

Critical Communications

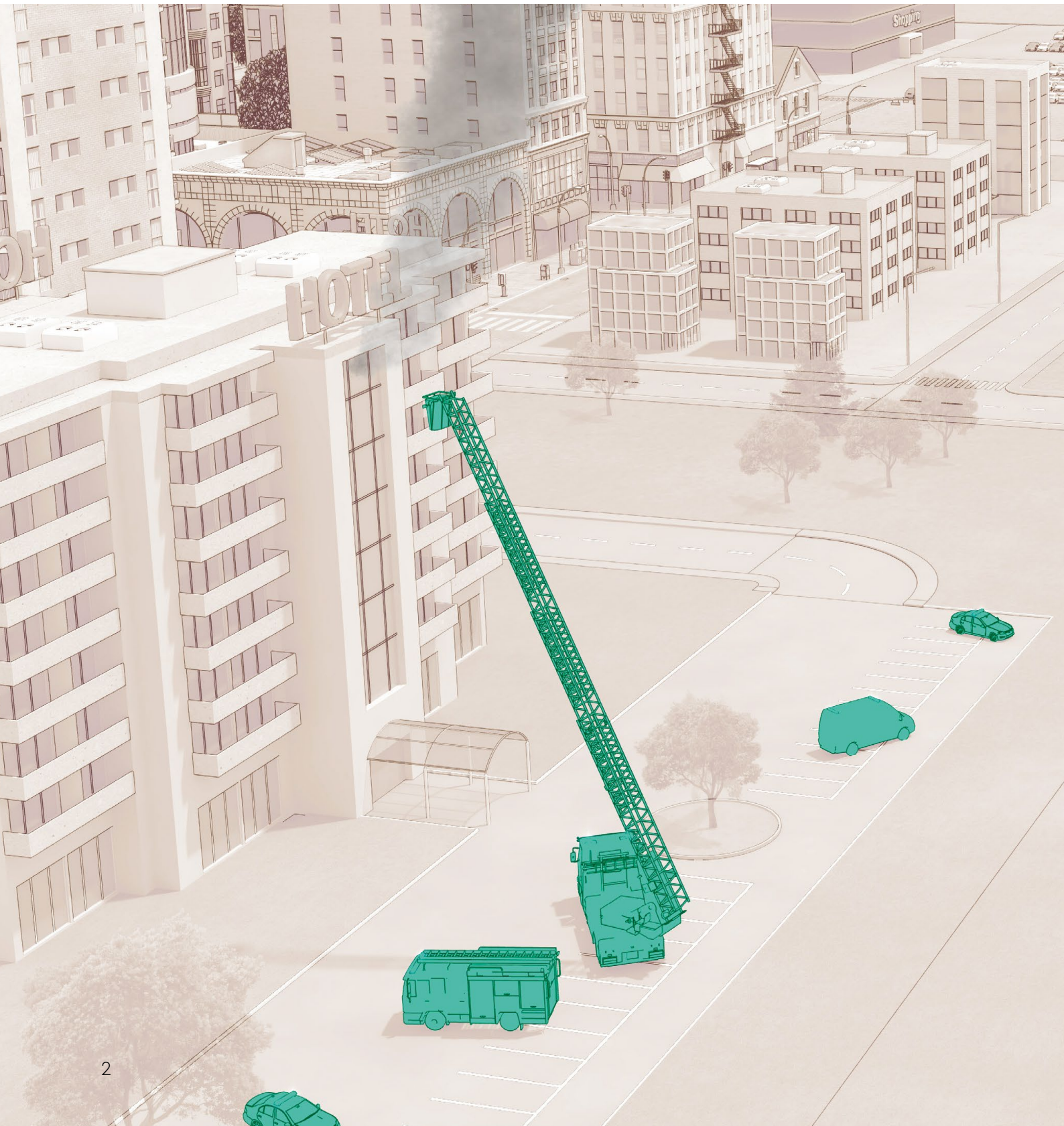
Edition 2024

Secure, reliable and continuous coverage for business and mission critical networks



Blue light

HUBER+SUHNER products also support mission-critical applications for emergency response and blue light forces by providing robust and secure solutions that support front-line operations in the air, on the ground and at sea. Covering



the digital TETRA, ultra-broadband and professional LTE bands, we offer mobile communication services enabling the combination of voice and data in emergency situations to ensure reliable coverage when it is needed most.



**SENCITY® SC Omni
380 – 430 MHz, 2dBi**

TypeNo. 848114

p.25

Ideal for Receive purposes on Firebrigade or similar buildings. Standard antenna in many European countries. Suitable for TETRA, TETRAPol and LTE410.



**SENCITY® SC
High-Gain Omni
380 – 400 MHz, 7.5dBi**

TypeNo. K862748

p.29

Ideal for Transmit purposes on towers. Standard antenna in many European countries. Suitable for TETRA, TETRAPol.



**SENCITY® SC
Indoor Panel
380 – 470 MHz, 7dBi**

TypeNo. 1399.31.0020

p.69

New Product combining TETRA, TETRAPol, LTE410 & LTE450 in a single extra small housing.



Defense

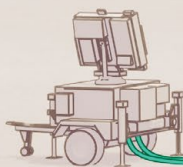
HUBER+SUHNER products also support mission-critical applications for military forces by providing robust and secure solutions that support front-line operations in the air, on the ground and at sea. Covering the digital TETRA, ultra-broadband



SENCITY® SC **Ultra-Broadband Omni** **380 – 3800 MHz, 3 – 8.5 dBi**

TypeNo. 92210003 p.28

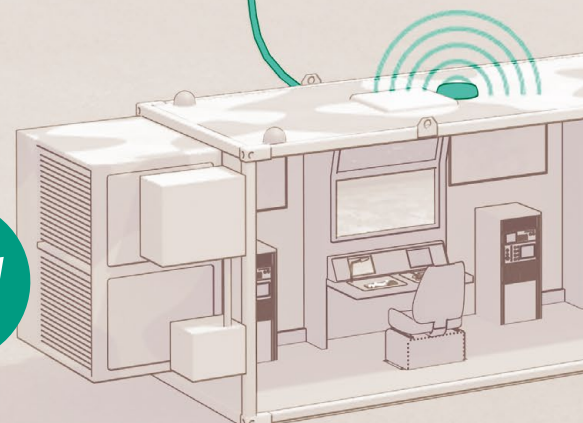
Covering all necessary systems from TETRA, LTE410/LTE450, WiFi and 2G – 5G. Ultimate flexibility.



SENCITY® Shield p.93/94 **Jamming Vehicle Antenna**

Broadband with exceptional round radiation pattern and good VSWR.

NEW



and professional LTE bands, we offer mobile communication services enabling the combination of voice and data in critical situations to ensure reliable coverage when it is needed most.

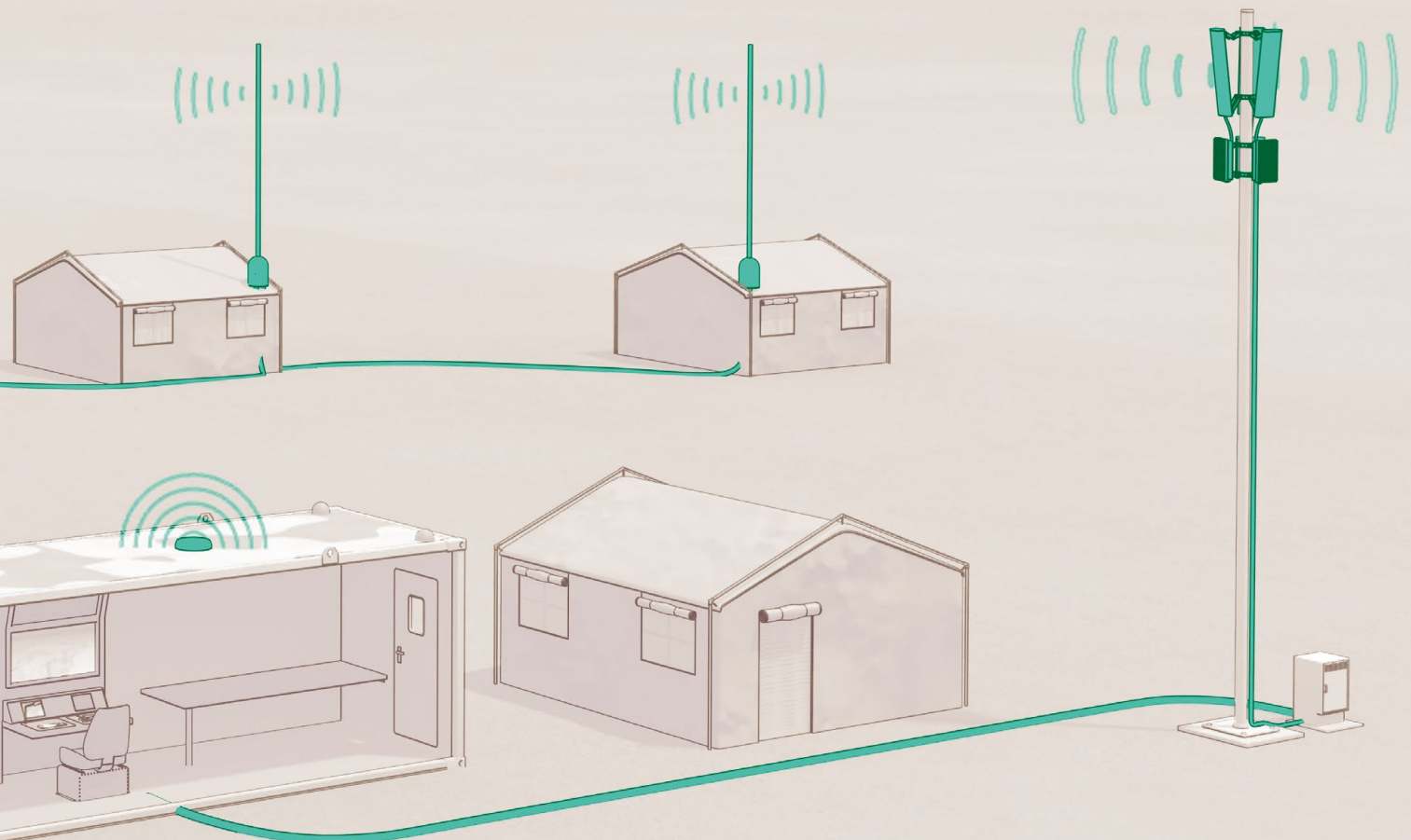


SENCITY® SC MagMount Extra hardened vehicle antenna

TypeNo. 1399.19.0060

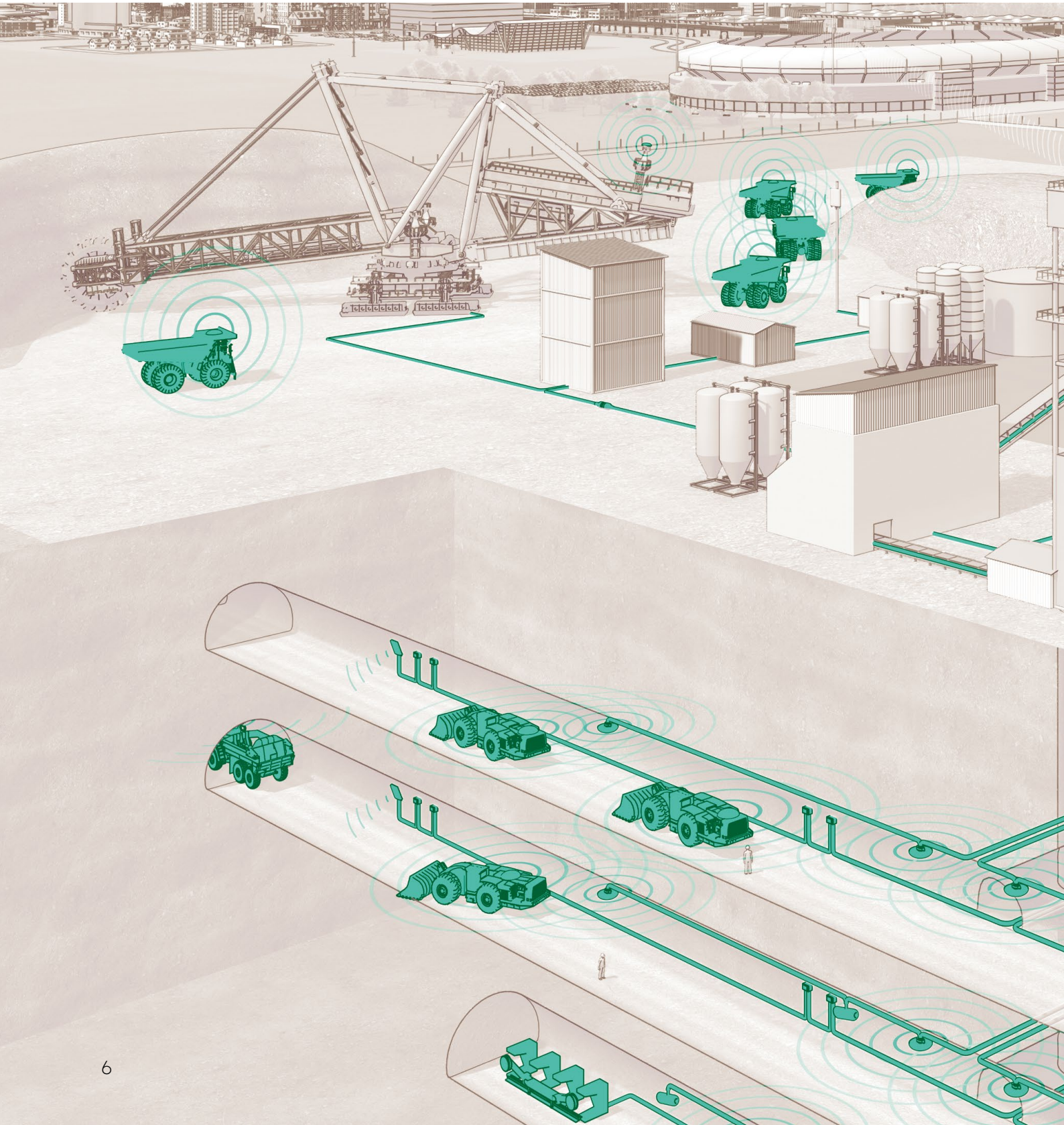
p.92

Covering all necessary systems from TETRA, LTE410/LTE450, WiFi and 2G – 5G. Ultimate flexibility.



IoT – wireless communication for industry

Although most aspects in IoT are software related, many applications place great emphasis on hardware. Although reliability and performance are critical, the total cost of ownership for a system is also just as important. Due to their sometimes



complex processes, industrial applications can pose unique challenges on radio links. HUBER+SUHNER offers a wide range of antennas that ensure business-critical connectivity even in buildings or locations with less-than-optimal reception.

SENCITY® Road MULTI Vehicle Antenna

Type no. 1399.99.0421

p.95



Covering all necessary systems from TETRA, LTE410/LTE450, WiFi, 2G – 5G and GPS. Ultimate flexibility. Hardened cover.

NEW

SENCITY® Urban 300 X-Pol 698 – 4200MHz, 7dBi

Type no. 1399.31.0019

p.36



Includes 4G and 5G bands for IOT applications.

NEW

SENCITY® SC Indoor Ultra-Broadband Omni 380 – 6000 MHz

Type no. 92210002

p.61



Covering all necessary systems from TETRA, LTE410/LTE450, WiFi, 2G – 5G.

Smart Grids

As the transition to renewable energy sources gains speed, so does the need for advanced metering and control of the entire production and distribution network. Of course, this requires the reliable transmission of voice and data communication in both urban and rural areas where signal penetration and availability

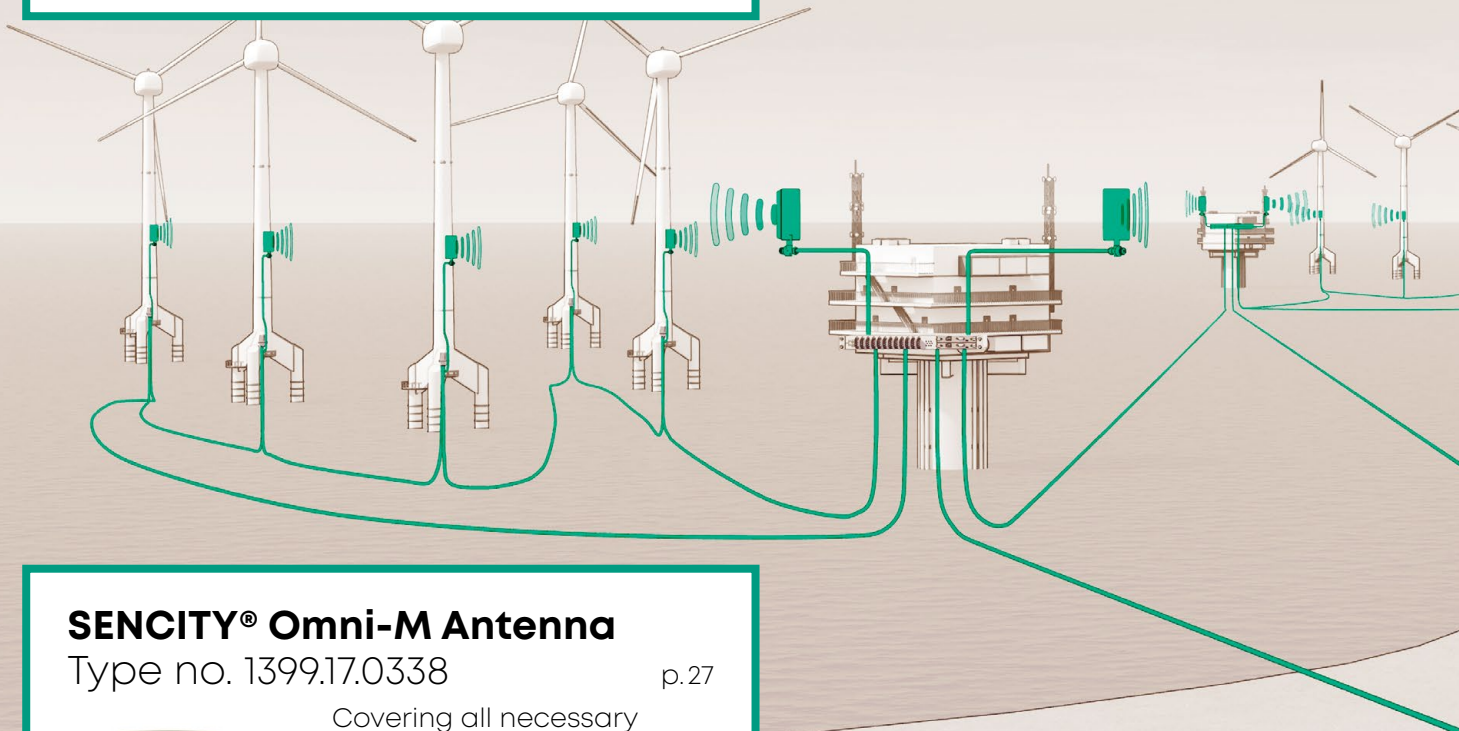
SENCITY® SC X-Pol **380 – 470 MHz, 14.5 dBi, 0° – 10° T**

Type no. 91121514

p.17



Worlds first Antenna Sub-500MHz with electrical tilt incl. Remote Tilt possibility. Proven Track record in Smart Grid Networks.



SENCITY® Omni-M Antenna

Type no. 1399.17.0338

p.27



Covering all necessary systems from TETRA, LTE410/ LTE450, WiFi, 2G – 5G and GPS. Ultimate flexibility. Hardened cover. Ideal for Container and Device coverage.

NEW

is not guaranteed. This is proven to be most critical in remote locations like ocean wind parks, offshore platforms, and power plants where operational safety is highly dependent on reliable data transfer over long distances and through harsh environments.



SENCITY® SC Panel
X-Pol 698 – 960 MHz
16 dBi, 0°–10° T

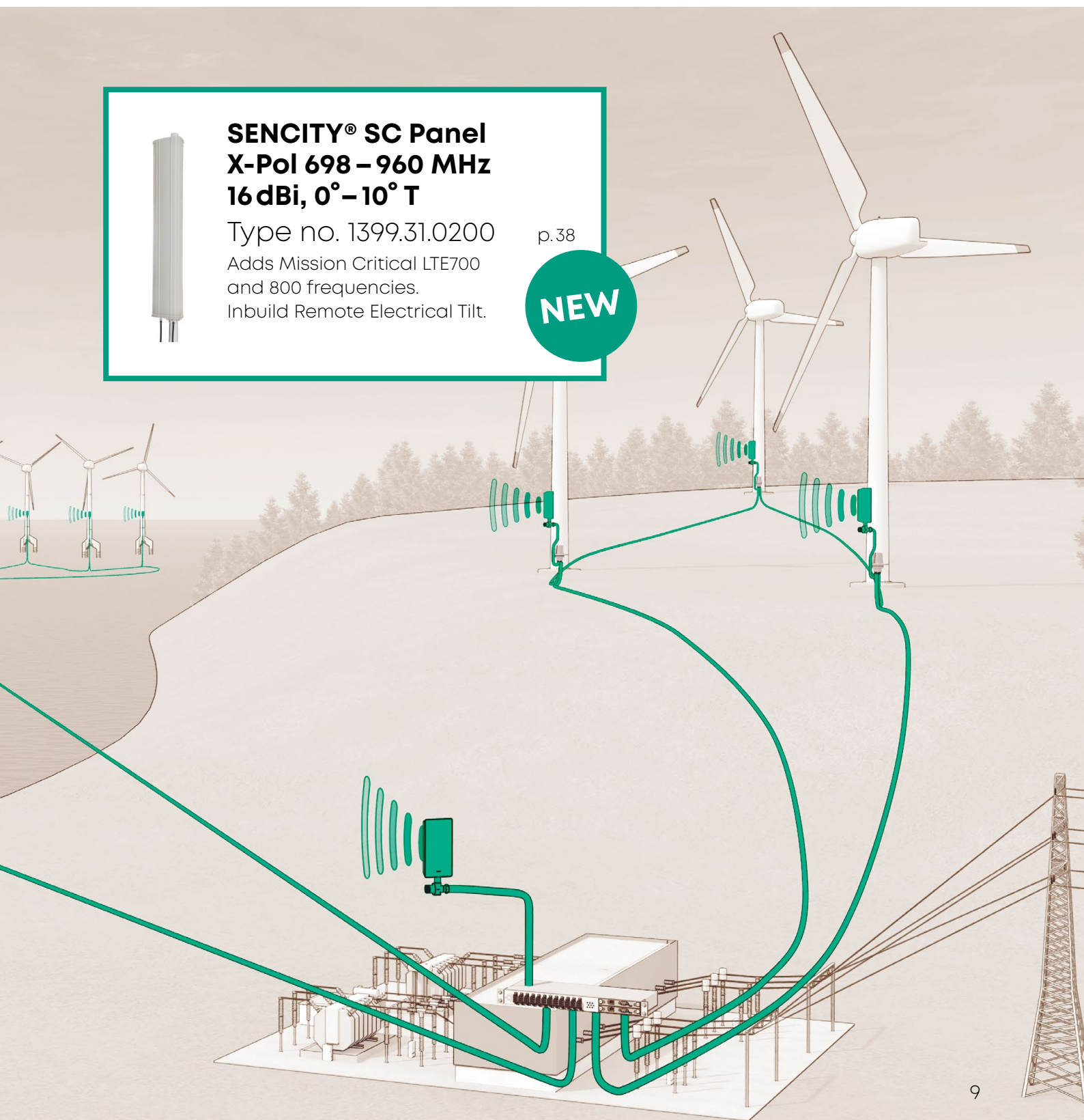
Type no. 1399.31.0200

Adds Mission Critical LTE700
and 800 frequencies.

Inbuild Remote Electrical Tilt.

p.38

NEW



The background features a complex network of glowing blue lines and nodes. The nodes are bright, circular points of light, and the lines are thin, intersecting to form a web-like structure. The overall color palette is dark blue with bright cyan highlights.

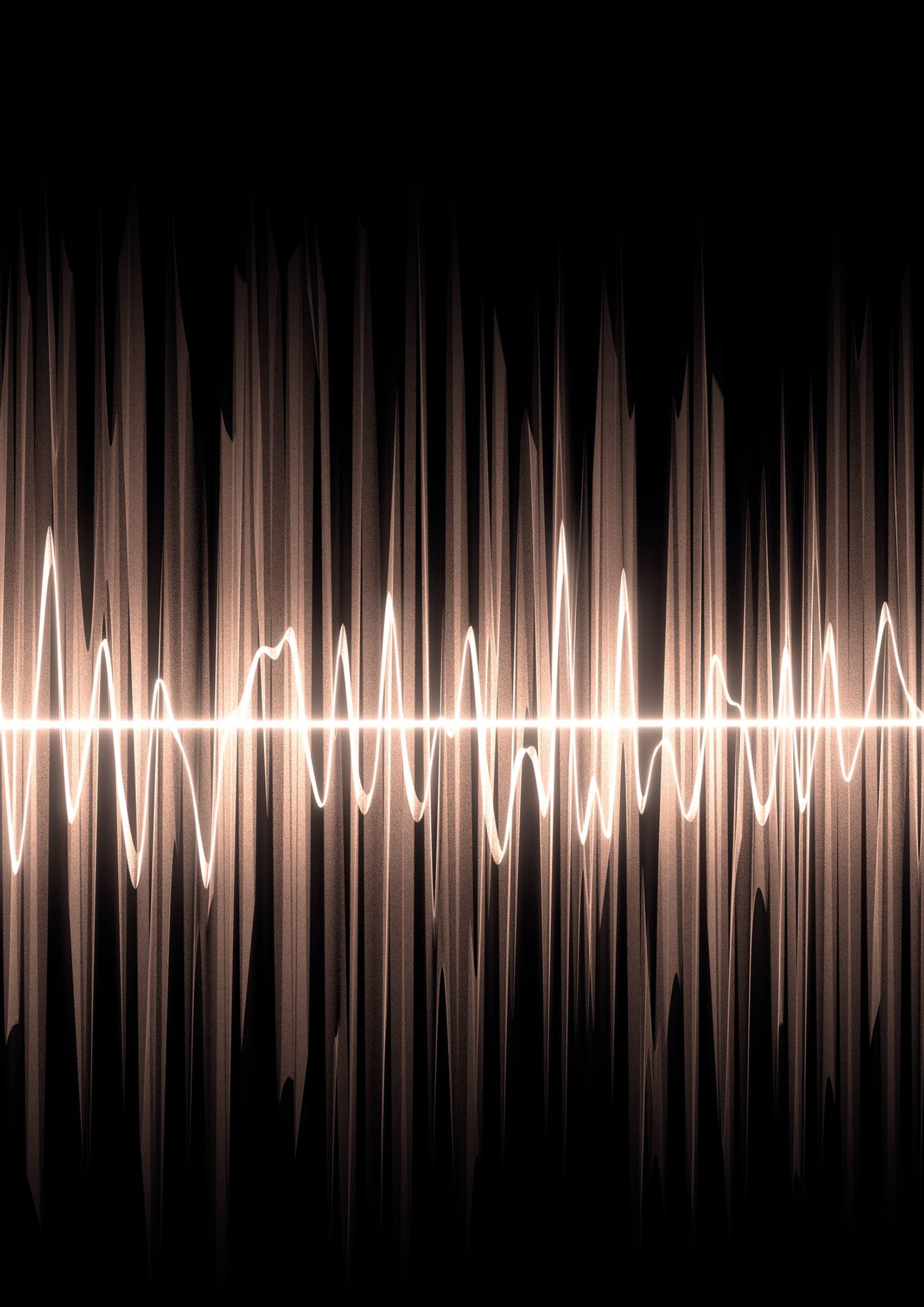
Connecting – today and beyond

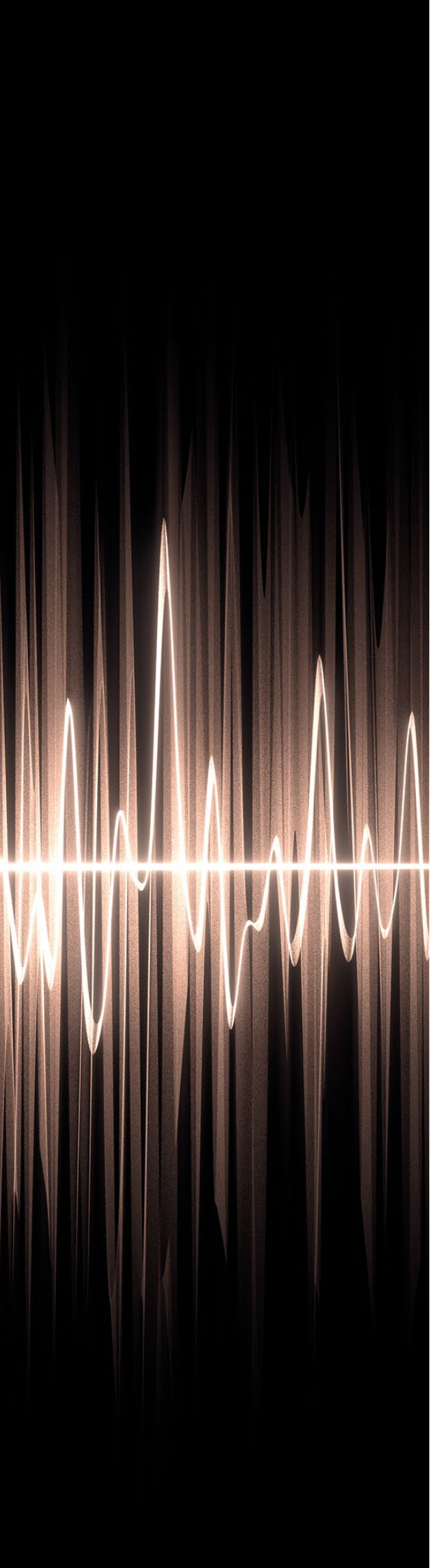


HUBER+SUHNER is a global company with headquarters in Switzerland which develops and manufactures components and system solutions for electrical and optical connectivity. With cables, connectors and systems developed from the three core technologies of radio frequency, fiber optics and low frequency – the company serves customers in the communication, transportation and industrial sectors.

The products deliver high performance, quality, reliability and long service life even under the toughest of conditions. The company's global production network, combined with group companies and agencies, ensures that HUBER+SUHNER maintains a close relationship with its customers in over 80 countries.

HUBER+SUHNER recently acquired the antenna portfolio for safety-relevant applications from Kathrein SE (Germany). With this acquisition, HUBER+SUHNER is expanding its own antenna portfolio and thus strengthening its market position in the area of critical communication. A particular focus is placed on the development of broadband products combining TETRA and Professional LTE and others.





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Outdoor antennas 690 – 3800 MHz & GPS

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Indoor antennas

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Splitter, tapper, combiner

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Rugged vehicle antennas

88

Accessories

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Technical Information, Mounting Situations

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Outdoor 370 – 520 MHz
Directional

Outdoor 370 – 520 MHz
Omnidirectional

Outdoor 370 – 520 MHz
Special purpose

Outdoor 690 – 3800 MHz
Directional

Outdoor 690 – 3800 MHz
Omnidirectional

Outdoor 690 – 3800 MHz
Special purpose

Indoor antennas

Splitter, tapper,
combiner

Rugged vehicle

Technical Information
Accessories



Outdoor antennas 370 – 520 MHz

Antennas for outdoor critical communication applications. Designed to meet various sector and omni characteristics, downtilt options and low, medium and high gain requirements.

Outdoor antennas 370 – 520 MHz

Overview

Directional antennas

Description					Type no.	Height	Input	Page
X-Pol panel	380 – 500 MHz	65°	12 dBi		852626	992 mm	2 × 7/16 female	16
X-Pol panel	380 – 470 MHz	65°	14 dBi	0° – 14° T	91121514	1999 mm	2 × 7/16 female	17
X-Pol panel	380 – 500 MHz	65°	15 dBi		852627	2000 mm	2 × 7/16 female	18
X-Pol panel	380 – 500 MHz	88°	10.5 dBi		852628	1007 mm	2 × 7/16 female	19
X-Pol panel	380 – 500 MHz	88°	13.5 dBi		852629	1997 mm	2 × 7/16 female	20
V-Pol Panel	380 – 500 MHz	65°	12 dBi		91121363	992 mm	1 × 7/16 female	21
V-Pol Panel	380 – 500 MHz	65°	15 dBi		91121364	2000 mm	1 × 7/16 female	22
Log.-Per.	380 – 520 MHz	87°	9 dBi		91121402	785 mm	1 × 7/16 female	23
XX-Pol Panel	380 – 470 MHz 698 – 791 MHz	89° 67°	13 dBi 16 dBi	2° T 2° T	91121959	2741 mm	4 × 4.3-10 fem.	24

Omnidirectional antennas

Description					Type no.	Height	Input	Page
V-Pol Omni	370 – 430 MHz		2 dBi		848114	555 mm	1 × N female	25
V-Pol Omni	406 – 470 MHz		2 dBi		K862232	515 mm	1 × N female	26
Rugged Omni	380 – 7125 MHz		3 – 6.5 dBi		1399.17.0338	60 mm	2 × N male	27
V-Pol Omni	380 – 3800 MHz		3 – 8.5 dBi		92210003	540 mm	1 × 4.3-10 fem.	28
V-Pol Omni	380 – 400 MHz		7.5 dBi		K862748	2840 mm	1 × 7/16 female	29
V-Pol Omni	410 – 430 MHz		8 dBi		848657	3114 mm	1 × 7/16 female	30
V-Pol Omni	450 – 470 MHz		8.5 dBi		853266	3113 mm	1 × 7/16 female	31

Special purpose antennas

Description					Type no.	Height	Input	Page
V-Pol Omni	380 – 430 MHz				98121119	150 mm	1 × N female	32
V-Pol Omni	410 – 470 MHz				K813132	142 mm	1 × N female	33

NEW

Outdoor 370 – 520 MHz

Directional antennas

Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	852626
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	12 dBi
Version	7/16 (female)
Height	992 mm
Item no.	84467194

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	11.5 dBi	12 dBi
3 dB beamwidth (h)	68°	65°
3 dB beamwidth (v)	37°	32°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	25 dB
Port isolation	30 dB
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	992 × 492 × 190 mm
Weight	12.0 kg
Connector	2 × 7/16 (female)
Windload	frontal: 500 N at 150 km/h, lateral: 220 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	91121514
Frequency range	380 – 470 MHz
Half-power beam width	65°
Gain	14 dBi
Electrical downtilt	Elect. downtilt 0° – 14° T
Version	7/16 (female)
Height	1999 mm
Description	Adjust. electrical downtilt 0° – 14° T set by hand or by optional RCU (Remote Control Unit)
Item no.	84467229

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 470 MHz
Gain	13.5 dBi	14 dBi
3 dB beamwidth (h)	66°	62°
3 dB beamwidth (v)	22°	19°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Electrical downtilt	0° – 14° T
Composite power max.	400 W
Ambient temperature	50 °C
Front to back ratio	25 dB
Port isolation	30 dB
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	1999 × 575 × 199 mm
Weight	22.0 kg
Connector	2 × 7/16 (female)
Windload	frontal: 1160 N at 150 km/h, lateral: 480 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	852627
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	15 dBi
Version	7/16 (female)
Height	2000 mm
Item no.	84467196

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	14.5 dBi	15 dBi
3 dB beamwidth (h)	65°	65°
3 dB beamwidth (v)	18°	18°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	25 dB
Port isolation	30 dB
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2000 × 492 × 190 mm
Weight	19.0 kg
Connector	2 × 7/16 (female)
Windload	frontal: 1100 N at 150 km/h, lateral: 440 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	852628
Frequency range	380 – 500 MHz
Half-power beam width	88°
Gain	10.5 dBi
Version	7/16 (female)
Height	1007 mm
Item no.	84467198

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	10 dBi	10.5 dBi
3 dB beamwidth (h)	88°	86°
3 dB beamwidth (v)	37°	32°
Port isolation	40 dB	35 dB

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	20 dB
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	1007 × 317 × 193 mm
Weight	10.5 kg
Connector	2 × 7/16 (female)
Windload	frontal: 420 N at 150 km/h, lateral: 220 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	852629
Frequency range	380 – 500 MHz
Half-power beam width	88°
Gain	13.5 dBi
Version	7/16 (female)
Height	1997 mm
Item no.	84467202

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	13 dBi	13.5 dBi
3 dB beamwidth (h)	88°	86°
3 dB beamwidth (v)	20°	17°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	20 dB
Port isolation	30 dB
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	1997 × 317 × 193 mm
Weight	18.5 kg
Connector	2 × 7/16 (female)
Windload	frontal: 890 N at 150 km/h, lateral: 480 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC Panel
	V-Pol panel antenna
Type no.	91121363
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	12 dBi
Version	7/16 (female)
Height	992 mm
Item no.	84467208

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	11.5 dBi	12 dBi
3 dB beamwidth (h)	68°	63°
3 dB beamwidth (v)	37°	32°
Front to back ratio	18 dB	20 dB

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	992 × 492 × 190 mm
Weight	12.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 500 N at 150 km/h, lateral: 220 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Outdoor 370 – 520 MHz

Directional antennas

Ordering information	SENCITY® SC Panel
	V-Pol panel antenna
Type no.	91121364
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	15 dBi
Version	7/16 (female)
Height	2000 mm
Item no.	84467212

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	14.5 dBi	15 dBi
3 dB beamwidth (h)	68°	63°
3 dB beamwidth (v)	18°	16°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	20 dB
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2000 × 492 × 190 mm
Weight	20.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 1100 N at 150 km/h, lateral: 440 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC LogPer
	Logarithmic-periodic antenna
	Vertical polarization
Type no.	91121402
Frequency range	380 – 520 MHz
Half-power beam width	87°
Gain	9 dBi
Version	7/16 (female)
Height	785 mm
Item no.	84467223

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 410 MHz	410 – 470 MHz	470 – 520 MHz
Gain	9.2 dBi	9 dBi	8.7 dBi
3 dB beamwidth (h)	80°	85°	88°
3 dB beamwidth (v)	61°	60°	59°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × width × depth)	785 × 400 × 400 mm
Weight	6.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 54 N at 150 km/h, lateral: 150 N at 150 km/h wind speed survival: 180 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	white
Radome material	Glass Reinforced Plastic (GRP)

Directional antennas

Ordering information	SENCITY® SC Panel
	XX-Pol panel antenna
Type no.	91121959
Frequency range	380 – 470 / 698 – 791 MHz
Half-power beam width	89°/67°
Gain	13/16 dBi
Version	4.3-10 (female)
Height	2741 mm
Item no.	84467235

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 430 MHz	450 – 470 MHz	698 – 791 MHz
Gain	13 dBi	13 dBi	16 dBi
3 dB beamwidth (h)	89°	89°	67°
3 dB beamwidth (v)	14°	14°	8.7°
Front to back ratio	20 dB	20 dB	25 dB
Port isolation	25 dB	22 dB	25 dB

Electrical data	
Electrical downtilt	2°
VSWR	1.5
Impedance	50 Ohm
Composite power max.	200 W
Ambient temperature	50 °C
IMD level	380 – 470 MHz: -150 dBc at 2 × 43 dBm 698 – 791 MHz: -150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2741 × 327 × 249 mm
Weight	28.5 kg
Connector	4 × 4.3-10 (female)
Windload	frontal: 890 N at 150 km/h, lateral: 980 N at 150 km/h wind speed survival: 240 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas

Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	848114
Frequency range	370 – 430 MHz
Gain	2 dBi
Version	N (female)
Height	555 mm
Item no.	84467190

Electrical data per band	Band 1	Band 2
Frequency	370 – 380 MHz	380 – 430 MHz
VSWR	1.6	1.5

Electrical data	
Impedance	50 Ohm
Gain	2 dBi
Composite power max.	100 W
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 37 dBm

Mechanical data	
Dimensions (height × diameter)	555 × 21 mm
Weight	1.0 kg
Connector	1 × N (female)
Windload	frontal: 20 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas

Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	K862232
Frequency range	406 – 470 MHz
Gain	2 dBi
Version	N (female)
Height	515 mm
Item no.	84467243

Electrical data	
Frequency	406 – 470 MHz
VSWR	1.5
Impedance	50 Ohm
Gain	2 dBi
Composite power max.	100 W
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 37 dBm
Mechanical data	
Dimensions (height × diameter)	515 × 21 mm
Weight	0.8 kg
Connector	1 × N (female)
Windload	frontal: 20 N at 150 km/h, wind speed survival: 200 km/h
Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant
Material data	
Radome colour	grey
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas

Ordering information	SENCITY® SC Omni-M
	Rugged Omni antenna
Type no.	1399.17.0338
Frequency range	380 – 7125 MHz
Gain	3 – 6.5 dBi
Version	N (male)
Height	60 mm
Description	<ul style="list-style-type: none"> • For installation on outdoor cabinets • Supports TETRA with up to 2 radiators plus 2G/3G/4G/5G cellular bands • Low profile housing. Single hole mounting
Item no.	85185570

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 470 MHz	694 – 960 MHz	1710 – 2170 MHz
VSWR	2.5	2.1	2.1
Gain	3 dBi	4.5 dBi	5 dBi
Composite power max.	40 W	40 W	40 W
Port Isolation	3 dB	8 dB	15 dB
	Band 4	Band 5	Band 6
Frequency	2400 – 2690 MHz	3400 – 4200 MHz	4200 – 7125 MHz
VSWR	2.1	2.1	2.1
Gain	5 dBi	6 dBi	6.5 dBi
Composite power max.	40 W	30 W	25 W
Port Isolation	15 dB	20 dB	20 dB

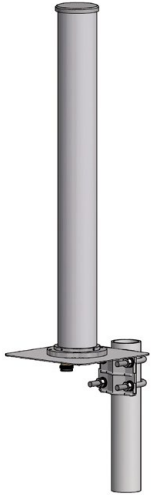
Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	60 × 210 mm
Mounting breakthrough	Ø 30 mm
Weight	0.75 kg
Connector	2 × N, plug (male)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Omnidirectional antennas



Outdoor 370 – 520 MHz
Omnidirectional

Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	92210003
Frequency range	380 – 3800 MHz
Gain	3 – 8.5 dBi
Version	4.3-10 (female)
Height	540 mm
Description	Small ground plane and excellent coverage
Item no.	84467565

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 400 MHz	400 – 450 MHz	450 – 470 MHz	694 – 746 MHz
Gain	3 dBi	4 dBi	5 dBi	6 dBi
	Band 5	Band 6	Band 7	
Frequency	746 – 960 MHz	1200 – 2700 MHz	3300 – 3800 MHz	
Gain	7 dBi	8 dBi	8.5 dBi	

Electrical data	
VSWR	1.7
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	540 × 60 mm
Weight	0.5 kg
Connector	1 × 4.3-10 (female)

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Base material	weather-proof aluminum
Radome material	UV protected plastic

Omnidirectional antennas

Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	K862748
Frequency range	380 – 400 MHz
Gain	7.5 dBi
Version	7/16 (female)
Height	2840 mm
Item no.	84467245

Electrical data	Band 1
Frequency	380 – 400 MHz
VSWR	1.5
Impedance	50 Ohm
Gain	7.5 dBi
Composite power max.	500 W
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2840 × 112 × 148 mm
Weight	8.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 200 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas

Ordering information	SENCITY® SC Omni V-Pol Omni antenna
Type no.	848657
Frequency range	410 – 430 MHz
Gain	8 dBi
Electrical downtilt	Fixed elect. downtilt 8.5°
Version	7/16 (female)
Height	3114 mm
Item no.	84467192

Electrical data	Band 1
Frequency	410 – 430 MHz
VSWR	1.5
Impedance	50 Ohm
Gain	8 dBi
Composite power max.	500 W
Ambient temperature	50 °C
Electrical downtilt	8.5°
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	3114 × 51 mm
Weight	8.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 220 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas

Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	853266
Frequency range	450 – 470 MHz
Gain	8.5 dBi
Version	7/16 (female)
Height	3113 mm
Item no.	84467205

Electrical data	
Frequency	450 – 470 MHz
VSWR	1.5
Impedance	50 Ohm
Gain	8.5 dBi
Composite power max.	500 W
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 43 dBm
Mechanical data	
Dimensions (height × diameter)	3113 × 51 mm
Weight	8.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 220 N at 150 km/h, wind speed survival: 200 km/h
Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant
Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Special purpose antennas



Outdoor 370 – 520 MHz
Special purpose

Ordering information	SENCITY® SC Special Purpose
	V-Pol Omni-directional vehicle antenna
Type no.	98121119
Frequency range	380 – 430 MHz
Version	N (female)
Height	150 mm
Description	<ul style="list-style-type: none"> • For special purpose installations • Option as vehicle antenna • Meets EN 50155 and fire retardant acc. EN 45545-2
Item no.	84468948

Electrical data		Band 1
Band name		Tetra
Frequency		380 – 430 MHz
VSWR		1.7
Impedance		50 Ohm
Gain		dB 0 (ref. to the quarter-wave antenna)
Composite power max.		100 W
Ambient temperature		50 °C

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
Operation temperature	–40 to 85 °C
Storage temperature	–55 to 85 °C
IP rating	IP66
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	black
Back plate / base plate material	aluminium

Special purpose antennas

Ordering information	SENCITY® SC Special Purpose
	V-Pol Omni-directional vehicle antenna
Type no.	K813132
Frequency range	410 – 470 MHz
Version	N (female)
Height	142 mm
Description	<ul style="list-style-type: none"> • For special purpose installations • Option as vehicle antenna • Meets EN 50155 and fire retardant acc. EN 45545-2
Item no.	84468534

Electrical data		Band 1
Band name	Tetra	
Frequency	410 – 470 MHz	
VSWR	1.5	
Impedance	50 Ohm	
Gain	dB 0 (ref. to the quarter-wave antenna)	
Composite power max.	170 W	
Ambient temperature	50 °C	

Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight	0.5 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
Operation temperature	–40 to 85 °C
Storage temperature	–55 to 85 °C
IP rating	IP66
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	black
Back plate / base plate material	aluminium



Outdoor antennas 690 – 3800 MHz & GPS

Antennas for outdoor critical communication applications. Designed to meet various sector and omni characteristics, downtilt options and low, medium and high gain requirements.

Outdoor antennas 690 – 3800 MHz

Overview

Directional antennas

Description	Type no.	Height	Input	Page				
NEW X-Pol panel	698 – 4200 MHz		12 dBi	1399.31.0019	200 mm	2 × 4.3-10 fem.	36	
V-Pol LogPer	690 – 2690 MHz	67°	11 dBi	853203V02	300 mm	1 × 7/16 female	37	
NEW X-Pol panel	698 – 960 MHz	65°	16 dBi	0° – 14° T	1399.31.0200	1850 mm	2 × 4.3-10 fem.	38
XX-Pol panel	380 – 470 MHz 698 – 791 MHz	89°/67°	13/16 dBi		91121959	2741 mm	4 × 4.3-10 fem.	39
X-Pol panel	698 – 960 MHz 1695 – 2690 MHz	65°	11 dBi	2°	91121826	603 mm	4 × 4.3-10 fem.	40
X-Pol panel	698 – 960 MHz 1710 – 2690 MHz	65°	16 – 19 dBi	1.5° – 10° T 2° – 8° T	91121777V01	2622 mm	4 × 7/16 female	41
X-Pol panel	1695 – 2690 MHz 3410 – 4200 MHz	70°/65°	7 – 8.5 dBi		1399.17.0248	184.8 mm	2 × N female	42
X-Pol panel	1695 – 2690 MHz 3300 – 4200 MHz	110°	4.8 – 5.9 dBi		1399.17.0250	184.8 mm	2 × N female	43

Omnidirectional antennas

Description	Type no.	Height	Input	Page			
V-Pol Omni	380 – 3800 MHz		3 – 8.5 dBi	92210003	540 mm	1 × 4.3-10 fem.	44
NEW Rugged Omni	380 – 7125 MHz		3 – 6.5 dBi	1399.17.0338	60 mm	2 × N male	45
V-Pol Omni	698 – 2690 MHz		2 – 5 dBi	1399.19.0225	33.2 mm	1 × SMA male	46
V-Pol Omni	790 – 960 MHz 1710 – 2690 MHz		2 – 3 dBi	1399.17.0231	263 mm	1 × N female	47
GPS Antenna L1+L2	1235/1589 MHz		20 dBi	–	76 mm		48

Special purpose antennas

Description	Type no.	Height	Input	Page			
V-Pol Omni	698 – 960 MHz 1710 – 2690 MHz 4900 – 5935 MHz		5 – 7 dBi	1399.99.0039	82 mm	SMA, TNC	50
FM Radio	88 – 108 MHz			9091.99.0246	425 mm		51
TETRA	380 – 430 MHz			9091.99.0247	145 mm		52
TETRA	450 – 470 MHz			9091.99.0248	120 mm		53
V-Pol Omni	698 – 960 MHz 1710 – 2690 MHz		4 – 6 dBi	1399.99.0119	88 mm	2 × SMA male	54
V-Pol Omni	698 – 960 MHz 1710 – 2690 MHz		5 – 7 dBi	1399.99.0129	88 mm	SMA, TNC	55

Outdoor 690 – 3800 MHz

Directional antennas



Ordering information	SENCITY® Urban 300
	X-Pol panel antenna
Type no.	1399.31.0019
Frequency range	698 – 4200 MHz
Gain	6 – 7 dBi
Version	4.3-10 (female)
Height	200 mm
Description	<ul style="list-style-type: none"> • Includes 4G and 5G bands for IOT applications • Supports MIMO 2x2
Item no.	–

Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 960 MHz	1695 – 2700 MHz	3100 – 4200 MHz
Gain	6.5 dBi	7 dBi	6 dBi
3 dB beamwidth (h)	85°	65°	65°
3 dB beamwidth (v)	80°	65°	65°
Port isolation	18 dB	20 dB	22 dB

Electrical data	
VSWR	2
Impedance	50 Ohm
Combined power per port max.	50 W
Ambient temperature	25 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	200 × 260 × 90 mm
Weight	1.1 kg
Connector	2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–40 to 70 °C
IP rating	IP67
Flammability rating	UL 94-V0
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Directional antennas

Ordering information	SENCITY® SC LogPer
	V-Pol Logarithmic-periodic antenna
Type no.	853203V02
Frequency range	690 – 2690 MHz
Half-power beam width	67°
Gain	11 dBi
Version	7/16 (female)
Height	300 mm
Item no.	84480006

Electrical data per band	Band 1	Band 2	Band 3
Frequency	690 – 880 MHz	880 – 960 MHz	960 – 1695 MHz
VSWR	1.6	1.5	1.5
Gain	10.1 dBi	10.6 dBi	11 dBi
3 dB beamwidth (h)	54°	53°	50°
3 dB beamwidth (v)	69°	64°	57°
Composite power max.	300 W	300 W	250 W
	Band 4	Band 5	Band 6
Frequency	1695 – 2200 MHz	2200 – 2490 MHz	2490 – 2690 MHz
VSWR	1.5	1.5	1.5
Gain	11 dBi	11 dBi	11 dBi
3 dB beamwidth (h)	48°	46°	44°
3 dB beamwidth (v)	53°	47°	45°
Composite power max.	200 W	170 W	150 W

Electrical data	
Impedance	50 Ohm
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	300 × 155 × 758 mm
Weight	5.5 kg
Connector	1 × 7/16 (female)

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	no special marking needed
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate material	aluminium

Outdoor 690 – 3800 MHz

Directional antennas



Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	1399.31.0200
Frequency range	698 – 960 MHz
Half-power beam width	65°
Gain	16 dBi
Version	4.3-10 (female)
Height	1850 mm
Description	Adjust. electrical downtilt 0° – 10° T
Item no.	85184054

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 803 MHz	791 – 862 MHz	824 – 894 MHz	880 – 960 MHz
Gain	15.6 dBi	15.9 dBi	16 dBi	16.3 dBi
3 dB beamwidth (h)	68°	64°	62°	59°
3 dB beamwidth (v)	12.4°	11.3°	10.5°	10.0°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Electrical downtilt	0° – 10° T
Port isolation	30 dB
Combined power per port max. eff.	300 W
Ambient temperature	25 °C
Passive intermodulation	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	1850 × 260295 × 145 mm
Weight	12.0 kg
Connector	2 × 4.3-10 (female)
Windload	frontal: 712 N at 150 km/h, lateral: 350 N at 150 km/h wind speed survival: 240 km/h

Environmental data	
Environmental conditions	outdoor
Operation temperature	-55 to 60 °C
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	ASA (UV resistant)
Top/bottom cover material	PC (F1)

Directional antennas

Ordering information	SENCITY® SC Panel
	XX-Pol panel antenna
Type no.	91121959
Frequency range	380 – 470 / 698 – 791 MHz
Half-power beam width	89°/67°
Gain	13/16 dBi
Version	4.3-10 (female)
Height	2741 mm
Item no.	84467235

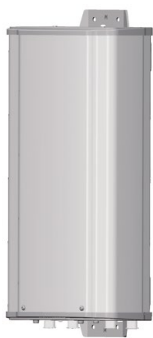
Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 430 MHz	450 – 470 MHz	698 – 791 MHz
Gain	13 dBi	13 dBi	16 dBi
3 dB beamwidth (h)	89°	89°	67°
3 dB beamwidth (v)	14°	14°	8.7°
Composite power max.	200 W	200 W	250 W
Front to back ratio	20 dB	20 dB	25 dB
Port isolation	25 dB	22 dB	25 dB

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Ambient temperature	50 °C
Electrical downtilt	2°
Intermodulation IM3	380 – 470 MHz: -150 dBc at 2 × 43 dBm 698 – 791 MHz: -150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2741 × 327 × 249 mm
Weight	28.5 kg
Connector	4 × 4.3-10 (female)
Windload	frontal: 890 N at 150 km/h, lateral: 980 N at 150 km/h wind speed survival: 240 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	91121826
Frequency range	698 – 960 / 1695 – 2690 MHz
Half-power beam width	65°
Gain	11 dBi
Version	4.3-10 (female)
Height	603 mm
Description	Fixed electrical downtilt 2°
Item no.	

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 824 MHz	824 – 894 MHz	880 – 960 MHz	1695 – 1880 MHz
VSWR	1.5	1.5	1.5	1.55
Gain	10.5 dBi	11 dBi	11 dBi	13.5 dBi
3 dB beamwidth (h)	70°	68°	68°	60°
3 dB beamwidth (v)	40°	36°	34°	17.5°
Composite power max.	250 W	250 W	250 W	250 W
	Band 5	Band 6	Band 7	Band 8
Frequency	1850 – 1990 MHz	1920 – 2180 MHz	2200 – 2490 MHz	2490 – 2690 MHz
VSWR	1.55	1.55	1.5	1.5
Gain	14 dBi	14 dBi	14 dBi	13.8 dBi
3 dB beamwidth (h)	55°	55°	55°	65°
3 dB beamwidth (v)	16.5°	15.5°	14.5°	12.7°
Composite power max.	200 W	200 W	200 W	200 W

Electrical data	
Impedance	50 Ohm
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	603 × 300 × 152 mm
Weight	8.5 kg
Connector	4 × 4.3-10 (female)
Windload	frontal: 110 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	no special marking needed
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	91121777V01
Frequency range	698 – 960 / 1710 – 2690 MHz
Half-power beam width	65°
Gain	16 – 19 dBi
Version	7/16 (female)
Height	2622 mm
Description	Adjust. Electrical Downtilt 1.5°–10°/2°–8°
Item no.	84480008

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 806 MHz	790 – 862 MHz	824 – 894 MHz	880 – 960 MHz
Gain	16 dBi	16.6 dBi	16.9 dBi	17.1 dBi
3 dB beamwidth (h)	71°	68°	68°	67°
3 dB beamwidth (v)	8.4°	7.7°	7.5°	7°
Composite power max.	400 W	400 W	400 W	400 W
	Band 5	Band 6	Band 7	Band 8
Frequency	1710 – 1880 MHz	1850 – 2170 MHz	2300 – 2400 MHz	2490 – 2690 MHz
Gain	18 dBi	18.5 dBi	18.6 dBi	19 dBi
3 dB beamwidth (h)	64°	62°	60°	60°
3 dB beamwidth (v)	5°	4.7°	3.9°	3.5°
Composite power max.	200 W	200 W	200 W	200 W

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2622 × 300 × 152 mm
Weight	29 kg
Connector	4 × 7/16 (female)
Windload	frontal: 530 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	no special marking needed
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate material	aluminium

Directional antennas

Ordering information	SENCITY® Urban 200
	X-Pol panel antenna
Type no.	1399.17.0248
Frequency range	1695 – 2690 MHz 3410 – 4200 MHz
Half-power beam width	70°/65°
Gain	7 – 8.5 dBi
Version	N (female)
Height	184.8 mm
Description	· Supports 2x2 MIMO configurations · Low PIM
Item no.	85110146

Electrical data per band	Band 1	Band 2	Band 3
Frequency	1695 – 1920 MHz	1920 – 2180 MHz	2300 – 2690 MHz
Gain	7 dBi	7 dBi	7.5 dBi
3 dB beamwidth (h)	75°	75°	70°
3 dB beamwidth (v)	80°	90°	70°
Composite power max.	125 W	125 W	110 W
	Band 4	Band 5	
Frequency	3410 – 3800 MHz	3800 – 4200 MHz	
Gain	7.5 dBi	8.5 dBi	
3 dB beamwidth (h)	60°	65°	
3 dB beamwidth (v)	60°	50°	
Composite power max.	95 W	90 W	

Electrical data	
VSWR	2
Impedance	50 Ohm
Ambient temperature	25 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	184.8 × 164.6 × 84.2 mm
Weight	0.5 kg
Connector	2 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP66
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Directional antennas

Ordering information	SENCITY® Urban 200
	X-Pol panel antenna
Type no.	1399.17.0250
Frequency range	1695 – 2690 MHz 3300 – 4200 MHz
Half-power beam width	110°
Gain	4.8 – 5.9 dBi
Version	N (female)
Height	184.8 mm
Description	· Supports 2x2 MIMO configurations · Low PIM
Item no.	85110147

Electrical data per band	Band 1	Band 2	Band 3
Frequency	1695 – 1920 MHz	1920 – 2180 MHz	2300 – 2690 MHz
Gain	5.7 dBi	4.8 dBi	5 dBi
3 dB beamwidth (h)	100°	120°	100°
3 dB beamwidth (v)	105°	120°	95°
Composite power max.	125 W	125 W	110 W
	Band 4	Band 5	
Frequency	3300 – 3800 MHz	3800 – 4200 MHz	
Gain	5.9 dBi	4.9 dBi	
3 dB beamwidth (h)	110°	120°	
3 dB beamwidth (v)	65°	85°	
Composite power max.	95 W	90 W	

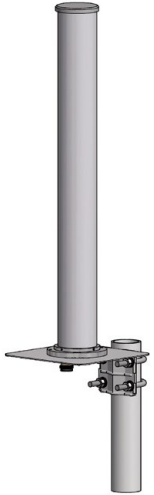
Electrical data	
VSWR	2
Impedance	50 Ohm
Ambient temperature	25 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	184.8 × 164.6 × 84.2 mm
Weight	0.5 kg
Connector	2 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP66
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	92210003
Frequency range	380 – 3800 MHz
Half-power beam width	70°/65°
Gain	3 – 8.5 dBi
Version	4.3-10 (female)
Height	540 mm
Description	Small ground plane and excellent coverage
Item no.	84467565

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 400 MHz	400 – 450 MHz	450 – 470 MHz	694 – 746 MHz
Gain	3 dBi	4 dBi	5 dBi	6 dBi
	Band 5	Band 6	Band 7	
Frequency	746 – 960 MHz	1200 – 2700 MHz	3300 – 3800 MHz	
Gain	7 dBi	8 dBi	8.5 dBi	

Electrical data	
VSWR	1.7
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
IMD level	-150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	540 × 60 mm
Weight	0.5 kg
Connector	1 × 4.3-10 (female)

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Outdoor 370 – 520 MHz

Omnidirectional antennas



Ordering information	SENCITY® SC Omni-M
	Rugged Omni antenna
Type no.	1399.17.0338
Frequency range	380 – 7125 MHz
Gain	3 – 6.5 dBi
Version	N (male)
Height	60 mm
Description	<ul style="list-style-type: none"> • For installation on outdoor cabinets • Supports TETRA with up to 2 radiators plus 2G/3G/4G/5G cellular bands • Low profile housing. Single hole mounting
Item no.	85185570

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 470 MHz	694 – 960 MHz	1710 – 2170 MHz
VSWR	2.5	2.1	2.1
Gain	3 dBi	4.5 dBi	5 dBi
Composite power max.	40 W	40 W	40 W
Port Isolation	3 dB	8 dB	15 dB
	Band 4	Band 5	Band 6
Frequency	2400 – 2690 MHz	3400 – 4200 MHz	4200 – 7125 MHz
VSWR	2.1	2.1	2.1
Gain	5 dBi	6 dBi	6.5 dBi
Composite power max.	40 W	30 W	25 W
Port Isolation	15 dB	20 dB	20 dB

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	60 × 210 mm
Mounting breakthrough	Ø 30 mm
Weight	0.75 kg
Connector	2 × N, plug (male)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Outdoor 690 – 3800 MHz

Omnidirectional antennas



Ordering information	SENCITY® Omni-S
	V-Pol Omni SISO Cellular/LTE 700 antenna
Type no.	1399.19.0225
Frequency range	698 – 2690 MHz
Gain	2 – 5 dBi
Version	SMA, plug (male)
Height	33.2 mm
Description	Single hole cabinet or wall/pole mounting
Item no.	85065467

Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 862 MHz	1710 – 2170 MHz	2300 – 2690 MHz
Gain	2 dBi	5 dBi	3 dBi
Composite power max.	60 W	50 W	40 W

Electrical data	
VSWR	1.8
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	33.2 × 145 mm
Weight	0.3 kg
Connector	1 × SMA, plug (male)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 85 °C
Flammability rating	UL 94-V0
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Omnidirectional antennas

Ordering information	SENCITY® Omni-M
	V-Pol Omni LTE antenna
Type no.	1399.17.0231
Frequency range	790 – 960 MHz 1710 – 2690 MHz
Gain	2 – 3 dBi
Version	N (female)
Height	263 mm
Description	L-bracket for pole or wall mounting scenario included
Item no.	85027954

Electrical data per band	Band 1	Band 2
Frequency	790 – 960 MHz	1710 – 2690 MHz
Gain	2 dBi	3 dBi
VSWR	2	1.9

Electrical data	
Impedance	50 Ohm
Composite power max.	25 W
Ambient temperature	25 °C
IMD level	-143 dBc at 2 × 30 dBm

Mechanical data	
Dimensions (height × diameter)	263 × 32 mm
Weight	0.4 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-40 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Material data	
Radome colour	white
Radome material	Glass Reinforced Plastic (GRP)

Outdoor 690 – 3800 MHz

GPS Antenna L1+L2



Ordering information	GPS Antenna L1+L2
Type no.	–
Frequency range	1235 / 1589 MHz
Gain	20 dBi
Height	76 mm
Item no.	85073714

Description

- The GPS L1+L2 antennas cover both bands and are ideally suited for exterior installations on roofs or mounting poles as well as mounting brackets.
- These antennas contain large selective patch antennas and an RF band pass filter that attenuates cellular and radar frequency ranges in order to minimize interferences and blocking effects.
- The GPS antennas are available in a variety of colours.
- Excellent performance as part of an GPS-over-Fiber solution requiring both L1+L2 bands.

Electrical data	
Centre frequency: L1	1589 MHz
Centre frequency: L2	1235 MHz
Return loss (dB)	< -6
Gain	20 dBi

Mechanical data	
Dimensions (height × diameter)	76 × 21 mm
Weight	0.5 kg

Material data	
Radome colour	black

Direct GPS-over-Fiber



Description

- Direct GPSoF enables a fiber optic connection directly into an antenna – delivering the world's first “truly copperless” link.
- The use of Power-over-Fiber perfectly addresses power delivery constraints in Remote Antenna applications by eliminating the need for external power to the antenna (outdoor) unit. This is ideal for applications that have limited power resources such as rooftop installations. Using Power-over-Fiber also saves time and money in environments that may be hindered by the installation of conductive cable - which is typical when extending the supply of power to the installation areas.

Features

- Reduces the amount of hardware required in a link as core functionality is integrated into the antenna radome). Also significantly reduces the cable footprint of the link.
- Uses HUBER+SUHNER's Q-ODC fiber optic interface – which is perfect for outdoor/harsh environment use.
- Employs laser safety features that are compliant with all IEC standards.
- Is easy to install. Plug-and-Play.
- Supports link distances of up to 10 km.
- Unlimited flexibility in signal distribution.

Special purpose antennas



Ordering information	SENCITY® Road
	V-Pol 3-Port Omni vehicle antenna
Type no.	1399.99.0039
Frequency range	698 – 960 MHz 1710 – 2690 MHz 4900 – 5935 MHz
Gain	5 – 7 dBi
Version	SMA, TNC
Height	82 mm
Description	<ul style="list-style-type: none"> • Stick antenna option for TETRA • GPS/Glonass with integrated LNA • Offers a stick antenna socket and separate connectors • Single hole mounting, easy cabling • Works also on non-metallic surfaces
Item no.	84089087

Electrical data per band	Band 1	Band 2	Band 3	Band 4	Band 5
Frequency	698 – 790 MHz	790 – 960 MHz	1710 – 2690 MHz	1710 – 2690 MHz	4900 – 5935 MHz
VSWR	2.1	1.8	2	1.8	1.8
Gain	5 dBi	5 dBi	5 dBi	5 dBi	7 dBi
Composite power max.	80 W	40 W	40 W	40 W	30 W
Port Isolation			20 dB	20 dB	30 dB
	Band 6	Band 7			
Band name	GPS/Glonass	Socket			
Frequency	1574 – 1610 MHz				
VSWR	2				

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	82 × 83 × 208 mm
Weight	0.41 kg
Connector	SMA (male), SMA (female), TNC (male), TNC (female)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	dark grey
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	aluminium

Related Products		
FM radio stick antenna 88 – 108 MHz	84112255	9091.99.0246
Stick antenna 380 – 430 MHz	84112256	9091.99.0247
Stick antenna 450 – 470 MHz	84112257	9091.99.0248

Special purpose antennas



Ordering information	FM Radio Stick antenna
Type no.	9091.99.0246
Frequency range	88 – 108 MHz
Height	425 mm
Description	<ul style="list-style-type: none"> • Stick antenna for Sencity Road • Supports FM radio in the 88 – 108 MHz frequency range • Can be equipped on optional antenna socket
Item no.	84112255

Electrical data	
Frequency range	88 – 108 MHz
Impedance	50 Ohm
Mechanical data	
Dimensions (height × diameter)	425 × 16 mm
Weight	0.1 kg
Thread	M5
Environmental data	
Operation temperature	-40 to 85 °C
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant
Material data	
Colour	black

Outdoor 690 – 3800 MHz

Special purpose antennas



Ordering information	TETRA Stick antenna
Type no.	9091.99.0247
Frequency range	380 – 430 MHz
Height	145 mm
Description	<ul style="list-style-type: none"> Stick antenna for Sencity Road Supports TETRA applications in the 380 – 430 MHz frequency range.
Item no.	84112256

Electrical data

Frequency range	380 – 430 MHz
Impedance	50 Ohm

Mechanical data

Dimensions (height × diameter)	145 × 15 mm
Weight	0.05 kg
Thread	M5

Environmental data

Operation temperature	–40 to 85 °C
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant

Material data

Colour	black
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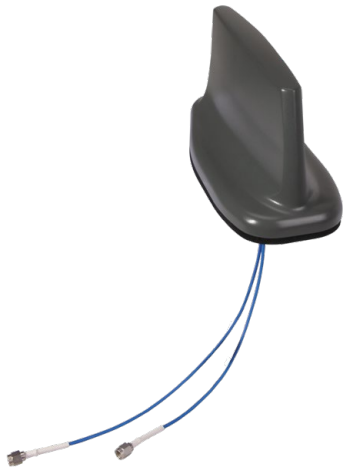
Outdoor 690 – 3800 MHz
Special purpose

Special purpose antennas

Ordering information	TETRA Stick antenna
Type no.	9091.99.0248
Frequency range	450 – 470 MHz
Height	120 mm
Description	<ul style="list-style-type: none"> Stick antenna for Sencity Road Supports TETRA applications in the 450 – 470 MHz frequency range.
Item no.	84112257

Electrical data	
Frequency range	450 – 470 MHz
Impedance	50 Ohm
VSWR	2
Gain	3 dBi (on metal ground plane)
Composite power max.	10 W
Mechanical data	
Dimensions (height × diameter)	120 × 15 mm
Weight	0.05 kg
Thread	M5
Environmental data	
Operation temperature	–40 to 85 °C
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant
Material data	
Colour	black

Special purpose antennas



Ordering information	SENCITY® Road MIMO
	V-Pol 2-Port Omni vehicle antenna
Type no.	1399.99.0119
Frequency range	698 – 960 MHz 1710 – 2690 MHz
Gain	4 – 6 dBi
Version	SMA (male)
Height	88 mm
Description	<ul style="list-style-type: none"> · Rugged vehicle rooftop multi-band antenna for heavy duty vehicles · Supports 2x2 MIMO configurations · Single hole mounting, easy cabling feed-through
Item no.	85021510

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 790 MHz	790 – 960 MHz	1710 – 2170 MHz	2400 – 2690 MHz
VSWR	2.2	2	2	2
Gain	4 dBi	4 dBi	6 dBi	6 dBi
Composite power max.	80 W	50 W	40 W	40 W
Port Isolation	12 dB	12 dB	15 dB	15 dB

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height x width x depth)	88 x 83 x 208 mm
Weight	0.4 kg
Connector	2 x SMA (male)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP68, IP69
RoHS 2011/65/EU	compliant

Material data	
Radome colour	dark grey
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	aluminium

Related Products	
Metal ground plane foil 0.6x0.6 m	9091.99.0250

Special purpose antennas



Ordering information	SENCITY® Road MIMO
	V-Pol 2-Port Omni vehicle antenna
Type no.	1399.99.0129
Frequency range	698 – 960 MHz 1710 – 2690 MHz
Gain	5 – 7 dBi
Version	SMA, TNC
Height	88 mm
Description	<ul style="list-style-type: none"> · Rugged vehicle rooftop multi-band antenna for heavy duty vehicles · Supports 2x2 MIMO configurations · Single hole mounting, easy cabling feed-through · Works also on non-metallic surfaces
Item no.	85004616

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 790 MHz	790 – 960 MHz	1710 – 2170 MHz	2400 – 2690 MHz
VSWR	2.2	2	2	2
Gain	4 dBi	4 dBi	6 dBi	6 dBi
Composite power max.	80 W	50 W	40 W	40 W
Port Isolation	12 dB	12 dB	15 dB	15 dB
	Band 5			
Band name	GPS/Glonass			
Frequency	1574 – 1610 MHz			
VSWR	2			

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	88 × 83 × 208 mm
Weight	0.5 kg
Connector	SMA (male), SMA (female), TNC (male)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	dark grey
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	aluminium

Related Products	
Metal ground plane foil 0.6×0.6 m	9091.99.0250



Indoor antennas

Omni-directional and directive antennas for indoor critical communication.

Indoor antennas

Overview

Omnidirectional antennas

Description				Type no.	Height	Input	Page
V-Pol Omni	380 – 405 MHz		2 dBi	91121388	77 mm	1 × N female	58
V-Pol Omni	405 – 430 MHz		2 dBi	91121440	77 mm	1 × N female	59
V-Pol Omni	450 – 470 MHz		2 dBi	91121743	77 mm	1 × N female	60
V-Pol Omni	380 – 6000 MHz		1 – 6 dBi	92210001	189.8 mm	1 × N female	61
V-Pol Omni	380 – 6000 MHz		1 – 6 dBi	92210002	189.8 mm	1 × 4.3-10 fem.	61
V-Pol Omni	690 – 6400 MHz		6 dBi	1399.31.0006	69 mm	1 × 4.3-10 fem.	62
V-Pol Omni	698 – 3800 MHz		6 dBi	1399.31.0010	87 mm	2 × 4.3-10 fem.	63
V-Pol Omni	617 – 6000 MHz		6 dBi	1399.32.0020	40 mm	4 × NEX10 fem.	64

Directional antennas

Description				Type no.	Height	Input	Page
V-Pol	380 – 405 MHz	90°	7 dBi	91121389	302 mm	1 × N female	65
V-Pol	405 – 430 MHz	90°	7 dBi	91121441	302 mm	1 × N female	66
V-Pol	450 – 470 MHz	90°	7 dBi	91121744	302 mm	1 × N female	67
V-Pol	380 – 470 MHz	90°	7 dBi	1399.17.0010	302 mm	1 × N female	68
V-Pol	380 – 470 MHz	90°	7 dBi	1399.31.0020	302 mm	1 × 4.3-10 fem.	69
X-Pol	698 – 960 MHz 1695 – 2700 MHz 3100 – 4200 MHz		6 – 7 dBi	1399.31.0022	200 mm	2 × 4.3-10 fem.	70

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Indoor omnidirectional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.	91121388
Frequency range	380 – 405 MHz
Gain	2 dBi
Version	N (female)
Height	77 mm
Description	The antenna needs no additional groundplane
Item no.	84467216

Electrical data	
Frequency	380 – 405 MHz
VSWR	2
Gain	2 dBi
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.429 kg
Connector	1 × N (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	aluminium
Radome	high impact polystyrol
Colour	white

Indoor omnidirectional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.	91121440
Frequency range	405 – 430 MHz
Gain	2 dBi
Version	N (female)
Height	77 mm
Description	The antenna needs no additional groundplane
Item no.	84467225

Electrical data	
Frequency	405 – 430 MHz
VSWR	2
Gain	2 dBi
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.429 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Reflector	aluminium
Radome	high impact polystyrol
Colour	white

Indoor omnidirectional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.	91121743
Frequency range	450 – 470 MHz
Gain	2 dBi
Version	N (female)
Height	77 mm
Description	The antenna needs no additional groundplane
Item no.	84467231

Electrical data	
Frequency	450 – 470 MHz
VSWR	2
Gain	2 dBi
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.429 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Reflector	aluminium
Radome	high impact polystyrol
Colour	white

Indoor omnidirectional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.: Version	92210001: N (female)
	92210002: 4.3-10 (female)
Frequency range	380 – 6000 MHz multi-band
Gain	1 – 6 dBi
Height	189.8 mm
Item no.	84467570

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 806 MHz	806 – 960 MHz	1395 – 1432 MHz	1710 – 2170 MHz
VSWR	2.5	2	2	2
Gain	2 dBi	4 dBi	5 dBi	5 dBi
	Band 5	Band 6	Band 7	
Frequency	2300 – 2500 MHz	3300 – 3700 MHz	4900 – 6000 MHz	
VSWR	2	1.9	1.9	
Gain	5 dBi	5 dBi	6 dBi	

Electrical data	
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
IMD level	-155 dBc at 2 × 20 dBm

Mechanical data	
Dimensions (height × diameter)	189.8 × 274.1 mm
Weight	0.55 kg
Connector	92210001: 1 × N (female) 92210002: 1 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor
RoHS 2011/65/EU	compliant
Flammability	UL94
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome material	UV protected polycarbonate
Colour	white
Back plane	aluminum protected through chemical passivation

Indoor omnidirectional antennas

Ordering information	SENCITY® Optima-L
	V-Pol Indoor Omni antenna
Type no.	1399.31.0006
Frequency range	690 – 6400 MHz
Gain	6 dBi
Version	4.3-10 (female)
Height	69 mm
Description	Ultra broad band, multi band
Item no.	85077731

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	690 – 1100 MHz	1100 – 1710 MHz	1710 – 2700 MHz	2700 – 3800 MHz
VSWR	2	1.5	1.7	1.6
Gain	2 dBi	6 dBi	6 dBi	6 dBi
	Band 5	Band 6		
Frequency	3800 – 5150 MHz	5150 – 3400 MHz		
VSWR	1.8	1.8		
Gain	7 dBi	8 dBi		

Electrical data	
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	55 °C
IMD level	-150 dBc at 2 × 30 dBm

Mechanical data	
Dimensions (height × diameter)	69 × 321 mm
Weight	0.93 kg
Connector	1 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	0 – 55 °C
RoHS 2011/65/EU	compliant
Flammability	UL94-V0
WEEE 2012/19/EU	special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome colour	white
Back plate / base plate material	aluminium

Indoor omnidirectional antennas



Ordering information	SENCITY® Rondo MIMO
	V-Pol Indoor Omni antenna
Type no.	1399.31.0010
Frequency range	698 – 3800 MHz
Gain	6 dBi
Version	4.3-10 (female)
Height	87 mm
Description	<ul style="list-style-type: none"> · Antenna ETL listed for Plenum space (UL 2043) · Design patent DM/088510
Item no.	85080511

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 790 MHz	790 – 960 MHz	1447 – 1660.5 MHz	1695 – 2170 MHz
VSWR	1.5	1.5	1.7	1.5
Gain	2 dBi	2 dBi	4 dBi	6 dBi
Composite power max.	300 W	180 W	180 W	130 W
	Band 5	Band 6	Band 7	
Frequency	2170 – 2700 MHz	3400 – 3600 MHz	3600 – 3800 MHz	
VSWR	1.5	1.5	1.5	
Gain	7 dBi	6 dBi	6 dBi	
Composite power max.	90 W	50 W	50 W	

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C
IMD level	-155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	87 × 238 mm
Weight	0.82 kg
Connector	2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	0 – 55 °C
RoHS 2011/65/EU	compliant
Flammability	UL94-V0
WEEE 2012/19/EU	special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome colour	white
Back plate / base plate material	PCB_1



Installation example

Indoor omnidirectional antennas



Ordering information	SENCITY® OCCHIO 4x4 MIMO Antenna
Preliminary	V-Pol Indoor Omni antenna
Type no.	1399.32.0020
Frequency range	617 – 6000 MHz
Gain	6 dBi
Version	NEX10 (female)
Height	40 mm
Item no.	85189602

Description

SENCITY Occhio MIMO 4x4 offers 5G coverage, a simple, time-saving installation process and an attractive industry preferred design with a small form factor. Thanks to its multiband capability between 617 MHz till 6 GHz it supports today's and future wireless applications.

Electrical data per band	Band 1	Band 2	Band 3
Frequency	617 – 960 MHz	1427 – 1660 MHz	1695 – 2690 MHz
Gain	3 dBi	4.5 dBi	4.5 dBi
Port Isolation	15 dB	15 dB	20 dB
	Band 4	Band 5	
Frequency	3300 – 4200 MHz	4500 – 6000 MHz	
Gain	5 dBi	6 dBi	
Port Isolation	30 dB	30 dB	

Electrical data	
VSWR	2
Impedance	50 Ohm
Ambient temperature	55 °C
IMD level	-153 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	40 × 275 mm
Weight	0.93 kg
Connector	4 × NEX10 (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	0 – 55 °C
RoHS 2011/65/EU	compliant
Flammability	UL94-V0
REACH 2006/1907/EC	compliant

Material data	
Radome colour	white
Back plate / base plate colour	black

Indoor directional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor directional antenna
Type no.	91121389
Frequency range	380 – 405 MHz
Half-power beam width	90°
Gain	7 dBi
Version	N (female)
Height	302 mm
Item no.	84467220

Electrical data	
Frequency	380 – 405 MHz
VSWR	2
Gain	7 dBi
3dB beamwidth (v)	90°
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
Mechanical data	
Dimensions (height × width × depth)	302 × 243 × 50 mm
Weight	1.39 kg
Connector	1 × N (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	copper
Radome	high impact polystyrol
Colour	white
Mounting plates	stainless steel

Indoor directional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor directional antenna
Type no.	91121441
Frequency range	405 – 430 MHz
Half-power beam width	90°
Gain	7 dBi
Version	N (female)
Height	302 mm
Item no.	84467227

Electrical data	
Frequency	405 – 430 MHz
VSWR	2
Gain	7 dBi
3dB beamwidth (v)	90°
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
Mechanical data	
Dimensions (height × width × depth)	302 × 243 × 50 mm
Weight	1.39 kg
Connector	1 × N (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	copper
Radome	high impact polystyrol
Colour	white
Mounting plates	stainless steel

Indoor directional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor directional antenna
Type no.	91121744
Frequency range	450 – 470 MHz
Half-power beam width	90°
Gain	7 dBi
Version	N (female)
Height	302 mm
Item no.	84467233

Electrical data	
Frequency	450 – 470 MHz
VSWR	2
Gain	7 dBi
3dB beamwidth (v)	90°
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
Mechanical data	
Dimensions (height × width × depth)	302 × 243 × 50 mm
Weight	1.39 kg
Connector	1 × N (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	copper
Radome	high impact polystyrol
Colour	white
Mounting plates	stainless steel

Indoor directional antennas

Ordering information	SENCITY® SC Indoor
	V-Pol Indoor directional antenna
Type no.	1399.17.0010
Frequency range	380-470 MHz
Half-power beam width	90°
Gain	7 dBi
Version	N (female)
Height	302 mm
Item no.	85194601

Electrical data

Frequency	380 – 470 MHz
VSWR	2
Gain	7 dBi
3dB beamwidth (v)	90°
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	25 °C

Mechanical data

Dimensions	302 × 243 × 50 mm
Weight	1.39 kg
Connector	1 × N (female)

Environmental data

Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data

Reflector	copper
Radome	high impact polystyrol
Colour	white
Mounting plates	stainless steel

Indoor directional antennas

Ordering information	SENCITY® SC Indoor V-Pol Indoor directional antenna
Type no.	1399.31.0020
Frequency range	380 – 470 MHz
Half-power beam width	90°
Gain	7 dBi
Version	4.3-10 (female)
Height	302 mm
Item no.	85201925

Electrical data	
Frequency	380 – 470 MHz
VSWR	2
Gain	7 dBi
3dB beamwidth (v)	90°
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	25 °C
Mechanical data	
Dimensions	302 × 243 × 50 mm
Weight	1.39 kg
Connector	1 × 4.3-10 (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	copper
Radome	high impact polystyrol
Colour	white
Mounting plates	stainless steel

Indoor directional antennas



Ordering information	SENCITY® Urban 300
	X-Pol Indoor directional antenna
Type no.	1399.31.0022
Frequency range	698 – 960 MHz 1695 – 2700 MHz 3100 – 4200 MHz
Gain	6 – 7 dBi
Version	4.3-10 (female)
Height	200 mm
Description	Supports MIMO 2x2
Item no.	–

Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 960 MHz	1695 – 2700 MHz	3100 – 4200 MHz
Gain	6.5 dBi	7 dBi	6 dBi
3dB beamwidth (h)	85°	65°	65°
3dB beamwidth (v)	80°	65°	65°

Electrical data	
VSWR	2
Impedance	50 Ohm
Max. effective comb. power per port	50 W
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	200 × 260 × 90 mm
Weight	1.1 kg
Connector	2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
Flammability Rating	UL 94-V0
RoHS 2011/65/EU	compliant
REACH 2006/1907/EC	compliant

Material data	
Radome	PC (Polycarbonate)
Colour	white



Splitter, tapper, combiner

RF components for indoor and
outdoor critical communication.

Splitter, tapper, combiner

Overview

Splitter

NEW

NEW

NEW

NEW

NEW

NEW

Description			Type no.	Length	Output	Page
2-way splitter	380 – 3800 MHz		5501.31.0102	318 mm	2 × 4.3-10 fem.	74
3-way splitter	380 – 3800 MHz		5501.31.0103	365 mm	3 × 4.3-10 fem.	75
4-way splitter	380 – 3800 MHz		5501.31.0104	399 mm	4 × 4.3-10 fem.	76
2-way splitter	380 – 2700 MHz		5501.17.0030	267 mm	2 × N female	77
3-way splitter	380 – 2700 MHz		5501.17.0031	262 mm	3 × N female	78
2-way splitter	380 – 4000 MHz		5501.41.0102	318 mm	2 × 7/16 female	79
3-way splitter	380 – 4000 MHz		5501.41.0103	365 mm	3 × 7/16 female	80
4-way splitter	380 – 4000 MHz		5501.41.0104	399 mm	4 × 7/16 female	81
2-way splitter	694 – 3800 MHz		5502.17.0050	190 mm	2 × N female	82
2-way splitter	694 – 3800 MHz		5502.41.0050	190 mm	2 × 7/16 female	83

Tapper

Description			Type no.	Power	Ports	Page
2-way tapper 3 dB	350 – 2700 MHz	2:1 unequal power divider	5501.31.0002	300 W	3 × 4.3-10 fem.	84
2-way tapper 4.8 dB	350 – 2700 MHz	3:1 unequal power divider	5501.31.0003	300 W	3 × 4.3-10 fem.	84
2-way tapper 6 dB	350 – 2700 MHz	4:1 unequal power divider	5501.31.0004	300 W	3 × 4.3-10 fem.	84
2-way tapper 10 dB	350 – 2700 MHz	10:1 unequal power divider	5501.31.0010	300 W	3 × 4.3-10 fem.	84
2-way tapper 15 dB	350 – 2700 MHz	30:1 unequal power divider	5501.31.0015	300 W	3 × 4.3-10 fem.	84
2-way tapper 20 dB	350 – 2700 MHz	100:1 unequal power divider	5501.31.0100	300 W	3 × 4.3-10 fem.	84

Diplexer

Description			Type no.	Power	Ports	Page
TETRA + cellular + WiFi diplexer	80 – 960 MHz 1695 – 2700 MHz	Return Loss 20 dB	2501.17.0092	120 W	N female	85

Quadraplexer

Description			Type no.	Power	Ports	Page
4-port quadraplexer	380 – 960 MHz 1710 – 1880 MHz 1920 – 2170 MHz 2500 – 2690 MHz	Return Loss 18 dB	2501.41.0100	700 W 300 W 200 W 200 W	7/16 female	86

Splitter

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5501.31.0102
Frequency range	380 – 3800 MHz
Version	4.3-10
Length	318 mm
Description	<ul style="list-style-type: none"> • Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM -160 dBc
Item no.	-

Electrical data	Band 1
Frequency	380 – 3800 MHz
Split Loss	3.5 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	-160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	318 × 25 × 25 mm (without connector dimension)
Weight	0.5 kg
Connector	Input 1 × 4.3-10 (female), Output 2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	3-Way Reactive Power Splitter
Type no.	5501.31.0103
Frequency range	380 – 3800 MHz
Version	4.3-10
Length	365 mm
Description	<ul style="list-style-type: none"> • Installation equipment for critical communication antennas • 3-Way Low-loss Power Splitter • Multi-band • Low PIM -160 dBc
Item no.	-

Electrical data	Band 1
Frequency	380 – 3800 MHz
Split Loss	5.6 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	-160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	365 × 25 × 25 mm (without connector dimension)
Weight	0.64 kg
Connector	Input 1 × 4.3-10 (female), Output 3 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	4-Way Reactive Power Splitter
Type no.	5501.31.0104
Frequency range	380 – 3800 MHz
Version	4.3-10
Length	399 mm
Description	<ul style="list-style-type: none"> • Installation equipment for critical communication antennas • 4-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	–

Electrical data	Band 1
Frequency	380 – 3800 MHz
Split Loss	6.8 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	399 × 25 × 25 mm (without connector dimension)
Weight	0.75 kg
Connector	Input 1 × 4,3-10 (female), Output 4 × 4,3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5501.17.0030
Frequency range	380 – 2700 MHz
Version	N (female)
Length	267 mm
Description	<ul style="list-style-type: none"> • Evenly split high power signals with minimal reflections or loss • Wide frequency range allows use with multiband antennas and leaky cable systems
Item no.	85029258

Electrical data	Band 1
Frequency	380 – 2700 MHz
Split Loss	3 dB
Insertion Loss	0.1 dB
Char. Impedance	50 Ohm
Composite power max.	300 W
Intermodulation distortion	-155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 267 mm
Weight	0.33 kg
Connector	Input 1 × N jack (female), Output 2 × N jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-35 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	3-Way Reactive Power Splitter
Type no.	5501.17.0031
Frequency range	380 – 2700 MHz
Version	N (female)
Length	262 mm
Description	<ul style="list-style-type: none"> • Evenly split high power signals with minimal reflections or loss • Wide frequency range allows use with multiband antennas and leaky cable systems
Item no.	85029259

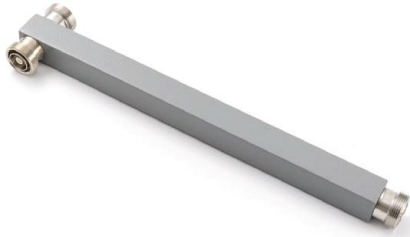
Electrical data	Band 1
Frequency	380 – 2700 MHz
Split Loss	4.8 dB
Insertion Loss	0.1 dB
Char. Impedance	50 Ohm
Composite power max.	300 W
Intermodulation distortion	-155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 262 mm
Weight	0.37 kg
Connector	Input 1 × N jack (female), Output 3 × N jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-35 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5501.41.0102
Frequency range	380 – 4000 MHz
Version	7/16 (female)
Length	318 mm
Description	<ul style="list-style-type: none"> • Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	–

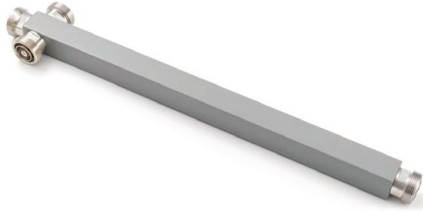
Electrical data	Band 1
Frequency	380 – 4000 MHz
Split Loss	3.0 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	318 × 25 × 25 mm (without connector dimension)
Weight	0.6 kg
Connector	Input 1 × 7/16 (female), Output 2 × 7/16 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	3-Way Reactive Power Splitter
Type no.	5501.41.0103
Frequency range	380 – 4000 MHz
Version	7/16 (female)
Length	365 mm
Description	<ul style="list-style-type: none"> • Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	–

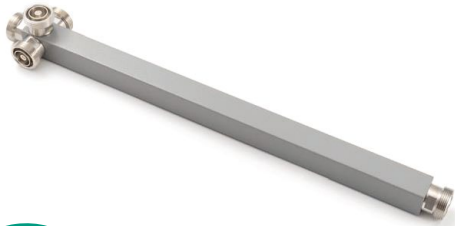
Electrical data	Band 1
Frequency	380 – 4000 MHz
Split Loss	4.8 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	365 × 25 × 25 mm (without connector dimension)
Weight	0.7 kg
Connector	Input 1 × 7/16 (female), Output 3 × 7/16 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	4-Way Reactive Power Splitter
Type no.	5501.41.0104
Frequency range	380 – 4000 MHz
Version	7/16 (female)
Length	399 mm
Description	<ul style="list-style-type: none"> • Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	–

Electrical data	Band 1
Frequency	380 – 4000 MHz
Split Loss	6.0 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	399 × 25 × 25 mm (without connector dimension)
Weight	0.8 kg
Connector	Input 1 × 7/16 (female), Output 4 × 7/16 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5502.17.0050
Frequency range	694 – 3800 MHz
Version	N (female)
Length	190 mm
Description	<ul style="list-style-type: none"> • Evenly split high power signals with minimal reflections or loss • Wide frequency range allows use with multiband antennas and leaky cable systems
Item no.	85029265

Electrical data	Band 1	Band 2
Frequency	694 – 2500 MHz	2500 – 3800 MHz
Split Loss	3 dB	3 dB
Insertion Loss	0.1 dB	0.2 dB
Char. Impedance	50 Ohm	50 Ohm
Composite power max.	300 W	300 W
Intermodulation distortion	-161 dBc at 2 × 43 dBm	-161 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 190 mm
Weight	0.21 kg
Connector	Input 1 × N jack (female), Output 2 × N jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-35 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Splitter

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5502.41.0050
Frequency range	694 – 3800 MHz
Version	7/16 (female)
Length	190 mm
Description	<ul style="list-style-type: none"> • Evenly split high power signals with minimal reflections or loss • Wide frequency range allows use with multiband antennas and leaky cable systems
Item no.	85029268

Electrical data	Band 1	Band 2
Frequency	694 – 2500 MHz	2500 – 3800 MHz
Split Loss	3 dB	3 dB
Insertion Loss	0.1 dB	0.2 dB
Char. Impedance	50 Ohm	50 Ohm
Composite power max.	500 W	500 W
Intermodulation distortion	-161 dBc at 2 × 43 dBm	-161 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 190 mm
Weight	0.29 kg
Connector	Input 1 × 7/16 jack (female), Output 2 × 7/16 jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-35 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Unequal Power Divider

Frequency range	350 – 2700 MHz
Version	4.3-10 (female)
Width	89 mm

Description

These tappers unevenly split high power cellular signals with minimal reflections or loss over the wireless bands in the range 350-2700 MHz (no coupling from 960 to 1710 MHz). The innovative asymmetric design ensures an excellent input VSWR and coupling flatness across the band. The lightweight design allows easy attachment to a wall using the supplied bracket. Designed with only a few solder joints and an air dielectric, loss is minimized and reliability enhanced. It supports public safety and cellular bands, as well as WiFi 2.4 GHz.

Ordering information

2:1 unequal power divider			
Type no. 5501.31.0002 , Item no. 85075310			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	15 dB	17 dB	
Tapp Loss	3 dB	3 dB	
Insertion Loss	1.8 dB	1.8 dB	

3:1 unequal power divider			
Type no. 5501.31.0003 , Item no. 85075311			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	17.6 dB	17.6 dB	
Tapp Loss	4.8 dB	4.8 dB	
Insertion Loss	1.3 dB	1.3 dB	

4:1 unequal power divider			
Type no. 5501.31.0004 , Item no. 85075312			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 1800	MHz Band 3 1800 – 2700
Return Loss	20.8 dB	17.6 dB	20.8 dB
Tapp Loss	6 dB	6 dB	6 dB
Insertion Loss	1 dB	1 dB	1 dB

10:1 unequal power divider			
Type no. 5501.31.0010 , Item no. 85075315			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 1800	MHz Band 3 1800 – 2700
Return Loss	20.8 dB	17.6 dB	20.8 dB
Tapp Loss	10 dB	10 dB	10 dB
Insertion Loss	0.4 dB	0.4 dB	0.4 dB

30:1 unequal power divider			
Type no. 5501.31.0015 , Item no. 85075316			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	20.8 dB	20.8 dB	
Tapp Loss	15 dB	15 dB	
Insertion Loss	0.1 dB	0.1 dB	

100:1 unequal power divider			
Type no. 5501.31.0100 , Item no. 85075317			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	20.8 dB	20.8 dB	
Tapp Loss	20 dB	20 dB	
Insertion Loss	0.1 dB	0.1 dB	

Specifications

Electrical data	
Char. Impedance	50 Ohm
Composite power max.	300 W
Peak envelope power	2000 W
Intermodulation distortion	-161 dBc at 2 × 43 dBm

Mechanical data			
Dimensions (height × width × length)	32 × 89 × 32 mm		
Weight	0.42 kg		
Connector	Main Line In	Main Line Out	Tap Port
	4.3-10 jack (female)	4.3-10 jack (female)	4.3-10 jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-40 to 75 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Diplexer



Ordering information	TETRA + cellular + WiFi diplexer
Type no.	2501.17.0092
Frequency range	80 – 2700 MHz
Version	N (female)
Height	31.7 mm
Item no.	84103626

Description

Diplexer which allows combination and separation of signals in the 80 – 960 MHz and 1695 – 2700 MHz wireless bands. To minimize band inter-reaction, the inputs are well isolated and have minimal insertion loss over their respective frequency bands. Attention to mechanical design ensures low passive intermodulation. The diplexer is designed using passive, proprietary techniques for low loss and high reliability.

Electrical data per band	Band 1	Band 2
Frequency	80 – 960 MHz	1695 – 2700 MHz
Insertion Loss	0.3 dB	0.5 dB

Electrical data	
Return Loss	20 dB
Composite power max.	120 W
Peak envelope power	3000 W
Impedance	50 Ohm
Intermodulation distortion	-155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	31.7 × 106.7 × 122.3 mm
Weight	0.55 kg
Connector	N jack (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	-35 to 70 °C
IP rating	IP64
RoHS 2011/65/EU	compliant

Material data	
Housing material	aluminium
Surface treatment	passivated

Quadruplexer



Ordering information	4-port quadruplexer
Type no.	2501.41.0100
Frequency range	380 – 2690 MHz
Version	7/16 (female)
Height	232 mm
Item no.	85070953

Description

A 4-port quadruplexer which allows combination and separation of the signals in 380–960/1710–1880/1920–2170/2500–2690 MHz wireless bands. To minimize band inter-reaction, the inputs have an isolation >50dB and have minimal insertion loss <0.3dB over their respective frequency bands.

Electrical data per band	Band 1	Band 2	Band 1	Band 2
Frequency	380 – 960 MHz	1710 – 1880 MHz	1920 – 2170 MHz	2500 – 2690 MHz
Composite power max.	700 W	300 W	200 W	200 W

Electrical data	
Insertion Loss	0.3 dB
Return Loss	18 dB
Peak envelope power	1500 W
Impedance	50 Ohm
Intermodulation distortion	-155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	232 × 223 × 50 mm
Weight	4.6 kg
Connector	7/16 jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	-40 to 65 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Material data	
Housing material	aluminium
Surface treatment	black paint



Rugged vehicle antennas

This portfolio includes ruggedised and multi-purpose antennas for critical communication.

Rugged vehicle antennas

Overview

Omnidirectional antennas

Description				Type no.	Height	Input	Page
V-Pol Omni	410 – 470 MHz			K813132	142 mm	1 × N female	90
V-Pol Omni	380 – 430 MHz			98121119	150 mm	1 × N female	91
NEW V-Pol Omni	380 – 7125 MHz	4 – 6 dBi		1399.19.0060	130 mm	6 × SMA fem.	92
NEW V-Pol Jamming	380 – 2600 MHz	3 – 7.5 dB			154 mm	1 × N female	93
NEW V-Pol Jamming	2400 – 6000 MHz	6.5 – 8 dB			90 mm	1 × N female	94
NEW V-Pol/Circular-Pol	380 – 7125 MHz	3 – 7.5 dB		1399.99.0421	60 mm	SMA, TNC	95

GPS amplifier

Description				Type no.	Height	Input	Page
External GPS & Galileo amplifier	1559 – 1609 MHz		25 dB	86010142	70 mm	N female	96

Special purpose antennas

Ordering information	SENCITY® SC antenna V-Pol Vehicle Antenna
Type no.	K813132
Frequency range	410 – 470 MHz
Gain	dB 0
Version	N (female)
Height	142 mm
Description	Low profile antenna in GRP radome
Item no.	84468534

Electrical data	Band 1
Band name	Tetra
Frequency	410 – 470 MHz
VSWR	1.5
Gain	Gain dB 0 (ref. to the quarter-wave antenna)
Impedance	50 Ohm
Composite power max.	170 W
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight	0.5 kg
Connector	1 × N, jack (female)

Environmental data	
Environmental conditions	outdoor
Operation temperature	–40 to 85 °C
IP rating	IP66
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Radiator and flange	aluminium

Special purpose antennas

Ordering information	SENCITY® SC Special Purpose
	V-Pol Omni vehicle antenna
Type no.	98121119
Frequency range	380 – 430 MHz
Version	N (female)
Height	150 mm
Description	<ul style="list-style-type: none"> · Meets EN 50155 · Fire retardant acc. EN 45545-2
Item no.	84468948

Electrical data	Band 1
Frequency	380 – 430 MHz
VSWR	1.7
Gain	0 dB (ref. to the quarter-wave antenna)
Composite power max.	100 W
Impedance	50 Ohm
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
IP rating	IP66
Flammability rating	DIN 5510-2, UL94 HB, EN 45545-2
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Back plate / base plate colour	black
Back plate / base plate material	aluminium

Special purpose antennas



Ordering information	SENCITY® SC MagMount
Preliminary	V-Pol Rugged vehicle rooftop multi-band antenna
Type no.	1399.19.0060
Frequency range	380 – 7125 MHz
Gain	4 – 6 dBi
Version	SMA (female)
Height	130 mm
Description	<ul style="list-style-type: none"> • With magnet mount for heavy duty vehicles • Supports 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6, TETRA and GNSS (Beidou, Galileo, GPS, Glonass). • 6 separate ports for 2×2 cellular MIMO and 2×2 Wifi MIMO, TETRA plus GNSS
Item no.	85080511

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 430 MHz	698 – 960 MHz	1710 – 2690 MHz	2400 – 2500 MHz
VSWR	2	2	2	2
Gain	4 dBi	4 dBi	6 dBi	6 dBi
	Band 5	Band 6	Band 7	
Frequency	4900 – 6425 MHz	4900 – 7125 MHz	1559 – 1610 MHz	
VSWR	2	1.6	2	
Gain	6 dBi	6 dBi		

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	130 × 83 × 250 mm
Weight	2.5 kg
Connector	6 × SMA (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	–40 to 85 °C
RoHS 2011/65/EU	compliant
IP rating	IP68, IP69
REACH 2006/1907/EC	compliant

Material data	
Radome colour	dark grey
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	aluminium

Special purpose antennas



Ordering information	SENCITY® Shield
	V-Pol Rugged vehicle antenna for Jamming applications
	Example for a Jamming antenna. Please contact us for these or other possible versions.
Frequency range	380 – 2600 MHz
Gain	3 – 7.5 dB
Version	N (female)
Height	154 mm
Description	<ul style="list-style-type: none"> • Customizable frequency bands upon request • Dedicated grounding contact (optional) • Cable conduit support (optional)
Item no.	–

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 694 MHz	694 – 960 MHz	1350 – 2600 MHz
Gain	3 dBi	4 dBi	7.5 dBi
Composite power max.	800 W	550 W	350 W

Electrical data	
VSWR	2.0
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	154 × 100 × 256 mm
Weight	1.6 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
IP rating	IP67, IP69
RoHS 2011/65/EU	compliant

Material data	
Radome colour	dark grey
Radome material	PC (Polycarbonate)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Special purpose antennas



Ordering information	SENCITY® Shield
	V-Pol Rugged vehicle antenna for Jamming applications
	Example for a Jamming antenna. Please contact us for these or other possible versions.
Frequency range	2400 – 6000 MHz
Gain	6.5 – 8 dB
Version	N (female)
Height	90 mm
Description	<ul style="list-style-type: none"> • Customizable frequency bands upon request • Dedicated grounding contact (optional) • Cable conduit support (optional)
Item no.	–

Electrical data per band	Band 1	Band 2	Band 3
Frequency	2400 – 3300 MHz	3300 – 4900 MHz	4900 – 6000 MHz
Gain	6.5 dBi	7 dBi	8 dBi
Composite power max.	350 W	300 W	300 W

Electrical data	
VSWR	2.0
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	90 × 100 × 256 mm
Weight	1.6 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
IP rating	IP67, IP69
RoHS 2011/65/EU	compliant

Material data	
Radome colour	dark grey
Radome material	PC (Polycarbonate)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Special purpose antennas



Ordering information	SENCITY® Road MULTI
	V-Pol/Circular-Pol Rugged vehicle rooftop multi-band antenna
Type no.	1399.99.0421
Frequency range	380 – 7125 MHz
Gain	3 – 7.5 dB
Version	SMA, TNC
Height	60 mm
Description	<ul style="list-style-type: none"> • Covering all necessary systems from TETRA, LTE410/LTE450, WiFi, 2G-5G and GPS. • Customizable frequency bands upon request • Dedicated grounding contact (optional) • Cable conduit support (optional)
Item no.	–

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Band name	TETRA/LTE450	Cellular	Cellular	Cellular
Frequency	380 – 470 MHz	617 – 960 MHz	1350 – 2700 MHz	3300 – 4200 MHz
VSWR	2.5	2.1	2.1	2.1
Gain	3 dBi	2 dBi	4 dBi	4 dBi
	Band 5	Band 6	Band 7	Band 8/9
Band name	Cellular	WiFi	WiFi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1164 – 1279 MHz 1559 – 1610 MHz
VSWR	2.1			1.5/1.8
Gain	5 dBi			

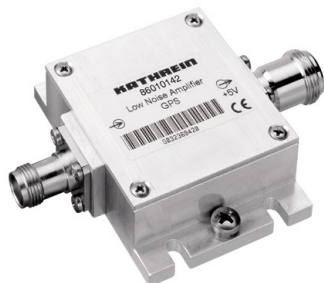
Electrical data	
Impedance	50 Ohm
Composite power max.	40 W
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	60 × 210 mm
Weight	1.1 kg
Connector	1 × SMA, plug (male), 1 × TNC, plug (male)

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant

Material data	
Radome colour	dark grey
Radome material	PC (Polycarbonate)
Back plate / base plate material	aluminium

Low noise amplifier GNSS



Ordering information	Low noise amplifier GNSS
Type no.	86010142
Frequency range	1559 – 1609 MHz
Gain	25 dB
Version	TNC, N (female)
Height	70 mm
Description	<ul style="list-style-type: none"> • The low noise amplifier 86010142 is designed for the use inside vehicles with train antennas with GNSS. • It includes a preselection filter to prevent the interference in case of simultaneous operation at the frequency range 380 – 960/1710 – 3800 MHz and GNSS. • The product fulfils the requirements according to EN 50155 and EN45545.
Item no.	84460305

Electrical data	Band 1
Frequency	1559 – 1609 MHz
Gain	25 dBi
Composite power max.	50 W

Mechanical data	
Dimensions (height × width × depth)	70 × 22 × 50 mm
Mounting	4 holes, 4.5 mm diameter
Connector	1 × N (female)

Environmental data	
Operation temperature	–25 to 55 °C
Flammability rating	EN 45545-2
RoHS 2011/65/EU	compliant



Accessories

Accessories

Overview

Clamps

Description	Mast diameter	Type no.	Item no.	Page
Tension band	45 – 125 mm	734365	84468505	100
Tension band	120 – 140 mm	734364	84468692	100
Clamp for panel antennas	28 – 60 mm	731651	84468695	100
Clamp for panel antennas	42 – 115 mm	738546	84468512	100
Clamp for panel antennas	110 – 220 mm	85010002	84468516	100
Clamp for panel antennas	210 – 380 mm	85010003	84476982	100

Downtilt

Description	Type no.	Item no.	Page
Downtilt for panel antennas	light	737978	84468509
Downtilt for panel antennas	medium/heavy	85010009	84492856

3 sector clamp

Description	Mast diameter	Type no.	Item no.	Page
3 sector clamp kit	88.9/180 mm	light	742263	84480016
3 sector clamp kit	88.9/213 mm	light	742317	84480018
3 sector clamp kit	114.3/217 mm	medium/heavy	742033	84477046
3 sector clamp kit	139.7/236 mm	medium/heavy	742034	84480020

Clamps for omni antennas

Description	Mast diameter	Type no.	Item no.	Page
Clamps omni antenna	94 – 125 mm	738908	84468514	101
Side-mounting bracket	50 – 94 mm	737398	84477023	101

Lightning Protector


Description	Type no.	Item no.	Page
EMP Protector	Quarter-wave stub technology	3400.41.0203	23030133
EMP Protector	Quarter-wave stub technology Broad-band design	3400.41.0204	23030180

Remote control unit

Description	Type no.	Item no.	Page
Remote control unit for adjustable electrical tilt	86010148V01	84468526	101
RET cable for power supply and control	0.5 m	86010054	84480770
RET cable for power supply and control	1 m	86010007	84480772
RET cable for power supply and control	2 m	86010008	84480774
RET cable for power supply and control	3 m	86010029	84480776
RET cable for power supply and control	5 m	86010009	84468524
RET cable for power supply and control	10 m	86010010	84480778
RET cable for power supply and control	20 m	86010032	84480780
RET cable for power supply and control	50 m	86010033	84480782

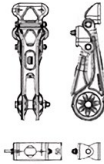
Clamps

Ordering information

Type no.	Item no.	Description	
734365	84468505	tensionband 45 – 125 mm	
734364	84468692	tensionband 120 – 140 mm	
731651	84468695	clamp 28 – 60mm L/M	
738546	84468512	clamp 42 – 115 mm	
85010002	84468516	clamp 110 – 220 mm	
85010003	84476982	clamp 210 – 380 mm	


Downtilt

Ordering information

Type no.	Item no.	Description	
737978	84468509	downtilt kit	
85010009	84492856	downtilt kit	

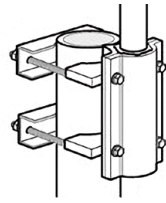

3 sector clamp

Ordering information

Type no.	Item no.	Description	
742263	84480016	3 sector clamp kit 88.9/180 mm	
742317	84480018	3 sector clamp kit 88.9/213 mm	
742033	84477046	3 sector clamp kit 114.3/217 mm	
742034	84480020	3 sector clamp kit 139.7/236 mm	

Clamps for omni antennas



Ordering information

Type no.	Item no.	Description	
738908	84468514	clamps omni ant 94 – 125 mm mast	
737398	84477023	side-mounting bracket	

Lightning Protector



More types see separate catalogue

Ordering information

Type no.	Item no.	Description	
3400.41.0203	23030133	EMP Protector 380 – 512 MHz Quarter-wave stub technology	
3400.41.0204	23030180	EMP Protector 806 – 2500 MHz Quarter-wave stub technology Broad-band design	

Remote control unit

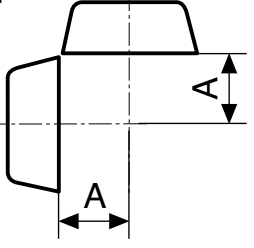
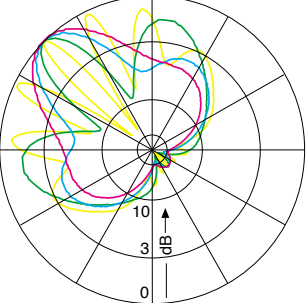
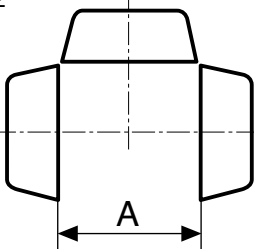
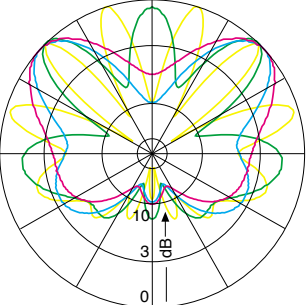
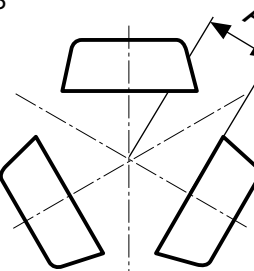
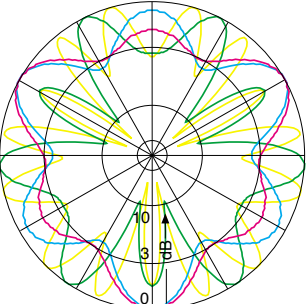
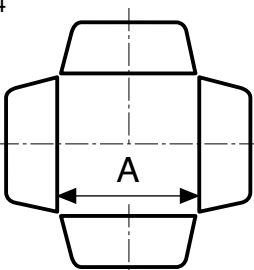
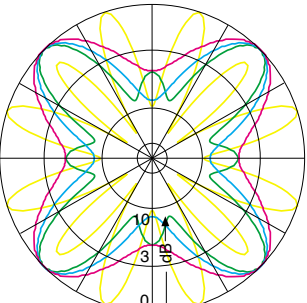
Ordering information

Type no.	Item no.	Description	
86010148V01	84468526	remote control unit	
86010054	84480770	control cable AISG 0.5 m	
86010007	84480772	control cable AISG 1 m	
86010008	84480774	control cable AISG 2 m	
86010029	84480776	control cable AISG 3 m	
86010009	84468524	control cable AISG 5 m	
86010010	84480778	control cable AISG 10 m	
86010032	84480780	control cable AISG 20 m	
86010033	84480782	control cable AISG 50 m	

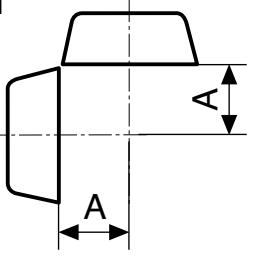
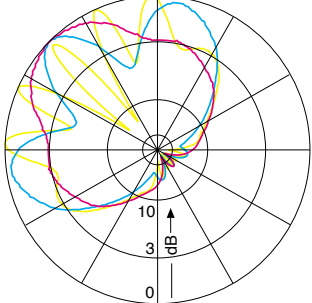
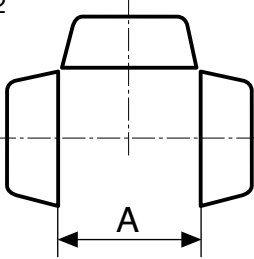
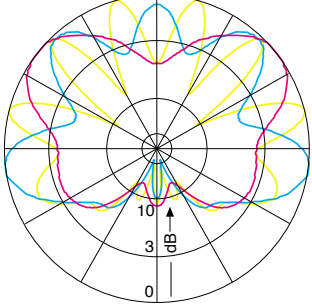
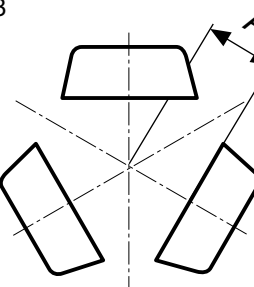
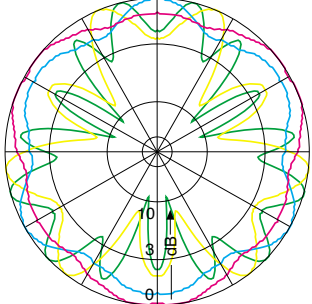
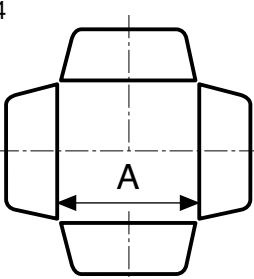
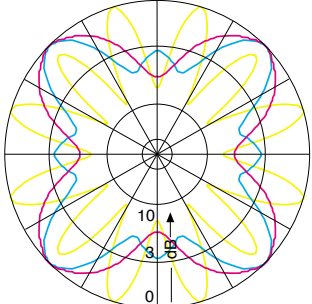


Technical Information, Mounting Situations

Examples of Radiation Patterns at 390 MHz with Combinations of Panels 852628 (XPol)

Arrangement	Horizontal Radiation Pattern	Technical Data	
<p>1</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.16 m — 0.25 m — 0.5 m — 1.5 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 9.85 dBi 9.95 dBi 9.45 dBi 9.55 dBi
<p>2</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.32 m — 0.5 m — 1.0 m — 2.0 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 7.75 dBi 8.15 dBi 7.85 dBi 7.95 dBi
<p>3</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.16 m — 0.22 m — 0.65 m — 1.1 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 5.85 dBi 5.75 dBi 6.55 dBi 6.35 dBi
<p>4</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.32 m — 0.5 m — 0.8 m — 2.1 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 6.15 dBi 7.15 dBi 7.65 dBi 7.35 dBi

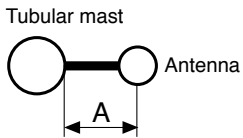
Examples of Radiation Patterns at 390 MHz with Combinations of Panels 91121363 (VPol)

Arrangement	Horizontal Radiation Pattern	Technical Data	
<p>1</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.25 m — 0.5 m — 1.5 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 9.55 dBi 9.35 dBi 9.85 dBi
<p>2</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.5 m — 1.0 m — 2.0 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 8.05 dBi 7.75 dBi 8.35 dBi
<p>3</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.16 m — 0.22 m — 0.65 m — 1.1 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 5.45 dBi 5.75 dBi 6.95 dBi 6.95 dBi
<p>4</p> 		<p>Distance A</p> <ul style="list-style-type: none"> — 0.5 m — 0.8 m — 2.1 m 	<p>100 % rel. field strength corresponds to a gain of</p> <ul style="list-style-type: none"> 6.85 dBi 7.35 dBi 7.45 dBi

Radiation Patterns for Side-mounted Omnidirectional Antennas

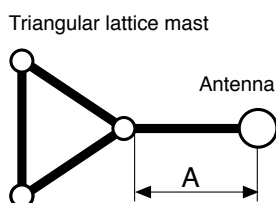
Examples of horizontal radiation patterns for different mast diameters where $A = 0.25 \lambda$; 0.5λ ; 0.75λ . Examples also apply for antenna K75292.

Distance A:



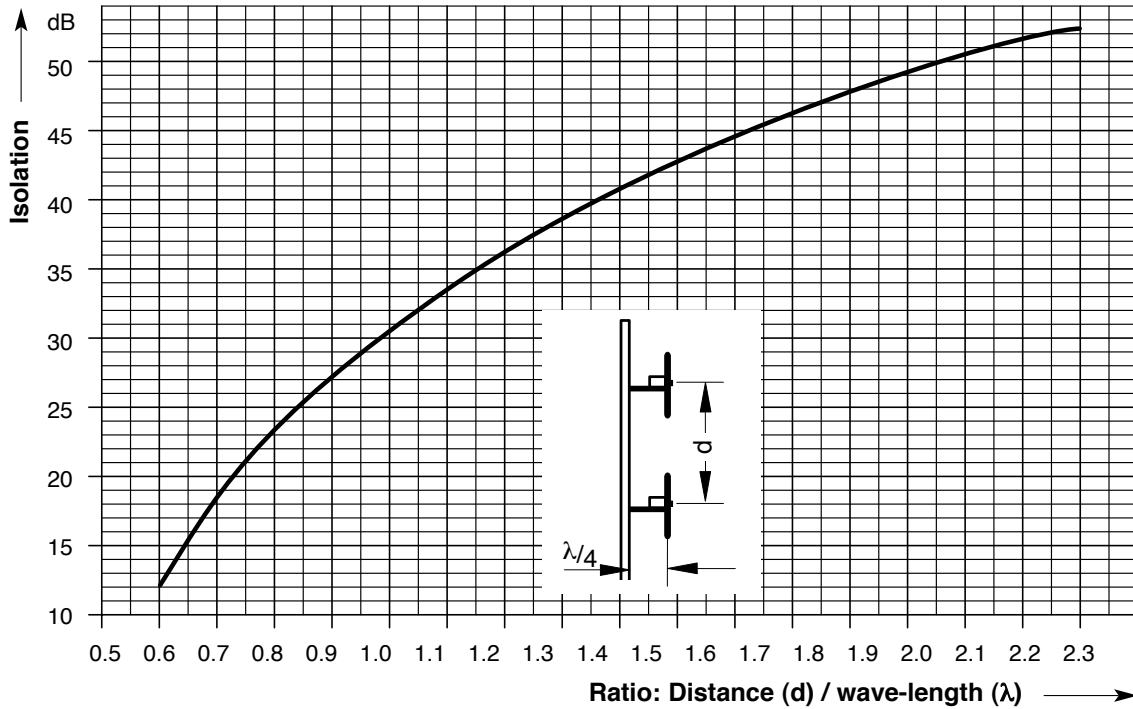
- $A = 0.25 \lambda$
- $A = 0.5 \lambda$
- $A = 0.75 \lambda$

Mast diameter	Horizontal Radiation Pattern
60 mm	
160 mm	
250 mm	
600 mm	
Triangular lattice mast with side length of 500 mm	

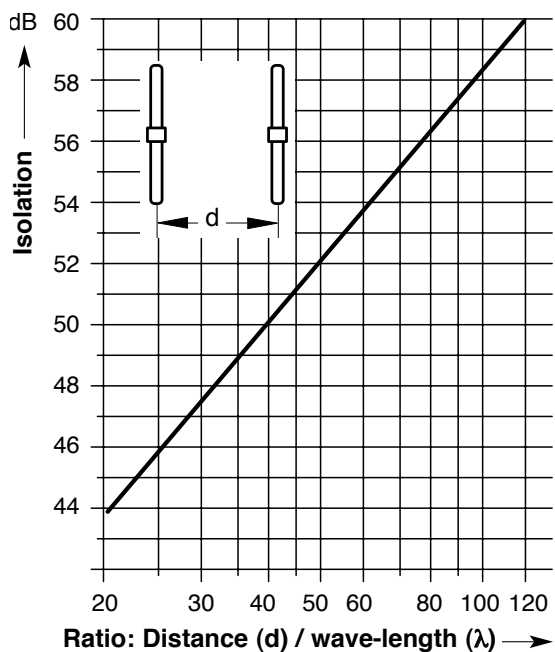
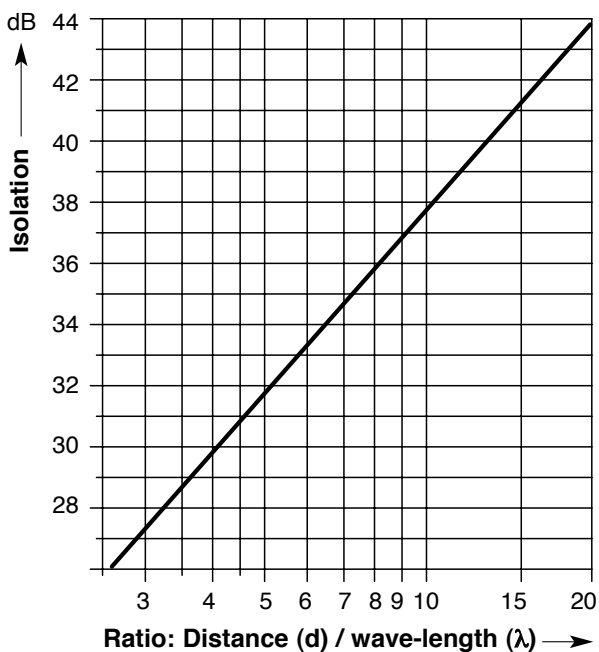


Isolation Between Two Half-wave Dipoles

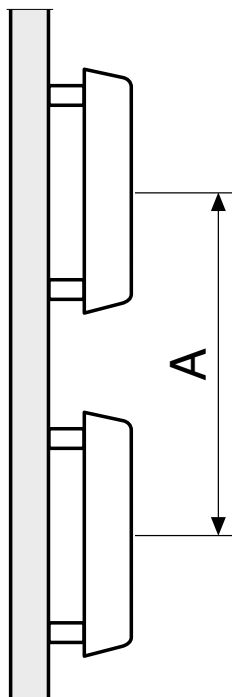
Isolation between two half-wave dipoles, vertically polarized and positioned vertically in line above each other on one common mast.



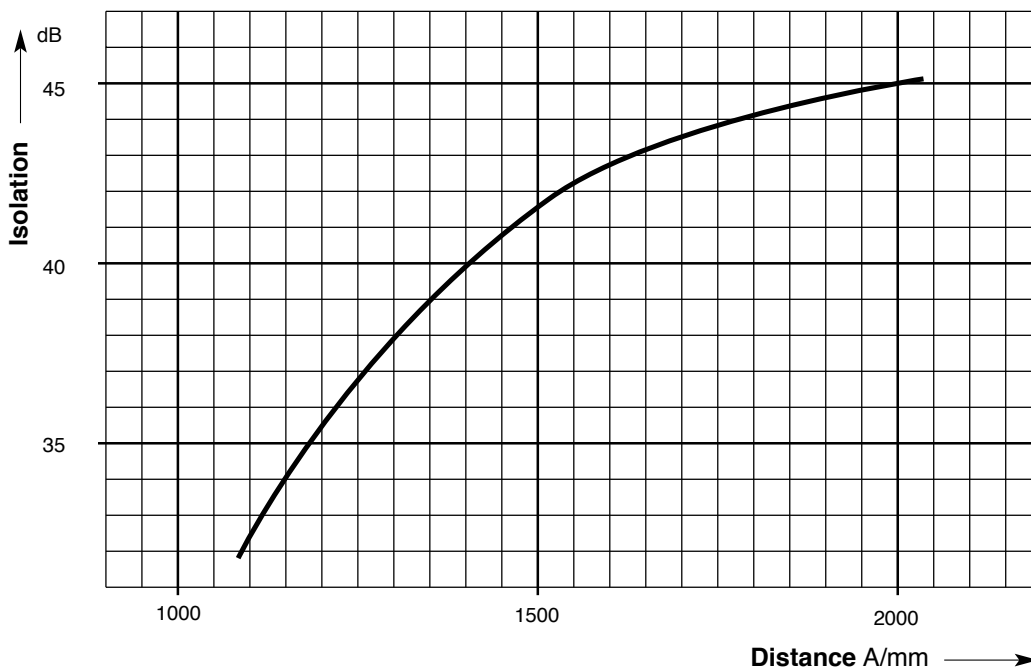
Isolation between two vertically polarized half-wave dipoles mounted laterally.



Isolation of Two Vertically Stacked Panels 91121363

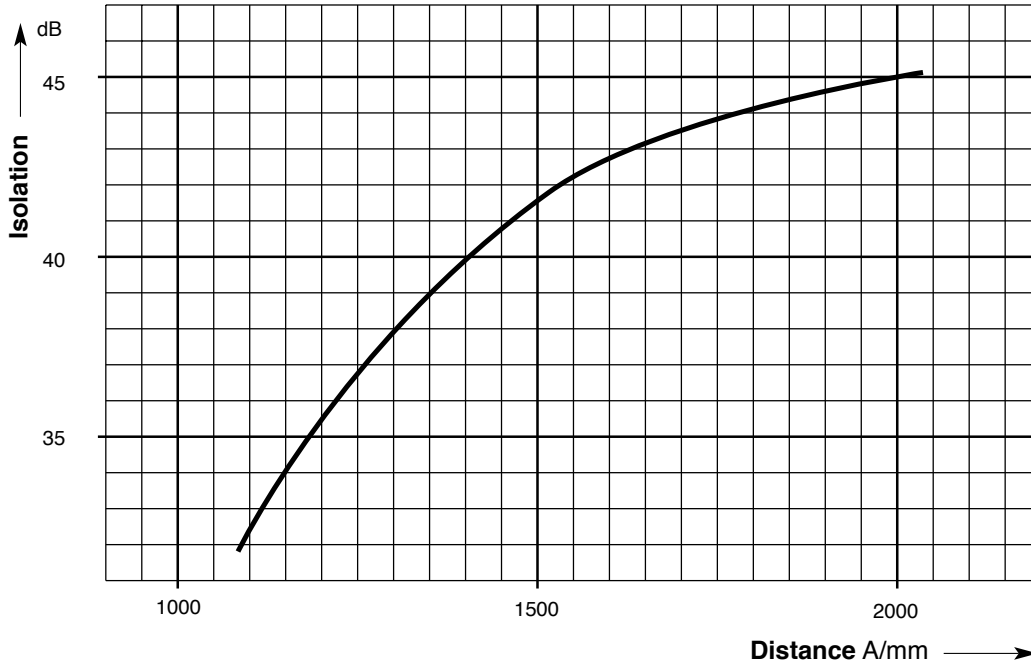


Isolation depends on vertical spacing A (at 450 MHz)

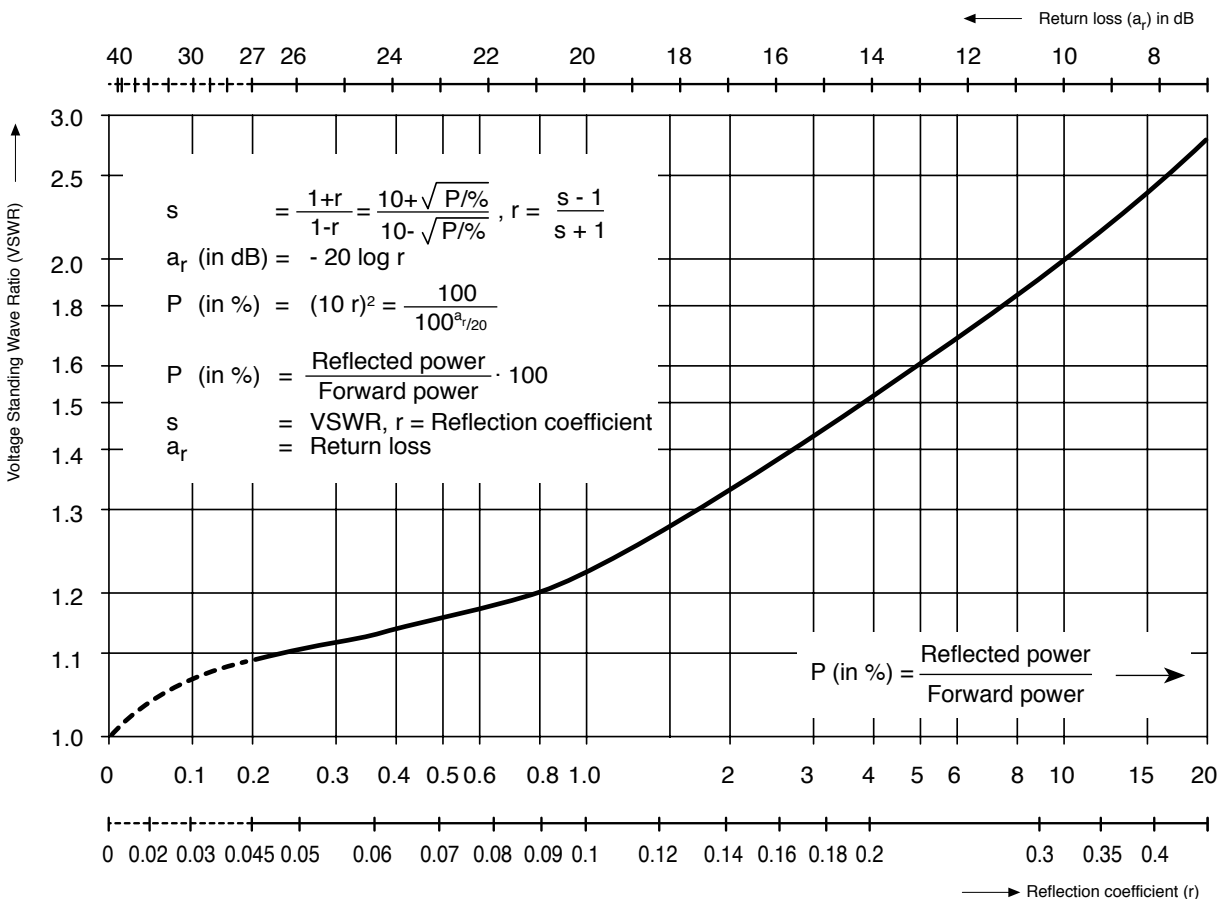


Antenna Gain, VSWR / Reflected power

Isolation depends on vertical spacing A (at 450 MHz)

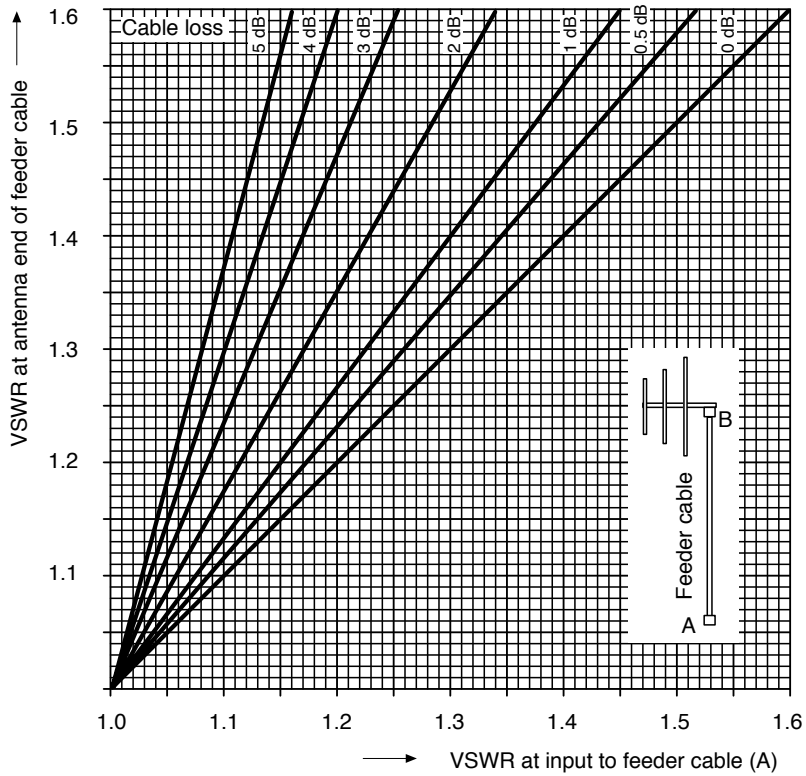


Voltage Standing Wave Ratio (VSWR) vs Reflected power

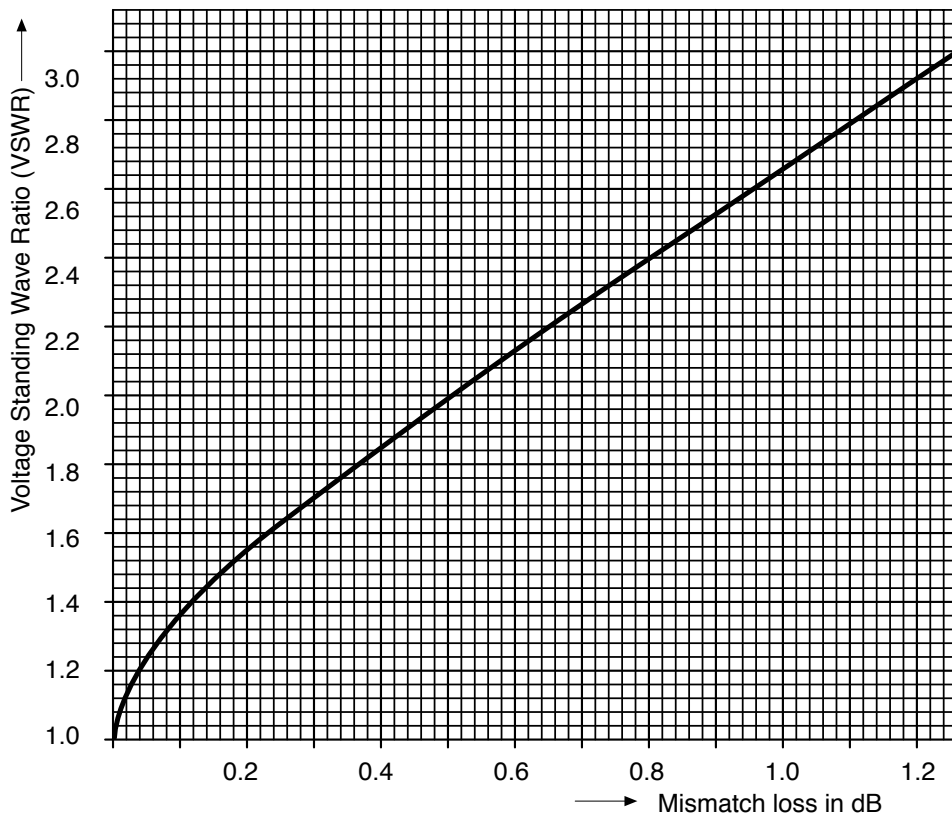


VSWR-reduction / Mismatch loss

Reduction of VSWR as a result of feeder cable attenuation



Mismatch loss vs VSWR



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