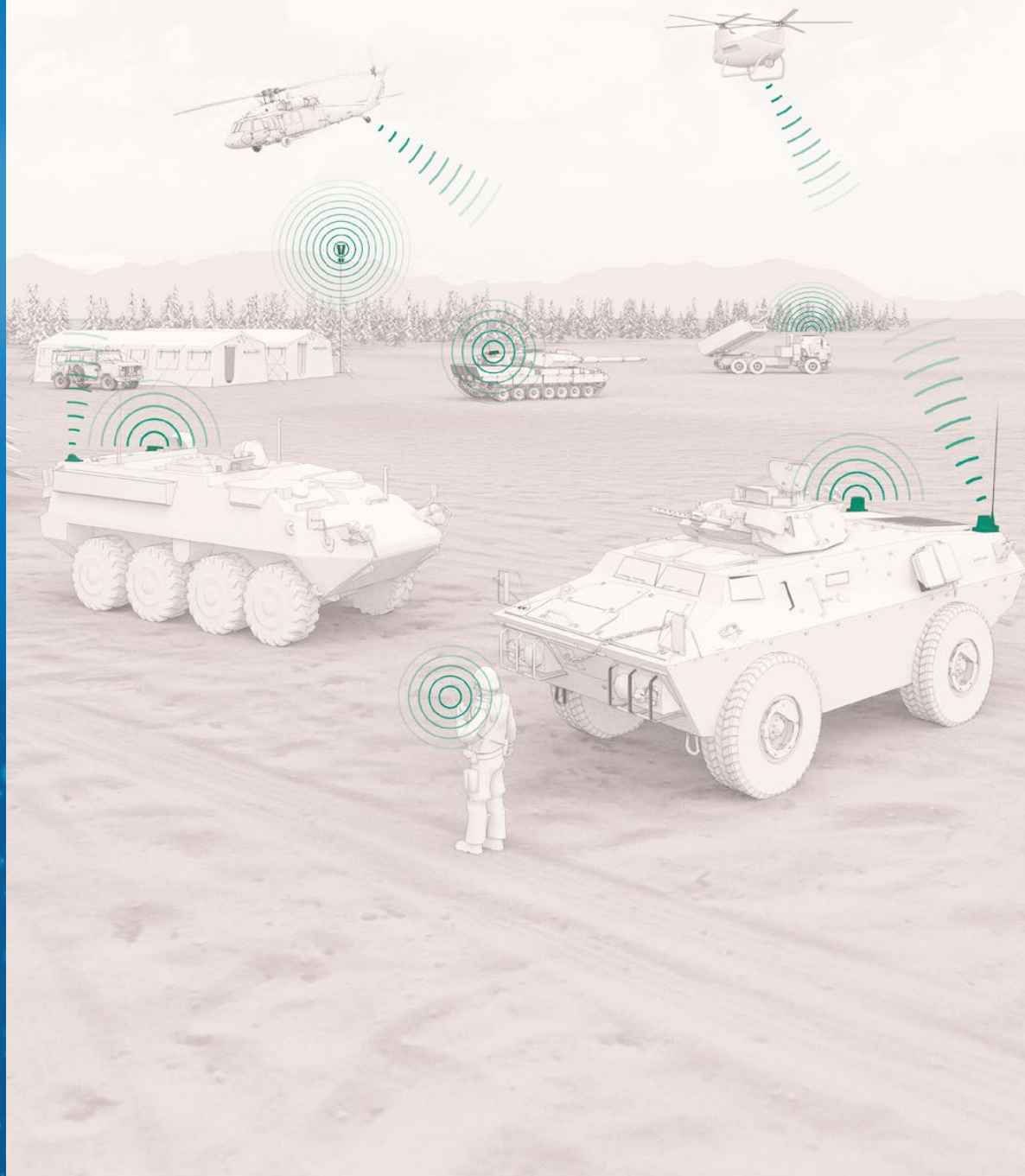


Antennas for defense applications

Edition 04/2025

Secure, reliable and continuous coverage for mission-critical networks



The background of the slide is a dark blue gradient. It is overlaid with a complex network of thin, light blue lines that connect several bright, glowing blue circular nodes. These nodes are positioned at various points across the frame, creating a sense of a global or digital network. The lines radiate from the nodes, some extending across the entire width or height of the image, while others form smaller, more localized clusters.

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 has been developing and manufacturing specialised antenna products for over 25 years. The SENCITY® brand of antennas reflects quality, performance and our unending pursuit of innovation. Our expertise extends to wireless applications in the railway, automotive, communication, industrial and defense industries.



Content

Communication antennas (C5ISR)	6
Directional antennas	8
Omnidirectional SISO antennas	22
Omnidirectional MIMO antennas	30
Omnidirectional indoor antennas	32
Directional indoor antennas	40
Vehicle antennas – Communication and jamming	44
Ruggedized military vehicle antennas	46
Other vehicle antennas	59
Antennas for various applications	62
Positioning and timing for harsh environments	68
Splitter, tapper, combiner	70
Mechanical accessories	84

Communication antennas (C5ISR)

HUBER+SUHNER products also support mission-critical applications for military forces by providing robust and secure solutions that support the digital TETRA, ultra-broadband,

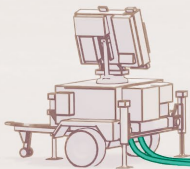


SENCITY® SC Ultra-Broadband Omni 380 – 3800 MHz, 3 – 8.5 dBi

Type no. 92210003

p.25

Small ground plane and
excellent coverage

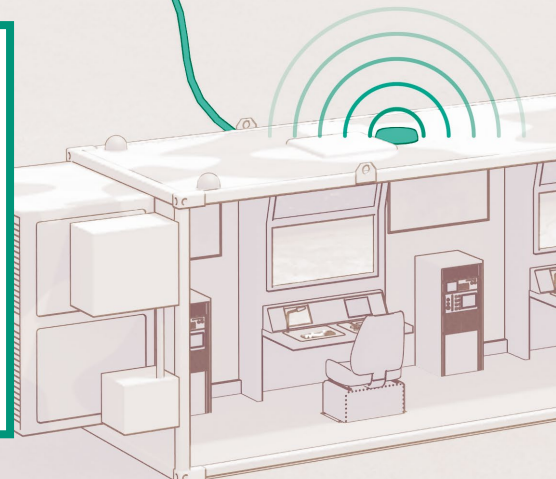


SENCITY® SC OMNI-M antenna 380 – 7125 MHz 2 – 6 dBi

Type no. 1399.17.0340

p.30

Rugged omni-directional antenna
for installation on outdoor cabinets



professional LTE and 5G 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.

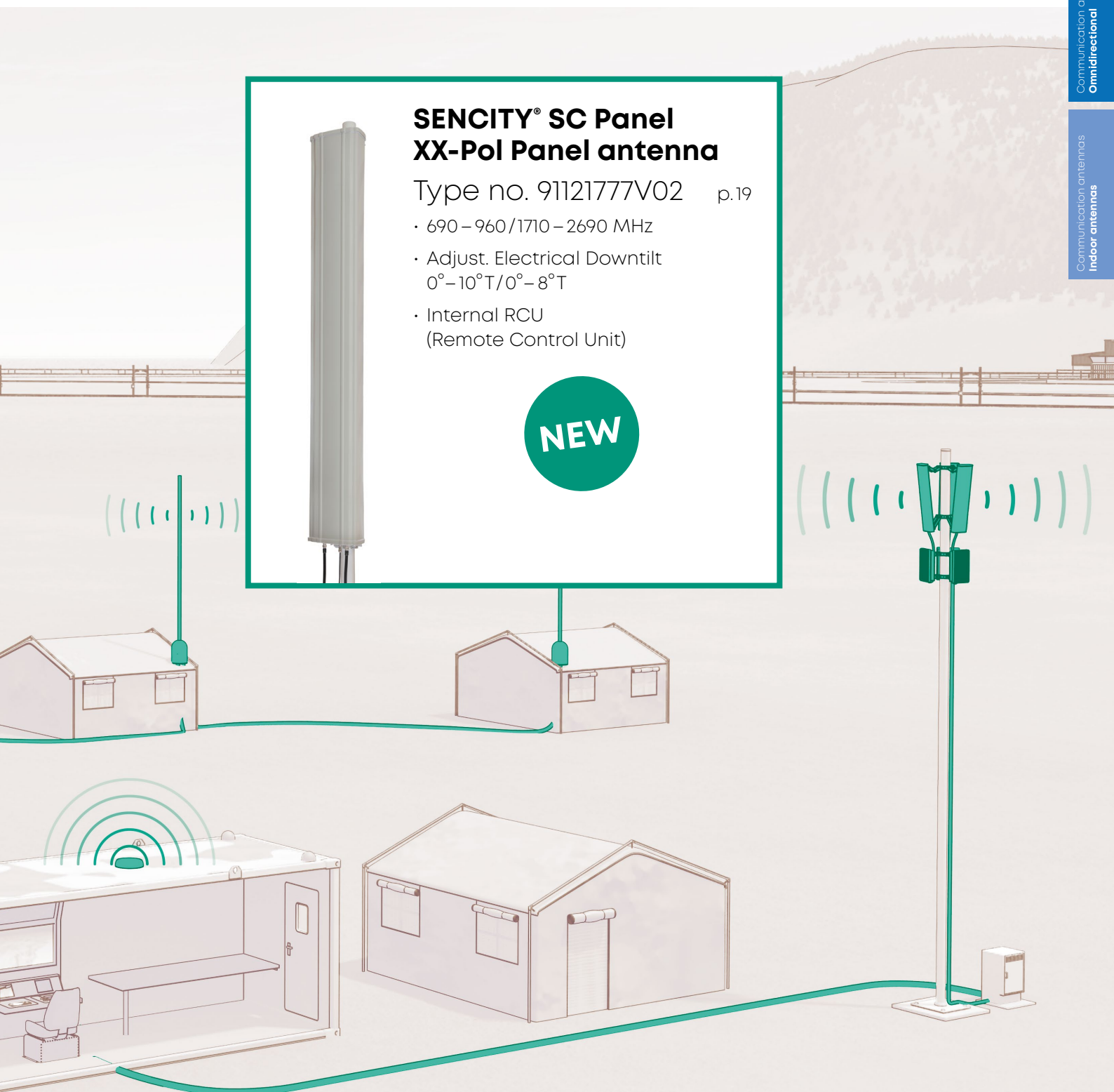


SENCITY® SC Panel XX-Pol Panel antenna

Type no. 91121777V02 p.19

- 690 – 960 / 1710 – 2690 MHz
- Adjust. Electrical Downtilt
0°–10°T/0°–8°T
- Internal RCU
(Remote Control Unit)

NEW



Communication antennas (C5ISR)

Directional antennas

Directional antennas

Description				Type no.	Height	Input	Page
X-Pol	380 – 500 MHz	65°	12 dBi	852626	992 mm	2 × 7/16 (female)	9
X-Pol	380 – 470 MHz	65°	14 dBi	91121514	1999 mm	2 × 7/16 (female)	10
NEW X-Pol	380 – 500 MHz	65°	15 dBi	1399.31.0261	2000 mm	2 × 4.3-10 (female)	11
X-Pol	380 – 500 MHz	88°	10.5 dBi	852628	1007 mm	2 × 7/16 (female)	12
X-Pol	380 – 500 MHz	88°	13.5 dBi	852629	1997 mm	2 × 7/16 (female)	13
X-Pol	380 – 500 MHz	65°	12 dBi	91121363	992 mm	1 × 7/16 (female)	14
X-Pol	380 – 500 MHz	65°	15 dBi	91121364	2000 mm	1 × 7/16 (female)	15
X-Pol	380 – 520 MHz	87°	9 dBi	91121402	785 mm	1 × 7/16 (female)	16
NEW X-Pol	698 – 4200 MHz		6 – 7 dBi	1399.31.0019	200 mm	2 × 4.3-10 (female)	17
NEW X-Pol	698 – 960 MHz	65°	16 dBi	1399.31.0200	1850 mm	2 × 4.3-10 (female)	18
NEW X-Pol	690 – 960 MHz 1710 – 2690 MHz	65°	16.5 dBi	91121777V02	2625 mm	4 × 4.3-10 (female)	19
X-Pol	1695 – 2690 MHz 3410 – 4200 MHz	70°/65°	7 – 8.5 dBi	1399.17.0248	184.8 mm	2 × N (female)	20
X-Pol	1695 – 2690 MHz 3300 – 4200 MHz	110°	4.8 – 5.9 dBi	1399.17.0250	184.8 mm	2 × N (female)	21

Directional antenna

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 antenna

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 antenna

Ordering information	SENCITY® SC Panel
	X-Pol Panel antenna
Type no.	1399.31.0261
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	15 dBi
Version	4.3-10 (female)
Height	2000 mm
Description	• Meets ETSI 300 019-1-4 class 4.1E
Item no.	85240962

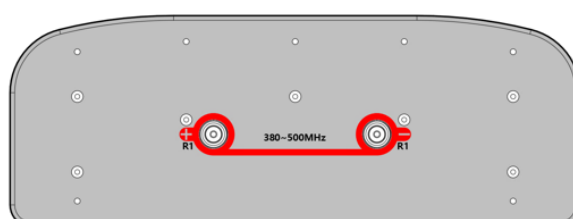
Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	14.0 dBi ±0.6	14.6 dBi ±0.6
3 dB beamwidth (h)	67° ±4	64° ±4
3 dB beamwidth (v)	18.8° ±1.5	16.5° ±1.7

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	25 °C
Front to back ratio	25 dB
Port isolation	30 dB

Mechanical data	
Dimensions (height × width × depth)	1995 × 480 × 170 mm
Weight	25.0 kg
Connector	2 × 4.3-10 (female)
Windload	frontal: 779 N at 150 km/h, lateral: 337 N at 150 km/h wind speed survival: 216 km/h

Environmental data	
Environmental conditions	outdoor
Remarks	Environmental tests: ETS 300 019-2-4

Material data	
Radome colour	grey
Radome material	Fiber-reinforced plastic (FRP)



Directional antenna

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 antenna

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 antenna

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

Directional antenna

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 antenna

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 antenna

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	• Includes 4G and 5G bands for IOT applications • Supports MIMO 2x2
Item no.	85184287

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 antenna

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 (FI)

Directional antenna

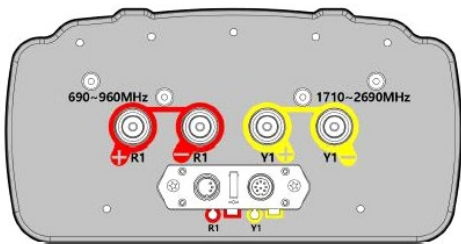


Ordering information	SENCITY® SC Panel
	XX-Pol Panel antenna
Type no.	91121777V02
Frequency range	690 – 960 / 1710 – 2690 MHz
Half-power beam width	65°
Gain	16.5 dBi
Electrical downtilt	Elect. downtilt 0° – 10° T
Version	4.3-10 (female)
Height	2625 mm
Description	• Adjust. Electrical Downtilt 0° – 10° T / 0° – 8° T • Internal RCU (Remote Control Unit)
Item no.	85254056

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	690 – 806 MHz	790 – 894 MHz	880 – 960 MHz	1710 – 1880 MHz
Gain	16.1 dBi	16.5 dBi	16.7 dBi	17.3 dBi
3 dB beamwidth (h)	66°	65°	63°	66°
3 dB beamwidth (v)	8.6°	7.7°	7.0°	7.2°
Composite power max.	300 W	300 W	300 W	300 W
	Band 5	Band 6	Band 7	Band 8
Frequency	1850 – 1990 MHz	1920 – 2170 MHz	2300 – 2400 MHz	2500 – 2690 MHz
Gain	17.7 dBi	18.2 dBi	18.7 dBi	18.6 dBi
3 dB beamwidth (h)	64°	62°	57°	59°
3 dB beamwidth (v)	6.6°	6.3°	5.7°	5.1°
Composite power max.	300 W	300 W	300 W	300 W

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Ambient temperature	25 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2625 × 295 × 145 mm
Weight	23.5 kg
Connector	4 × 4.3-10 (female)
Windload	frontal: 722.5 N, lateral: 429.1 N, at 150 km/h; wind speed survival: 216 km/h



Directional antenna

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 antenna

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)

Communication antennas (C5ISR)

Omnidirectional antennas

Omnidirectional antennas

Description				Type no.	Height	Input	Page
V-Pol Omni	370 – 430 MHz		2 dBi	848114	555 mm	1 × N female	23
V-Pol Omni	406 – 470 MHz		2 dBi	K862232	515 mm	1 × N female	24
V-Pol Omni	380 – 3800 MHz		3 – 8.5 dBi	92210003	540 mm	1 × 4.3-10 female	25
V-Pol Omni	380 – 400 MHz		7.5 dBi	K862748	2840 mm	1 × 7/16 female	26
V-Pol Omni	410 – 430 MHz		8 dBi	848657	3114 mm	1 × 7/16 female	27
V-Pol Omni	450 – 470 MHz		8.5 dBi	853266	3113 mm	1 × 7/16 female	28
V-Pol Omni	698 – 2690 MHz		2 – 5 dBi	1399.19.0225	33.2 mm	1 × SMA male	29
X-Pol Omni	380 – 7125 MHz		2 – 6 dBi	1399.17.0340	60 mm	4 × N male	30
SENCITY® SC X-Pol Omni-M portfolio overview							31

Omnidirectional SISO antenna

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 SISO antenna

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 SISO antenna

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 SISO antenna

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 SISO antenna

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 SISO antenna

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

Omnidirectional SISO antenna

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 MIMO antenna

Ordering information	SENCITY® SC OMNI-M antenna
Type no.	1399.17.0340
Frequency range	380 – 7125 MHz
Gain	2 – 6 dBi
Version	N (male)
Height	60 mm
Description	• Rugged omni-directional antenna for installation on outdoor cabinets • Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E • 4 separate ports for 2x2 TETRA/cellular MIMO and 2x2 Wifi MIMO • Meets ETSI 300 019-1-4 class 4.1E • Low profile housing, single hole mounting, easy cabling feedthrough
Item no.	85185573

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Name	TETRA/LTE450	Cellular	Cellular	Cellular
Frequency	380 – 470 MHz	694 – 960 MHz	1350 – 2700 MHz	3300 – 4200 MHz
VSWR	2.5	2	2	2
Gain	3 dBi	2 dBi	4 dBi	4 dBi
Port isolation (dB)	3 dBi	8 dBi	15 dBi	20 dBi
Composite power max.	40 W	40 W	40 W	40 W
	Band 5	Band 6	Band 7	
Name	Cellular	Wi-Fi	Wi-Fi	
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	
VSWR	2	2	2	
Gain	5 dBi	6 dBi	6 dBi	
Port isolation (dB)	20 dBi	20 dBi	20 dBi	
Composite power max.	40 W	30 W	30 W	

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	60 × 210 mm
Weight	1.1 kg
Connector	4 × N (male)

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

Material data	
Radome colour	RAL 7044 (light grey)
Base material	Aluminum
Radome material	PC (Polycarbonate)

Full portfolio of types see page 31

SENCITY® SC Omni-M portfolio

The SENCITY® SC Omni-M portfolio is designed for 2x2, 3x3 or 4x4 MIMO operation in cellular and Wi-Fi applications and in addition comes with SISO or 2x2 TETRA/LTE450 options. It offers a variety of combinations of up to 9 radiators within one housing and comes with an GNSS option for L1, L2, L5 operation.

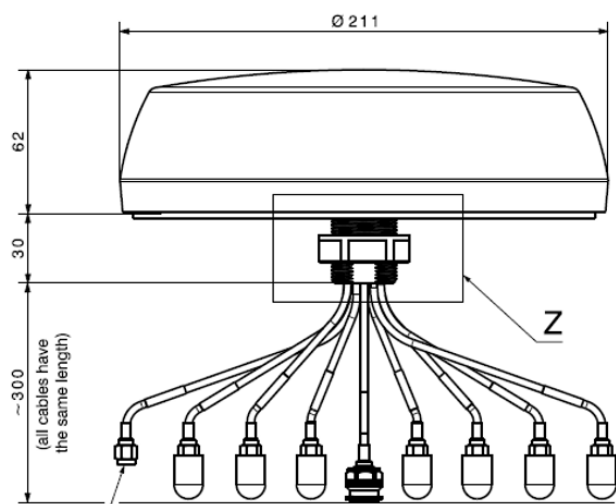
For all versions is applicable:

- Frequency Range 380 – 7125 MHz
- Cable length 500 mm
- Connector Type TNC (GNSS)
- Connector Type N (all others)
- Radom colour RAL 7044 (light grey)

The standard versions are listed below:

No of ports				Product ID	Item No
Tetra, CDMA/ LTE410/450	Cellular & Wi-Fi	GNSS (L1)	GNSS (L1+L2+L5)		
380 – 470MHz	694 – 7125 MHz	1559 – 1610 MHz	1164 – 1279 MHz & 1559 – 1610 MHz		
1		0	0	1399.17.0330	85185546
1		0	1	1399.99.0331	85185549
1		1	0	1399.99.0330	85185551
1	2	0	0	1399.17.0332	85185553
1	2	0	1	1399.99.0333	85185555
1	2	1	0	1399.99.0332	85185556
1	3	0	0	1399.17.0334	85185558
1	3	0	1	1399.99.0335	85185561
1	3	1	0	1399.99.0334	85185563
1	4	0	0	1399.17.0336	85185565
1	4	0	1	1399.99.0337	85185568
1	4	1	0	1399.99.0336	85185569
2		0	0	1399.17.0338	85185570
2		0	1	1399.99.0339	85185571
2		1	0	1399.99.0338	85185572
2	2	0	0	1399.17.0340	85185573
2	2	0	1	1399.99.0341	85185574
2	2	1	0	1399.99.0340	85185575
2	3	0	0	1399.17.0342	85192514
2	3	0	1	1399.99.0343	85192515
2	3	1	0	1399.99.0342	85192516
2	4	0	0	1399.17.0344	85192517
2	4	0	1	1399.99.0345	85192518
2	4	1	0	1399.99.0344	85192520

Outline drawing and mounting instruction are the same for every antenna.



Communication antennas (C5ISR)

Indoor antennas

Indoor omnidirectional antennas

Description				Type no.	Height	Input	Page
V-Pol Omni	380 – 405 MHz		2 dBi	91121388	77 mm	1 × N female	33
V-Pol Omni	405 – 430 MHz		2 dBi	91121440	77 mm	1 × N female	34
V-Pol Omni	450 – 470 MHz		2 dBi	91121743	77 mm	1 × N female	35
V-Pol Omni	380 – 6000 MHz		1 – 6 dBi	92210001	189.8 mm	1 × N female	36
V-Pol Omni	380 – 6000 MHz		1 – 6 dBi	92210002	189.8 mm	1 × 4.3-10 female	36
V-Pol Omni	690 – 6400 MHz		6 dBi	1399.31.0006	69 mm	1 × 4.3-10 female	37
X-Pol Omni	698 – 3800 MHz		6 dBi	1399.31.0010	87 mm	2 × 4.3-10 female	38
XX-Pol Omni	617 – 6000 MHz		6 dBi	1399.32.0020	40 mm	4 × NEX10 female	39

Indoor directional antennas

Description				Type no.	Height	Input	Page
V-Pol	380 – 470 MHz	90°	7 dBi	1399.17.0010	302 mm	1 × N female	40
V-Pol	380 – 470 MHz	90°	7 dBi	1399.31.0020	302 mm	1 × 4.3-10 female	41
X-Pol	698 – 960 MHz 1695 – 2700 MHz 3100 – 4200 MHz	85°/65°	6 – 7 dBi	1399.31.0022	200 mm	2 × 4.3-10 female	42

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
	X-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	• 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
	XX-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.	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.	85198125

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)

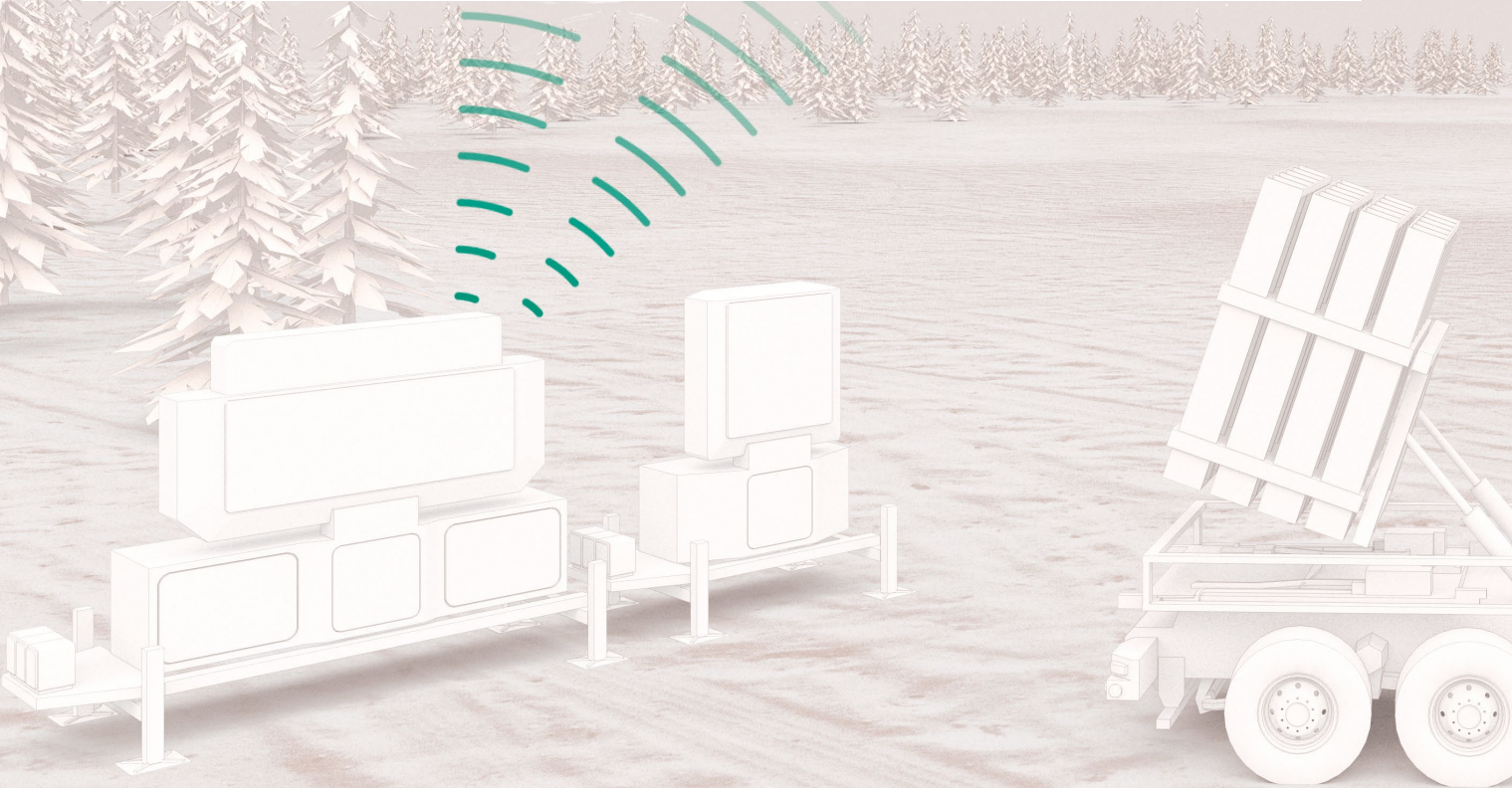
Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
Flammability Rating	UL 94-V0
RoHS 2011/65/EU	compliant
REACH 2006/1907/EC	compliant

Material data	
Radome	PC (Polycarbonate)
Colour	white



The new vehicle antenna family for defense applications

- Vehicle antennas for jamming and communication applications
 - Broadband performances
 - Available as SISO or MIMO
 - Extra round diagrams with newly designed dipoles
 - Available with or without inbuilt GNSS (GPS) antennas
 - High power capabilities
 - Extra rugged design based on decades of experience
 - Conformity to MIL-STD 810H
 - Meet EN50155 standard
- More options on request!**



Environmental data			
Operation temperature	-40 to 85 °C	Flammability rating	EN 45545-2
Storage temperature	-55 to 85 °C	Solar radiation	DIN 75220
Transport temperature	-55 to 85 °C	Standards	MIL-STD 810H
Ingress protection (IP Rating)	Mated / IP67, IP69	CE	

Interface and Material data			
96 hours salt spray test.			



SENCITY® Shield Ultra 400 – 7125 MHz, 3 – 7 dBi

Type no. 1399.17.0280

p.47

Rugged vehicle antenna
for jamming applications

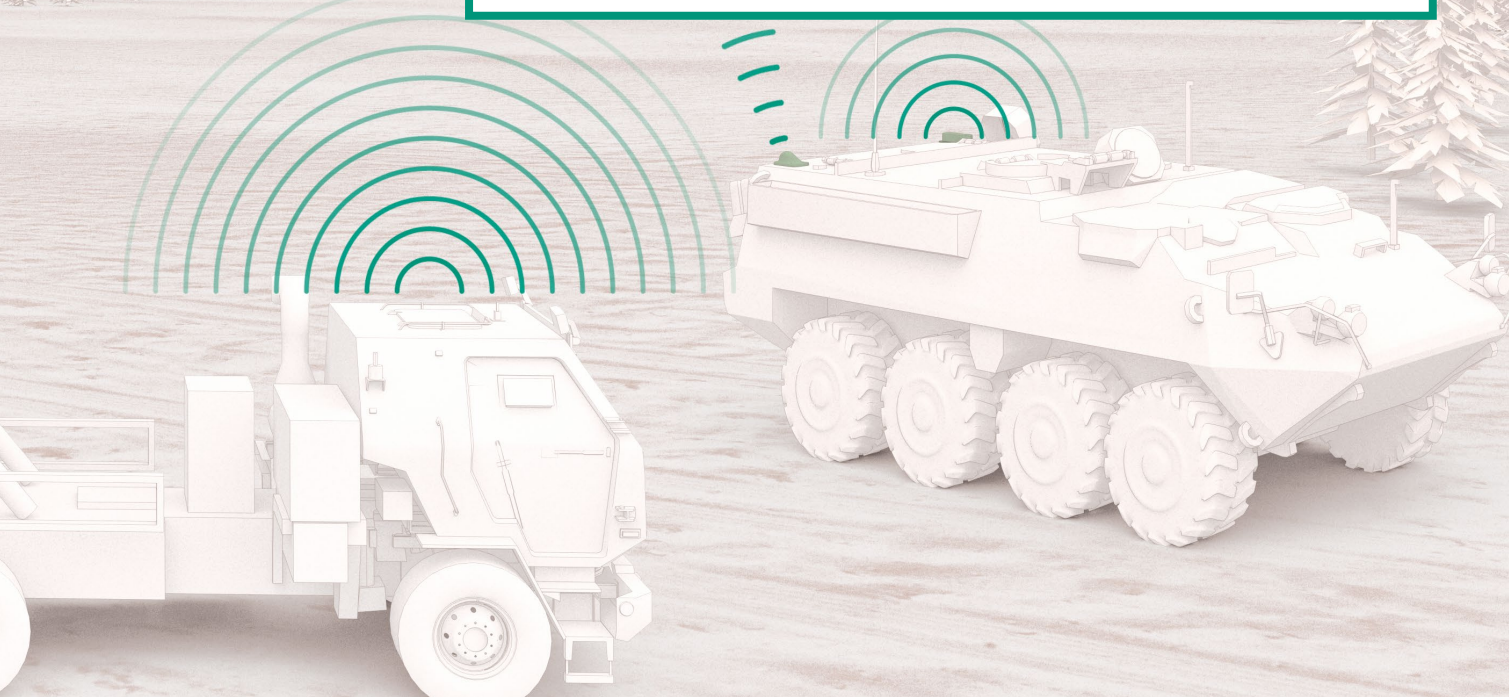


SENCITY® Shield Low Profile 790 – 6425 MHz, 5 dBi

Type no. 1399.17.0284

p. 49

Rugged vehicle antenna for jamming
and communication applications



SENCITY® SC Mag.-Mount Extra hardened vehicle antenna

TypeNo. 1399.19.0060

p.57

Covering all necessary systems from TETRA, LTE410/
LTE450, Wi-Fi and 2G – 5G for ultimate flexibility

Ruggedized military vehicle antennas



Jamming specialists

Description				Type no.	Height	Input	Page
SENCITY® Shield Ultra	400 – 7125 MHz	3 – 7 dBi	• Extra round pattern • High power • Small bandwidth	1399.17.0280	154 mm	1 × N female	47
SENCITY® Shield MIMO	2400 – 6000 MHz	6.5 – 8 dBi		1399.17.0281	90 mm	1 × N female	48

Jamming and communication

Description				Type no.	Height	Input	Page
SENCITY® Shield Low Profile	790 – 6425 MHz	5 dBi	• «Normal» omni patterns • High Power • Broad bandwidth • One type inkl. MIMO	1399.17.0284	40 mm	1 × N female	49
SENCITY® Shield MIMO	617 – 7125 MHz	5 – 7.5 dBi		1399.17.0286	81.6 mm	2 × N female	50
SENCITY® Shield	694 – 6425 MHz	5 – 8.5 dBi		1399.17.0287	90 mm	1 × N female	51
SENCITY® Shield Ultra	380 – 6425 MHz	3 – 8 dBi		1399.17.0288	154 mm	1 × N female	52

Communication incl. GPS

Description				Type no.	Height	Input	Page
SENCITY® Shield Low Profile	790 – 6425 MHz	5 dBi	• «Normal» Omni patterns • Low Power (80 W) • Broad bandwidth • GPS L1+L2 • One type inkl. MIMO • One type inkl. Mag. Mount	1399.99.0284	40 mm	1 × N female	53
SENCITY® Shield MIMO	617 – 7125 MHz	5 – 7.5 dBi		1399.99.0286	81.6 mm	2 × N female	54
SENCITY® Shield	694 – 6425 MHz	5 – 8.5 dBi		1399.99.0287	90 mm	1 × N female	55
SENCITY® Shield Ultra	380 – 6425 MHz	3 – 8 dBi		1399.99.0288	154 mm	1 × N female	56
SENCITY® special communication antenna	380 – 7125 MHz	4 – 6 dBi		1399.19.0060	130 mm	6 × SMA fem.	57

Jamming specialists



Ordering information	SENCITY® Shield Ultra
Type no.	1399.17.0280
Frequency range	400 – 7125 MHz
Gain	3 – 7 dBi
Height	154 mm
Description · Rugged vehicle antenna for jamming applications · Optimized omnidirectional pattern with low ripple for improved coverage · Ultra broadband performance starting at 400 Mhz up to 7.125 GHz · Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E · High power capabilities · Meets MIL-STD 810H	
Item no.	85179239

Electrical data per band	Band 1	Band 2	Band 3
Frequency	400 – 500 MHz	500 – 960 MHz	960 – 2700 MHz
VSWR	2.5	1.8	1.5
Gain	3 dBi	3.5 dBi	5 dBi
Composite Power max	600 W	600 W	400 W
	Band 4	Band 5	Band 6
Frequency	2700 – 4200 MHz	4200 – 5875 MHz	5875 – 7125 MHz
VSWR	1.5	1.5	1.5
Gain	7 dBi	7 dBi	7 dBi
Composite Power max	360 W	300 W	250 W

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. Indicated gain values will be achieved on a metallic ground plane of 1 × 1 m or larger.

Ports	Port 1
Connector	N, jack (female)
Polarization	vertical
DC Grounded	Yes

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Port 1	x	x	x	x	x	x

Mechanical data	
Weight	1.5 kg
Dimensions (height × width × depth)	154 mm × 100 mm × 256 mm
Remarks	Low corrosion design according to MIL-F-14072(E).

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	black

Jamming specialists

Ordering information	SENCITY® Shield
Type no.	1399.17.0281
Frequency range	2400 – 6000 MHz
Gain	6.5 – 8 dBi
Height	90 mm
Description • Rugged vehicle antenna for Jamming applications • Optimized omnidirectional pattern with low ripple for improved coverage • Covers 2400 MHz to 6000 MHz frequency bands • High power capabilities • Meets MIL-STD 810H • Low profile design	
Item no.	85179247

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	
Impedance	50 Ohm
VSWR	2
Ambient temperature	25 °C
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5m or larger. Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1
Connector	N, jack (female)
Polarization	vertical
DC grounded	Yes

Connections	Band 1	Band 2	Band 3
Port 1	x	x	x

Mechanical data	
Weight	1 kg
Dimensions (height × width × depth)	90 mm × 100 mm × 256 mm
Remarks	Low corrosion design according to MIL-F-14072(E).

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	black

Jamming and communication

Ordering information	SENCITY® Shield
	Low Profile
Type no.	1399.17.0284
Frequency range	790 – 6425 MHz
Gain	5 dBi
Height	40 mm
Description Rugged vehicle antenna for Jamming and Communication applications. Broadband performance starting at 790 Mhz up to 6.425GHz. Supports 2G/3G/4G cellular, Wifi 2.4/5 GHz, Wifi 6E. High power capabilities. Meets MIL-STD 810H. Extremely low profile (40mm).	
Item no.	85243721

Electrical data per band	Band 1	Band 2	Band 3	Band 4	Band 5
Frequency	790 – 806 MHz	806 – 870 MHz	870 – 960 MHz	1359 – 2700 MHz	4900 – 6425 MHz
VSWR	2.2	1.9	1.6	2	2.1
Composite power max	550 W	550 W	550 W	350 W	350 W

Electrical data	
Impedance	50 Ohm
Gain	5 dBi
Ambient temperature	25 °C
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.2×0.2 m or larger for the 806 – 6425 MHz frequency band. Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1
Connector	N, jack (female)
Polarization	vertical
DC Grounded	Yes

Connections	Band 1	Band 2	Band 3	Band 4	Band 5
Port 1	x	x	x	x	x

Mechanical data	
Weight	0.5 kg
Dimensions (height × width × depth)	40 × 100 × 145 mm
Remarks	Low corrosion design according to MIL-F-14072(E).

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	black

Jamming and communication

Ordering information	SENCITY® Shield MIMO
Type no.	1399.17.0286
Frequency range	617 – 7125 MHz
Gain	5 – 7.5 dBi
Height	81.6 mm
Description	• Rugged vehicle antenna for Jamming and Communication applications. • Supports 2x2 Cellular MIMO for 3G, 4G and 5G. • Supports 2x2 Wi-Fi MIMO in all Wi-Fi 6E bands. • High power capabilities. • Meets MIL-STD 810H
Item no.	85244554

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	617 – 694 MHz	694 – 790 MHz	790 – 960 MHz	1350 – 2700 MHz
VSWR	1.7	1.7	1.7	1.8
Gain	6 dBi	5 dBi	6 dBi	7.5 dBi
Composite power max.	250 W	180 W	130 W	130 W
	Band 5	Band 6	Band 7	
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 7125 MHz	
VSWR	2	2.1	1.9	
Gain	6.5 dBi	6.5 dBi	7.5 dBi	
Composite power max.	100 W	100 W	100 W	

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. In the 790 – 7125 MHz band, indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1 × 1 m or larger.

Ports	Port 1	Port 2
Connector	N, jack (female)	N, jack (female)
Cable type	RADOX_RF_142	RADOX_RF_142
Cable length	0.2 m	0.2 m
Polarization	vertical	vertical
DC Grounded	Yes	Yes

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
Port 1	x	x	x	x	x	x	x
Port 2	x	x	x	x	x	x	x

Mechanical data	
Dimensions (height × width × depth)	81.6 mm × 102.5 mm × 352.5 mm
Remarks	Low corrosion design according to MIL-DTL-14072(E).

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	black

Jamming and communication

Ordering information	SENCITY® Shield
Type no.	1399.17.0287
Frequency range	694 – 6425 MHz
Gain	5 – 8.5 dBi
Height	90 mm
Description	• Rugged vehicle antenna for Jamming and Communication applications. • Broadband performance starting at 694 MHz up to 6.425 GHz • Supports 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands. • High power capabilities. • Meets MIL-STD 810H • Low profile design
Item no.	85244777

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	694 – 790 MHz	790 – 960 MHz	1350 – 1710 MHz	1710 – 2700 MHz
VSWR	2	1.5	2.2	1.5
Gain	5 dBi	5 dBi	6 dBi	6 dBi
Composite power max.	550 W	550 W	450 W	350 W
	Band 5	Band 6	Band 7	
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 6425 MHz	
VSWR	1.5	1.7	1.5	
Gain	8.5 dBi	7 dBi	7.5 dBi	
Composite power max.	350 W	300 W	300 W	

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5×0.5 m or larger. In the 790 – 5935 MHz band, Indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1
Connector	N, jack (female)
Polarization	vertical
DC Grounded	Yes

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
Port 1	x	x	x	x	x	x	x

Mechanical data	
Weight	1 kg
Dimensions (height × width × depth)	90 mm × 100 mm × 256 mm
Remarks	Low corrosion design according to MIL-DTL-14072(E).

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	black

Jamming and communication

Ordering information	SENCITY® Shield Ultra
Type no.	1399.17.0288
Frequency range	380 – 6425 MHz
Gain	3 – 8 dBi
Height	154 mm
Description	• Rugged vehicle antenna for Jamming and Communication applications. • Ultra broadband performance starting at 380 MHz up to 7.125 GHz. • Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E • High power capabilities. • Meets MIL-STD 810H
Item no.	85245225

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 694 MHz	694 – 960 MHz	1350 – 2700 MHz
VSWR	1.8	1.8	1.5
Gain	3 dBi	4 dBi	7.5 dBi
Composite Power max	600 W	600 W	350 W
	Band 4	Band 5	Band 6
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 6425 MHz
VSWR	1.5	1.7	1.5
Gain	6.5 dBi	7 dBi	8 dBi
Composite Power max	350 W	300 W	300 W

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. Indicated gain values will be achieved on a metallic ground plane of 1 x 1 m or larger.

Ports	Port 1
Connector	N, jack (female)
Polarization	vertical
DC Grounded	Yes

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Port 1	x	x	x	x	x	x

Mechanical data	
Weight	1.5 kg
Dimensions (height × width × depth)	154 mm × 100 mm × 256 mm
Remarks	Low corrosion design according to MIL-F-14072(E).

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	black

Ruggedized military vehicle antennas
Communication incl. GPS



Ordering information	SENCITY® Shield
	Low Profile
Type no.	1399.99.0284
Frequency range	790 – 6425 MHz
Gain	5 dBi
Height	40 mm
Description Rugged vehicle antenna for Jamming and Communication applications. Broadband performance starting at 790 MHz up to 6.425 GHz. Supports 2G/3G/4G cellular, Wifi 2.4/5 GHz, Wifi 6E. Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1. Meets MIL-STD 810H. Extremely low profile (40mm).	
Item no.	85244558

Electrical data per band	Band 1	Band 2	Band 3
Frequency	790 – 806 MHz	806 – 870 MHz	870 – 960 MHz
VSWR	2.2	1.9	1.6
Gain	5 dBi	5 dBi	5 dBi
Ambient Temperature	25 °C	25 °C	25 °C
Composite Power max	80 W	80 W	80 W
	Band 4	Band 5	Band 6
Frequency	1359 – 2700 MHz	4600 – 6425 MHz	1559 – 1610 MHz
VSWR	2	2.1	1.8
Gain	5 dBi	5 dBi	
Ambient Temperature	25 °C	25 °C	
Composite Power max	80 W	80 W	

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.2×0.2 m or larger for the 806 – 6425 MHz frequency band. Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1	Port 2
Connector	N, jack (female)	TNC, plug (male)
Cable length		0.21 m
Polarization	vertical	circular right
DC Grounded	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Port 1	x	x	x	x	x	
Port 2						x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 2	Weight	0.6 kg
Input voltage	3 V – 5 V	Dimensions (height × width × depth)	40 mm × 100 mm × 145 mm
Current consumption	20 mA	Remarks	Low corrosion design according to MIL-F-14072(E).
Noise figure	1.6 dB	Interface and material data	
Total gain @90° elevation	30 dBic	Radome material	PC (Polycarbonate)
		Radome colour	black

Ruggedized military vehicle antennas
Communication incl. GPS



Ordering information	SENCITY® Shield MIMO
Type no.	1399.99.0286
Frequency range	617 – 7125 MHz
Gain	5 – 7.5 dBi
Height	81.6 mm
Description • Rugged vehicle antenna for Jamming and Communication applications. • Supports 2x2 Cellular MIMO for 3G, 4G and 5G. • Supports 2x2 Wi-Fi MIMO in all Wi-Fi 6E bands. • Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 • Meets MIL-STD 810H	
Item no.	85244560

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	617 – 694 MHz	694 – 790 MHz	790 – 960 MHz	1350 – 2700 MHz
VSWR	1.7	1.7	1.7	1.8
Gain	6 dBi	5 dBi	6 dBi	7.5 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite power max.	80 W	80 W	80 W	80 W
	Band 5	Band 6	Band 7	Band 8
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 7125 MHz	1559 – 1610 MHz
VSWR	2	2.1	1.9	1.8
Gain	6.5 dBi	6.5 dBi	7.5 dBi	
Ambient Temperature	25 °C	25 °C	25 °C	
Composite power max.	80 W	80 W	80 W	

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. In the 790 – 7125 MHz band, indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1	Port 2	Port 3
Connector	N, jack (female)	N, jack (female)	TNC, plug (male)
Cable type	RADOX_RF_142	RADOX_RF_142	
Cable length	0.24 m	0.12 m	0.17 m
Polarization	vertical	vertical	circular right
DC Grounded	Yes	Yes	

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8
Port 1	x	x	x	x	x	x	x	
Port 2	x	x	x	x	x	x	x	
Port 3								x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 3	Dimensions (height × width × depth)	81.6 mm × 102.5 mm × 352.5 mm
Input voltage	3 V – 5 V	Remarks	Low corrosion design according to MIL-DTL-14072(E).
Current consumption	20 mA	Interface and material data	
Noise figure	1.6 dB	Radome material	PC (Polycarbonate)
Total gain @90° elevation	30 dBic	Radome colour	black

Ruggedized military vehicle antennas
Communication incl. GPS



Ordering information	SENCITY® Shield
Type no.	1399.99.0287
Frequency range	694 – 960 / 1350 – 6425 MHz
Gain	5 – 8.5 dBi
Height	99 mm

Description

- Rugged vehicle antenna for Jamming and Communication applications.
- Broadband performance starting at 694 MHz up to 6.425 GHz
- Supports 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands.
- Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1
- Meets MIL-STD 810H
- Low profile design.

Item no.	85244779
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Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	694 – 790 MHz	790 – 960 MHz	1350 – 1710 MHz	1710 – 2700 MHz
VSWR	2	1.5	2.2	1.5
Gain	5 dBi	5 dBi	6 dBi	6 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite power max.	80 W	80 W	80 W	80 W
	Band 5	Band 6	Band 7	Band 8
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1610 MHz
VSWR	1.5	1.7	1.5	1.8
Gain	8.5 dBi	7 dBi	7.5 dBi	
Ambient Temperature	25 °C	25 °C	25 °C	
Composite power max.	80 W	80 W	80 W	

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. In the 790 – 7125 MHz band, Indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1	Port 2
Connector	N, jack (female)	TNC, plug (male)
Cable length		0.21 m
Polarization	vertical	circular right
DC Grounded	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8
Port 1	x	x	x	x	x	x	x	
Port 2								x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 2	Weight	1.1 kg
Input voltage	3 V – 5 V	Dimensions (height × width × depth)	90 mm × 100 mm × 256 mm
Current consumption	20 mA	Remarks	Low corrosion design according to MIL-F-14072(E).
Noise figure	1.6 dB	Interface and material data	
Total gain @90° elevation	30 dBic	Radome material	PC (Polycarbonate)
		Radome colour	black

Ruggedized military vehicle antennas
Communication incl. GPS



Ordering information	SENCITY® Shield Ultra
Type no.	1399.99.0288
Frequency range	380 – 960 / 1350 – 6425 MHz
Gain	3 – 8 dBi
Height	154 mm
Description	• Rugged vehicle antenna for Jamming and Communication applications. • Ultra broadband performance starting at 380 MHz up to 7.125 GHz. • Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E and GNSS (Beidou, Galileo, GPS, Glonass) • Meets MIL-STD 810H
Item no.	85245226

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 694 MHz	694 – 960 MHz	1350 – 2700 MHz	2700 – 3300 MHz
VSWR	1.8	1.8	1.5	1.5
Gain	3 dBi	4 dBi	7.5 dBi	6.5 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite power max.	80 W	80 W	80 W	80 W
	Band 5	Band 6	Band 7	
Frequency	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1610 MHz	
VSWR	1.7	1.5	1.8	
Gain	7 dBi	8 dBi		
Ambient Temperature	25 °C	25 °C		
Composite power max.	80 W	80 W		

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. Indicated gain values will be achieved on a metallic ground plane of 1 × 1 m or larger.

Ports	Port 1	Port 2
Connector	N, jack (female)	TNC, plug (male)
Cable length		0.21 m
Polarization	vertical	circular right
DC Grounded	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
Port 1	x	x	x	x	x	x	
Port 2							x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 2	Weight	1.5 kg
Input voltage	3 V – 5 V	Dimensions (height × width × depth)	154 mm × 100 mm × 256 mm
Current consumption	20 mA	Remarks	Low corrosion design according to MIL-F-14072(E).
Noise figure	1.6 dB	Interface and material data	
Total gain @90° elevation	30 dBic	Radome material	PC (Polycarbonate)
		Radome colour	black

Ruggedized military vehicle antennas
Communication incl. GPS



Ordering information	SENCITY® Mag.-Mount antenna
Type no.	1399.19.0060
Frequency range	380 – 7125 MHz
Gain	4 – 6 dBi
Height	130 mm
Description • Rugged vehicle rooftop multi-band antenna 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 2x2 cellular MIMO and 2x2 Wifi MIMO, TETRA plus GNSS.	
Item no.	–

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
Impedance	50 Ohm	50 Ohm	50 Ohm	50 Ohm
Gain	4 dBi	4 dBi	6 dBi	6 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
	Band 5	Band 6	Band 7	
Frequency	4900 – 6425 MHz	4900 – 7125 MHz	1559 – 1610 MHz	
VSWR	2	1.6	2	
Impedance	50 Ohm	50 Ohm		
Gain	6 dBi	6 dBi		
Ambient Temperature	25 °C	25 °C		

Ports	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6
Port name	TETRA	LTE	LTE	Wi-Fi	Wi-Fi	GNSS
Connector	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)
Polarization	vertical	vertical	vertical	vertical	vertical	circular right
DC grounded	No	No	No	Yes	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Port 1	x					
Port 2		x	x			
Port 3		x	x			
Port 4				x	x	
Port 5				x	x	
Port 6						x

General data	
	Ground plane: Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. Indicated VSWR values are mostly valid for installations on non-metallic surfaces also (no specific ground plane requirements), apart from VSWR 2.5 below 840 MHz and VSWR 3 below 750 MHz.



Electrical data LNA

LNA noise figure	2 dB
LNA current consumption	30 mA
LNA is connected to	Port 6
EMC	EN 50121-3-2
LNA input voltage range	3 – 5V
Total gain @90° elevation	30 dBIC

Values for LNA power consumption, noise figure and gain are given for a 5V operating voltage and may differ slightly for a lower voltage

Mechanical data

Dimensions (height × width × depth)	130 × 83 × 250 mm
Weight	2.5 kg
Height of whip antenna	440 mm

Environmental data

Environmental conditions	outdoor	2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
Operation temperature	–40 to 85 °C	REACH 1907/2006/EC	compliant
Storage temperature	–55 to 85 °C	Flammability: ECE-R118, EN 45545-2	
Transport temperature	–40 to 85 °C	Environmental tests: ISO 16750:2010	
IP rating	IP68, IP69	Environmental tests: ISO 50155	
Solar radiation	DIN 75220	Low corrosion designed acc. to MIL-F-14072D	

Material data

Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate/base plate material	Aluminium

Additional views

Vehicle antennas

Other vehicle antennas

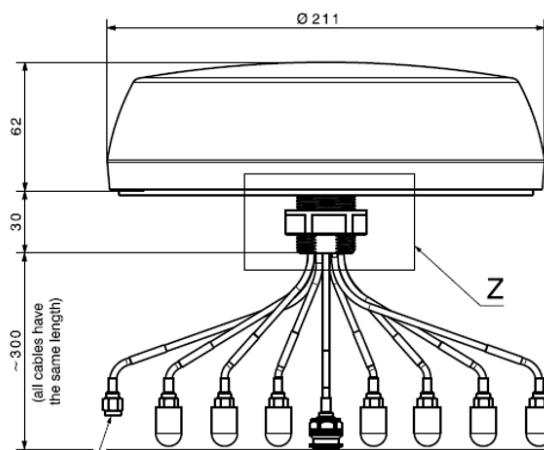
The SENCITY® Tram MULTI portfolio is designed for 4x4 MIMO operation in cellular, 8x8 MIMO in Wi-Fi networks and in addition comes with 2x2 TETRA options. It offers a variety of combinations of up to 9 radiators within one housing and comes with an GNSS option for L1, L2, L5 operation. The standard versions are listed below:

Product ID	Article No.	Cellular	Wi-Fi	TETRA	GNSS
1399.19.0208	85185402	2			
1399.99.0209	85185403	2			L1+L2+L5
1399.99.0208	85185404	2			L1
1399.19.0210	85185371	2	2		
1399.99.0211	85185373	2	2		L1+L2+L5
1399.99.0210	85185374	2	2		L1
1399.19.0212	85185375	2	3		
1399.99.0213	85185379	2	3		L1+L2+L5
1399.99.0212	85185381	2	3		L1
1399.19.0214	85185382	2	4		
1399.99.0215	85185383	2	4		L1+L2+L5
1399.99.0214	85185384	2	4		L1
1399.19.0216	85185385	4			
1399.99.0217	85185386	4			L1+L2+L5
1399.99.0216	85185387	4			L1
1399.19.0218	85185388	4	2		
1399.99.0219	85185389	4	2		L1+L2+L5
1399.99.0218	85185390	4	2		L1
1399.19.0220	85185391	4	3		
1399.99.0221	85185395	4	3		L1+L2+L5
1399.99.0220	85185397	4	3		L1
1399.19.0232	85185406	4	4		
1399.99.0233	85185407	4	4		L1+L2+L5
1399.99.0232	85185408	4	4		L1
1399.19.0234	85185409		6		
1399.99.0235	85185416		6		L1+L2+L5
1399.99.0234	85185417		6		L1

Product ID	Article No.	Cellular	Wi-Fi	TETRA	GNSS
1399.19.0236	85185418		8		
1399.99.0237	85185419		8		L1+L2+L5
1399.99.0236	85185420		8		L1
1399.19.0238	85185512			1	
1399.99.0239	85185513			1	L1+L2+L5
1399.99.0238	85185514			1	L1
1399.19.0240	85185515		2	1	
1399.99.0241	85185516		2	1	L1+L2+L5
1399.99.0240	85185517		2	1	L1
1399.19.0242	85185518		3	1	
1399.99.0243	85185523		3	1	L1+L2+L5
1399.99.0242	85185524		3	1	L1
1399.19.0244	85185525		4	1	
1399.99.0245	85185526		4	1	L1+L2+L5
1399.99.0244	85185527		4	1	L1
1399.19.0246	85185528			2	
1399.99.0247	85185529			2	L1+L2+L5
1399.99.0246	85185533			2	L1
1399.19.0248	85185534		2	2	
1399.99.0249	85185535		2	2	L1+L2+L5
1399.99.0248	85185536		2	2	L1
1399.19.0250	85185038		3	2	
1399.99.0251	85185037		3	2	L1
1399.99.0250	85185036		3	2	L1
1399.19.0252	85185039		4	2	
1399.99.0253	85185041		4	2	L1+L2+L5
1399.99.0252	85185042		4	2	L1

Description	Type no.	Height	Page
SENCITY® Tram MULTI 380 – 7125 MHz 2 – 6 dBi 7 separate ports for 2x2 TETRA/cellular MIMO and 4x4 Wifi MIMO plus GNSS	1399.99.0253	60 mm	60

Outline drawing and mounting instruction are the same for every antenna.



MIMO antenna

Ordering information	SENCITY® Tram MULTI
Type no.	1399.99.0253
Frequency range	380 – 7125 MHz
Gain	2 – 6 dBi
Height	60 mm
Description • Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E and Dual Band GNSS (Beidou, Galileo, GPS, Glonass) • 7 separate ports for 2x2 TETRA/cellular MIMO and 4x4 Wifi MIMO plus GNSS • Fire retardant acc. to EN45545-2 and NFPA-130 • Meets EN50155 railway standard • Single hole mounting, easy cabling feedthrough	
Item no.	85185041

Electrical data per band	Band 1	Band 2	Band 3	Band 4
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
Isolation between Ports	3 dBi	8 dBi	15 dBi	20 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	40 W	40 W	40 W	40 W
	Band 5	Band 6	Band 7	Band 8
Name	Cellular	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1164 – 1279 MHz
VSWR	2.1	2.1	2.1	1.5
Gain	5 dBi	6 dBi	6 dBi	
Isolation between Ports	20 dBi	20 dBi	20 dBi	
Ambient Temperature	25 °C	25 °C	25 °C	
Composite Power max	40 W	30 W	30 W	
	Band 9			
Name	GNSS			
Frequency	1559 – 1610 MHz			
VSWR	1.8			

Electrical data	
Impedance	50 Ohm

Ports	Port 1 to 2	Port 3 to 6	Port 7
Port name	Tetra 1-2 (White)	Wi-Fi 1-4 (blue)	GNSS (black)
Connector	SMA, plug (male)	SMA, plug (male)	TNC, plug (male)
Cable media type	RADOX_RF_316_D	RADOX_RF_316_D	RADOX_RF_316_D
Cable length	0.3 m	0.3 m	0.3 m
Polarization	vertical	vertical	circular right
DC grounded	Yes	Yes	No

→

Connections			
	Port 1 to 2	Port 3 to 6	Port 7
Band 1	x		
Band 2	x		
Band 3	x		
Band 4	x		
Band 5	x		
Band 6		x	
Band 7		x	
Band 8			x
Band 9			x

Electrical data LNA	
LNA is connected to	Port 7
Input voltage	3 – 5 V
Current consumption	45 mA
Noise figure	2 dB
Gain	38 dB
Total gain @90° elevation	42 dBiC

Mechanical data	
Weight	1.1 kg
Dimensions (height × diameter)	60 × 210 mm

Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	RAL 9017 (black)
Back plate/base plate material	Aluminium

Environmental data		
Operation temperature	–40 to 85 °C	
Storage temperature	–40 to 85 °C	
Transport temperature	–40 to 85 °C	
Environment (application)	Outdoor	
Ingress protection (IP Rating)	Mated / IP68, IP69k	
Flammability rating	EN 45545-2	NFPA-130
Solar radiation	DIN 75220	
	CE	

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate/base plate material	Aluminium

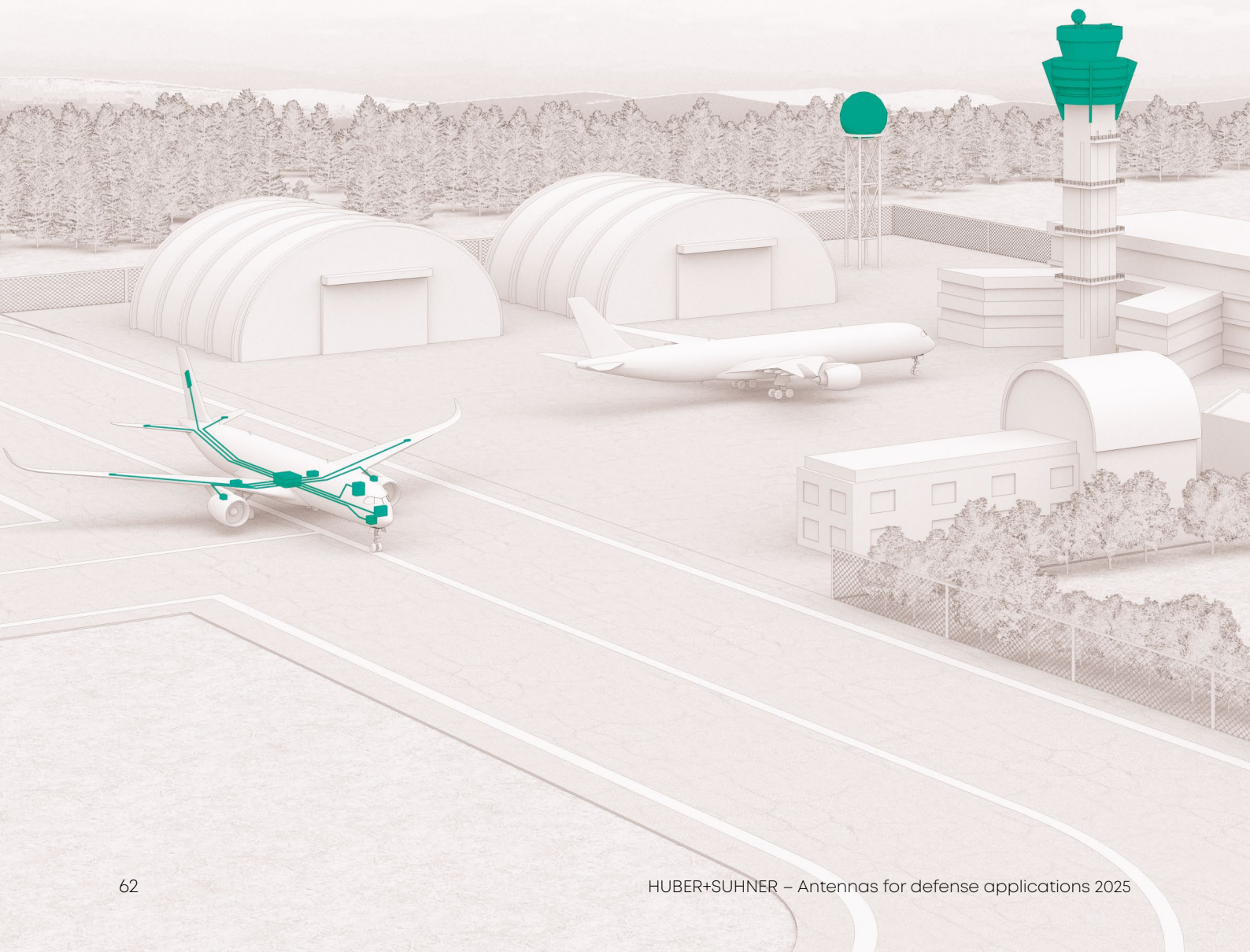
Environmental remarks	
Environmental tests	EN50155:2018-05
High-voltage protection	EN50124-1:2017-03 (tested without stick antenna)
Low corrosion designed acc. to MIL-F-14072D	
This Antenna is compliant with the Radio Equipment Directive 2014/53/EU	

Antennas for various applications

Besides shown antennas, we have a huge portfolio of solutions also applicable for the defense market.

In addition, if you are **looking for a customized antenna configuration for a specific project? Our HUBER+SUHNER development team is ready to work with you to quickly deliver a test sample based on your specifications.**

Please contact your HUBER+SUHNER Sales Agent or Partner for more.



Omnidirectional antenna

Ordering information	SENCITY® Omni-R
Type no.	1303.31.0001
Frequency range	225 – 400 MHz
Gain	1.6 – 3.1 dBi
Height	500 mm
Description	• Rugged omni-directional stick antenna for outdoor mast installation. • Supports VHF frequency band 225 – 400 MHz • 1 port for VHF • Clamp mounting
Item no.	–

Electrical data	Band 1		
Band name	VHF	Composite power max	40 W
Frequency	225 – 400 MHz	Ambient temperature	25 °C
VSWR	2.0		
Impedance	50 Ohm		
Gain	1.6dBi@225MHz/1.8 dBi@310MHz/3.1dBi@400MHz		

Ports	Port 1
Port name	VHF
Connector	4.3 – 10, jack (female)
Polarization	vertical
DC Grounded	No

Connections	Band 1
Port 1	x

General data	
	Ground plane: Indicated VSWR and gain values are valid for mast mounting without groundplane.

Mechanical data	
Dimensions (height × diameter)	500 × 60 mm
diameter of tube	45 mm
Weight	0.5 kg

Environmental data			
Environmental conditions	outdoor	2011/65/EU (RoHS - including compliant 2015/863 and 2017/2102)	compliant
Operation temperature	–40 to 85 °C	REACH 1907/2006/EC	compliant
Storage temperature	–40 to 85 °C	Environmental tests	MIL-810
Transport temperature	–40 to 85 °C	CE	
Flammability	UL94		

Material data	
Radome colour	black
Radome material	Glass Reinforced Plastic (GRP)
Back plate/base plate material	Aluminium, protected through chemical passivation

Additional information
Quick-lock see page 84; not part of delivery, to be ordered separately

Omnidirectional antenna

Ordering information	SENCITY® Omni-SR Dome Antenna
Type no.	1399.17.0106
Frequency range	2400 – 7125 MHz
Gain	6 – 8 dBi
Height	43 mm
Description • Small omni-directional outdoor antenna for Wi-Fi applications • Supports all Wi-Fi 6E bands • Supports cellular 2.4 / 2.6 / 3.5 GHz bands • Fire retardant acc. to DIN 5510-2, BS 6853, EN 45545-2, NFPA130 • Rugged design with N female interface • Protection against lightning • Single hole mounting	
Item no.	84039156

Electrical data per band	Band 1	Band 2	Band 3	Band 4	Band 5
Frequency	2400 – 2500 MHz	2500 – 2700 MHz	3400 – 3800 MHz	4900 – 5925 MHz	5925 – 7125 MHz
VSWR	1.8	2	2	1.8	1.9
Gain	6 dBi	6 dBi	6 dBi	8 dBi	8 dBi
HPBW horizontal	360°	360°	360°	150°	170°
Composite power max	350 W	350 W	300 W	300 W	300 W

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C
Remarks	Note that all VSWR values are guaranteed without metallic ground plane.

Ports	Port 1	Connections	
Connector	N, jack (female)	Port number	Port 1
Polarization	vertical	Band 1	x
DC grounded	Yes	Band 2	x
		Band 3	x
		Band 4	x
		Band 5	x

Mechanical data	
Dimensions (height × diameter)	43 × 86 mm
Weight	0.3 kg
Remarks	Grounding Designed acc. to UIC 533, DC-grounded antenna element. Corrosion Low corrosion design acc. to MIL-F-14072(E).

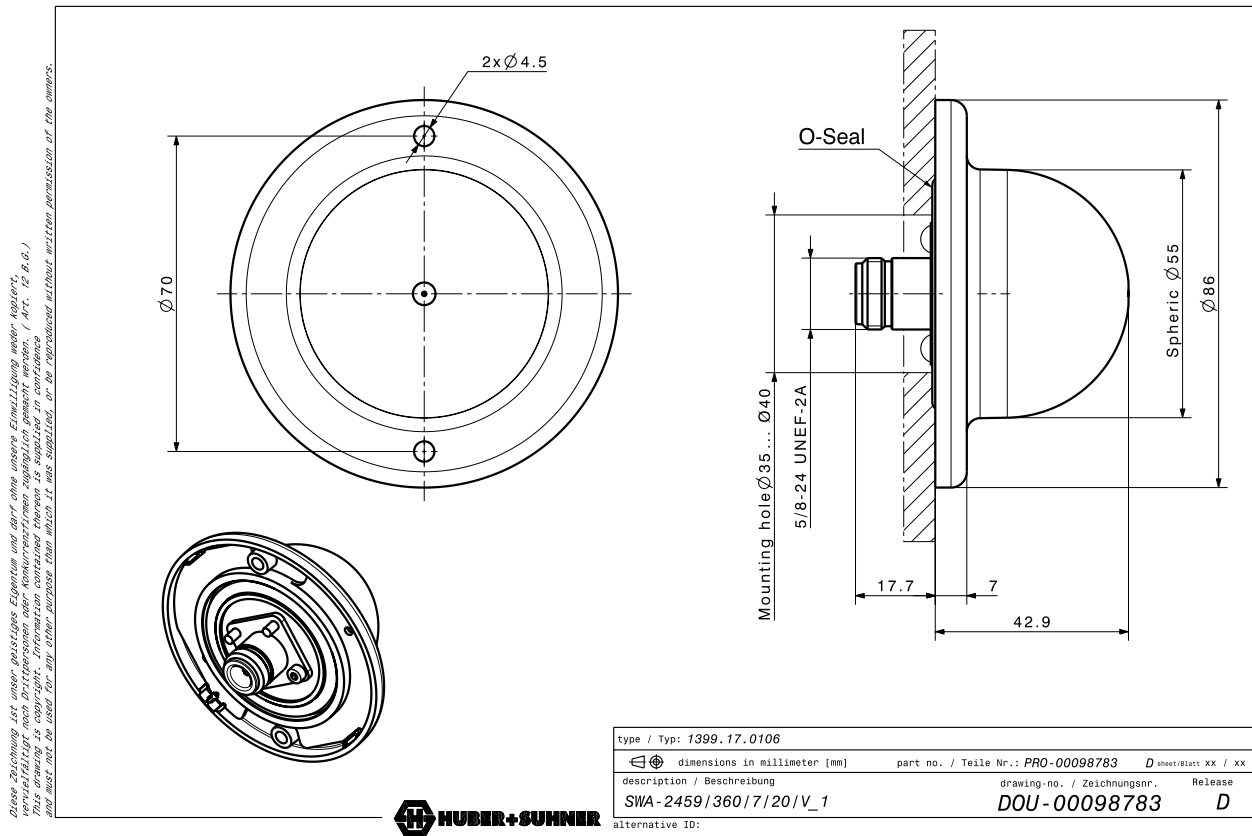
Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	RAL 7035 (light-grey)
Back plate/base plate material	Aluminum

→

Environmental data	
Operation temperature	–40 to 80 °C
Storage temperature	–40 to 80 °C
Transport temperature	–40 to 80 °C
Environment (application)	Indoor
Ingress protection (IP Rating)	IP65
Flammability rating	DIN 5510
Remarks	Environmental tests EN 50155:2004 Flammability rating: DIN 5510-2, BS 6853, EN 45545-2, NFPA130

Additional information	
The antenna 1399.17.0106 can be mounted on a support with a thickness of up to 30mm. Please refer to the mounting instruction for installation details.	

Outline drawing



Omnidirectional antenna

Ordering information	SENCITY® Omni-SR Dome Antenna
Type no.	1399.17.0108
Frequency range	2400 – 7125 MHz
Gain	6/8 dBi
Height	50.6 mm
Description • Compact Omnidirectional outdoor antenna for Wi-Fi 6E bands (2.4 GHz / 5GHz / 6 GHz) & industrial 5G (3.7-3.8 GHz) • Rugged design, meets EN 50155 Railway Standard and IP68 rating • Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2 • Single hole mounting	
Item no.	84040934

Electrical data per band	Band 1	Band 2	Band 3	Band 4	Band 5
Frequency	2400 – 2500 MHz	2500 – 2700 MHz	3400 – 3800 MHz	4900 – 5925 MHz	5925 – 7125 MHz
VSWR	1.8	2	2	1.8	1.9
Gain	6 dBi	6 dBi	6 dBi	8 dBi	8 dBi
Composite power max	350 W	350 W	300 W	300 W	300 W

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C
Remarks	Gain measured using a Ø1m ground plane 10dB beamwidth horizontal: 360°

Ports	Port 1	Connections	
Connector	N, jack (female)	Port number	Port 1
Polarization	vertical	Band 1	x
DC grounded	Yes	Band 2	x
		Band 3	x
		Band 4	x
		Band 5	x

Mechanical data	
Dimensions (height × diameter)	50.6 × 86 mm
Weight	0.3 kg
Windload	front: 10 N at 160km/h, Wind Speed survival: 160 km/h

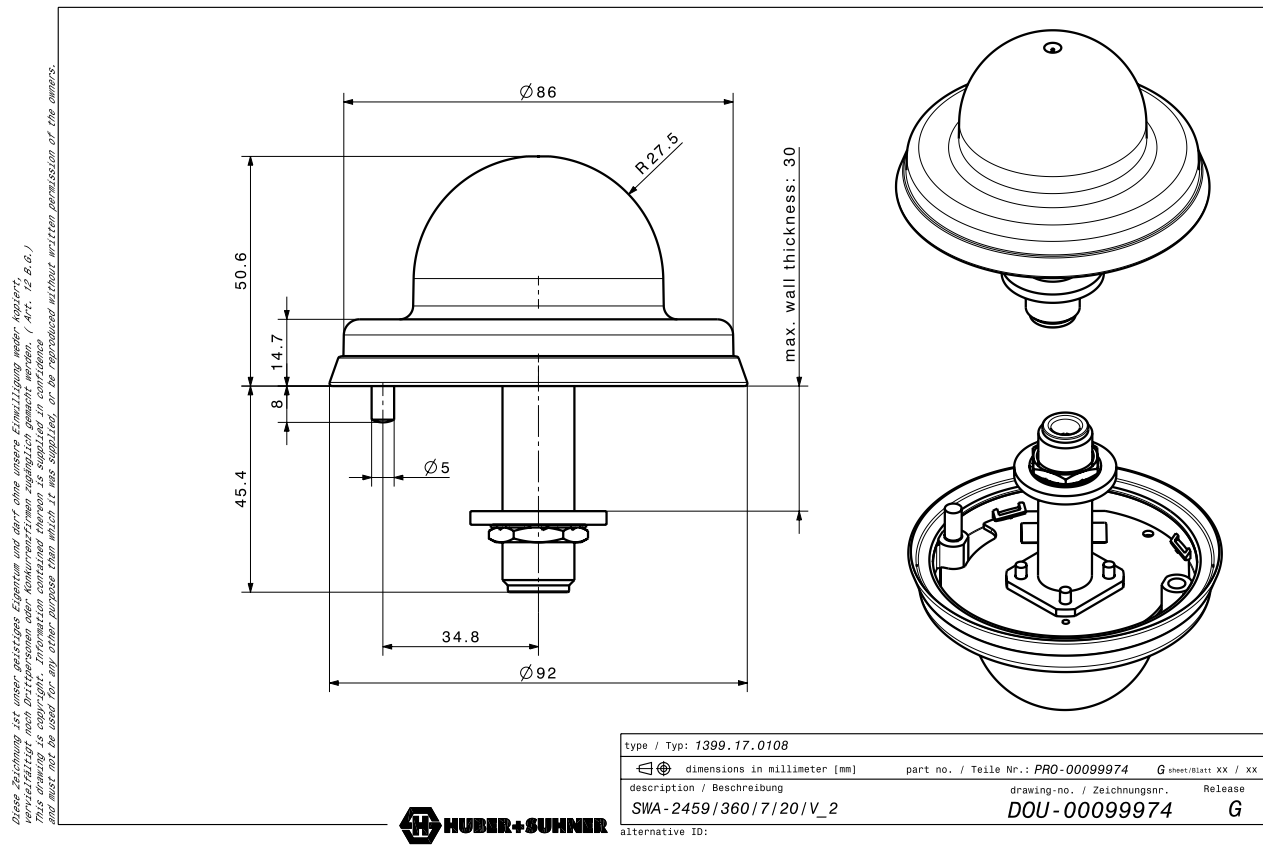
Interface and material data	
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Radome colour	RAL 7043 (dark grey)
Back plate/base plate material	Stainless Steel

→

Environmental data	
Operation temperature	–40 to 80 °C
Storage temperature	–40 to 80 °C
Transport temperature	–40 to 80 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP68
Flammability rating	DIN 5510
Remarks	Vibration test (24 hours) acc. to EN60068-2-64. Shock test (35g) acc. to EN60068-2-27. Flammability rating DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.

Additional information
The antenna 1399.17.0108 can be mounted on a support with a thickness of up to 30mm. Please refer to the mounting instruction for installation details.

Outline drawing



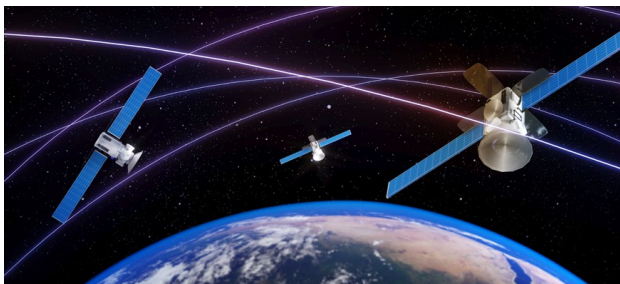
Positioning and timing for harsh environments



Components and systems in harsh environments are exposed to many influences, but their reliability must not be compromised. With our newly developed, fiber optic-based GNSS and Power over Fiber system, we combine a robust outdoor design with precise reception and transmission technology.

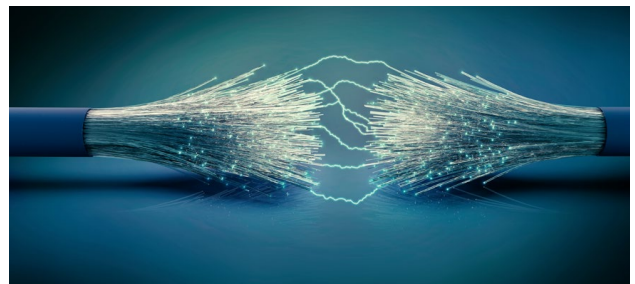
The active remote unit receives the GNSS signals from the satellite, converts them from electrical to optical signals and transmits them to the base unit via fiber optics. Moreover, antenna powering is remotely performed via power-over-fiber technology – no need of a local antenna power supply.

Precise timing data



Satellite GNSS signals enable positioning and timing at any location with mature and cost-efficient technology.

The energy comes via fiber



Power over Fiber (PoF) is a revolutionary technology that combines the advantages of optical fibers with the delivery of electrical power.

Reliability even in harsh environments



Even with longer transmission distances (e.g. in mining), time signals are provided to the receiver stations immediately and without data loss.

No access from outside



In military application the aspect of galvanic isolated link is very important to prevent EMP strikes and military vehicle detecting.



The perfect combination of precision and reliability

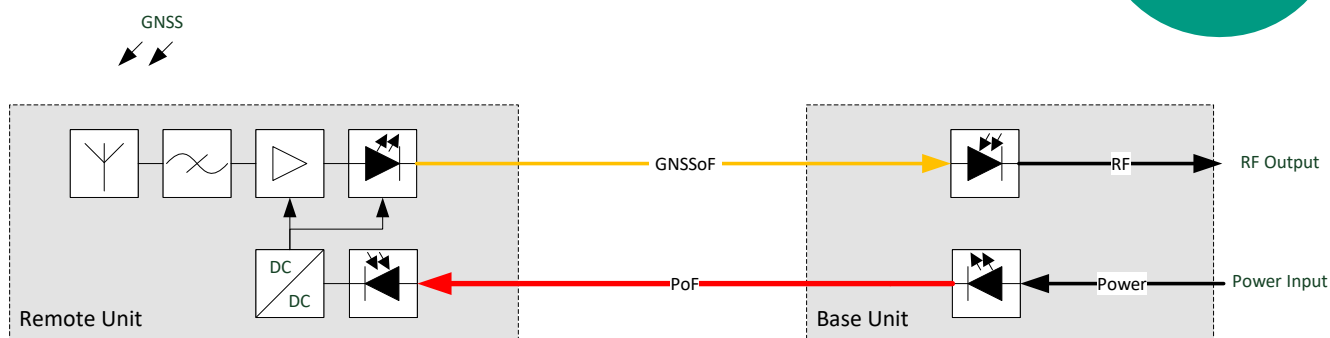
The G-GNSSPoF cutting-edge technology of HUBER+SUHNER delivers high-precision time synchronization and positioning solutions over fiber-optic. Combining GNSS over Fiber with Power over Fiber brings a powerful synergy to industries that demand both precise time synchronization and reliable power transmission.

Both GNSS signals and power transmission are immune to electromagnetic interference (EMI), which is especially important in military environments.

The G-GNSSPoF solution uses pure fiber-optic cabling to connect GNSS antenna and receiver and achieves distances up to 1,000 meter.

*Individually
adaptable
to customer
requirements*

Block Diagramm



Remote unit



Features:

- Dual band GNSS reception
- IP68 housing
- Operating temperature range: -40...70°C
- Vibration and shock resistant according to AECTP-400 Method 401
- MIL-DTL-38999 Series III connector with four expanded beam contacts

Base unit



Features:

- Supply voltage 12...48V DC
- Power consumption < 20W
- TNC RF port
- IP67 housing
- Operating temperature range: -40...70°C
- Vibration and shock resistant according to AECTP-400 Method 401

Key benefits:

- Designed for harshest environments like military, mining, tunnel etc.
- More flexible connection cables with smaller diameter and less weight
- Galvanic isolation between remote and base unit
- Provides a highly secure tamper-proof connection between remote and base unit
 - Robust link
 - Immunity against EMP
- Higher distance between remote and base unit

Further information:
hubersuhner.com/en/markets/industry

Splitter, tapper, combiner

RF components for indoor and outdoor critical communication

Splitter

Description			Type no.	Length	Output	Page
2-way splitter	380 – 3800 MHz		5501.31.0102	318 mm	2 × 4.3-10 fem.	71
3-way splitter	380 – 3800 MHz		5501.31.0103	365 mm	3 × 4.3-10 fem.	72
4-way splitter	380 – 3800 MHz		5501.31.0104	399 mm	4 × 4.3-10 fem.	73
2-way splitter	380 – 2700 MHz		5501.17.0030	267 mm	2 × N female	74
3-way splitter	380 – 2700 MHz		5501.17.0031	262 mm	3 × N female	75
2-way splitter	380 – 4000 MHz		5501.41.0102	318 mm	2 × 7/16 female	76
3-way splitter	380 – 4000 MHz		5501.41.0103	365 mm	3 × 7/16 female	77
4-way splitter	380 – 4000 MHz		5501.41.0104	399 mm	4 × 7/16 female	78
2-way splitter	694 – 3800 MHz		5502.17.0050	190 mm	2 × N female	79
2-way splitter	694 – 3800 MHz		5502.41.0050	190 mm	2 × 7/16 female	80

Tapper

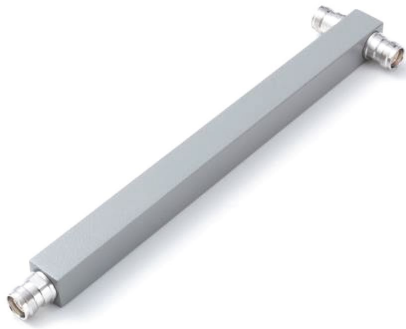
Description			Type no.	Power	Ports	Page
2-way tapper 3 dB	350 – 2700 MHz	2:1 unequal power divider	5501.31.0002	300 W	3 × 4.3-10 fem.	81
2-way tapper 4.8 dB	350 – 2700 MHz	3:1 unequal power divider	5501.31.0003	300 W	3 × 4.3-10 fem.	81
2-way tapper 6 dB	350 – 2700 MHz	4:1 unequal power divider	5501.31.0004	300 W	3 × 4.3-10 fem.	81
2-way tapper 10 dB	350 – 2700 MHz	10:1 unequal power divider	5501.31.0010	300 W	3 × 4.3-10 fem.	81
2-way tapper 15 dB	350 – 2700 MHz	30:1 unequal power divider	5501.31.0015	300 W	3 × 4.3-10 fem.	81
2-way tapper 20 dB	350 – 2700 MHz	100:1 unequal power divider	5501.31.0100	300 W	3 × 4.3-10 fem.	81

Diplexer

Description			Type no.	Power	Ports	Page
TETRA + cellular + Wi-Fi diplexer	80 – 520 MHz 694 – 2700 MHz	Return Loss 16 dB	2501.17.0091	120 W	N female	82

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	83

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	• Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195613

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

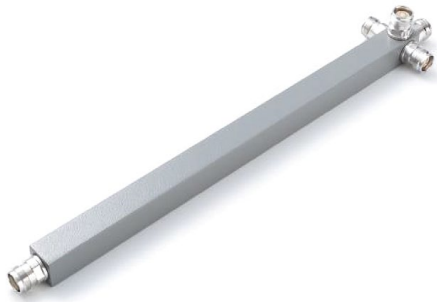
Reactive Power Splitter

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	• Installation equipment for critical communication antennas • 3-Way Low-loss Power Splitter • Multi-band • Low PIM -160 dBc
Item no.	85195614

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

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	• Installation equipment for critical communication antennas • 4-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195615

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

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	• 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

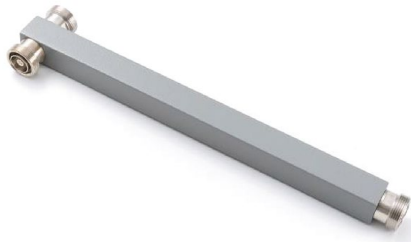
Reactive Power Splitter

Ordering information	3-Way Reactive Power Splitter
Type no.	5501.17.0031
Frequency range	380 – 2700 MHz
Version	N (female)
Length	262 mm
Description	• 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

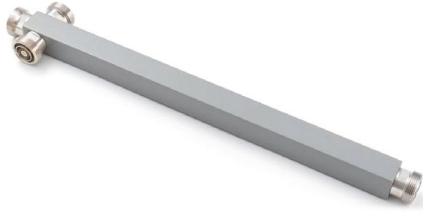
Reactive Power Splitter

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	• Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195616

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

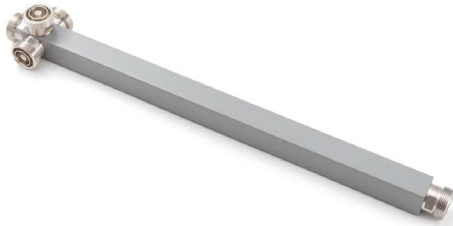
Reactive Power Splitter

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	• Installation equipment for critical communication antennas • 3-Way Low-loss Power Splitter • Multi-band • Low PIM -160 dBc
Item no.	85195617

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

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	• Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM -160 dBc
Item no.	85195618

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

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	• 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

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	• 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 Wi-Fi 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 + Wi-Fi diplexer
Type no.	2501.17.0091
Frequency range	80 – 520 MHz 694 – 2700 MHz
Version	N (female)
Height	30.99 mm
Item no.	84103625

Description

Diplexer for combination and separation of the signals in 80 – 520 MHz and the 694 – 2700 MHz wireless bands. To minimize band inter-reaction, the inputs are well isolated and have minimal insertion loss over their respective frequency bands. The diplexer is designed using passive, proprietary techniques for low loss, low PIM and high reliability. Meets EN 50155 (Class T1).

Electrical data per band	Band 1	Band 2
Frequency	80 – 520 MHz	694 – 2700 MHz
Insertion Loss	0.3 dB	0.5 dB
Composite power max.	50 W	120 W

Electrical data	
Return Loss	16 dB
Peak envelope power	3000 W
Intermodulation distortion	–161 dBc at 2 × 43 dBm
Remarks	Return loss band 2, sub-band 960 – 1500 MHz: 12 dB Isolation between port J1 (80 – 520 MHz) and port J2 (694 – 2700 MHz): 80 – 520 MHz: 50 dB 694 – 800 MHz: 40 dB 800 – 2500 MHz: 50 dB 2500 – 2700 MHz: 30 dB

Mechanical data	
Dimensions (height × width × depth)	30.99 × 130.36 × 177.02 mm
Weight	0.8 kg
Connector	N jack (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	–35 to 65 °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 >50 dB and have minimal insertion loss <0.3 dB 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

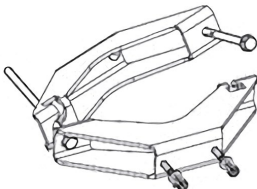
Mechanical data	
Dimensions (height × width × depth)	232 × 223 × 50 mm
Weight	4.6 kg
Connector	7/16 jack (female)

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

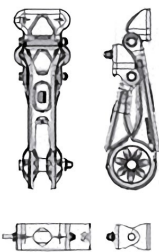
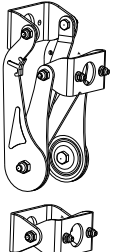
Material data	
Housing material	aluminium
Surface treatment	black paint

Mechanical accessories

Clamps

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

Downtilt

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

Clamps for omni antennas

Quick-lock antenna clamp	
for SENCITY® Omni-R antenna 1303.31.0001 (page 63). For antenna mast mounting. Simple handling by one hand quick release mechanism. • Dimensions 185 × 88 × 80 mm • Variable antenna diameter 40 – 60 mm • Weight 1.5 kg	
Mast diameter	60 mm
Type no.	9091.99.0301
Item no.	–

Between series adaptor

Description	
• Mounting adapter for vehicle antennas onto 4-hole NATO schematic. • May be used for antennas 1399.17.0284 and 1399.99.0284.	
Item no.	9091.99.0354



Lightning protector

more types see separate catalogue

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

Remote control unit

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

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HUBER+SUHNER is certified according to ISO 9001, ISO 14001, OHSAS 18001, EN(AS) 9100, IATF 16949 and ISO/TS 22163 – IRIS.

Waiver

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