Special Communication

Edition 2020/10

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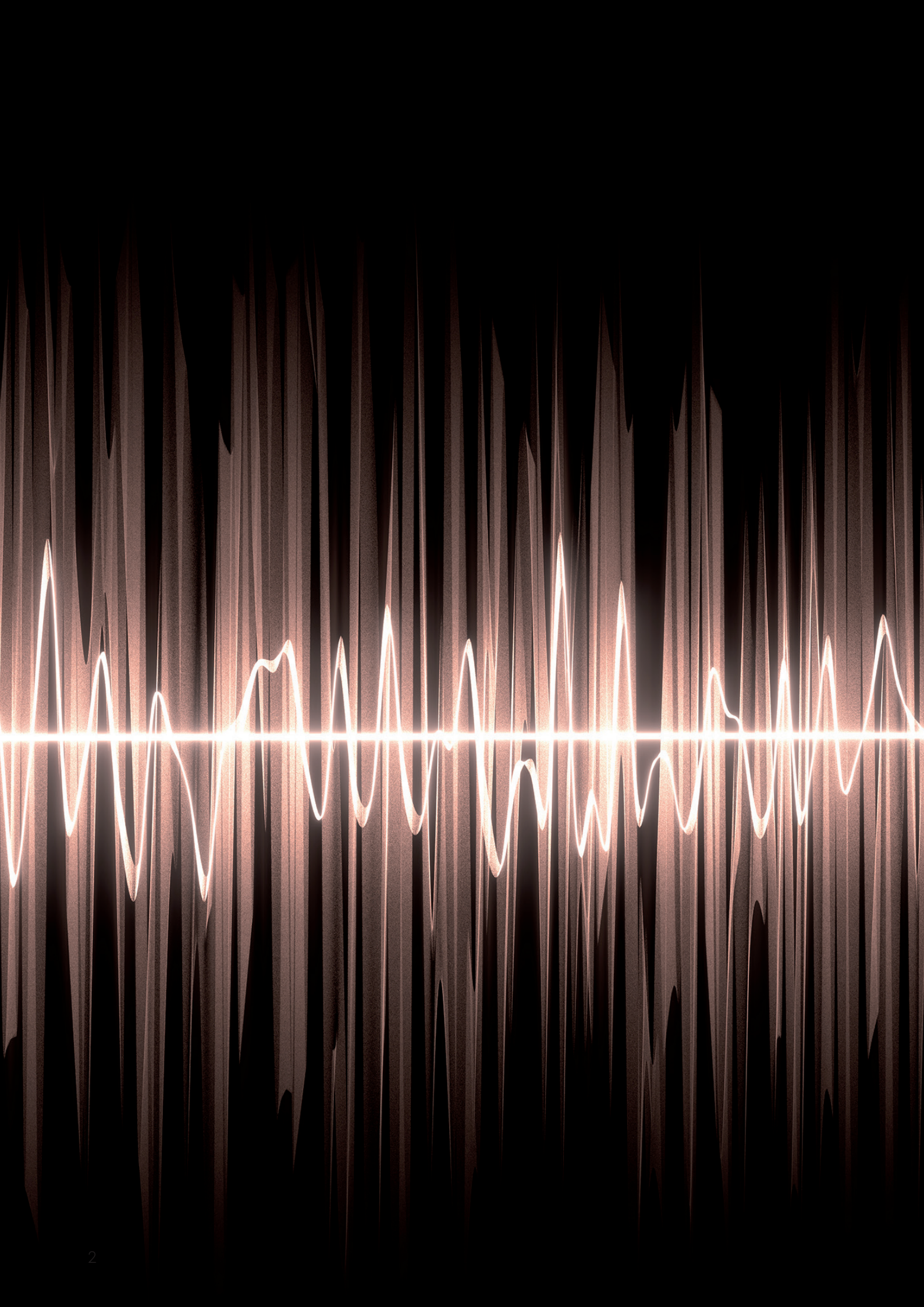
HUBER+SUHNER

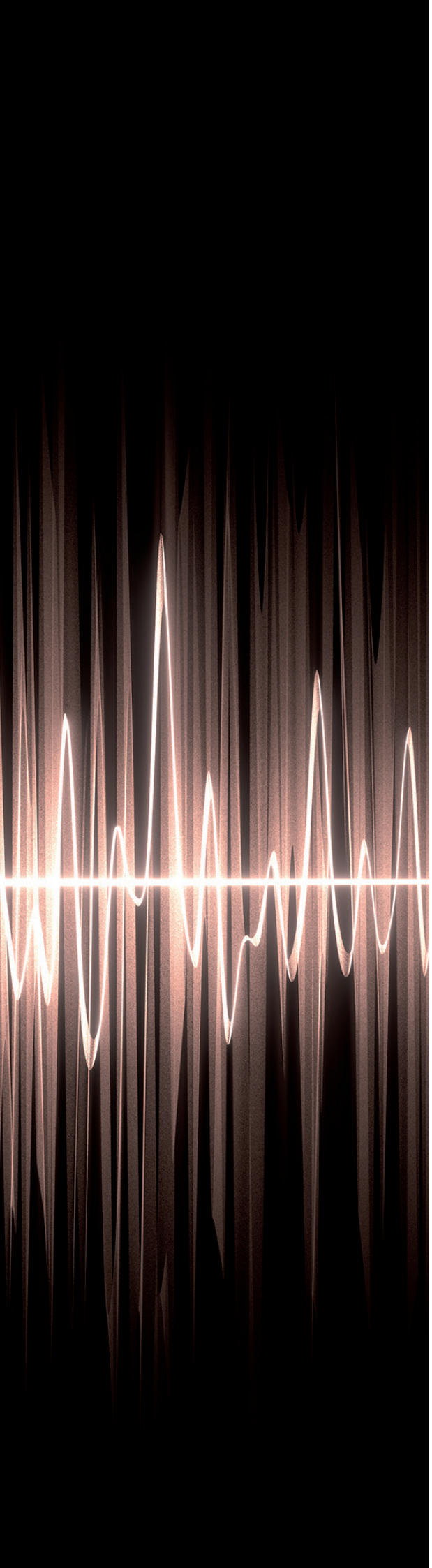
Connecting – today and beyond

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

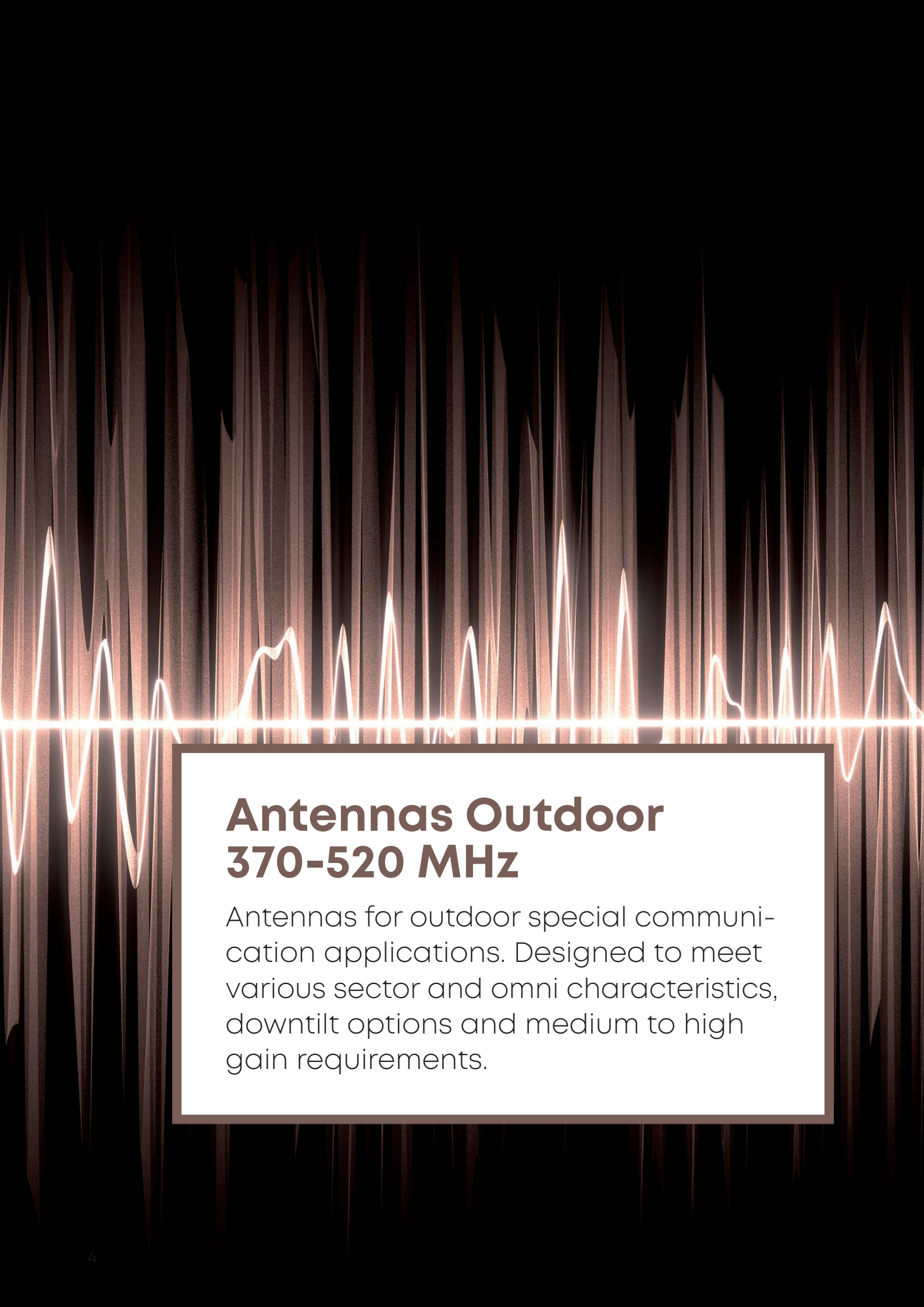
The products deliver high performance, quality, reliability and long service life – even under the toughest of conditions. The company's global production network, combined with group companies and agencies, ensures that HUBER+SUHNER maintains a close relationship with its customers in over 80 countries.

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





Content



Antennas Outdoor 370-520 MHz

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

Overview

Directional antennas

Description					Type no.	Height (mm)	Input	Page
XPol Panel	380-500	65°	12 dBi		852626	992	2 × 7-16 fem.	6
XPol Panel	380-470	65°	14 dBi	0°-14°T	91121514	1999	2 × 7-16 fem.	7
XPol Panel	380-500	65°	15 dBi		852627	2000	2 × 7-16 fem.	8
XPol Panel	380-500	88°	10.5 dBi		852628	1007	2 × 7-16 fem.	9
XPol Panel	380-500	88°	13.5 dBi		852629	1997	2 × 7-16 fem.	10
VPol Panel	380-500	65°	12 dBi		91121363	992	7-16 fem.	11
VPol Panel	380-500	65°	15 dBi		91121364	2000	7-16 fem.	12
Log.-Per.	380-520	87°	9 dBi		91121402	785	7-16 fem.	13
XXPol Panel	380-470 698-791	90° 65°	13 dBi 16 dBi	2° T 2° T	91121959	2663	4 × 4.3-10 fem.	14

Omnidirectional antennas

Description					Type no.	Height (mm)	Input	Page
VPol Omni	370-430	360°	2 dBi		848114	555	7-16 fem.	15
VPol Omni	406-470	360°	2 dBi		K862232	515	7-16 fem.	16
VPol Omni	380-3800	360°	3-8.5 dBi		92210003	540	4.3-10 fem.	17
VPol Omni	380-470	360°	4 dBi		K863032	315	7-16 fem.	18
VPol Omni	380-400	360°	7.5 dBi		K862748	2840	7-16 fem.	19
VPol Omni	410-430	360°	8 dBi	8.5°T	848657	3114	7-16 fem.	20
VPol Omni	450-470	360°	8.5 dBi		853266	3113	7-16 fem.	21

Special purpose antennas/vehicle antennas

Description			Type no.	Height (mm)	Input	Page
VPol Omni	380-430		98121119	150	N fem.	22
VPol Omni	380-430		98121116	150	N fem.	23
VPol Omni	406-428		K8134322	70	N fem.	24
VPol Omni	410-470		K813132	142	N fem.	25

SENCITY® SC Panel

Description

- 2-port panel antenna
- Frequency range 380-500 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Gain 12 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	430-500
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	11.5	12
3 dB beamwidth (h) (°)	68	65
3 dB beamwidth (v) (°)	37	32
Composite power max (W)	500	
Ambient temperature (° C)	50	
Front to back ratio (dB)	25	
Port isolation (dB)	30	30
IMD level (dBc)	–143 at 2 × 30 dBm	

Mechanical data	
Dimensions (height × width × depth)	992 × 492 × 190 mm
Weight (kg)	12.0
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

Ordering information

Type no.	**Item no.**	**Version**
852626	84467194	7/16 (female)

SENCITY® SC Panel

Description

- 2-port panel antenna
- Frequency range 380-470 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Adjust. electrical downtilt 0°-14° T set by hand or by optional RCU (Remote Control Unit)
- Gain 14 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	430-470
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	13.5	14
Electrical downtilt	0° ... 14°	0° ... 14°
3 dB beamwidth (h) (°)	66	62
3 dB beamwidth (v) (°)	22	19
Composite power max (W)	400	400
Ambient temperature (°C)	50	50
Front to back ratio (dB)	25	25
Port isolation (dB)	30	30
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm	

Mechanical data	
Dimensions (height × width × depth)	1999 × 575 × 199 mm
Weight (kg)	22.0
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

Ordering information

Type no.	**Item no.**	**Version**
91121514	84467229	7/16 (female)

SENCITY® SC Panel

Description

- 2-port panel antenna
- Frequency range 380-500 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Gain 15 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	430-500
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	14.5	15
3 dB beamwidth (h) (°)	65	65
3 dB beamwidth (v) (°)	18	18
Composite power max (W)	500	500
Ambient temperature (° C)	50	50
Front to back ratio (dB)	25	25
Port isolation (dB)	30	30
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm	

Mechanical data	
Dimensions (height × width × depth)	2000 × 492 × 190 mm
Weight (kg)	19.0
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

Ordering information

Type no.	**Item no.**	**Version**
852627	84467196	7/16 (female)

SENCITY® SC Panel

Description

- 2-port panel antenna
- Frequency range 380-500 MHz
- Dual polarization (X-Pol)
- Half-power beam width 88°
- Gain 10.5 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	430-500
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	11.5	12
3 dB beamwidth (h) (°)	88	86
3 dB beamwidth (v) (°)	37	32
Composite power max (W)	500	50
Ambient temperature (°C)	50	50
Front to back ratio (dB)	20	20
Port isolation (dB)	40	35
IMD level (dBc)	–150 dBc at carrier power 2 × 43dBm	

Mechanical data	
Dimensions (height × width × depth)	1007 × 317 × 193 mm
Weight (kg)	10.5
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

Ordering information

Type no.	**Item no.**	**Version**
852628	84467198	7/16 (female)

SENCITY® SC Panel

Description

- - 2-port panel antenna
- - Frequency range 380-500 MHz
- - Dual polarization (X-Pol)
- - Half-power beam width 88°
- - Gain 13.5 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	430-500
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	13	13.5
3 dB beamwidth (h) (°)	88	86
3 dB beamwidth (v) (°)	20	17
Composite power max (W)	500	500
Ambient temperature (° C)	50	50
Front to back ratio (dB)	20	20
Port isolation (dB)	30	30
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm	

Mechanical data	
Dimensions (height × width × depth)	1997 × 317 × 193 mm
Weight (kg)	18.5
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

Ordering information

Type no.	**Item no.**	**Version**
852629	84467202	7/16 (female)

SENCITY® SC Panel

Description

- 1-port panel antenna
- Frequency range 380-500 MHz
- Vertical polarization
- Half-power beam width 65°
- Gain 12 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	430-500
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	11.5	12
3 dB beamwidth (h) (°)	68	63
3 dB beamwidth (v) (°)	37	32
Composite power max (W)	500	50
Ambient temperature (° C)	50	50
Front to back ratio (dB)	18	20
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm	

Mechanical data	
Dimensions (height × width × depth)	992 × 492 × 190 mm
Weight (kg)	12.0
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

Ordering information

Type no.	**Item no.**	**Version**
91121363	84467208	7/16 (female)

SENCITY® SC Panel

Description

- 1-port panel antenna
- Frequency range 380-500 MHz
- Vertical polarization
- Half-power beam width 65°
- Gain 15 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	430-500
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	11.5	12
3 dB beamwidth (h) (°)	68	63
3 dB beamwidth (v) (°)	37	32
Composite power max (W)	500	500
Ambient temperature (° C)	50	50
Front to back ratio (dB)	18	20
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm	

Mechanical data	
Dimensions (height × width × depth)	2000 × 492 × 190 mm
Weight (kg)	20.0
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

Ordering information

Type no.	**Item no.**	**Version**
91121364	84467212	7/16 (female)

SENCITY® SC LogPer

Description

- Logarithmic-periodic antenna
- Frequency range 380-520 MHz
- Vertical polarization
- Half-power beam width 87°
- Gain 9 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3
Frequency (MHz)	380-410	410-470	470-520
VSWR	1.5	1.5	1.5
Impedance (Ohm)	50	50	50
Gain (dBi)	9.2	9	8.7
3 dB beamwidth (h) (°)	80	85	88
3 dB beamwidth (v) (°)	61	60	59
Composite power max (W)	500	500	500
Ambient temperature (° C)	50	50	50

Mechanical data	
Dimensions (height × width × depth)	785 × 400 × 400 mm
Weight (kg)	6.0
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)

Ordering information

Type no.	Item no.	Version
91121402	84467223	7/16 (female)

SENCITY® SC Panel

Description

- 4-port panel antenna
- Frequency range 380-470/698-791 MHz
- Dual polarization (X-Pol)
- Half-power beam width 89°/67°
- Gain 13/16 dBi

Expected Launch Date in 2020

Specifications

Electrical data	Band 1	Band 2	Band 3
Frequency (MHz)	380-430	450-470	698-791
VSWR	1.5	1.5	1.5
Impedance (Ohm)	50	50	50
Gain (dBi)	13	13	16
3 dB beamwidth (h) (°)	89	89	67
3 dB beamwidth (v) (°)	14	14	8.7
Composite power max (W)	200	200	250
Ambient temperature (° C)	50	50	50

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

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

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

Ordering information

Type no.	Item no.	Version
91121959	84467235	4.3-10 (female)

SENCITY® SC Omni

Description

- Omni-directional antenna
- Frequency range 370-430 MHz
- Vertical polarization
- 2 dBi gain

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	370-380	380-430
VSWR	1.6	1.5
Impedance (Ohm)	50	50
Gain (dBi)	2	2
Composite power max (W)	100	100
Ambient temperature (°C)	50	
Front to back ratio (dB)	25	
IMD level (dBc)	–150 dBc at carrier power 2 × 37 dBm	

Mechanical data	
Dimensions (height × diameter)	555 × 21 mm
Weight (kg)	1.0
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

Ordering information

Type no.	**Item no.**	**Version**
848114	84467190	7/16 (female)

SENCITY® SC Omni

Description

- Omni-directional antenna
- Frequency range 406-470 MHz
- Vertical polarization
- 2 dBi gain

Specifications

Electrical data	**Band 1**
Frequency (MHz)	406-470
VSWR	1.5
Impedance (Ohm)	50
Gain (dBi)	2
Composite power max (W)	100
Ambient temperature (°C)	50
IMD level (dBc)	–150 dBc at carrier power 2 × 37 dBm

Mechanical data	
Dimensions (height × diameter)	515 × 21 mm
Weight (kg)	0.8
Windload	frontal: 20 N at 150 km/h, wind speed survival: km/h

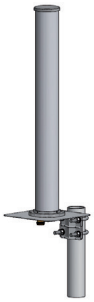
Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

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

Ordering information

Type no.	**Item no.**	**Version**
K862232	84467243	7/16 (female)

SENCITY® SC Omni



Description

- Omni-directional antenna
- Frequency range 380-3800 MHz
- Vertical polarization
- Gain 3-8.5 dBi
- Small ground plane and excellent coverage

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (MHz)	380-400	400-450	450-470	694-746
VSWR	1.7	1.7	1.7	1.7
Impedance (Ohm)	50	50	50	50
Gain (dBi)	3	4	5	6
Composite power max (W)	50	50	50	50
Ambient temperature (°C)	50	50	50	50
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm			

Electrical data	**Band 5**	**Band 6**	**Band 7**
Frequency (MHz)	746-960	1200-2700	3300-3800
VSWR	1.7	1.7	1.7
Impedance (Ohm)	50	50	50
Gain (dBi)	7	8	8.5
Composite power max (W)	50	50	50
Ambient temperature (°C)	50	50	50
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm		

Mechanical data	
Dimensions (height × diameter)	540 × 60 mm
Weight (kg)	0.5

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

Ordering information

Type no.	**Item no.**	**Version**
92210003	84467565	4.3-10 (female)

SENCITY® SC Omni

Description

- Omni-directional antenna
- Frequency range 380-470 MHz
- Vertical polarization
- Gain 4 dBi
- Various radiation patterns depending on distance from the mast edge and mast diameter

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-400	400-470
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Gain (dBi)	4	4
Composite power max (W)	450	450
Ambient temperature (°C)	50	50

Mechanical data	
Dimensions (height × width × depth)	314 × 100 × 580 mm
Weight (kg)	1.6
Windload	frontal: 40 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

Ordering information

Type no.	**Item no.**	**Version**
K863032	84467241	7/16 (female)

SENCITY® SC Omni

Description

- Omni-directional antenna
- Frequency range 380-400 MHz
- Vertical polarization
- 7.5 dBi gain

Specifications

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

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

Ordering information

Type no.	**Item no.**	**Version**
K862748	84467245	7/16 (female)

SENCITY® SC Omni

Description

- Omni-directional antenna
- Frequency range 410-430 MHz
- Vertical polarization
- 8 dBi gain
- Fixed electrical tilt 8.5°

Specifications

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

Mechanical data	
Dimensions (height × diameter)	3114 × 51 mm
Weight (kg)	8.0
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

Ordering information

Type no.	**Item no.**	**Version**
848657	84467192	7/16 (female)

SENCITY® SC Omni

Description

- Omni-directional antenna
- Frequency range 450-470 MHz
- Vertical polarization
- 8.5 dBi

Specifications

Electrical data	**Band 1**
Frequency (MHz)	450-470
VSWR	1.5
Impedance (Ohm)	50
Gain (dBi)	8.5
Composite power max (W)	500
Ambient temperature (°C)	50
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	3113 × 51 mm
Weight (kg)	8.0
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

Ordering information

Type no.	**Item no.**	**Version**
853266	84467205	7/16 (female)

SENCITY® SC Special Purpose

Description

- Omni-directional antenna
- For special purpose installations
- Option as vehicle antenna
- Frequency band 380-430 MHz
- Vertical polarization
- Meets EN 50155 and fire retardant acc. EN 45545-2
- Gain 4-6 dBi

Specifications

Electrical data	**Band 1**
Band name	Tetra
Frequency (MHz)	380-430
VSWR	1.7
Impedance (Ohm)	50
Composite power max (W)	100
Ambient temperature (°C)	50

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

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

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

Ordering information

Type no.	**Item no.**	**Version**
98121119	84468948	N (female)

SENCITY® SC Special Purpose

Description

- Omni-directional antenna
- For special purpose installations
- Option as vehicle antenna
- Frequency band 380-430 MHz
- Embedded GPS antenna (requires seperate LNA such as 86010142)
- Vertical polarization
- Meets EN 50155 and fire retardant acc. EN 45545-2
- Gain 4-6 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	1575-1576
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Composite power max (W)	100	450
Ambient temperature (°C)	50	50

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

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

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

Ordering information

Type no.	**Item no.**	**Version**
98121116	84468950	N (female)

SENCITY® SC Special Purpose

Description

- Omni-directional antenna
- For Special purpose installations
- Option as vehicle antenna
- Frequency band 406-428 MHz
- Vertical polarization
- Gain 4-6 dBi

Specifications

Electrical data	**Band 1**	**Band2**	**Band 3**
Frequency (MHz)	406-410	410-425	425-428
VSWR	1.9	1.7	1.9
Impedance (Ohm)	50	50	50
Composite power max (W)	50	50	50
Ambient temperature (°C)	50	50	50

Mechanical data	
Dimensions (mm)	70 × 110 (height × diameter) 110 × 110 (diameter × length) 70 × 110 × 110 (heigth × width × depth)
Weight (kg)	0.4

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

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

Ordering information

Type no.	**Item no.**	**Version**
K8134322	84468539	N (female)

SENCITY® SC Special Purpose

Description

- Omni-directional antenna
- For special purpose installations
- Option as vehicle antenna
- Frequency band 410-470 MHz
- Vertical polarization
- Meets EN 50155 and fire retardant acc. EN 45545-2
- Gain 4 dBi

Specifications

Electrical data	**Band 1**
Frequency (MHz)	410-470
VSWR	1.5
Impedance (Ohm)	50
Composite power max (W)	170
Ambient temperature (°C)	50

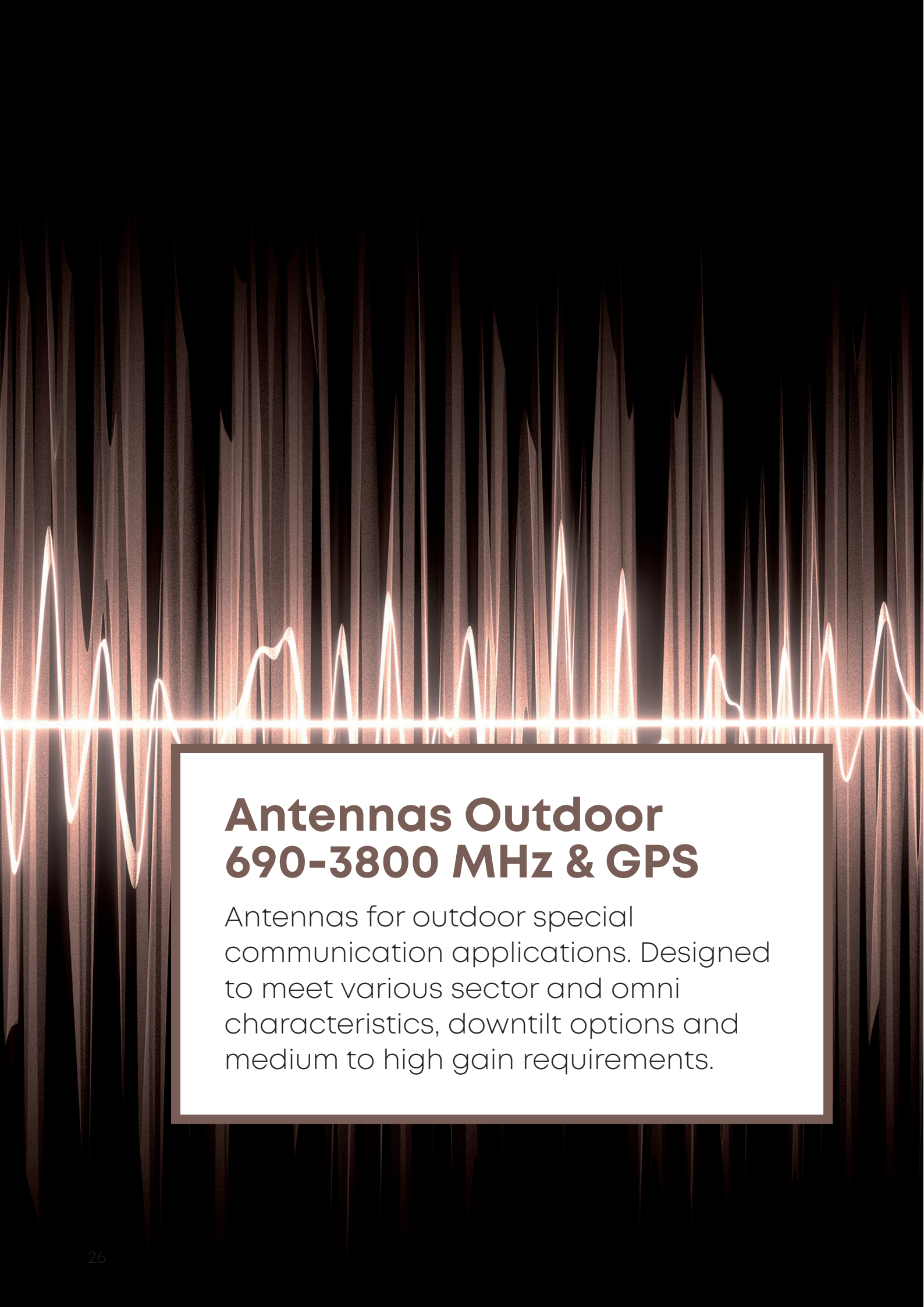
Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight (kg)	0.5

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

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

Ordering information

Type no.	**Item no.**	**Version**
K813132	84468534	N (female)



Antennas Outdoor 690-3800 MHz & GPS

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

Overview

Directional antennas

Description					TypeNo.	Height (mm)	Input	Page
VPol Log.-Per.	690-2690	67°	11 dBi		853203V02	300	7-16 fem.	28
XPol Panel	790-960	65°	17.5 dBi	0°-8°T	91121416	2254	2 × 7-16 fem.	29
XXPol Panel	380-470 698-791	90° 65°	13 dBi 16 dBi	2°T 2°T	91121959	2663	4 × 4.3-10 fem.	30
XXPol Panel	698-960 1695-2690	65° 65°	10.5 dBi 13.5 dBi	2°T 2°T	91121826	603	4 × 4.3-10 fem.	31
XXPol Panel	698-960 1710-2690	65° 65°	17 dBi 18.5 dBi	1.5°-10°T 2°-8°T	91121777	2622	4 × 7-16 fem.	32
XXXPol Panel	698-960 1695-2690 1695-2690	65° 65° 65°	14.5 dBi 17.5 dBi 18 dBi	2°-16°T 2.5°-12°T 2.5°-12°T	91121975	1403	6 × 7-16 fem.	33
XXXPol Panel	698-960 1695-2690 1695-2690	65° 65° 65°	16 dBi 18 dBi 18 dBi	2°-12°T 2.5°-12°T 2.5°-12°T	91121976	1921	6 × 7-16 fem.	34
XPol Panel	1695-4200	70°	7.5 dBi	1399.32.0001	85117564	185	2 × Nex10 fem.	35
XPol Panel	1695-4200	70°	7.5 dBi	1399.17.0248	85110146	185	2 × N fem.	35
XPol Panel	1695-4200	110°	5 dBi	1399.32.0002	85117565	185	2 × Nex10 fem.	36
XPol Panel	1695-4200	110°	5 dBi	1399.17.0250	85110147	185	2 × N fem.	36

Omnidirectional antennas

Description				TypeNo.	Height (mm)	Input	Page
VPol Omni	380-3800	360°	3-8.5 dBi	92210003	540	4.3-10 fem.	37
VPol Omni	790-2690	360°	2-3 dBi	85027954	263	N fem.	38

GPS antennas

Description				TypeNo.	Height (mm)	Input	Page
GPS antenna L1+L2	1589+1235		20 dBi	85073714	76	SMA male	42
GPS-over-Fiber							43

Special purpose antennas/vehicle antennas

Description			Type no.	Height (mm)	Input	Page
VPol Omni	698-5935		1399.99.0039	82	SMA, TNC	39
FM stick antenna	88-108		9091.99.0246	425		39
Stick antenna	380-430		9091.99.0247	145		39
Stick antenna	450-470		9091.99.0248	120		39
VPol MIMO	698-2690		1399.99.0119	88	2 × SMA male	40
VPol MIMO	698-2690		1399.99.0129	88	2 × SMA male	41

SENCITY® SC LogPer

Description

- Logarithmic-periodic antenna
- Frequency range 690-2690 MHz
- Vertical polarization
- Half-power beam width 67°
- Gain 11 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	690-880	880-960	960-1695	1695-2200
VSWR	1.6	1.5	1.5	1.5
Gain (dBi)	10.1	10.6	11	11
3 dB beamwidth (h) (°)	54	53	50	48
3 dB beamwidth (v) (°)	69	64	57	53
Composite power max (W)	300	300	300	300
Ambient temperature (°C)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Electrical data	Band 5	Band 6
Frequency (MHz)	2200-2490	2490-2690
VSWR	1.5	1.5
Gain (dBi)	11	11
3 dB beamwidth (h) (°)	46	44
3 dB beamwidth (v) (°)	47	45
Composite power max (W)	170	150
IMD level	–150 dBc at carrier power 2 × 43 dBm	

Mechanical data	
Dimensions (height × width × depth)	300 × 155 × 758 mm
Weight (kg)	5.5

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	no special marking needed
REACH 1907/2006/EC	compliant

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

Ordering information

Type no.	Item no.	Version
853203V02	84480006	7/16 (female)

SENCITY® SC Panel

Description

- 2-port panel antenna
- Frequency range 790-960 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Adjust. electrical downtilt 0°-8°
- Gain 17 dBi

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**
Frequency (MHz)	790-862	824-894	880-960
VSWR	1.5	1.5	1.5
Impedance (Ohm)	50	50	
Gain (dBi)	17	17.1	17.4
3 dB beamwidth (h) (°)	69	67	65
3 dB beamwidth (v) (°)	9.1	8.8	8.5
Composite power max (W)	400	400	400
Ambient temperature (°C)	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm		

Mechanical data	
Dimensions (height × width × depth)	2254 × 259 × 99 mm
Weight (kg)	11.5
Windload	frontal: 800 N at 150 km/h, lateral: 390 N at 150 km/h, wind speed survival: 240 km/h

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

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

Ordering information

Type no.	**Item no.**	**Version**
91121416	84468638	7/16 (female)

SENCITY® SC Panel

Description

- 4-port panel antenna
- Frequency range 380-470/698-791 MHz
- Dual polarization (X-Pol)
- Half-power beam width 89°/67°
- Gain 13/16 dBi

Expected Launch Date in 2020

Specifications

Electrical data	Band 1	Band 2	Band 3
Frequency (MHz)	380-430	450-470	698-791
VSWR	1.5	1.5	1.5
Impedance (Ohm)	50	50	50
Gain (dBi)	13	13	16
3 dB beamwidth (h) (°)	89	89	67
3 dB beamwidth (v) (°)	14	14	8.7
Composite power max (W)	200	200	250
Ambient temperature (°C)	50	50	50

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

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

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

Ordering information

Type no.	Item no.	Version
91121959	84467235	4.3-10 (female)

SENCITY® SC Panel

Description

- 4-port panel antenna
- Frequency range 698-960/1695-2690 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Fixed electrical downtilt 2°
- Gain 11 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	698-824	824-894	880-960	1695-1880
VSWR	1.5	1.5	1.5	1.55
Gain (dBi)	10.5	11	11	13.5
3 dB beamwidth (h) (°)	70	68	68	60
3 dB beamwidth (v) (°)	40	36	34	17.5
Composite power max (W)	250	250	250	250
Impedance (Ohm)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Electrical data	Band 5	Band 6	Band 7	Band 8
Frequency (MHz)	2200-2490	2490-2690	2200-2490	2490-2690
VSWR	1.55	1.55	1.5	1.5
Gain (dBi)	14	14	14	13.8
3 dB beamwidth (h) (°)	55	55	55	65
3 dB beamwidth (v) (°)	16.5	15.5	14.5	12.7
Composite power max (W)	200	200	200	200
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Mechanical data	
Dimensions (height × width × depth)	603 × 300 × 152 mm
Weight (kg)	8.5

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	no special marking needed
REACH 1907/2006/EC	compliant

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

Ordering information

Type no.	Item no.	Version
91121826	84480010	4.3-10 (female)

SENCITY® SC Panel

Description

- 4-port panel antenna
- Frequency range 698-960/1710-2690 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Adjust. electrical downtilt 1.5°-10°/2°-8°
- Gain 16-19 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	698-806	790-862	824-894	880-960
VSWR	1.5	1.5	1.5	1.5
Gain (dBi)	16	16.6	16.9	17.1
3 dB beamwidth (h) (°)	71	68	68	67
3 dB beamwidth (v) (°)	8.4	7.7	7.5	7.0
Composite power max (W)	400	400	400	400
Impedance (Ohm)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Electrical data	Band 5	Band 6	Band 7	Band 8
Frequency (MHz)	1710-1880	1850-2170	2300-2400	2490-2690
VSWR	1.5	1.5	1.5	1.5
Gain (dBi)	18	18.5	18.6	19
3 dB beamwidth (h) (°)	64	62	60	60
3 dB beamwidth (v) (°)	5	4.7	3.9	3.5
Composite power max (W)	200	200	200	200
Impedance (Ohm)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Mechanical data	
Dimensions (height × width × depth)	2622 × 300 × 152 mm
Weight (kg)	29

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	IP66
RoHS 2011/65/EU	no special marking needed

Material data	
Radome colour	fiberglass, light grey
Reflector screen	aluminum

Ordering information

Type no.	Item no.	Version
91121777	84480008	7/16 (female)

SENCITY® SC Panel

Description

- 6-port panel antenna
- Frequency range 698-960/1695-2690/1695-2690 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Adjust. electrical downtilt 2°-16°/2.5°-12°/2.5°-12°
- Gain 13.5-18.1 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	698-806	790-862	824-894	880-960
VSWR	1.5	1.5	1.5	1.5
Gain (dBi)	13.5	14	14.2	14.5
3 dB beamwidth (h) (°)	72	70	68	67
3 dB beamwidth (v) (°)	17.4	16.2	15.7	14.9
Composite power max (W)	400	400	400	400
Impedance (Ohm)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Electrical data	Band 5	Band 6	Band 7	Band 8
Frequency (MHz)	1710-1880	1850-2170	2300-2400	2490-2690
VSWR	1.5	1.5	1.5	1.5
Gain (dBi)	17.3	17.5	17.2	17.6
3 dB beamwidth (h) (°)	62	61	66	64
3 dB beamwidth (v) (°)	6.7	6.3	5.3	4.8
Composite power max (W)	200	200	200	200
Impedance (Ohm)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Mechanical data	
Dimensions (height × width × depth)	1402 × 377 × 169 mm
Weight (kg)	25

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	IP66
RoHS 2011/65/EU	no special marking needed

Material data	
Radome colour	fiberglass, light grey
Reflector screen	aluminum

Ordering information

Type no.	Item no.	Version
91121975	84468950	7/16 (female)

SENCITY® SC Panel

Description

- 6-port panel antenna
- Frequency range 698-960/1695-2690/1695-2690 MHz
- Dual polarization (X-Pol)
- Half-power beam width 65°
- Adjust. electrical downtilt 2°-12°/2.5°-12°/2.5°-12°
- Gain 15.2-18.1 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	698-806	790-862	824-894	880-960
VSWR	1.5	1.5	1.5	1.5
Gain (dBi)	15.2	15.7	15.9	16.2
3 dB beamwidth (h) (°)	69	68	67	67
3 dB beamwidth (v) (°)	10.8	9.8	9.5	8.9
Composite power max (W)	400	400	400	400
Impedance (Ohm)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Electrical data	Band 5	Band 6	Band 7	Band 8
Frequency (MHz)	1710-1880	1850-2170	2300-2400	2490-2690
VSWR	1.5	1.5	1.5	1.5
Gain (dBi)	17.3	17.7	17.6	18.1
3 dB beamwidth (h) (°)	65	62	63	66
3 dB beamwidth (v) (°)	6.3	5.9	4.9	4.4
Composite power max (W)	200	200	200	200
Impedance (Ohm)	50	50	50	50
IMD level	–150 dBc at carrier power 2 × 43 dBm			

Mechanical data	
Dimensions (height × width × depth)	1921 × 377 × 169 mm
Weight (kg)	30

Environmental data	
Environmental conditions	outdoor
WEEE 2012/19/EU	IP66
RoHS 2011/65/EU	no special marking needed

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

Ordering information

Type no.	Item no.	Version
91121976	84480014	7/16 (female)

SENCITY® Urban 200

Description

- 2-port directional antenna
- Frequency range 1695-2180/2300-2690/3410-4200 MHz
- Dual polarization (X-Pol)
- Supports 2×2 MIMO configurations
- Half-power beam width 70°/65°
- Low PIM

Specifications

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

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

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

Material data	
Radome colour	RAL 7035 (light-grey)
Radome material	PC (Polycarbonate)

Ordering information

Type no.	Item no.	Version
1399.32.0001	85117564	Nex10 connectors
1399.17.0248	85110146	N connectors

SENCITY® Urban 200

Description

- 2-port directional antenna
- Frequency range 1695-2180/2300-2690/3410-4200 MHz
- Dual polarization (X-Pol)
- Supports 2×2 MIMO configurations
- Half-power beam width 110°
- Low PIM

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4	Band 5
Frequency (MHz)	1695-1920	1920-2180	2300-2690	3410-3800	3800-4200
VSWR	2	2	2	2	2
Gain (dBi)	7	7	7.5	7.5	8.5
3 dB beamwidth (h) (°)	100	120	100	65	120
3 dB beamwidth (v) (°)	105	120	95	95	85
Composite power max (W)	125	125	110	95	90

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

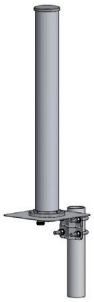
Environmental data	
Environmental conditions	indoor/outdoor
IP ratin	IP66
RoHS 2011/65/EU	compliant

Material data	
Radome colour	RAL 7035 (light-grey)
Radome material	PC (Polycarbonate)

Ordering information

Type no.	Item no.	Version
1399.32.0002	85117565	Nex10 connectors
1399.17.0250	85110147	N connectors

SENCITY® SC Omni



Description

- Omni-directional antenna
- Frequency range 380-3800 MHz
- Vertical polarization
- Gain 3-8.5 dBi
- Small ground plane and excellent coverage

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (MHz)	380-400	400-450	450-470	694-746
VSWR	1.7	1.7	1.7	1.7
Impedance (Ohm)	50	50	50	50
Gain (dBi)	3	4	5	6
Composite power max (W)	50	50	50	50
Ambient temperature (°C)	50	50	50	50
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm			

Electrical data	**Band 5**	**Band 6**	**Band 7**
Frequency (MHz)	746-960	1200-2700	3300-3800
VSWR	1.7	1.7	1.7
Impedance (Ohm)	50	50	50
Gain (dBi)	7	8	8.5
Composite power max (W)	50	50	50
Ambient temperature (°C)	50	50	50
IMD level (dBc)	–150 dBc at carrier power 2 × 43 dBm		

Mechanical data	
Dimensions (height × diameter)	540 × 60 mm
Weight (kg)	0.5

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

Ordering information

Type no.	**Item no.**	**Version**
92210003	84467565	4.3-10 (female)

SENCITY® Omni-M

Description

- Omni-directional multiband antenna
- Frequency band 790-960/1710-2690 MHz
- Vertical polarization
- Gain 2-3 dBi
- L-bracket for pole or wall mounting scenario included

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	790-960	1710-2690
VSWR	2	1.9
Impedance (Ohm)	50	50
Composite power max (W)	25	25

Mechanical data	
Dimensions (height × diameter)	263 × 32 mm
Weight (kg)	0.4

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

Material data	
Radome colour	RAL 9003 (signal white)
Radome material	Glass Fibre

Ordering information

Type no.	**Item no.**	**Version**
1399.17.0231	85027954	N (female)

SENCITY® Road

Description

- 3-Port omni-directional vehicle antenna
- For special purpose installations
- Option as vehicle antenna
- Frequency range 698-960/1710-2690/4900-5935 MHz
- Stick antenna option for TETRA
- Vertical polarization
- GPS/Glonass with integrated LNA
- Gain 5-7 dBi
- Offers a stick antenna socket and separate connector for each application
- Single hole mounting, easy cabling feed-through
- Works also on non-metallic surfaces

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	698-790	790-960	1710-2690	1710-2690
VSWR	2.1	1.8	2	1.8
Impedance (Ohm)	50	50	50	50
Gain (dBi)	5	5	5	5
Composite power max (W)	80	40	40	40
Ambient temperature (°C)	25	25	25	25

Electrical data	Band 5	Band 6	Band 7	
Frequency (MHz)	4900-5935	1574-1610	Socket	
VSWR	1.8	2		
Impedance (Ohm)	50	50		
Gain (dBi)	7			
Composite power max (W)	25			
Ambient temperature (°C)	30			

Mechanical data	
Dimensions (height × width × depth)	82 × 83 × 208 mm
Weight (kg)	0.41

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

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

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

Ordering information

Type no.	Item no.	Version
1399.99.0039	84089087	SMA (female)

SENCITY® Road MIMO

Description

- 2-port omni-directional vehicle antenna
- For special purpose installations
- Option as vehicle antenna
- Frequency range 698-960/1710-2690 MHz
- Vertical polarization
- Supports 2×2 MIMO configurations
- GPS/Glonass with integrated LNA
- Gain 5-7 dBi
- Single hole mounting, easy cabling feed-through
- Works also on non-metallic surfaces, details see data sheet

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (MHz)	698-790	790-960	1710-2690	2400-2690
VSWR	2.2	2	2	2
Impedance (Ohm)	50	50	50	50
Gain (dBi)	4	4	6	6
Composite power max (W)	80	50	40	40
Ambient temperature (°C)	25	25	25	25

Mechanical data	
Dimensions (height × width × depth)	88 × 83 × 208 mm
Weight (kg)	0.4

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

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

Ordering information

Type no.	**Item no.**	**Version**
1399.99.0119	85021510	SMA (male)

SENCITY® Road MIMO

Description

- 2-port omni-directional vehicle antenna
- For special purpose installations
- Option as vehicle antenna
- Frequency range 698-960/1710-2690 MHz
- Vertical polarization
- Supports 2×2 MIMO configurations
- Gain 5-7 dBi
- Single hole mounting, easy cabling feed-through
- Works also on non-metallic surfaces, details see data sheet

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (MHz)	698-790	790-960	1710-2690	1710-2690
VSWR	2.2	2	2	2
Impedance (Ohm)	50	50	50	50
Gain (dBi)	4	4	6	6
Composite power max (W)	80	50	40	40
Ambient temperature (°C)	25	25	25	25

Electrical data	**Band 5**
Frequency (MHz)	1574-1610
VSWR	2
Impedance (Ohm)	50

Mechanical data	
Dimensions (height × width × depth)	88 × 83 × 208 mm
Weight (kg)	0.5

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

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

FM radio stick antenna 88 to 108 MHz	84112255	9091.99.0246
TETRA stick antenna 380 to 430 MHz	84112256	9091.99.0247
TETRA stick antenna 450 to 470 MHz	84112257	9091.99.0248

Ordering information

Type no.	**Item no.**	**Version**
1399.99.0129	85004616	SMA (female)

GPS Antenna L1+L2

Description

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

Specifications

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

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

Material data	
Radome colour	black

Ordering information

Type no.	Item no.	Version
—	85073714	GPS Antenna L1+L2

Direct GPS-over-Fiber

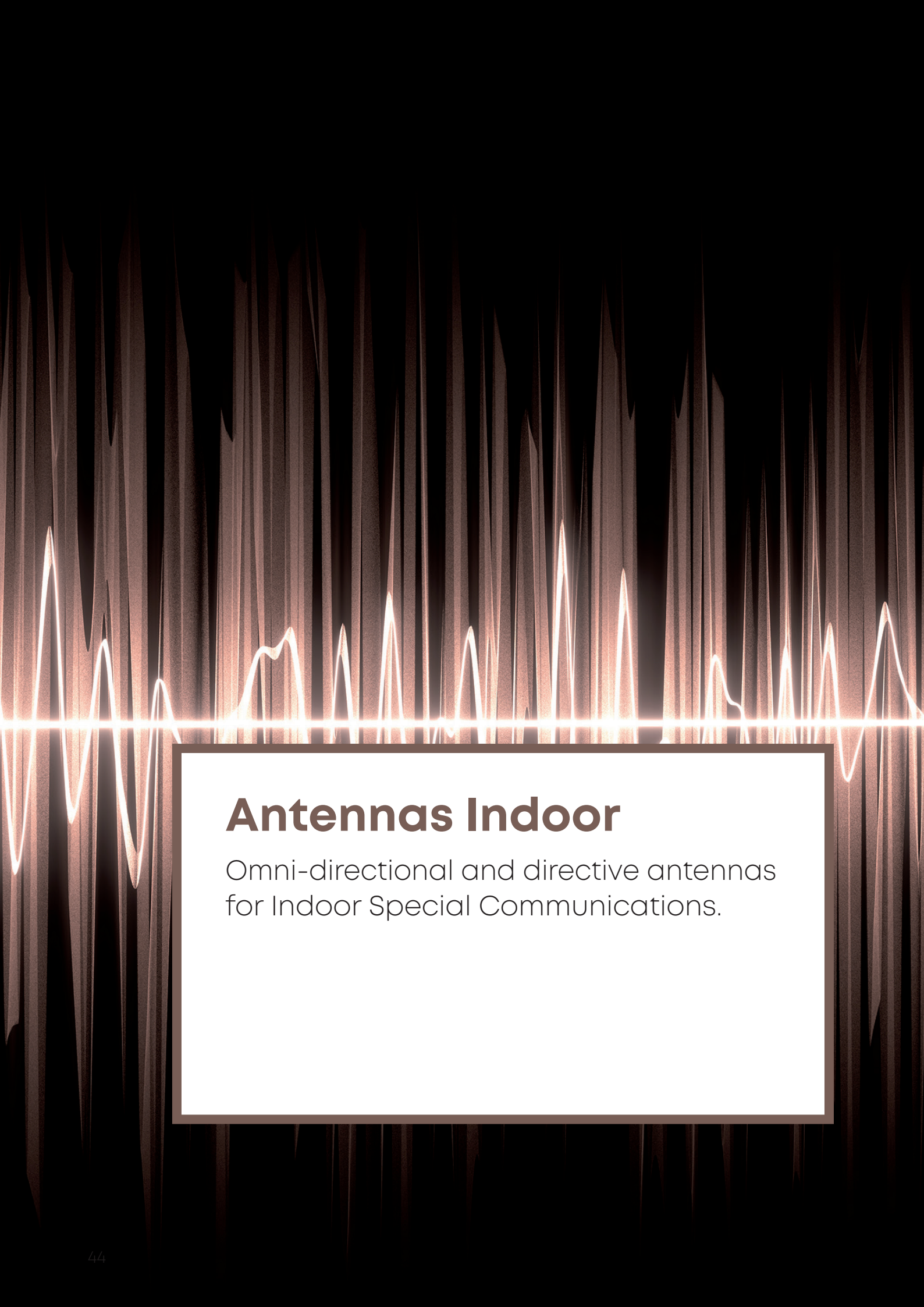
Description

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

Features

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

For more information:
https://www.hubersuhner.com/en/products/radio-frequency/rf-over-fiber-series/direct-gps-over-fiber/direct-gps-over-fiber



Antennas Indoor

Omni-directional and directive antennas for Indoor Special Communications.

Overview

Indoor omnidirectional antennas

Description					Type no.	Height (mm)	Input	Page
Indoor VPol Omni	380-405	360°	2 dBi		91121388	77	N fem.	46
Indoor VPol Omni	405-430	360°	2 dBi		91121440	77	N fem.	47
Indoor VPol Omni	450-470	360°	2 dBi		91121743	77	N fem.	48
Indoor VPol Omni	380…6000	360°	1-6 dBi		92210001	187	N fem.	49
Indoor VPol Omni	380…6000	360°	1-6 dBi		92210002	187	4.3-10 fem.	49
Indoor VPol Omni	690-6400	360°	2 dBi		1399.17.0114	69	N fem.	50
Indoor VPol Omni	690-6400	360°	2 dBi		1399.31.0006	69	4.3-10 fem.	51
Indoor VPol Omni	698-5935	360°	2 dBi		1399.17.0133	90	N fem.	52
Indoor VPol Omni	698-3800	360°	2-6 dBi		1399.31.0010	87	2 × 4.3-10 fem.	53

Indoor directional antennas

Description					TypeNo.	Height (mm)	Input	Page
Indoor VPol Panel	380-405	90°	7 dBi		91121389	302	N fem.	54
Indoor VPol Panel	405-430	90°	7 dBi		91121441	302	N fem.	55
Indoor VPol Panel	450-470	90°	7 dBi		91121744	302	N fem.	56
Indoor VPol Panel	698-2700	80°	6-8 dBi		1399.17.0233	260	N fem.	57
Indoor VPol Panel	698-2700	80°	6-8 dBi		1399.31.0005	260	4.3-10 fem.	57

SENCITY® SC Indoor

Description

- Indoor omni-directional antenna
- Frequency range 380-405 MHz
- Vertical polarization
- Gain 2 dBi
- The antenna needs no additional groundplane

Specifications

Electrical data	**Band 1**
Frequency (MHz)	380-405
VSWR	2.0
Impedance (Ohm)	50
Composite power max (W)	50
Ambient temperature (°C)	50

Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.4

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

Ordering information

Type no.	**Item no.**	**Version**
91121388	84467216	N (female)

SENCITY® SC Indoor

Description

- Indoor omni-directional antenna
- Frequency range 405-430 MHz
- Vertical polarization
- Gain 2 dBi
- The antenna needs no additional groundplane.

Specifications

Electrical data	**Band 1**
Frequency (MHz)	405-430
VSWR	2.0
Impedance (Ohm)	50
Composite power max (W)	50
Ambient temperature (°C)	50

Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.4

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

Ordering information

Type no.	**Item no.**	**Version**
91121440	84467225	N (female)

SENCITY® SC Indoor

Description

- Indoor omni-directional antenna
- Frequency range 450-470 MHz
- Vertical polarization
- Gain 2 dBi
- The antenna needs no additional groundplane

Specifications

Electrical data	**Band 1**
Frequency (MHz)	450-470
VSWR	2.0
Impedance (Ohm)	50
Composite power max (W)	50
Ambient temperature (°C)	50

Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.4

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

Ordering information

Type no.	**Item no.**	**Version**
91121743	84467231	N (female)

SENCITY® SC Indoor

Description

- Indoor omni-directional antenna
- 380 to 6000 MHz (multi band)
- Vertical polarization
- Gain 1-6 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	380-806	806-960	1395-1432	1710-2170
Impedance (Ohm)	50	50	50	50
Gain (dBi)	1	4	5	5
Composite power max (W)	50	50	50	50
Ambient temperature (°C)	50	50	50	50
IMD level (dBc)	–155 dBc at carrier power 2 × 20 dBm			

Electrical data	Band 5	Band 6	Band 7	
Frequency (MHz)	2300-2500	3300-3700	4900-6000	
Impedance (Ohm)	50	50	50	
Gain (dBi)	5	5	6	
Composite power max (W)	50	50	50	
Ambient temperature (°C)	50	50	50	
IMD level (dBc)	–155 dBc at carrier power 2 × 20 dBm			

Mechanical data	
Dimensions (height × diameter)	189.8 × 274.1 mm
Weight	0.5

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	
Radome colour	UV protected polycarbonate
Back plane	aluminum protected through chemical passivation

Ordering information

Type no.	Item no.	Version
92210001	84467570	N (female)
92210002	84467568	4.3-10 (female)

SENCITY® Optima

Description

- Indoor omni-directional antenna
- Frequency range 690-6400 MHz
- Ultra broad band, multi band
- Vertical polarization
- Gain up to 6 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	690-1100	1100-1710	1710-2700	2700-3800
Impedance (Ohm)	50	50	50	50
Gain (dBi)	2	6	6	7
Composite power max (W)	100	100	100	100
Ambient temperature (°C)	55	55	55	55
IMD level (dBc)	–145 dBc at carrier power 2 × 30 dBm			

Electrical data	Band 5	Band 6
Frequency (MHz)	3800-5150	5150-6400
Impedance (Ohm)	50	50
Gain (dBi)	7.5	8.5
IMD level (dBc)	–145 dBc at carrier power 2 × 30 dBm	

Mechanical data	
Dimensions (height × diameter)	69 × 321 mm
Weight	1

Environmental data	
Environmental conditions	indoor
Operation temperature (°C)	0-55
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome colour	RAL 9010 (white)
Back plate/base plate material	aluminum

Ordering information

Type no.	Item no.	Version
1399.17.0114	84048165	N (female)

SENCITY® Optima-L

Description

- Indoor omni-directional antenna
- Frequency range 690-6400 MHz
- Ultra broad band, multi band
- Vertical polarization
- Gain up to 6 dBi
- Fitted with 0.3 m plenum rated pigtail cable

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (MHz)	690-1100	1100-1710	1710-2700	2700-3800
Impedance (Ohm)	50	50	50	50
Gain (dBi)	2	6	6	6
Composite power max (W)	100	100	100	100
Ambient temperature (°C)	55	55	55	55
IMD level (dBc)	–150 dBc at carrier power 2 × 30 dBm			

Electrical data	**Band 5**	**Band 6**
Frequency (MHz)	3800-5150	5150-6400
Impedance (Ohm)	50	50
Gain (dBi)	7	8
IMD level (dBc)	–150 dBc at carrier power 2 × 30 dBm	

Mechanical data	
Dimensions (height × diameter)	69 × 321 mm
Weight	0.9

Environmental data	
Environmental conditions	indoor
Operation temperature (°C)	0-55
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome colour	RAL 9010 (white)
Back plate/base plate material	aluminum

Ordering information

Type no.	**Item no.**	**Version**
1399.31.0006	85077731	4.3-10 (female)

SENCITY® Avant

Description

- Indoor omni-directional antenna
- Frequency range 690-960/1710-2170/2400-2700 MHz
- Vertical polarization
- Gain up to 6 dBi

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	698-806	806-960	1710-2170	2400-2700
Impedance (Ohm)	50	50	50	50
Gain (dBi)	2.5	5	5.5	6.5
Composite power max (W)	100	100	100	100
Ambient temperature (°C)	55	55	55	55
IMD level (dBc)	–143 dBc at carrier power 2 × 30 dBm			

Electrical data	Band 5	Band 6
Frequency (MHz)	3400-3700	4900-5935
Impedance (Ohm)	50	50
Gain (dBi)	7.5	7.5
IMD level (dBc)	–143 dBc at carrier power 2 × 30 dBm	

Mechanical data	
Dimensions (height × width × depth)	90 × 78 × 255 mm
Weight	0.8

Environmental data	
Environmental conditions	indoor
Operation temperature (°C)	–10 to 55
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome colour	RAL 9010 (white)

Ordering information

Type no.	Item no.	Version
1399.17.0133	85004734	N (female)

SENCITY® Rondo MIMO

Description

- Indoor omni-directional antenna
- Frequency range 690-960/1447-1660.5/1695-2700/3400-3800 MHz
- Vertical polarization
- Gain up to 6 dBi
- Antenna ETL listed for Plenum space (UL 2043)
- Design patent DM/088510

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (MHz)	698-790	790-960	1447-1660.5	1695-2170
Impedance (Ohm)	50	50	50	50
Gain (dBi)	2	2	4	6
Composite power max (W)	300	180	180	130
Ambient temperature (°C)	55	55	55	55
IMD level (dBc)	–155 dBc at carrier power 2 × 43 dBm			

Electrical data	**Band 5**	**Band 6**	**Band 7**	
Frequency (MHz)	2170-2700	3400-3600	3600-3800	
Impedance (Ohm)	50	50	50	
Gain (dBi)	7	6	6	
IMD level (dBc)	–155 dBc at carrier power 2 × 43 dBm			

Mechanical data	
Dimensions (height × diameter)	87 × 238 mm
Weight	0.8

Environmental data	
Environmental conditions	indoor
Operation temperature (°C)	0-55
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

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

Ordering information

Type no.	**Item no.**	**Version**
1399.31.0010	85080511	2 × 4.3-10 (female)

SENCITY® SC Indoor

Description

- Indoor directional antenna
- 380-405 MHz
- Vertical polarization
- Half-power beam width 90°
- Gain 7 dBi

Specifications

Electrical data	**Band 1**
Frequency (MHz)	380-405
VSWR	2.0
Gain (dBi)	7
3 dB beamwidth (v) (°)	90
Impedance (Ohm)	50
Composite power max (W)	50
Ambient temperature (°C)	50

Mechanical data	
Dimensions (height × width × depth)	302 × 243 × 50 mm
Weight	1.4

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

Ordering information

Type no.	**Item no.**	**Version**
91121389	84467220	N (female)

SENCITY® SC Indoor

Description

- Indoor directional antenna
- Frequency range 405-430 MHz
- Vertical polarization
- Half-power beam width 90°
- Gain 7 dBi

Specifications

Electrical data	**Band 1**
Frequency (MHz)	405-430
VSWR	2.0
Gain (dBi)	7
3 dB beamwidth (v) (°)	90
Impedance (Ohm)	50
Composite power max (W)	50
Ambient temperature (°C)	50

Mechanical data	
Dimensions (height × width × depth)	302 × 243 × 50 mm
Weight	1.4

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

Ordering information

Type no.	**Item no.**	**Version**
91121441	84467227	N (female)

SENCITY® SC Indoor

Description

- Indoor directional antenna
- Frequency range 450-470 MHz
- Vertical polarization
- Half-power beam width 90°
- Gain 7 dBi

Specifications

Electrical data	**Band 1**
Frequency (MHz)	450-470
VSWR	2.0
Impedance (Ohm)	50
Gain (dBi)	7
3dB beamwidth (v) (°)	90
Composite power max (W)	50
Ambient temperature (°C)	50

Mechanical data	
Dimensions (height × width × depth)	302 × 243 × 50 mm
Weight	1.4

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

Ordering information

Type no.	**Item no.**	**Version**
91121744	84467233	N (female)

SENCITY® Cube

Description

- Indoor directional antenna
- Frequency range 698-960/1710-2700 MHz
- Vertical polarization
- Gain up to 8dBi
- Fitted with 0.3 m plenum rated pigtail cable

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	698-790	790-960	1710-2170	2170-2700
Impedance (Ohm)	50	50	50	50
Gain (dBi)	6	7	8	7
Composite power max (W)	90	80	80	80
Ambient temperature (°C)	80	65	50	65
IMD level (dBc)	–150 dBc at carrier power 2 × 30 dBm			

Mechanical data	
Dimensions (height × diameter)	260 × 200 × 71 mm
Weight	1.1

Environmental data	
Environmental conditions	indoor
Operation temperature (°C)	0 to 55
RoHS 2011/65/EU	compliant
REACH 2006/1907/EC	compliant

Material data	
Radome colour	RAL 9003 (signal white)
Back plate/ base plate material	aluminum

Ordering information

Type no.	Item no.	Version
1399.17.0233	85030125	N (female)
1399.31.0005	85074216	4.3-10 (female)

Splitter, tapper combiner

RF Components for Indoor and Outdoor Special Communications.

Overview

Splitter

Description			Typeno.	Power	Input	Page
2-way splitter	350-3800	indoor/outdoor	92210012	300 W	4.3-10 fem.	60
3-way splitter	350-3800	indoor/outdoor	92210013	300 W	4.3-10 fem.	60
4-way splitter	350-3800	indoor/outdoor	92210014	300 W	4.3-10 fem.	60
2-way splitter	380-2700	indoor/outdoor	85029258	300 W	4.3-10 fem.	61
3-way splitter	380-2700	indoor/outdoor	85029259	300 W	4.3-10 fem.	61
4-way splitter	380-2700	indoor/outdoor	85029261	300 W	4.3-10 fem.	61
2-way splitter	380-2700	indoor/outdoor	85029258	300 W	N fem.	62
3-way splitter	380-2700	indoor/outdoor	85029259	300 W	N fem.	62
2-way splitter	380-3800	indoor/outdoor	97121242	700 W	7-16 fem.	63
3-way splitter	380-512	indoor/outdoor	K7431348	1000 W	7-16 fem.	64
4-way splitter	380-512	indoor/outdoor	K7431358	1000 W	7-16 fem.	64
2-way splitter	380-2700	indoor/outdoor	5501.41.0030	500 W	7-16 fem.	65
2-way splitter	694-3800	indoor/outdoor	5502.17.0050	300 W	N fem.	66
2-way splitter	694-3800	indoor/outdoor	5502.41.0050	500 W	7-16 fem.	66

Tapper

Description			Typeno.	Power	Input	Page
2-way tapper 3 dB	350-2700	indoor/outdoor	5501.31.0002	300 W	4.3-10 fem.	67
2-way tapper 4.8 dB	350-2700	indoor/outdoor	5501.31.0003	300 W	4.3-10 fem.	67
2-way tapper 6 dB	350-2700	indoor/outdoor	5501.31.0004	300 W	4.3-10 fem.	63
2-way tapper 10 dB	350-2700	indoor/outdoor	5501.31.0010	300 W	4.3-10 fem.	67
2-way tapper 15 dB	350-2700	indoor/outdoor	5501.31.0015	300 W	4.3-10 fem.	67
2-way tapper 20 dB	350-2700	indoor/outdoor	5501.31.0100	300 W	4.3-10 fem.	67
2-way tapper 5-20 dB	380-5920	indoor/outdoor	97131271	100 W	4.3-10 fem.	68

Diplexer

Description			Typeno.	Power	Input	Page
Diplexer	80-960 1695-2700	Indoor	84103626	120 W	N fem.	69

Quadraplexer

Description			Typeno.	Power	Input	Page
Quadraplexer	380-960 1710-1880 1920-2170 2500-2690	indoor/outdoor	2501.41.0100	700 W 300 W 200 W 200 W	7-16 fem.	70

Low-loss power splitter

Description

- 2-, 3-, 4-way low-loss power splitter
- Frequency band 350-3800 MHz
- Multi-band
- For indoor and outdoor use

Specifications

Electrical data	**Signal band 1**
Frequency (GHz)	0.35-3.8
Insertion loss (dB)	0.05
Max. composite power (W)	300
Char. impedance (Ω)	50
IMD level (dBc)	–155 dBc at carrier power 2 × 43 dBm

	Input 1
Connector type	4.3-10
Connector gender	jack (female)

Mechanical data	
Dimensions (height × width × length)	52.5 × 393.3 × 63.5 mm
Weight (kg)	1.0

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–30 °C to 65 °C
IP rating	IP65
WEEE 2002/96/EC	no special marking needed
RoHS 2011/65/EU	compliant

Ordering information

Type no.	Item no.	Version
92210012	84467563	2-way low-loss power splitter
92210013	84467561	3-way low-loss power splitter
92210014	84467559	4-way low-loss power splitter

Reactive power splitter

Description

- This power splitter has been designed to evenly split high power
- Signals operating in UHF, cellular and 2.4 GHz WiFi bands with minimal reflections or loss.
- The mechanical shape allows easy attachment to wall using the supplied clips. The wide frequency range allows use with multiband antennas and leaky cable systems.

Specifications

Electrical data	**Signal band 1**	**Signal band 2**
Frequency (GHz)	0.38-0.69	0.69-2.7
Insertion loss (dB)	0.1	0.1
Max. composite power (W)	300	300
Splitter loss (dB)	3	3

	Input 1
Connector type	4.3-10
Connector gender	jack (female)

Mechanical data	
Dimensions (height × width × length)	23 × 240.1 × 32 mm (2-way reactive power splitter) 23 × 287.9 × 32 mm (3-way reactive power splitter) 32 × 305 × 32 mm (4-way reactive power splitter)
Weight (kg)	0.65 (2-way reactive power splitter) 0.85 (3-way reactive power splitter) 1.08 (4-way reactive power splitter)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	−40 °C to 85 °C
IP rating	IP67
2011/65/EU (RoHS-including 2015/863 and 2017/2102)	compliant

Ordering information

Type no.	**Item no.**	**Version**
5501.31.0020	85075304	2-way reactive power splitter
5501.31.0030	85075306	3-way reactive power splitter
5501.31.0040	85075307	4-way reactive power splitter

Reactive power splitter

Description

- This 2-way power splitters have been designed to evenly split high power signals operating in security, cellular and 2.4 GHz WiFi bands with minimal reflections or loss. All joints are moisture sealed with O-rings to meet IP67. The mechanical shape allows easy attachment to wall using the supplied clips. The wide frequency range allows use with multiband antennas and leaky cable systems. With few solder joints and an air dielectric, the loss has been minimized and reliability enhanced.

Specifications

Electrical data	**Signal band 1**
Frequency (GHz)	0.38-2.7
Insertion loss (dB)	0.1
Max. composite power (W)	300
Char. impedance (Ω)	50

	Input 1
Connector type	N (female)
Connector gender	jack (female)

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 267 mm
Weight (kg)	0.33

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–35 °C to 85 °C
IP rating	IP67
WEEE 2002/96/EC	no special marking needed
RoHS 2011/65/EU	compliant

Ordering information

Type no.	**Item no.**	**Version**
5501.17.0030	85029258	2-way reactive power splitter
5501.17.0031	85029259	3-way reactive power splitter

2-way splitter

Description

- 2-way low-loss power splitter
- Frequency band 380-3800 MHz
- Multi-band
- For indoor and outdoor use

Specifications

Electrical data	**Signal band 1**
Frequency (GHz)	0.35-3.8
Insertion loss (dB)	0.05
Max. composite power (W)	700
Intermodulation distortion (dBc)	–155
Char. impedance (Ω)	50

	Input 1
Connector type	7/16
Connector gender	jack (female)

	Output 1	**Output 2**
Connector type	7/16	7/16
Connector gender	jack (female)	jack (female)

Mechanical data	
Dimensions (height × width × length)	260 × 61 × 34 mm
Weight (kg)	0.9

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 °C to 60 °C
IP rating	IP65
WEEE 2002/96/EC	no special marking needed
RoHS 2011/65/EU	compliant

Ordering information

Type no.	**Item no.**	**Version**
97121242	84468529	7-16 (female)

Power splitter

Description

- Power splitter
- Frequency band 380-512 MHz
- 3-, 4- way splitter
- For indoor and outdoor use

Specifications

Electrical data	**Signal band 1**
Frequency (GHz)	0.38-0.512
Insertion loss (dB)	0.05
Max. composite power (W)	1000
Char. impedance (Ω)	50

	Input 1
Connector type	7/16
Connector gender	jack (female)

	Output 1	**Output 2**	**Output 3**
Connector type	7/16	7/16	7/16
Connector gender	jack (female)	jack (female)	jack (female)

Mechanical data	
Dimensions (height × width × length)	409 × 82 × 82 mm

Environmental data	
Environmental conditions	indoor/outdoor
WEEE 2002/96/EC	no special marking needed
RoHS 2011/65/EU	compliant

Ordering information

Type no.	**Item no.**	**Version**
K7431348	84467237	3-way power splitter
K7431358	84467239	4-way power splitter

2-way reactive power splitter

Description

- This 2-way power splitters have been designed to evenly split high power signals operating in security, cellular and 2.4 GHz WiFi bands with minimal reflections or loss. All joints are moisture sealed with O-rings to meet IP67.
- The mechanical shape allows easy attachment to wall using the supplied clips. The wide frequency range allows use with multiband antennas and leaky cable systems. With few solder joints and an air dielectric, the loss has been minimized and reliability enhanced.

Specifications

Electrical data	**Signal band 1**
Frequency (GHz)	0.35-2.7
Insertion loss (dB)	0.1
Max. composite power (W)	500
Intermodulation distortion (dBc)	–155

	Input 1
Connector type	7/16
Connector gender	jack (female)

	Output 1	**Output 2**
Connector type	7/16	7/16
Connector gender	jack (female)	jack (female)

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 267 mm
Weight (kg)	0.141

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

Ordering information

Type no.	**Item no.**	**Version**
5501.41.0030	85029262	7-16 (female)

2-way reactive power splitter

Description

- This 2-way power splitters have been designed to evenly split high power signals operating in cellular and 2.4 GHz WiFi bands with minimal reflections or loss. All joints are moisture sealed with O-rings to meet IP67.
- The mechanical shape allows easy attachment to wall using the supplied clips. The wide frequency range allows use with multiband antennas and leaky cable systems. With few solder joints and an air dielectric, the loss has been minimized and reliability enhanced.

Specifications

Electrical data	**Signal band 1**	**Signal band 2**
Frequency (GHz)	0.694-2.5	2.5-3.8
Insertion loss (dB)	0.1	0.2
Max. composite power (W)	300	300
Intermodulation distortion (dBc)	–161	–161

5502.17.0050	**Input 1**
Connector type	N
Connector gender	jack (female)

5502.17.0050	**Output 1**	**Output 2**
Connector type	N	N
Connector gender	jack (female)	jack (female)

5502.41.0050	**Input 1**
Connector type	connector type
Connector gender	jack (female)

5502.41.0050	**Output 1**	**Output 2**
Connector type	7/16	7/16
Connector gender	jack (female)	jack (female)

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 190 mm
Weight (kg)	0.21

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

Ordering information

Type no.	**Item no.**	**Version**
5502.17.0050	85029265	N (female)
5502.41.0050	85029268	7-16 (female)

Power tapper

Description

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

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (GHz)	0.35-0.96	1.71-2.7
IM level	–161	–161

	85075310	**85075311**	**85075312**	**85075315**	**85075316**	**85075317**
Tap loss (dB)	3	4.8	6	10	15	20

	Main line	**In main line**	**Out tap port**
Connector type	4.3-10	4.3-10	4.3-10
Gender	jack (female)	jack (female)	jack (female)
Char. impedance	50 Ohm		

Mechanical data	
Dimensions (height × width × length)	32 × 89 × 32 mm
Weight (kg)	0.42

Ordering information

Type no.	**Item no.**	**Version**
5501.31.0002	85075310	2:1 unequal power divider
5501.31.0003	85075311	3:1 unequal power divider
5501.31.0004	85075312	4:1 unequal power divider
5501.31.0010	85075315	10:1 unequal power divider
5501.31.0015	85075316	30:1 unequal power divider
5501.31.0100	85075317	100:1 unequal power divider

Power tapper

Description

- Multi-band low loss power tapper
- Frequency bands 380-960/1695-2700/3400-3800/4920-5920 MHz
- Continously adjustable splitting radio 5-20 dB

Specifications

Electrical data	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	380-960	1695-2700	3400-3800	4920-5920
IM level	–150			—

	Main line	In main line	Out tap port
Connector type	4.3-10	4.3-10	4.3-10
Gender	jack (female)	jack (female)	jack (female)
Char. impedance	50 Ohm		

Mechanical data	
Dimensions (height × width × length)	160 × 63 × 52 mm
Weight (kg)	0.4

Ordering information

Type no.	Item no.	Version
97131271	84468531	4.3-10 (female)
97121271	84493640	N (female)

TETRA + cellular + WiFi diplexer

Description

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

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (GHz)	0.08-0.96	1.695-2.7
Insertion loss (dB)	0.3	0.5
Max. composite power (W)	120	120
Intermodulation distortion (dBc)	–155	–155

Mechanical data	
Dimensions (height × width × length)	106.7 × 31.7 × 122.3 mm
Weight (kg)	0.55

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

Material data	
Housing material	aluminium
Surface treatment	passivated

Ordering information

Type no.	**Item no.**	**Version**
2501.17.0092	84103626	N (female)

Quadraplexer

Description

- 2501.17.0100 is a 4 port quadraplexer which allows combination and separation of the signals in 380-960 / 1710-1880 / 1920-2170 / 2500-2690 MHz wireless bands. To minimize band inter-reaction, the inputs have an isolation > 50dB and have minimal insertion loss < 0.3 dB over their respective frequency bands.

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (GHz)	0.38-0.96	1.71-1.88	1.92-2.17	2.5-2.69
Insertion loss (dB)	0.3	0.3	0.3	0.3
Max. composite power (W)	700	300	200	200
Intermodulation distortion (dBc)	–155	–155	–155	–155

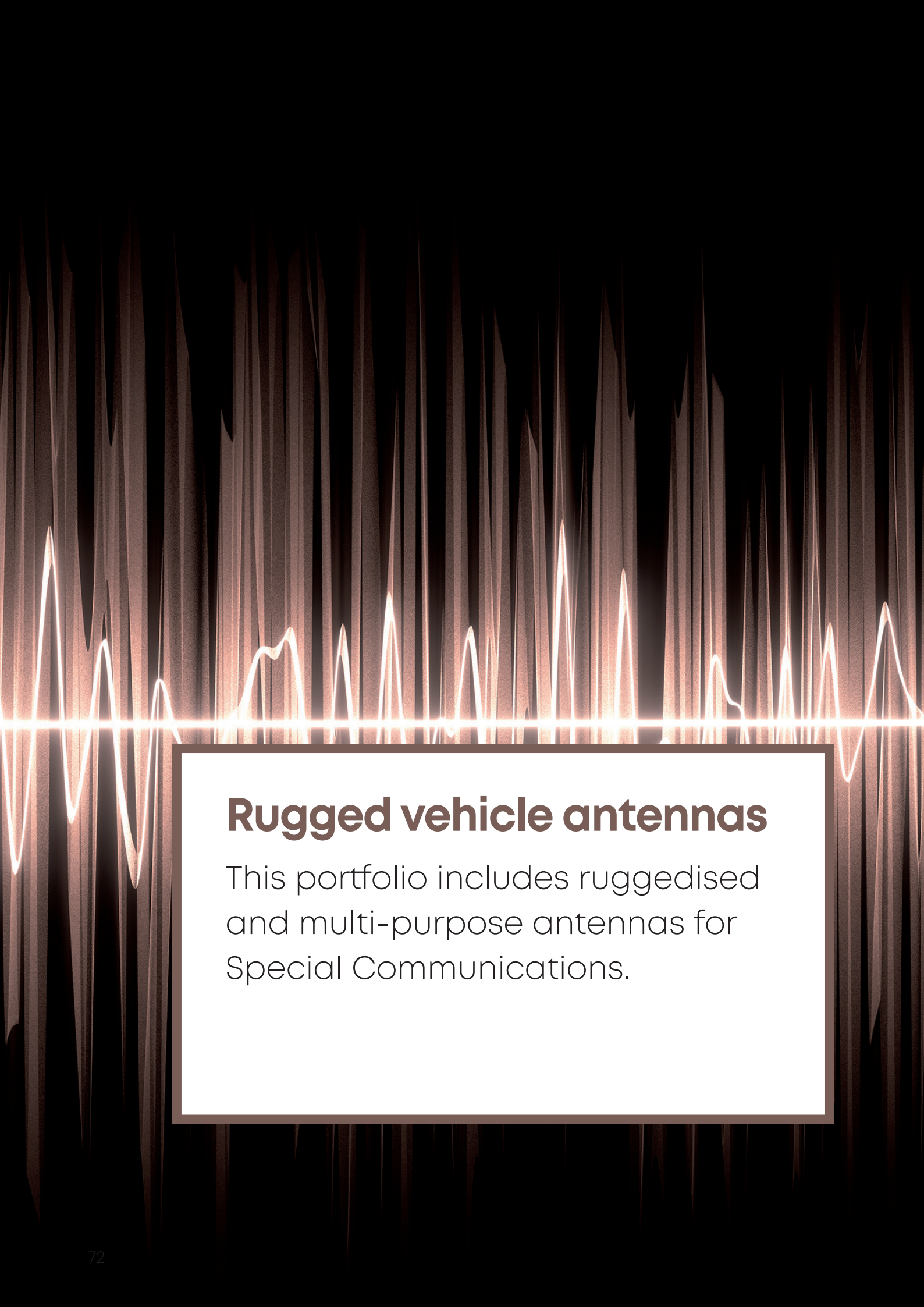
Mechanical data	
Dimensions (height × width × length)	223 × 232 × 50 mm
Weight (kg)	4.6

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

Material data	
Housing material	aluminium
Surface treatment	black paint

Ordering information

Type no.	**Item no.**	**Version**
2501.41.0100	85070953	7-16 (female)



Rugged vehicle antennas

This portfolio includes ruggedised and multi-purpose antennas for Special Communications.

Overview

Special purpose antennas

Description					Type no.	Height (mm)	Input	Page
Vehicle VPol Omni	380-430				98121119	150	N fem.	74
Vehicle VPol Omni	380-430	GPS			98121116	150	N fem.	75
Vehicle VPol Omni	694-6000	GPS	int. amplifier		87010012	93	N fem.	76
Vehicle VPol Omni	694-6000	GPS			87010032	93	N fem.	76

GPS amplifier

Description				Type no.	Height (mm)	Input	Page
External GPS & Galileo amplifier				86010142	22	TNC & N fem.	77

Magnetic foot

Description				Type no.	Height (mm)	Input	Page
Magnetic foot with adapter plate				92310003	35-65mm		78

SENCITY® SC Special Purpose

Description

- Omni-directional vehicle antenna
- Frequency band 380-430 MHz
- Vertical polarization
- Meets EN 50155
- Fire retardant acc. EN 45545-2
- Gain 4-6 dBi

Specifications

Electrical data	**Band 1**
Frequency (MHz)	380-430
VSWR	1.7
Impedance (Ohm)	50
Composite power max (W)	100
Ambient temperature (°C)	50

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

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

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

Ordering information

Description	**Item no.**	**Version**
98121119	84468948	N (female)

SENCITY® SC Special Purpose

Description

- Omni-directional vehicle antenna
- Frequency band 380-430 MHz
- Vertical polarization
- Embedded GPS antenna (requires seperate LNA such as 86010142).
- Meets EN 50155
- Fire retardant acc. EN 45545-2
- Gain 4-6 dBi

Specifications

Electrical data	**Band 1**	**Band 2**
Frequency (MHz)	380-430	1575-1576
VSWR	1.5	1.5
Impedance (Ohm)	50	50
Composite power max (W)	100	100
Ambient temperature (°C)	50	50

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

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

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

Ordering information

Description	**Item no.**	**Version**
98121116	84468950	N (female)

SENCITY® Rail

Description

- Omni-directional vehicle antenna
- Frequency range 694-6425 MHz
- Vertical polarization
- Multi-band GNSS (GPS, GLONASS, BEIDOU, GALILEO) with integrated LNA
- Meets EN 50155 railway standard
- Fire retardant acc. to EN 45545-2
- Works also on non-metallic surfaces
- Gain 5-7.5 dBi

Specifications

Electrical data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Frequency (MHz)	694-960	960-2200	2200-2700	2700-3300
VSWR	1.5	2	2	2
Impedance (Ohm)	50	50	50	50
Ambient temperature (°C)	25	25	25	25

Electrical data	**Band 5**	**Band 6**	**Band 7**
Frequency (MHz)	3300-4900	4900-6425	1559-1620
VSWR	1.5	1.7	2
Impedance (Ohm)	50	50	50
Ambient temperature (°C)	25	25	25

Mechanical data	
Dimensions (height × width × depth)	93 × 146 × 86 mm
Weight (kg)	0.63

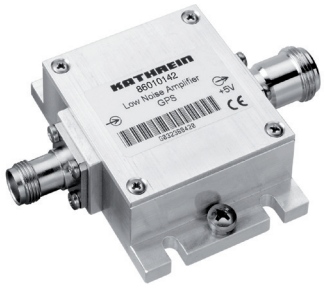
Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

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

Ordering information

Description	**Item no.**	**Version**
87010012	84459559	N (female)
87010032	84459531	N (female)

Low noise amplifier GNSS



Description

- The low noise amplifier 86010142 is designed for the use inside vehicles with train
- antennas with GNSS.
- It includes a preselection filter to prevent the interference in case of simultaneous operation at the frequency range 380-960/1710-3800 MHz and GNSS.
- The product fulfils the requirements according to EN 50155 and EN45545.

Specifications

Electrical data	
Frequency (MHz)	1559 to 1609
Gain (dBi)	25
Composite power max (W)	50

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

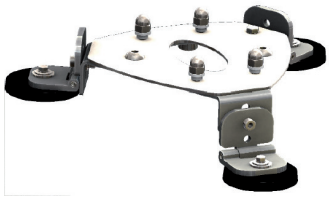
Environmental data	
Operation temperature (°C)	–25 to 55
Flammability rating	EN 45545-2

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

Ordering information

Description	Item no.	Version
86010142	84460305	TNC, N (female)

Magnetic foot for vehicles



Description

- Magnetic foot for vehicles: Nato approved
- Adapter unit for HUBER+SUHNER vehicle antennas
- Different magnetic pads available
- Height adjustment possible
- Extra stable with pre-mounted adapter plate

Specifications

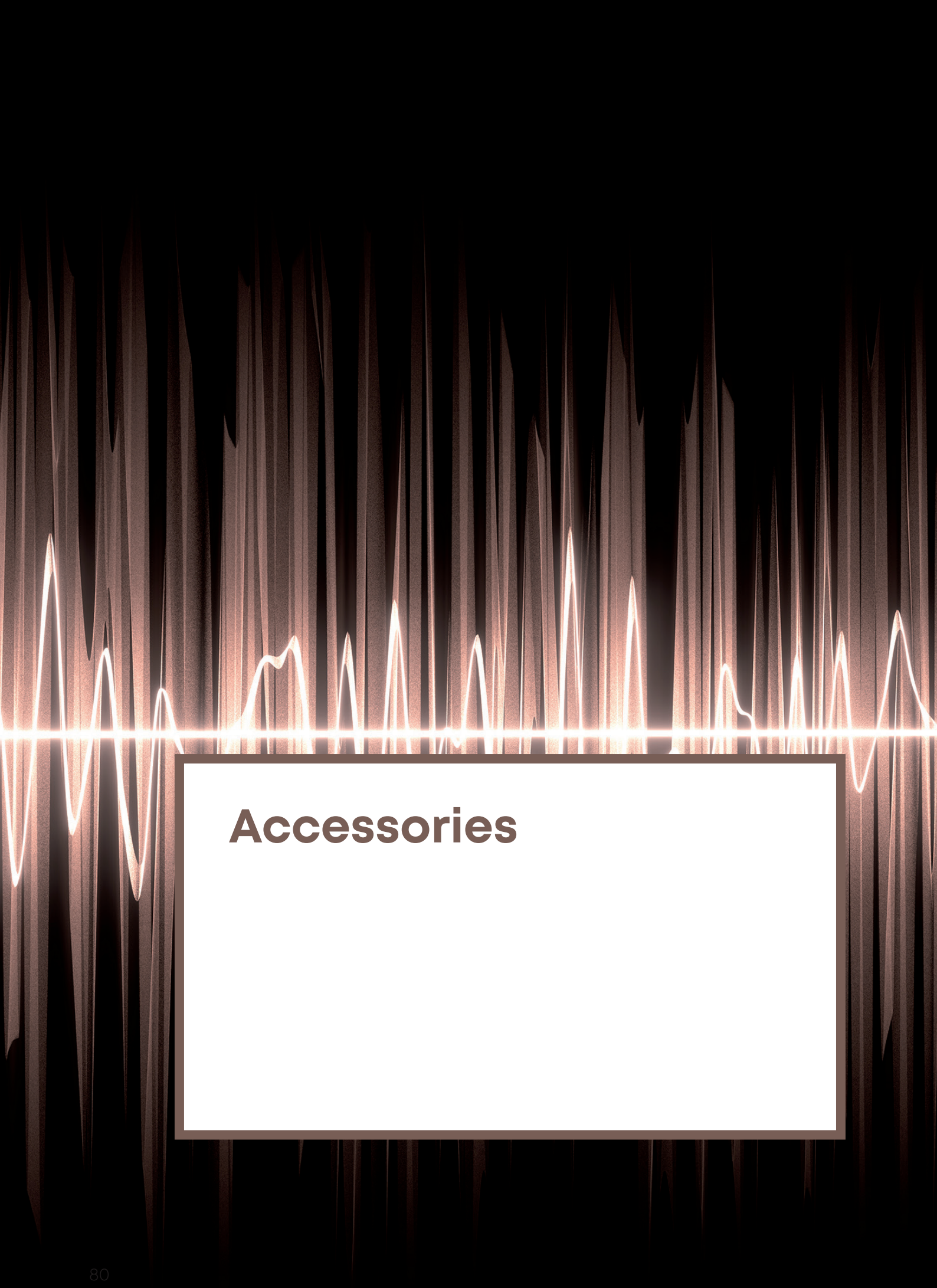
Mechanical data	
Dimensions (height × width × depth)	314 × 100 × 580 mm
Weight (kg)	1.6
Windload	frontal: 40 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
RoHS 2011/65/EU	compliant

Material data	
Foot and plate	aluminium stainless steel steel zinc
Magnet	neodym, iron, rubber

Ordering information

Description	Item no.	Version
92310003	84467555	



Accessories

Overview

Clamps

Description					Type no.	Mast diameter [mm]	Page
Tension band					734365	45-125	82
Tension band					734364	120-140	82
Clamp for panel antennas					731651	28-60	82
Clamp for panel antennas					738546	45-115	82
Clamp for panel antennas					85010002	110-220	82
Clamp for panel antennas					85010003	210-380	82

Downtilt

Description				Type no.	Mast diameter [mm]	Page
Downtilt for panel antennas		light		737978		82
Downtilt for panel antennas		medium/heavy		85010008		82

3 sector clamp

Description				Type no.	Mast diameter [mm]	Page
3 sector clamp		light		742263	88.9	82
3 sector clamp		light		742317	88.9	82
3 sector clamp		medium/heavy		742033	114.3	82
3 sector clamp		medium/heavy		742034	139.7	82

Clamps for omni antennas

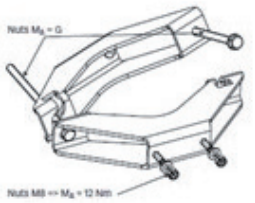
Description				Type no.	Mast diameter [mm]	Page
Clamp for omni				738908	94-125	83
Side-mounting bracket				737398	50-94	83

Remote control unit

Description				Type no.	Page
RCU for adjustable electrical tilt				86010148V01	83
RET cable for power supply and control				860100XX	83

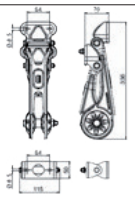
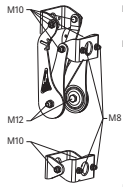
Clamps

Ordering information

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

Downtilt

Ordering information

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

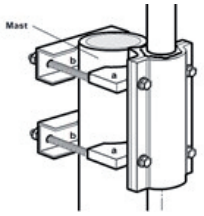
3 sector clamp

Ordering information

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

Clamps for omni antennas

Ordering information

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

Remote control unit

Ordering information

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

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