

Dedrone RF-Sensor RF-310 Rev. B

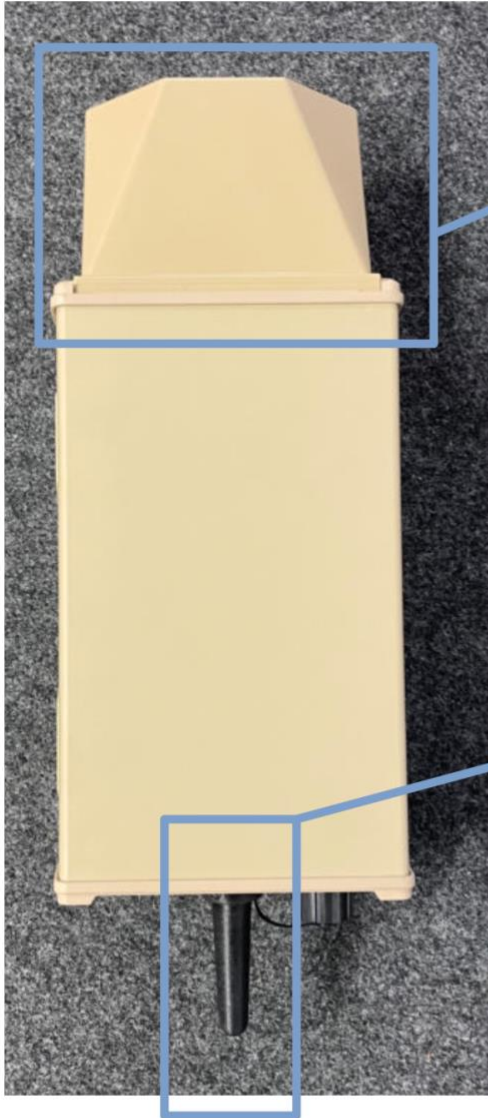
Antenna Specification

Revision History

Document Number	Version And Revision type ⁱ⁾		Comments	Autor
Antenna Specification RF-310 Rev. B	1.0	a	Initial version	R. Jaeger

i)

- a) First Edition or minor modifications due to errors or improvements in the documentation. Replacing former version in brackets
- b) Modifications maintaining full and upward compatibility. Replacing former version in brackets
- c) Modifications limiting or excluding compatibility. Valid only in combination with former version in brackets



4x HG2458RD-RSP Antenna
- 433.05-434.79 MHz
- 902-928 MHz
- 2280-2600 MHz
- 5780-5875 MHz
(Broadband Receiver)



1x 2JW035-C442B Antenna
- 2412-2472 MHz
- 5180-5825 MHz
(WiFi Receiver)

HyperLink Wireless 2.4/4.9/5.8 GHz 3 dBi Tri-Band Rubber Duck Antenna Model: HG2458RD-XXX

Applications

- 2.4 GHz, 4.9 GHz and 5.8 GHz band applications
- IEEE 802.11a/b/g/n and 802.11ac WiFi access points and routers
- 4.9 GHz homeland security, public safety services, fire, police and security applications
- 5.8 GHz wireless video and security systems

Features

- Three frequency ranges in one antenna
- Flexible rubber duck design
- Provides better performance than most stock access point antennas
- Tilt and swivel design
- Available with SMA Male, TNC Male, RP-SMA Plug and RP-TNC Plug connectors



RP-SMA Plug Version Shown

Description

The HyperLink HG2458RD series is a high performance tri-band rubber-duck antenna designed to operate from 2.4 GHz to 2.5 GHz, 4.9 GHz to 5.3 GHz and 5.7 GHz to 5.8 GHz which eliminates the need to purchase different antennas for each frequency. The tri-band design of this antenna helps reduce interference and noise since it will reject out-of-band signals between the three bands of this antenna. This omnidirectional "rubber-duck" antenna provides broad coverage and 3 dBi gain.

Measuring 7.79" long, this flexible antenna features a tilt-and-swivel connector which allows them to be used vertically, at a right angle, or any angle in-between. It is suitable as a replacement RF antenna for many wireless access points and routers that are equipped with similar type antennas. The HG2458RD is available with SMA Male, TNC Male, RP-RSP Plug or RP-TNC Plug connectors.

Specifications

Models

Model Number	Connector
HG2458RD-TM	TNC Male
HG2458RD-SM	SMA Male
HG2458RD-RSP	Reverse Polarity SMA Plug
HG2458RD-RTP	Reverse Polarity TNC Plug

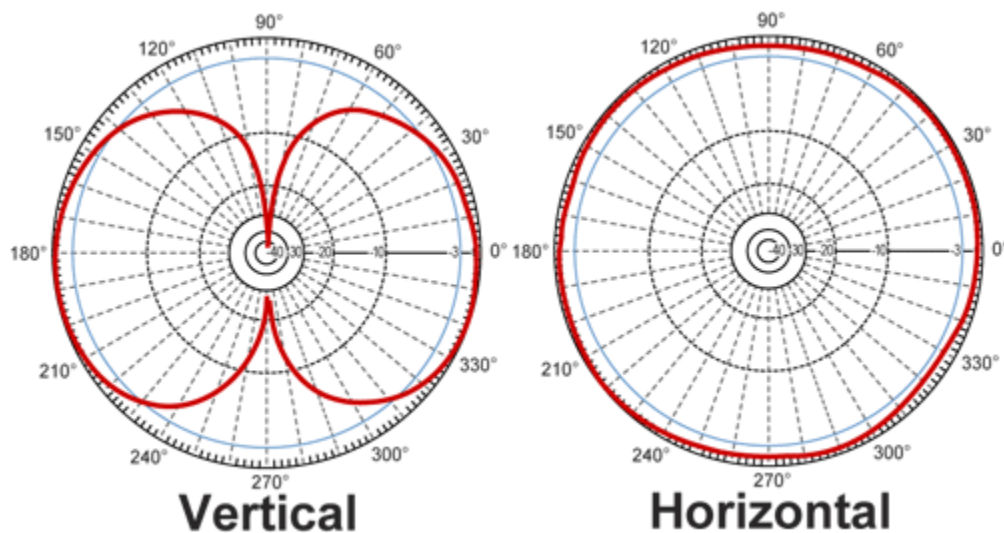
Electrical Specifications

Frequency Ranges	2400-2500 MHz 4900-5350 MHz 5725-5850 MHz
Gain	3 dBi
Horizontal Beam Width	360°
Impedance	50 Ohm
Max. Power	50W
VSWR	< 2:1

Mechanical Specifications

Weight	.96 oz. (27 g)
Length	7.79" (198 mm)
Max. Diameter	0.51" (13.1 mm)
Finish	Matte Black
Operating Temperature	-40° C to 60° C (-40° F to 140° F)
Polarization	Vertical
Flame Rating	UL 94HB
RoHS Compliant	Yes

RF Antenna Patterns



2JW035-C442B

2.4/5.0 GHz ISM Connector Mount

Key Features

2.4/5.0 GHz ISM

- 2410-2490 MHz
- 4920-5925 MHz

Connector Mount

Ground Plane Independent

Hinged Connector

Low Profile

Dimensions 76 × Ø 10 mm



1. Antenna and electrical specifications

Parameters	2.4/5.0 GHz ISM Antenna	
Standards	WiFi, BT, ZigBee, ISM	
Band (MHz)	2.4 Ghz	5.0 Ghz
Frequency (MHz)	2410-2490	4920-5925
Return Loss (dB)	~-8.9	~-9.6
VSWR	~2.1:1	~2.8:1
Efficiency (%)	~35	~60
Peak Gain (dBi)	~1.4	~3.2
Average Gain (dB)	~-4.5	~-2.2
Impedance (Ohm)	50	
Polarisation	Linear	
Radiation Pattern	Omni-Directional	
Max. Input Power (W)	25	
Connector Type	Most RF Connectors (RP-SMA-Male-RA Standard)	

Antenna Measurement Conditions:

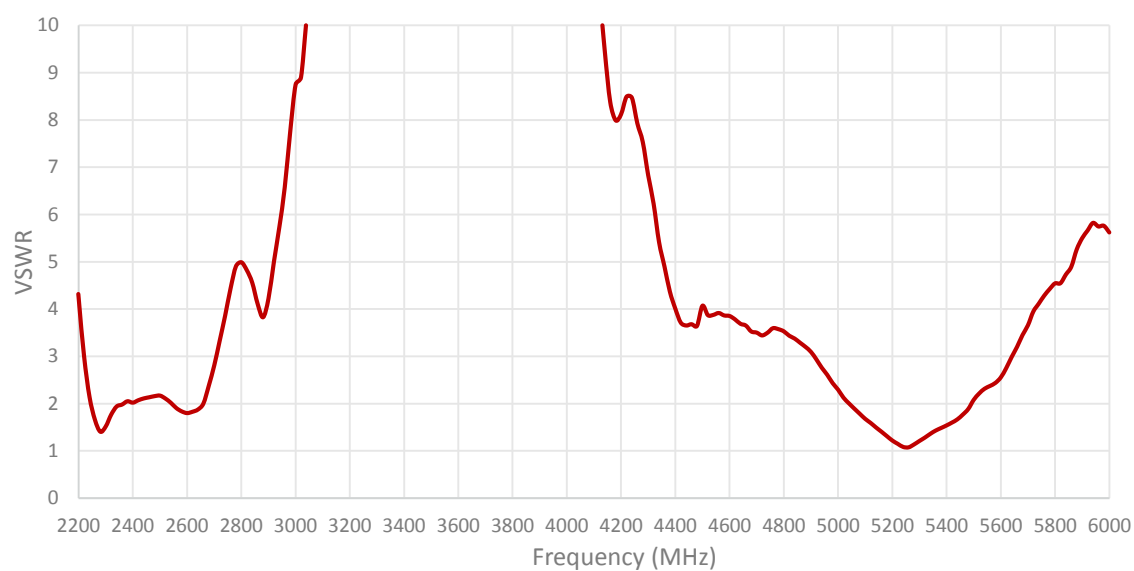
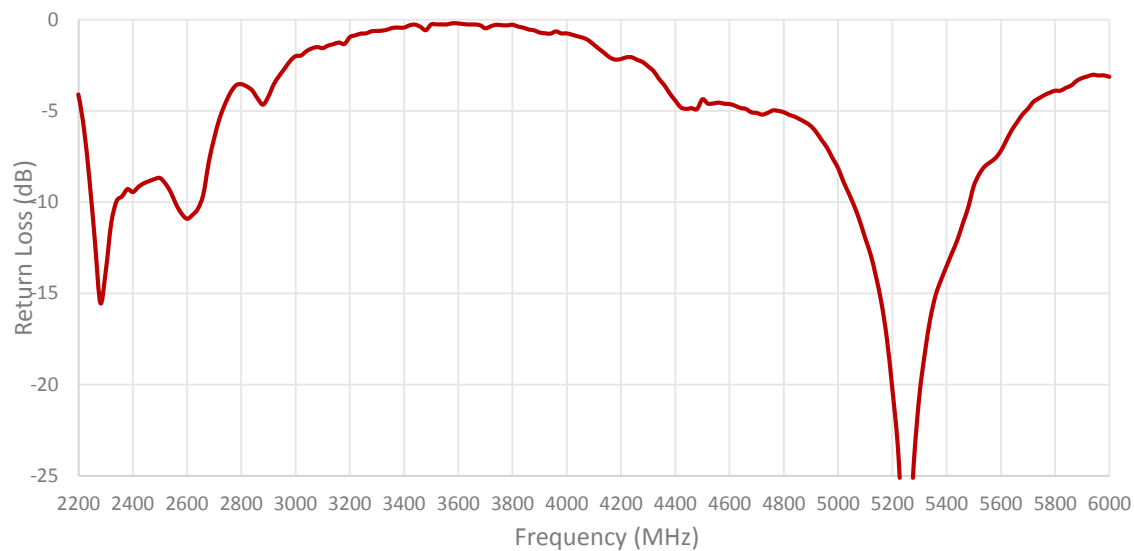
Free Space

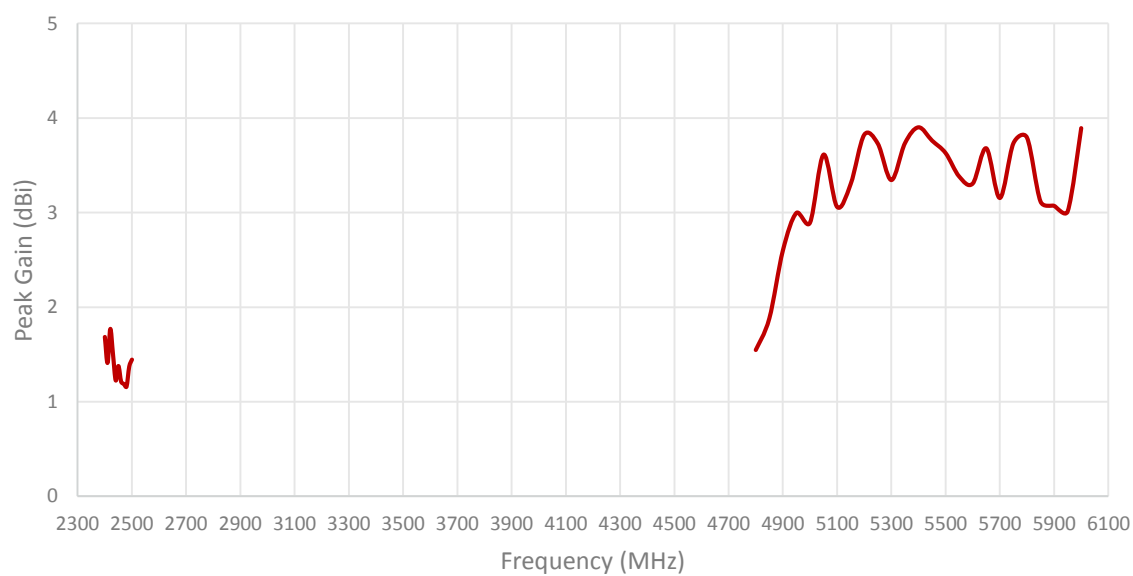
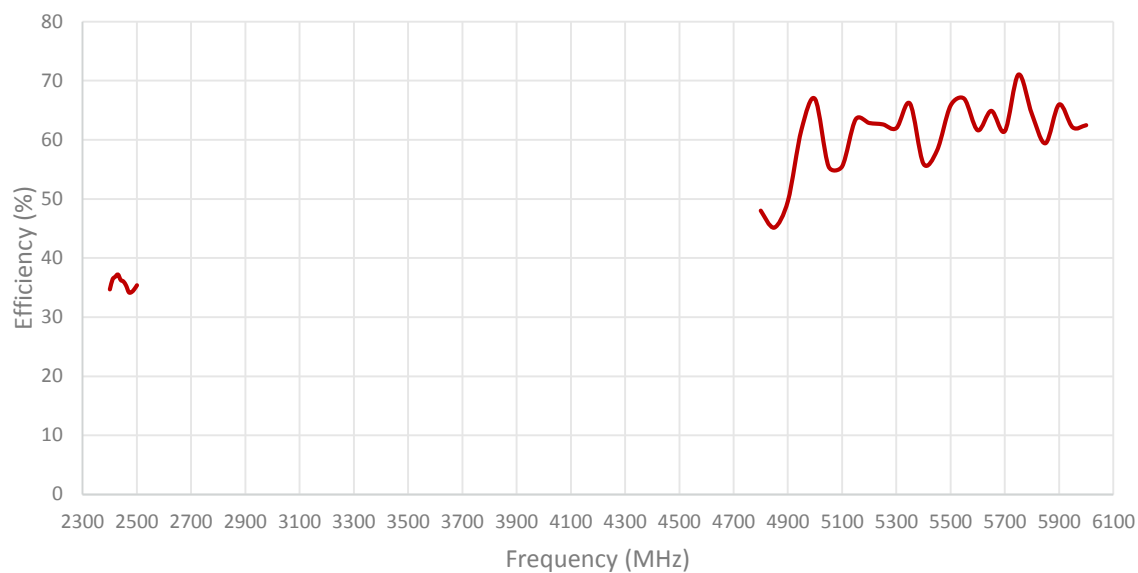
Measured in Certified CTIA 3D Anechoic Chamber

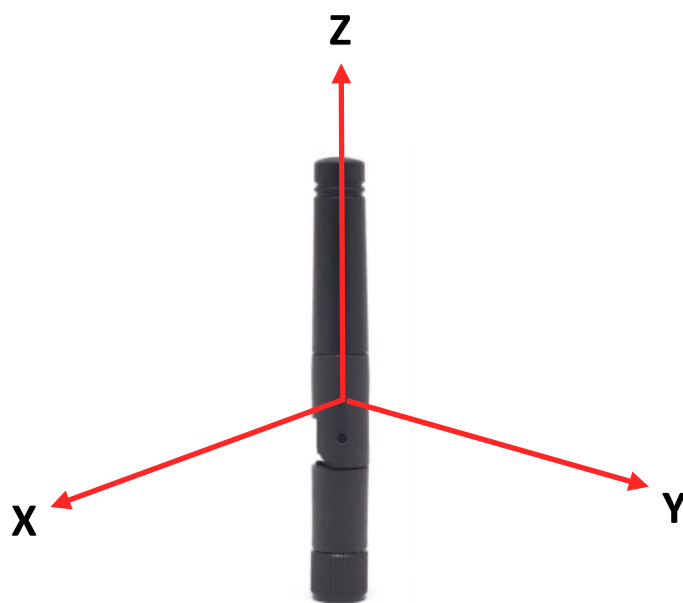
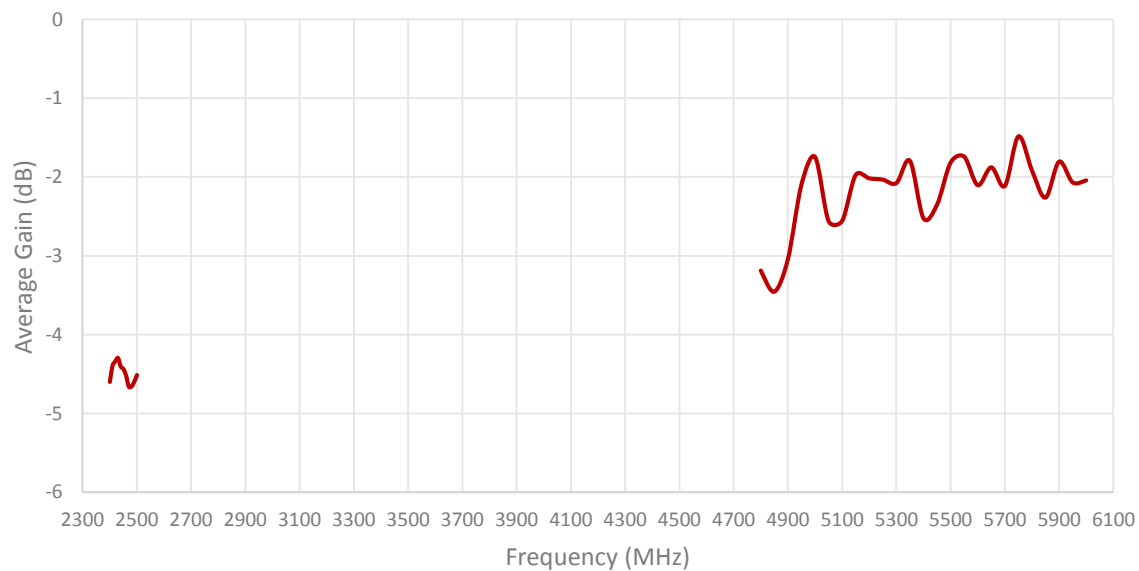
2. Mechanical and environmental specifications

Specifications	2JW035-C442B
Mounting Type	Connector Mount
Dimensions (mm)	76 x Ø 10
Radome	ABS, POM
Radome color	Black
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS

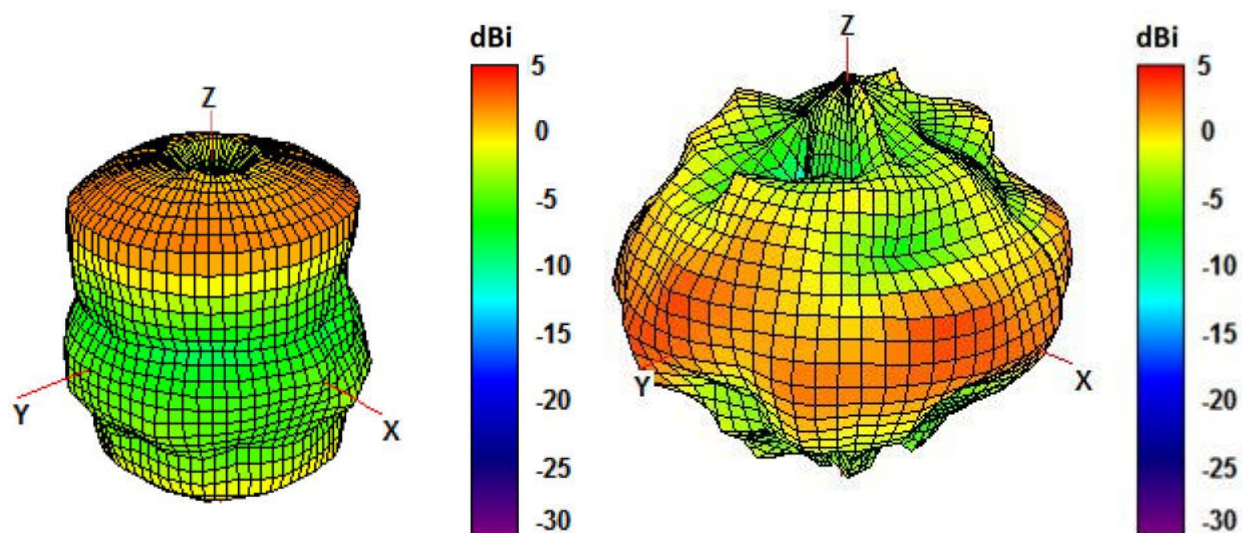
3. Antenna parameters





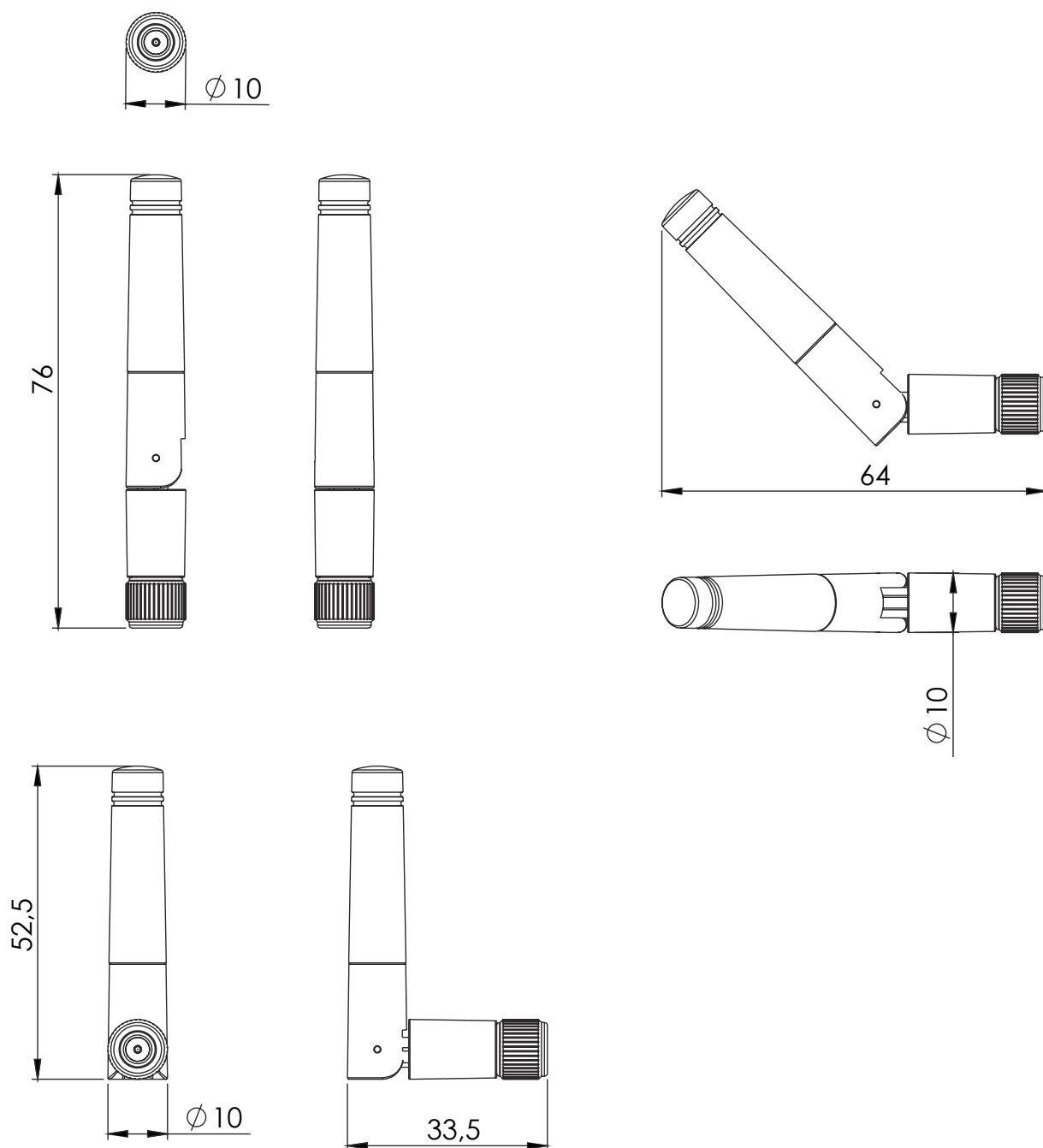


Radiation pattern reference



2450 and 5500 MHz Radiation pattern

4. Antenna drawings



5. Antenna Images

