m <sup>2</sup>	2.750 m <sup>2</sup>	3.300 m <sup>2</sup>	3.800 m <sup>2</sup>
Coverage Area (A) @ 5.2 GHz @ h = 8 m	1.100 m <sup>2</sup>	1.650 m <sup>2</sup>	1.850 m²	1.950 m²	1.950 m <sup>2</sup>	2.000 m <sup>2</sup>
Average Gain @ 2.4 GHz	-22 ± 3 dBi	-23 ± 3 dBi	-24 ± 3 dBi	-26 ± 3 dBi	-27 ± 3 dBi	-28 ± 3 dBi
Average Gain @ 5.2 GHz	-23 ± 3 dBi	-24 ± 3 dBi	-25 ± 3 dBi	-27 ± 3 dBi	-28 ± 3 dBi	-30 ± 3 dBi
-3 dB Angle (a) in H-plane	160°					
Longitudinal Electrical Tilt	60° @ 2.4 GHz - 50° @ 5.8 GHz					
Front-to-Back Ratio	5 dB					
Average Coupling Loss @ 2.4 GHz	70 dB ± 2 dBi					
Average Coupling Loss @ 5.2 GHz	71 dB ± 2 dBi					
Characteristic Impedance	50 Ω					
Minimum Bend Radius	200 mm					
TRX Connector Type	Nf (a specific jumper JMPX is required to connect the AP)					
Operating Temperature	from -50° C to +85° C					
Diameter	17 mm					
Clearance Distance*	100 mm					
Certifications	IEC 60754-1/-2; IEC 61034; IEC 60332-1; IEC 60332-3-24; CPR: Cca s1 d0 a1, EN50575-2017					

\*Minimum distance to be maintained during installation between the Kymata antenna and walls or other surfaces

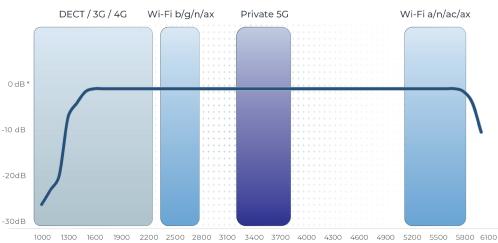
Relative Response in dB

# Radiation pattern



Trasversal plan (radial)

## Frequency response



 1000
 1300
 1600
 1900
 2200
 2500
 2800
 3100
 3400
 3700
 4000
 4300
 46

 \* Referenced to maximum antenna gain
 Frequency in Hertz

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