Omnidirectional Antenna
Vertical Polarization

2400 – 2485

V

KATHREIN
Antennen · Electronic

Preliminary Issue

VPol Omni 2400–2485 360° 8dBi

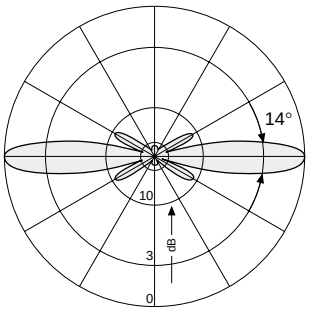
Type No.	**742 384**
Frequency range	2400 – 2485 MHz
Polarization	Vertical
Gain	8 dBi
Half-power beam width	H-plane: 360° E-plane: 14°
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	10 W (at 50 °C ambient temperature)

Material: Reflector screen: Aluminum, radiator: Copper.
Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Mounting: Walls: Using two mounting plates already attached to the antenna.
Masts: Using two clamps suitable for the mast diameter (not supplied).

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Grounding: The metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.



Vertical Pattern

Mechanical specifications	
Input	N female
Connector position	Bottom
Weight	350 g (bracket excluded)
Wind load	9 N (at 150 km/h)
Packing size	660 x 50 x 50 mm
Dimensions	520 x ∅ 16 mm (bracket excluded)

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F-Panel
Vertical Polarization
Half-power Beam Width

2400–2500

V

90°

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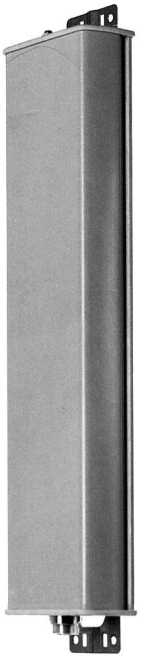
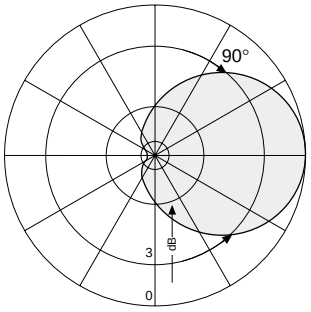
Preliminary Issue

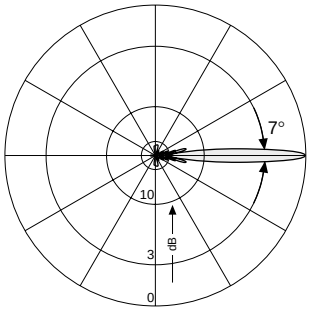
VPol F-Panel 2400–2500 90° 16dBi

Type No.	**800 10166**
Frequency range	2400 – 2500 MHz
Polarization	Vertical
Gain	16 dBi
Half-power beam width	H-plane: 90° E-plane: 7°
Front-to-back ratio	≥ 23 dB
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	150 W (at 50 °C ambient temperature)





Horizontal Pattern



Vertical Pattern

Mechanical specifications	
Input	N female
Connector position	Bottom
Weight	3 kg
Wind load	Frontal: 160 N (at 150 km/h) Lateral: 60 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	930 x 175 x 90 mm
Height/width/depth	837 / 155 / 49 mm

936.A2055 Subject to alteration.

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F-Panel
Vertical Polarization
Half-power Beam Width

2300–2500

V

87°

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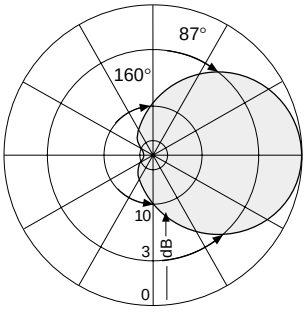
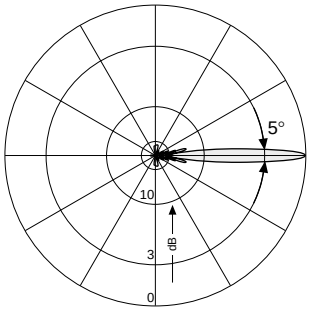
Preliminary Issue

VPol F-Panel 2300–2500 87° 17dBi

Type No.	**800 10167**
Frequency range	2300 – 2500 MHz
Polarization	Vertical
Gain	17 dBi
Half-power beam width	H-plane: 87° E-plane: 5°
Front-to-back ratio	≥ 25 dB
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	150 W (at 50 °C ambient temperature)



Horizontal Pattern



Vertical Pattern

Mechanical specifications	
Input	N female
Connector position	Bottom
Weight	5 kg
Wind load	Frontal: 225 N (at 150 km/h) Lateral: 80 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	1330 x 175 x 90 mm
Height/width/depth	1237 / 155 / 49 mm

936.A2054 Subject to alteration.

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F-Panel
Vertical Polarization
Half-power Beam Width

2300–2500

V

120°

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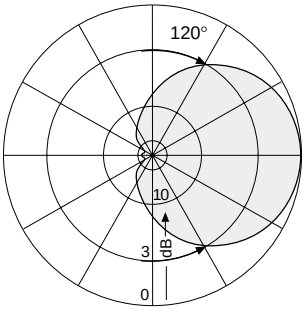
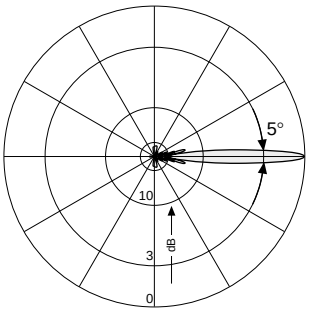
Preliminary Issue

VPol F-Panel 2300–2500 120° 15.5dBi

Type No.	**800 10168**
Frequency range	2300 – 2500 MHz
Polarization	Vertical
Gain	15.5 dBi
Half-power beam width	H-plane: 120° E-plane: 5°
Front-to-back ratio	≥ 20 dB
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	150 W (at 50 °C ambient temperature)



Horizontal Pattern



Vertical Pattern

Mechanical specifications	
Input	N female
Connector position	Bottom
Weight	5 kg
Wind load	Frontal: 225 N (at 150 km/h) Lateral: 80 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	1330 x 175 x 90 mm
Height/width/depth	1237 / 155 / 49 mm

936.A2053 Subject to alteration.

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Omnidirectional Antenna
Vertical Polarization

2400–2485

V

KATHREIN
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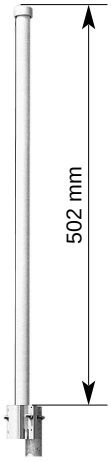
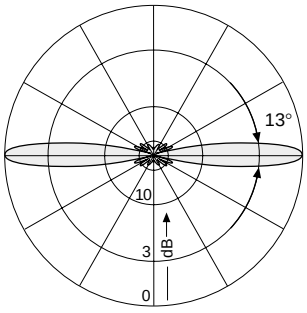
Preliminary Issue

VPol Omni 2400–2485 360° 8dBi

Type No.	**800 10169**
Frequency range	2400 – 2485 MHz
Polarization	Vertical
Gain	8 dBi
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	10 W (at 50 °C ambient temperature)





Vertical Pattern

Mechanical specifications	
Input	SMS female
Connector position	Bottom
Weight	0.16 kg
Radome diameter	16 mm
Wind load	9 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	580 x ∅ 54 mm
Height	502 mm

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Omnidirectional Antenna
Vertical Polarization

2400–2485

V

KATHREIN
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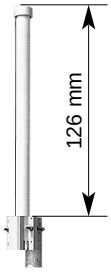
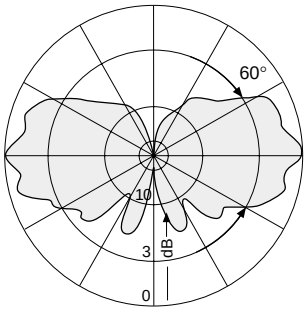
Preliminary Issue

VPol Omni 2400–2485 360° 3dBi

Type No.	**800 10170**
Frequency range	2400 – 2485 MHz
Polarization	Vertical
Gain	3 dBi
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	10 W (at 50 °C ambient temperature)





Vertical Pattern

Mechanical specifications	
Input	SMS female
Connector position	Bottom
Weight	80 g
Radome diameter	16 mm
Wind load	2 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	175 x ∅ 54 mm
Height	126 mm

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F-Panel
Vertical Polarization
Half-power Beam Width

2000–2300

V

65°

KATHREIN
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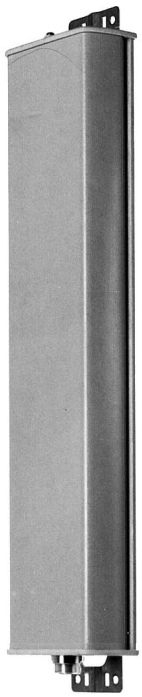
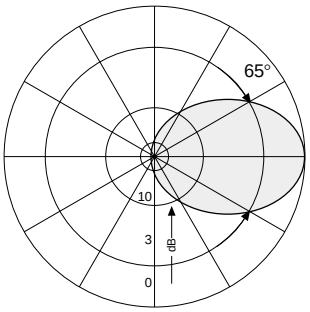
Preliminary Issue

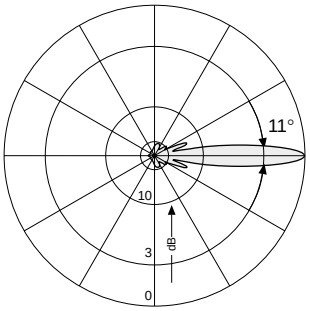
VPol F-Panel 2000–2300 65° 16.5dBi

Type No.	**800 10171**
Frequency range	2000 – 2300 MHz
Polarization	Vertical
Gain	16.5 dBi
Half-power beam width	H-plane: 65° E-plane: 11°
Front-to-back ratio	> 25 dB
Impedance	50 Ω
VSWR	< 1.5
Max. power	200 W (at 50 °C ambient temperature)





Horizontal Pattern



Vertical Pattern

Mechanical specifications	
Input	7-16 female
Connector position	Bottom
Weight	3 kg
Wind load	Frontal: 165 N (at 150 km/h) Lateral: 65 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	950 x 180 x 90 mm
Height/width/depth	872 / 166 / 49 mm

936.A2052 Subject to alteration.

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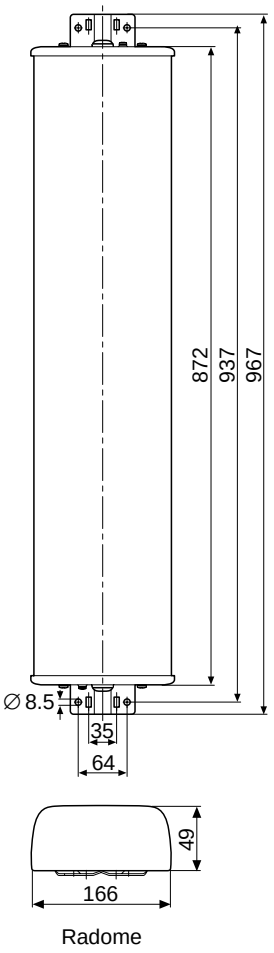
Accessories (order separately)

Type No.	Description	Remarks	Material	Weight approx.	Units per antenna
734 360	2 clamps	Mast: 34 – 60 mm dia.	Stainless steel	60 g	1
734 361	2 clamps	Mast: 60 – 80 mm dia.	Stainless steel	70 g	1
734 362	2 clamps	Mast: 80 – 100 mm dia.	Stainless steel	80 g	1
734 363	2 clamps	Mast: 100 – 120 mm dia.	Stainless steel	90 g	1
734 364	2 clamps	Mast: 120 – 140 mm dia.	Stainless steel	110 g	1
734 365	2 clamps	Mast: 45 – 125 mm dia.	Stainless steel	80 g	1
738 546	1 clamp	Mast: 50 – 115 mm dia.	Hot-dip galvanized steel	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° – 15°	Stainless steel	1.0 kg	1

For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.



Radome

Material:
Reflector screen: Aluminum.
Flat fiberglass radome: The max. radome depth is only 49 mm. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The colour of the radome is grey.
All screws and nuts: Stainless steel.

Grounding:
The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

Environmental conditions:
Kathrein cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.
The antennas exceed this standard with regard to the following items:
– Low temperature: –55 °C
– High temperature (dry): +60 °C

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:
Kathrein antennas have passed environmental tests as recommended in ETS 300 019-2-4. The homogenous design of Kathrein's antenna families use identical modules and materials. Extensive tests have been performed on typical samples and modules.

Long service life:
According to our own experience, the outstanding mechanical characteristics of Kathrein antennas result in an antenna service life of over 15 years.

Please note:
As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.

The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which includes the static mechanical load imposed on an antenna by wind at maximum velocity.
Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.

The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufacturers must be obeyed.

Any previous datasheet issues have now become invalid.

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F-Panel
Vertical Polarization
Half-power Beam Width

2400–2500

V

180°

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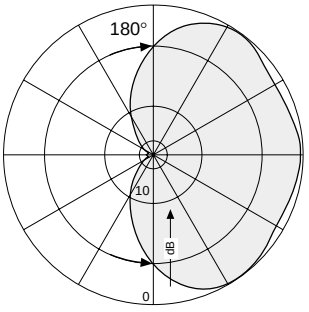
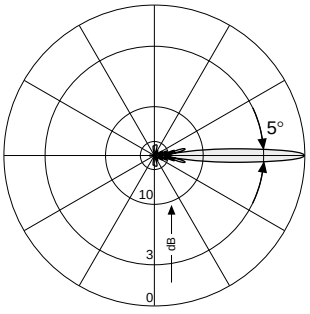
Preliminary Issue

VPol F-Panel 2400–2500 180° 14dBi

Type No.	**800 10172**
Frequency range	2400 – 2500 MHz
Polarization	Vertical
Gain	14 dBi
Half-power beam width	H-plane: 180° E-plane: 5°
Front-to-back ratio	≥ 18 dB
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	150 W (at 50 °C ambient temperature)



Horizontal Pattern



Vertical Pattern

Mechanical specifications	
Input	N female
Connector position	Bottom
Weight	5 kg
Wind load	Frontal: 225 N (at 150 km/h) Lateral: 80 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	1330 x 175 x 90 mm
Height/width/depth	1237 / 155 / 49 mm

936.A2051 Subject to alteration.

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Mini Panel
Vertical Polarization
Half-power Beam Width

2300 – 2500

V

76°

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Preliminary Issue

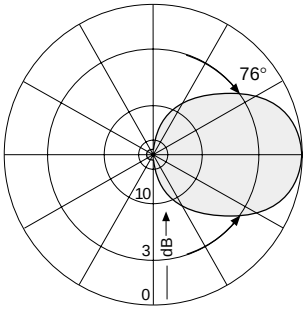
- Directional antenna for indoor and outdoor use.

VPol Panel 2300–2500 76° 9dBi

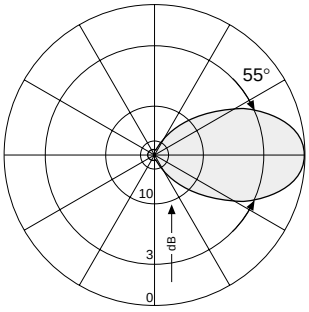
Type No.	**739 718**
Frequency range	2300 – 2500 MHz
Polarization	Vertical
Gain	9 dBi
Half-power beam width	H-plane: 76° E-plane: 55°
Front-to-back ratio	≥ 18 dBi
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	50 W (at 50 °C ambient temperature)

The antenna can easily and universally be attached:

– To flat surfaces e. g. house facades using the preattached installation plate. (Mounting screws are not included).
– To vertical or horizontal pipe masts using the preattached installation plate with clamps.



Horizontal Pattern



Vertical Pattern

Mechanical specifications	
Input	TNC female
Connector position	Bottom
Weight	250 g
Packing size	150 x 120 x 70 mm
Height/width/depth	118 / 88 / 38 mm

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F-Panel
Vertical Polarization
Half-power Beam Width

3400–3800

V

63°

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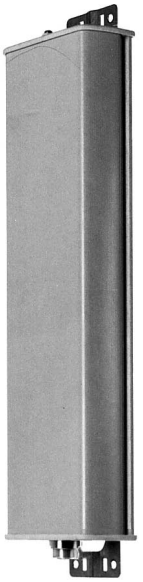
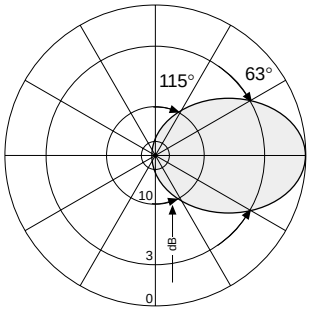
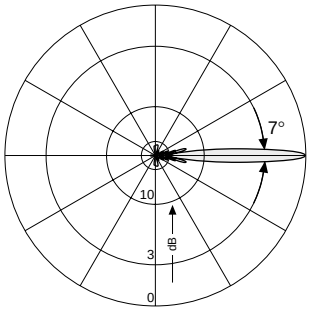
VPol F-Panel 3400–3800 63° 17.5dBi

Type No.	**741 627**
Frequency range	3400 – 3800 MHz
Polarization	Vertical
Gain	17.5 dBi
Half-power beam width	H-plane: 63° E-plane: 7°
Front-to-back ratio	≥ 23 dB
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	150 W (at 50 °C ambient temperature)





Horizontal Pattern



Vertical Pattern

Mechanical specifications	
Input	N female
Connector position	Bottom or top
Weight	2.3 kg
Wind load	Frontal: 140 N (at 150 km/h) Lateral: 45 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	755 x 175 x 90 mm
Height/width/depth	661 / 155 / 51 mm

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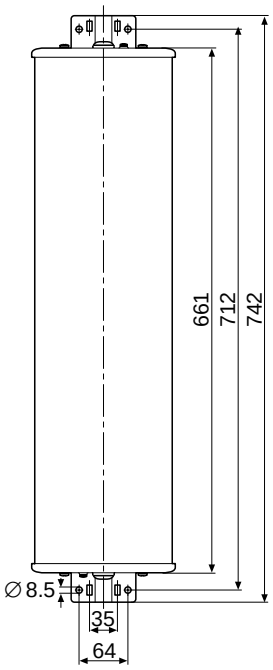
Accessories (order separately)

Type No.	Description	Remarks	Material	Weight approx.	Units per antenna
734 360	2 clamps	Mast: 34 – 60 mm dia.	Stainless steel	60 g	1
734 361	2 clamps	Mast: 60 – 80 mm dia.	Stainless steel	70 g	1
734 362	2 clamps	Mast: 80 – 100 mm dia.	Stainless steel	80 g	1
734 363	2 clamps	Mast: 100 – 120 mm dia.	Stainless steel	90 g	1
734 364	2 clamps	Mast: 120 – 140 mm dia.	Stainless steel	110 g	1
734 365	2 clamps	Mast: 45 – 125 mm dia.	Stainless steel	80 g	1
738 546	1 clamp	Mast: 50 – 115 mm dia.	Hot-dip galvanized steel	1.0 kg	2
732 321	1 downtilt kit	Downtilt angle: 0° – 20°	Stainless steel	1.0 kg	1

For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.



Radome

Material: **Reflector screen:** Aluminum, **radiator:** Copper.
Flat fiberglass radome: The max. radome depth is only 51 mm. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The colour of the radome is grey.
All screws and nuts: Stainless steel.

Grounding: The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

Environmental conditions: Kathrein cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E. The antennas exceed this standard with regard to the following items:
– Low temperature: –55 °C
– High temperature (dry): +60 °C

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests: Kathrein antennas have passed environmental tests as recommended in ETS 300 019-2-4. The homogenous design of Kathrein's antenna families use identical modules and materials. Extensive tests have been performed on typical samples and modules.

Long service life: According to our own experience, the outstanding mechanical characteristics of Kathrein antennas result in an antenna service life of over 15 years.

Please note: **As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.**

The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which includes the static mechanical load imposed on an antenna by wind at maximum velocity.
Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.

The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufacturers must be obeyed.

Any previous datasheet issues have now become invalid.

936.A786/b Subject to alteration.

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F-Panel
Vertical Polarization
Half-power Beam Width

3400–3800

V

120°

KATHREIN
Antennen · Electronic

Preliminary Issue

VPol F-Panel 3400–3800 120° 14.5dBi

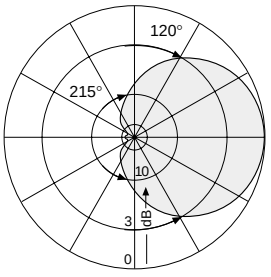
Type No.	**741 629**
Input	N female
Connector position	Bottom or top
Frequency range	3400 – 3800 MHz
VSWR	≤ 1.5
Gain	14.5 dBi
Impedance	50 Ω
Polarization	Vertical
Front-to-back ratio	≥ 20 dB
Half-power beam width	H-plane: 120°/ E-plane: 7°
Max. power per input	150 Watt
Weight	2.4 kg
Wind load	Frontal: 140 N (at 150 km/h)
	Lateral: 45 N (at 150 km/h)
Max. wind velocity	200 km/h
Packing size	755 x 175 x 90 mm
Height/width/depth	662 / 155 / 50 mm

Material:	Reflector screen: Aluminum, radiator: Copper. Radome: Fiberglass, colour: Grey. All screws and nuts: Stainless steel.
Mounting:	Walls: Using two mounting plates already attached to the antenna. Masts: Using two clamps suitable for the mast diameter (not supplied).
Ice protection:	Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.
Grounding:	The metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

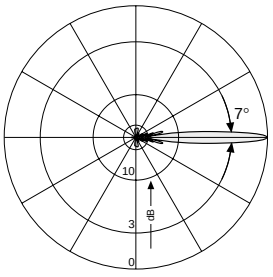
936.A791/b Subject to alteration.

Accessories (order separately)

Type No.	**Description**	**Remarks**	**Weight approx.**	**Units per antenna**
734 360	2 clamps	Mast: 34 – 60 mm diameter	60 g	1
734 361	2 clamps	Mast: 60 – 80 mm diameter	70 g	1
734 362	2 clamps	Mast: 80 – 100 mm diameter	80 g	1
734 363	2 clamps	Mast: 100 – 120 mm diameter	90 g	1
734 364	2 clamps	Mast: 120 – 140 mm diameter	110 g	1
734 365	2 clamps	Mast: 45 – 125 mm diameter	80 g	1
732 321	1 downtilt kit	Downtilt angle: 0° – 20° Use the downtilt kit together with 2 clamps suitable for the mast diameter.	1 kg	1



Horizontal Pattern



Vertical Pattern

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F-Panel
Vertical Polarization
Half-power Beam Width

2300 – 2700

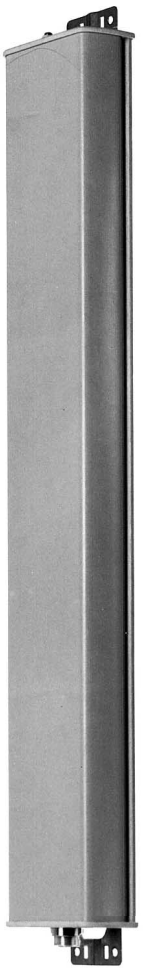
V

60°

KATHREIN
Antennen · Electronic

Preliminary Issue

VPol F-Panel 2300–2700 60° 17dBi



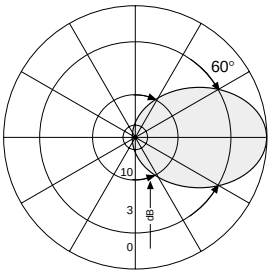
Type No.	**742 381**
Input	N female
Connector position	Bottom or top
Frequency range	2300 – 2700 MHz
VSWR	≤ 1.5
Gain	17 dBi
Impedance	50 Ω
Polarization	Vertical
Front-to-back ratio	≥ 25 dB
Half-power beam width	H-plane: 60°/ E-plane: 7°
Max. power per input	250 Watt
Weight	4 kg
Wind load	Frontal: 180 N (at 150 km/h)
	Lateral: 60 N (at 150 km/h)
Max. wind velocity	200 km/h
Height/width/depth	831 / 155 / 49 mm
Packing size	930 x 175 x 90 mm

Material:	Reflector screen: Aluminum, radiator: Copper. Radome: Fiberglass, colour: Grey. All screws and nuts: Stainless steel.
Mounting:	Walls: Using two mounting plates already attached to the antenna. Masts: Using two clamps suitable for the mast diameter (not supplied).
Ice protection:	Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.
Grounding:	The metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

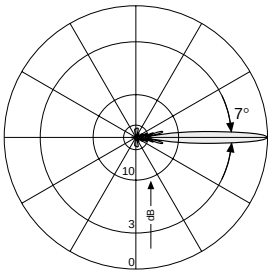
936.A1028/a Subject to alteration.

Accessories (order separately)

Type No.	**Description**	**Remarks**	**Weight approx.**	**Units per antenna**
734 360	2 clamps	Mast: 34 – 60 mm diameter	60 g	1
734 361	2 clamps	Mast: 60 – 80 mm diameter	70 g	1
734 362	2 clamps	Mast: 80 – 100 mm diameter	80 g	1
734 363	2 clamps	Mast: 100 – 120 mm diameter	90 g	1
734 364	2 clamps	Mast: 120 – 140 mm diameter	110 g	1
734 365	2 clamps	Mast: 45 – 125 mm diameter	80 g	1
732 318	1 downtilt kit	Downtilt angle: 0° – 14° Use the downtilt kit together with 2 clamps suitable for the mast diameter.	1 kg	1



Horizontal Pattern



Vertical Pattern

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F-Panel
Vertical Polarization
Half-power Beam Width

2400–2700

V

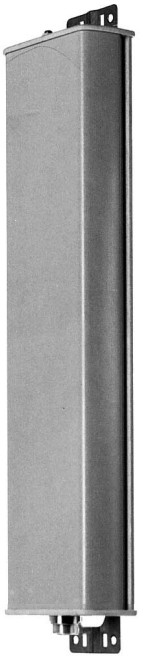
120°

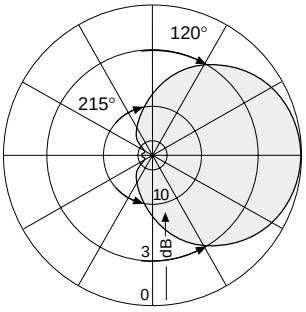
KATHREIN
Antennen · Electronic

Preliminary Issue

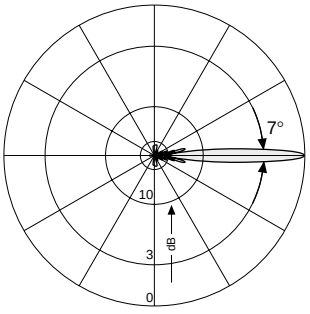
VPol F-Panel 2400–2700 120° 14.5dBi

Type No.	**742 382**
Frequency range	2400 – 2700 MHz
Polarization	Vertical
Gain	14.5 dBi
Half-power beam width	H-plane: 120° E-plane: 7°
Front-to-back ratio	≥ 20 dB
Impedance	50 Ω
VSWR	≤ 1.5
Intermodulation IM3 (2 x 43 dBm carrier)	< –150 dBc
Max. power	150 Watt (at 50 °C ambient temperature)





Horizontal Pattern



Vertical Pattern

Mechanical specifications		
Input	N female	
Connector position	Bottom	
Weight	3 kg	
Wind load	Frontal: Lateral:	160 N (at 150 km/h) 60 N (at 150 km/h)
Max. wind velocity	200 km/h	
Packing size	930 x 175 x 90 mm	
Height/width/depth	837 / 155 / 51 mm	

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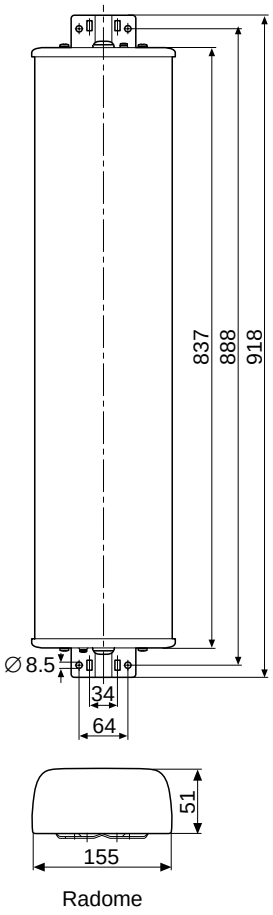
Accessories (order separately)

Type No.	Description	Remarks	Material	Weight approx.	Units per antenna
734 360	2 clamps	Mast: 34 – 60 mm dia.	Stainless steel	60 g	1
734 361	2 clamps	Mast: 60 – 80 mm dia.	Stainless steel	70 g	1
734 362	2 clamps	Mast: 80 – 100 mm dia.	Stainless steel	80 g	1
734 363	2 clamps	Mast: 100 – 120 mm dia.	Stainless steel	90 g	1
734 364	2 clamps	Mast: 120 – 140 mm dia.	Stainless steel	110 g	1
734 365	2 clamps	Mast: 45 – 125 mm dia.	Stainless steel	80 g	1
738 546	1 clamp	Mast: 50 – 115 mm dia.	Hot-dip galvanized steel	1.0 kg	2
732 318	1 downtilt kit	Downtilt angle: 0° – 14°	Stainless steel	1.0 kg	1

For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.



Radome

Material: **Reflector screen:** Aluminum, **radiator:** Copper.
Flat fiberglass radome: The max. radome depth is only 51 mm. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The colour of the radome is grey.
All screws and nuts: Stainless steel.

Grounding: The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

Environmental conditions: Kathrein cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E. The antennas exceed this standard with regard to the following items:
– Low temperature: –55 °C
– High temperature (dry): +60 °C

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests: Kathrein antennas have passed environmental tests as recommended in ETS 300 019-2-4. The homogenous design of Kathrein's antenna families use identical modules and materials. Extensive tests have been performed on typical samples and modules.

Long service life: According to our own experience, the outstanding mechanical characteristics of Kathrein antennas result in an antenna service life of over 15 years.

Please note: **As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.**

The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which includes the static mechanical load imposed on an antenna by wind at maximum velocity.
Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.

The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufacturers must be obeyed.

Any previous datasheet issues have now become invalid.

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Omnidirectional Antenna
Vertical Polarization

2400 – 2485

V

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Antennen · Electronic

Preliminary Issue

VPol Omni 2400–2485 360° 8dBi

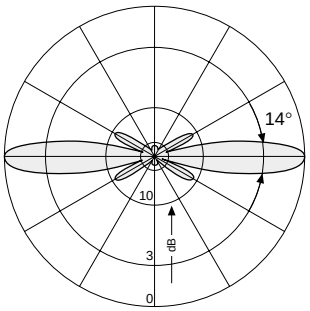
Type No.	**742 384**
Frequency range	2400 – 2485 MHz
Polarization	Vertical
Gain	8 dBi
Half-power beam width	H-plane: 360° E-plane: 14°
Impedance	50 Ω
VSWR	≤ 1.5
Max. power	10 W (at 50 °C ambient temperature)

Material: Reflector screen: Aluminum, radiator: Copper.
Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Mounting: Walls: Using two mounting plates already attached to the antenna.
Masts: Using two clamps suitable for the mast diameter (not supplied).

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Grounding: The metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.



Vertical Pattern

Mechanical specifications	
Input	N female
Connector position	Bottom
Weight	350 g (bracket excluded)
Wind load	9 N (at 150 km/h)
Packing size	660 x 50 x 50 mm
Dimensions	520 x ∅ 16 mm (bracket excluded)

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Indoor Omnidirectional Antenna
Vertical Polarization
Multi-band

1710–2500

V

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Antennen · Electronic

- The antenna can be operated in the total frequency range simultaneously.
- The antenna needs no additional groundplane.

VPol Indoor 1710–2500 360° 2dBi

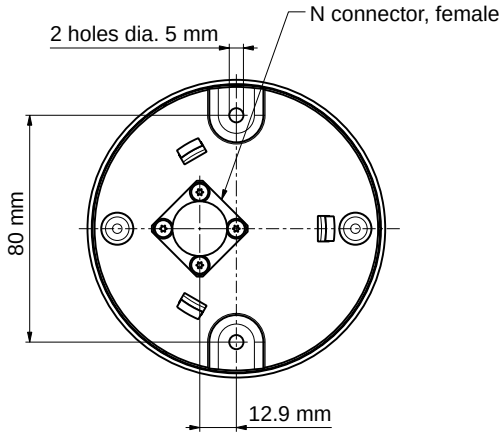
Type No.	**741 573**
Frequency range	1710 – 2500 MHz
VSWR	1710 – 1880 MHz: < 1.6 1850 – 1990 MHz: < 1.6 1920 – 2170 MHz: < 1.6 2170 – 2500 MHz: < 2.0
Input	1 x N female
Gain	2 dBi
Impedance	50 Ω
Polarization	Vertical
Max. power (per band)	50 W (at 50 °C ambient temperature)
Weight	150 g
Diameter	100 mm
Height	50 mm (without connector)

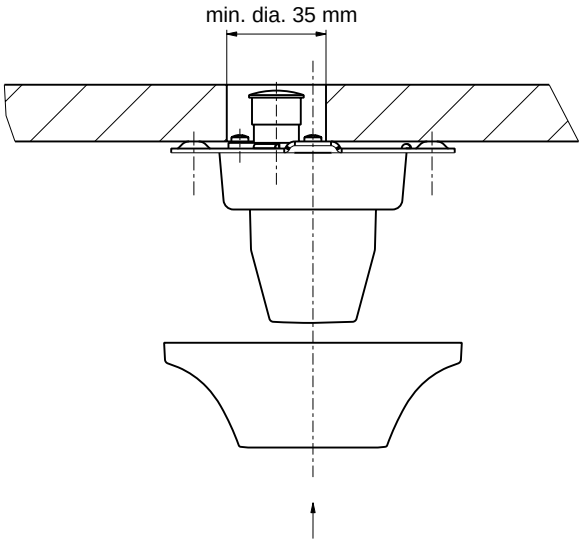
Material: Base: Aluminum.
Protective housing: High impact polystyrol, colour: White.
Additional painting is possible.

Mounting: Holes in the base enable a mounting on the ceiling. Screws are supplied.
For the N connector a hole in the ceiling with a diameter of 35 mm is required.

Grounding: All metal parts including the inner conductor are DC grounded.

Available accessories: Broadband power splitters and tappers (800 – 2200 MHz).





Clip the protective housing into position after the antenna has been mounted with the help of the three supplied screws.

936.2010/b Subject to alteration.

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Indoor Multi-band Omni Antenna
Vertical Polarization

876 – 960 | 1710 – 2500

V

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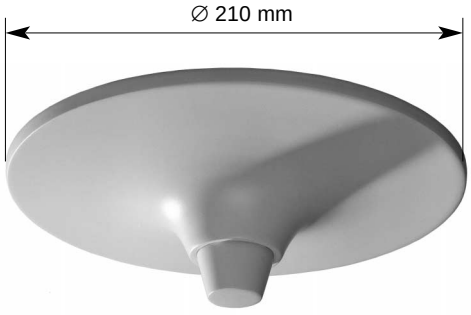
Antennen · Electronic

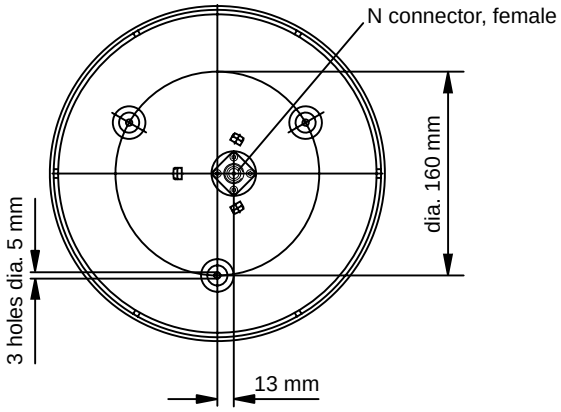
- The antennas need no additional groundplane.

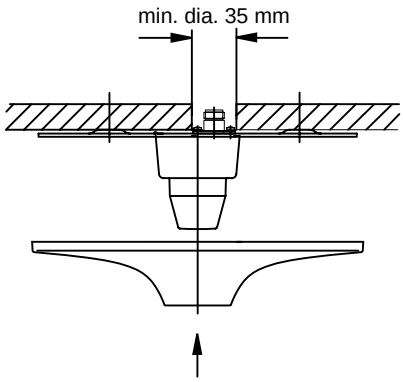
VPol Indoor 876–960/1710–2500 360° 2dBi

Type No.	800 10137
Frequency range	876 – 960 MHz 1710 – 2500 MHz
Polarization	Vertical
Gain	2 dBi
Impedance	50 Ω
VSWR	876 – 890 MHz: < 1.9 890 – 960 MHz: < 1.6 1710 – 2170 MHz: < 1.6 2170 – 2500 MHz: < 2.0
Max. power (per band)	50 W (at 50 °C ambient temperature)
Input	1 x N female
Weight	300 g
Diameter	210 mm
Height	78 mm (without connector)



Material:	Base: Aluminum. Protective housing: High impact polystyrol, colour: White. Additional painting is possible.
Mounting:	Three holes in the base enable a mounting on the ceiling. Two types of screws are supplied. For the N connector a hole in the ceiling with a diameter of 35 mm is required.
Grounding:	All metal parts including the inner conductor are DC grounded.
Available accessories:	Broadband power splitters and tappers (800 – 2500 MHz).





Clip the protective housing into position after the antenna has been mounted with the help of the three supplied screws.

936.2254/a Subject to alteration.

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Indoor Multi-band Omni Antenna
Vertical Polarization

876 – 960 | 1710 – 2500

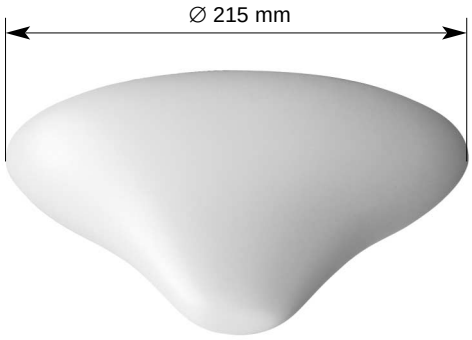
V

KATHREIN
Antennen · Electronic

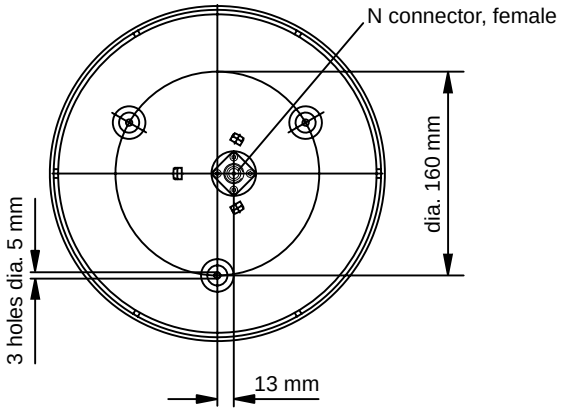
- The antenna needs no additional groundplane.

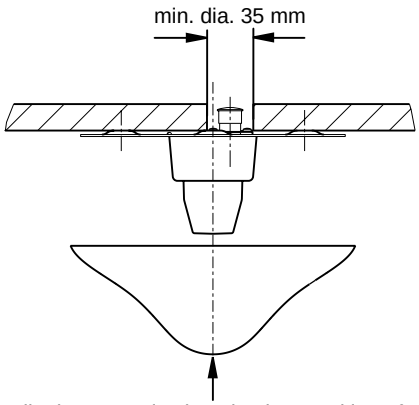
VPol Indoor 876–960/1710–2500 360° 2dBi

Type No.	800 10173
Frequency range	876 – 960 MHz 1710 – 2500 MHz
Polarization	Vertical
Gain	2 dBi
Impedance	50 Ω
VSWR	876 – 890 MHz: < 1.8 890 – 960 MHz: < 1.6 1710 – 2170 MHz: < 1.6 2170 – 2500 MHz: < 2.0
Max. power (per band)	50 W (at 50 °C ambient temperature)
Input	1 x N female
Weight	340 g
Diameter	215 mm
Height	85 mm (without connector)



Material:	Base: Aluminum. Protective housing: High impact polystyrol, colour: White. Additional painting is possible.
Mounting:	Three holes in the base enable a mounting on the ceiling. Two types of screws are supplied. For the N connector a hole in the ceiling with a diameter of 35 mm is required.
Grounding:	All metal parts including the inner conductor are DC grounded.
Available accessories:	Broadband power splitters and tappers (800 – 2500 MHz).





Clip the protective housing into position after the antenna has been mounted with the help of the three supplied screws.

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2.4 W-LAN 08-360/N OMNIDIRECTIONAL ANTENNA 8 dBi W-LAN 2.4 GHz

SIRA
SISTEMI RADIO

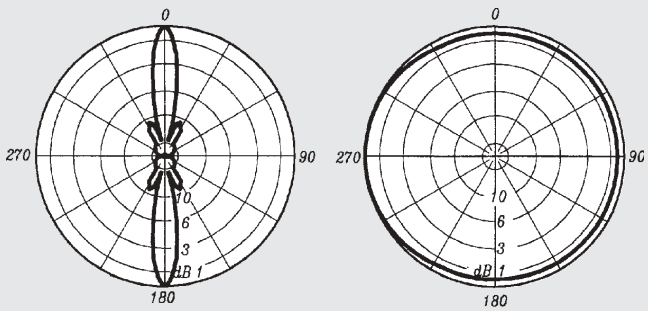
ELECTRICAL DATA

ANTENNA TYPE	2.4 W-LAN 08-360/N
FREQUENCY RANGE	2.4 ÷ 2.485 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	10 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	8 dBi
HALF POWER BEAMWIDTH	
Vertical plane	13°
Horizontal plane	360°

MECHANICAL DATA

DIMENSIONS (bracket excluded)	532 x ø 16 mm
WEIGHT (bracket excluded)	0.35 Kg
WIND SURFACE	0.01 m^2
WIND LOAD	9 N (wind speed 150 Km/h)
RADOME COLOUR	Grey (std.) others on request
MOUNTING	One hole mounting (16 mm diameter) to surfaces of max. 10 mm thickness
ICING PROTECTION	Full radome
PACKING	Plastic bag

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.242/03 Subject to alteration

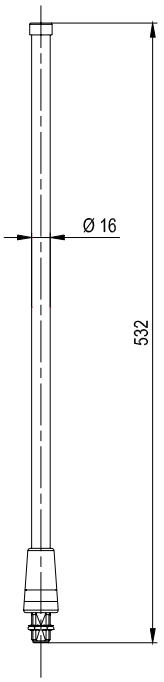
ADDITIONAL INFORMATION

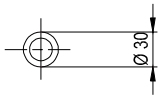
SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
335.550.053	1 "L" bracket	Pole: mounting with clamps * Wall: mounting with screws *	110 g	1

* = not included





Materials:

Antenna base: Weather-proof aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
Bracket: Stainless steel

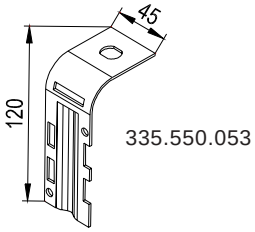
Grounding:

All metal parts of the antenna are DC grounded.
The inner conductor is not DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.



Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

PLEASE NOTE:

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The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufactures must be obeyed.

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2.4 WLL 16-90
90° SECTOR ANTENNA
FOR WLL 2.4 GHz

SIRA
SISTEMI RADIO

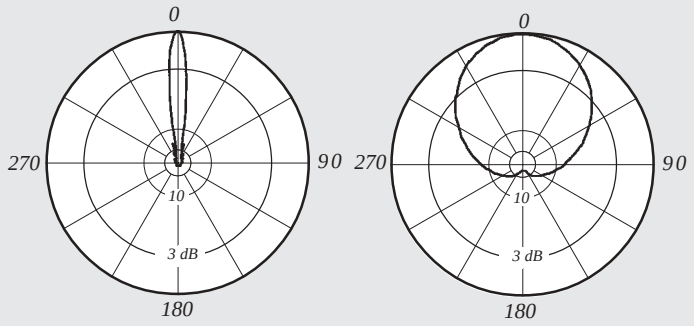
ELECTRICAL DATA

ANTENNA TYPE	2.4 WLL 16-90
FREQUENCY RANGE	2.3 ÷ 2.5 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	15.5 dBi
HALF POWER BEAMWIDTH	
Vertical plane	7.5°
Horizontal plane	90°
FRONT TO BACK RATIO	≥ 25 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		837 x 155 x 49 mm
WEIGHT		3.6 Kg
WIND SURFACE	Front	0.13 m^2
	Side	0.04 m^2
WIND LOAD	Front	170 N
(wind speed 150Km/h)	Side	55 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		930 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.225/01 Subject to alteration

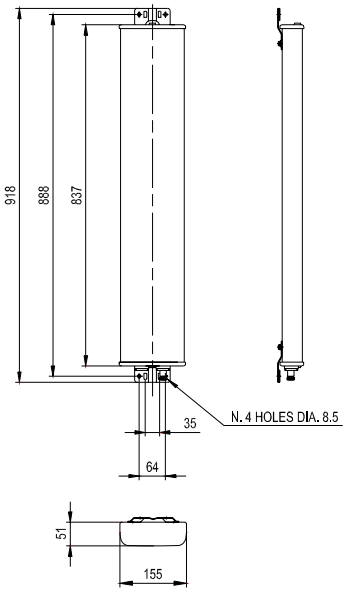
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 16°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

PLEASE NOTE:

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DS 921.510.225/01 Subject to alteration

2.4 WLL 17-60
60° SECTOR ANTENNA
FOR WLL 2.4 GHz

SIRA
SISTEMI RADIO

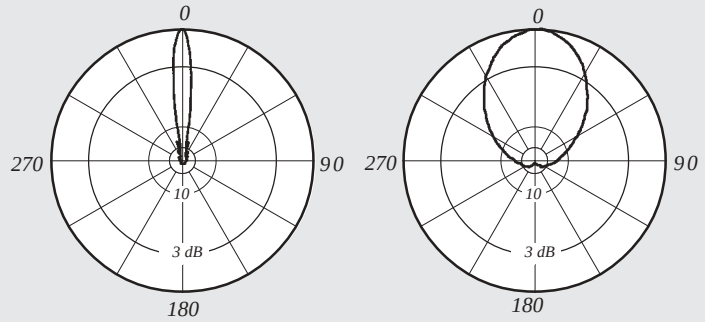
ELECTRICAL DATA

ANTENNA TYPE	2.4 WLL 17-60
FREQUENCY RANGE	2.3 ÷ 2.7 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	17 dBi
HALF POWER BEAMWIDTH	
Vertical plane	7°
Horizontal plane	60°
FRONT TO BACK RATIO	≥ 30 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		837 x 155 x 49 mm
WEIGHT		3.6 Kg
WIND SURFACE	Front	0.13 m^2
	Side	0.04 m^2
WIND LOAD	Front	170 N
(wind speed 150Km/h)	Side	55 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		930 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.259/01 Subject to alteration

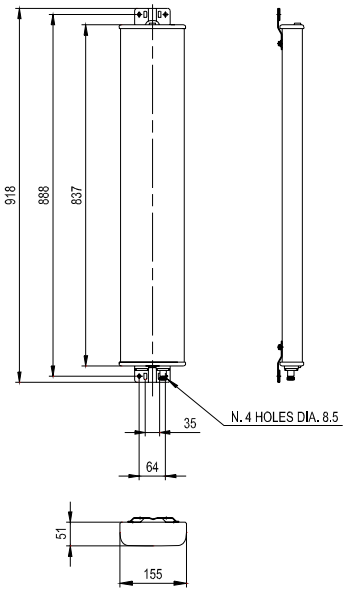
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 16°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

PLEASE NOTE:

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DS 921.510.259/01 Subject to alteration

2.4 WLL 17-90
90° SECTOR ANTENNA
FOR WLL 2.4 GHz

SIRA
SISTEMI RADIO

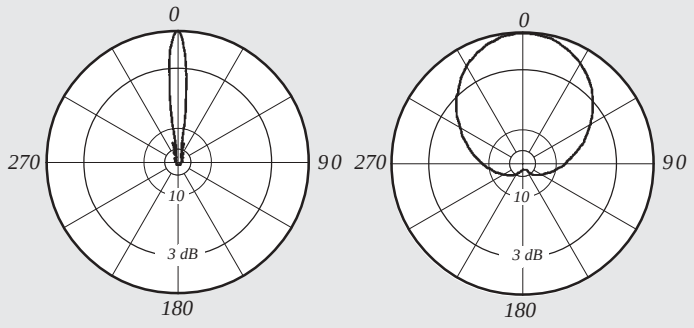
ELECTRICAL DATA

ANTENNA TYPE	2.4 WLL 17-90
FREQUENCY RANGE	2.3 ÷ 2.5 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	17 dBi
HALF POWER BEAMWIDTH	
Vertical plane	5°
Horizontal plane	90°
FRONT TO BACK RATIO	≥ 25 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		1237 x 155 x 49 mm
WEIGHT		5 Kg
WIND SURFACE	Front	0.19 m^2
	Side	0.06 m^2
WIND LOAD	Front	250 N
(wind speed 150Km/h)	Side	80 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		1330 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.254/02 Subject to alteration

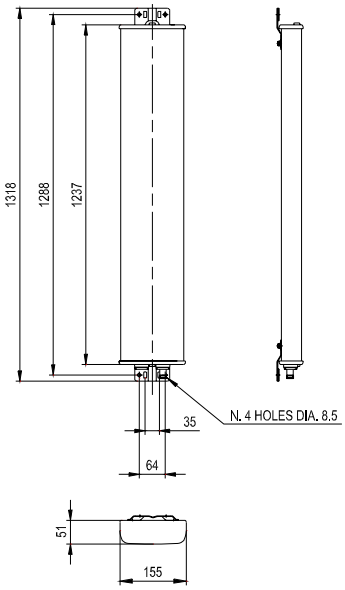
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 10°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

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Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

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DS 921.510.254/02 Subject to alteration

2.4 WLL 14-180
180° SECTOR ANTENNA
FOR WLL 2.4 GHz

SIRA
SISTEMI RADIO

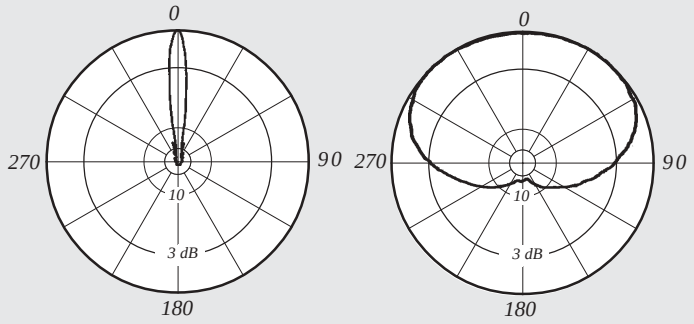
ELECTRICAL DATA

ANTENNA TYPE	2.4 WLL 14-180
FREQUENCY RANGE	2.3 ÷ 2.5 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	14 dBi
HALF POWER BEAMWIDTH	
Vertical plane	5°
Horizontal plane	180°
FRONT TO BACK RATIO	≥ 18 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		1237 x 155 x 125 mm
WEIGHT		5.7 Kg
WIND SURFACE	Front	0.19 m^2
	Side	0.06 m^2
WIND LOAD	Front	250 N
(wind speed 150Km/h)	Side	80 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		1330 x 175 x 150 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.240/01 Subject to alteration

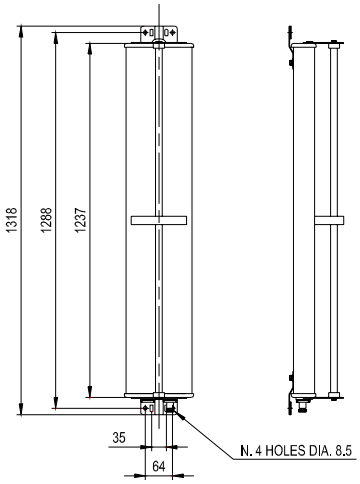
ADDITIONAL INFORMATION

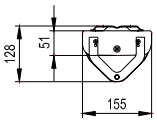
SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 10°	1.0 kg	1

Wall mountig: No additional mounting kit needed





Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

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DS 921.510.240/01 Subject to alteration

2.4 WLL 15-120
120° SECTOR ANTENNA
FOR WLL 2.4 GHz

SIRA
SISTEMI RADIO

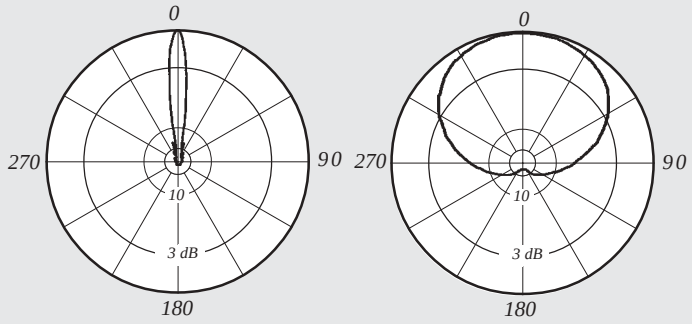
ELECTRICAL DATA

ANTENNA TYPE	2.4 WLL 15-120
FREQUENCY RANGE	2.3 ÷ 2.5 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	15.5 dBi
HALF POWER BEAMWIDTH	
Vertical plane	5°
Horizontal plane	120°
FRONT TO BACK RATIO	≥ 24 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		1237 x 155 x 49 mm
WEIGHT		5 Kg
WIND SURFACE	Front	0.19 m^2
	Side	0.06 m^2
WIND LOAD	Front	250 N
(wind speed 150Km/h)	Side	80 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		1330 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.255/02 Subject to alteration

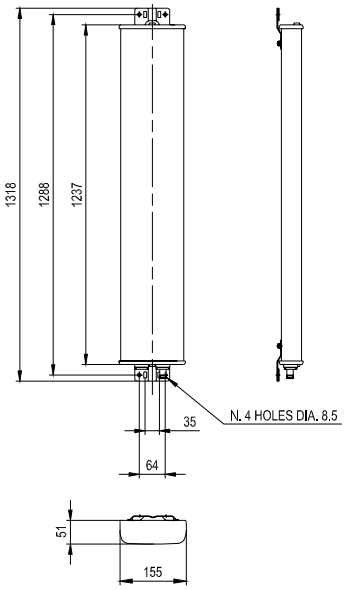
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 10°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

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DS 921.510.255/02 Subject to alteration

2.5 WLL 14-120
120° SECTOR ANTENNA
FOR WLL 2.4 GHz

SIRA
SISTEMI RADIO

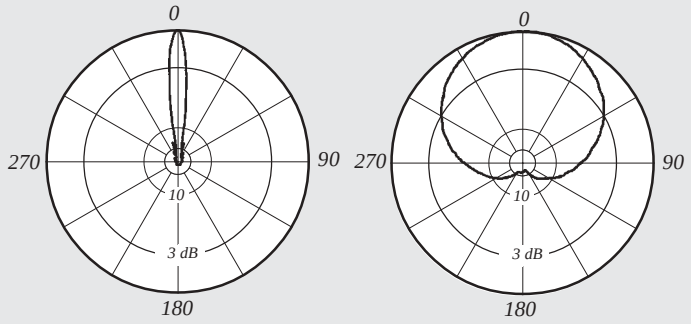
ELECTRICAL DATA

ANTENNA TYPE	2.5 WLL 14-120
FREQUENCY RANGE	2.4 ÷ 2.7 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	14.5 dBi
HALF POWER BEAMWIDTH	
Vertical plane	7.5°
Horizontal plane	120°
FRONT TO BACK RATIO	≥ 24 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		837 x 155 x 49 mm
WEIGHT		3 Kg
WIND SURFACE	Front	0.13 m^2
	Side	0.04 m^2
WIND LOAD	Front	170 N
(wind speed 150Km/h)	Side	55 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		930 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.211/03 Subject to alteration

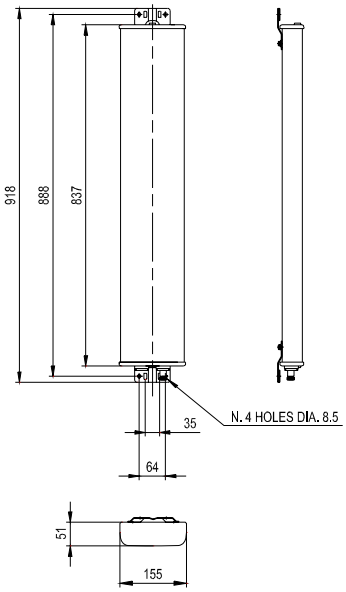
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 16°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

PLEASE NOTE:

As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.
The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity.
Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.
The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufactures must be obeyed.

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DS 921.510.211/03 Subject to alteration

3.5 WLL 16-90
90° SECTOR ANTENNA
FOR WLL 3.5 GHz

SIRA
SISTEMI RADIO

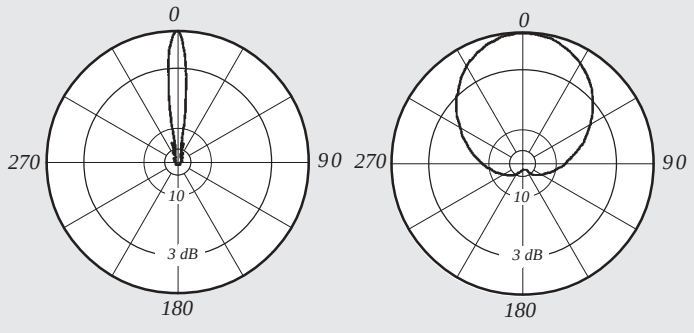
ELECTRICAL DATA

ANTENNA TYPE	3.5 WLL 16-90
FREQUENCY RANGE	3.4 ÷ 3.8 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	15.5 dBi
HALF POWER BEAMWIDTH	
Vertical plane	7°
Horizontal plane	90°
FRONT TO BACK RATIO	≥ 25 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		661 x 155 x 49 mm
WEIGHT		2.4 Kg
WIND SURFACE	Front	0.10 m^2
	Side	0.03 m^2
WIND LOAD	Front	135 N
(wind speed 150Km/h)	Side	45 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		755 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.257/02 Subject to alteration

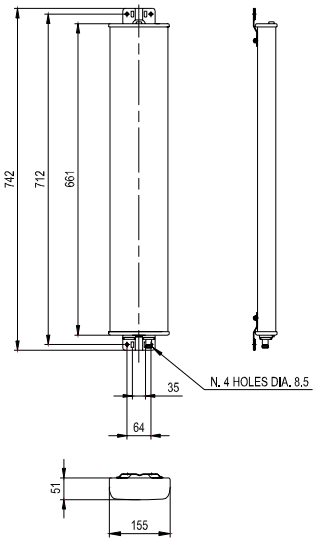
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 20°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

PLEASE NOTE:

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The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity.
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The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
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DS 921.510.257/02 Subject to alteration

3.5 WLL 17-60
60° SECTOR ANTENNA
FOR WLL 3.5 GHz

SIRA
SISTEMI RADIO

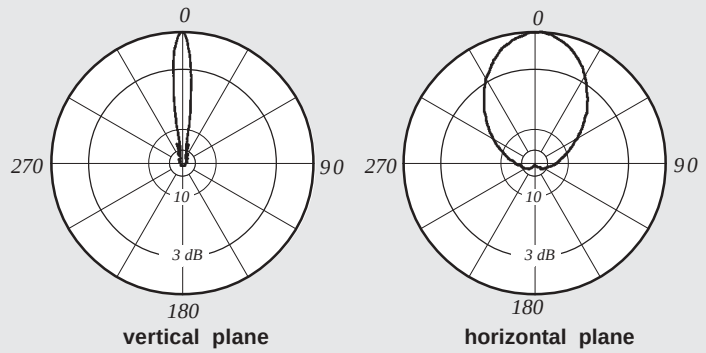
ELECTRICAL DATA

ANTENNA TYPE	3.5 WLL 17-60
FREQUENCY RANGE	3.4 ÷ 3.8 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	17 dBi
HALF POWER BEAMWIDTH	
Vertical plane	6.5°
Horizontal plane	60°
FRONT TO BACK RATIO	≥ 25 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		661 x 155 x 49 mm
WEIGHT		2.3 Kg
WIND SURFACE	Front	0.10 m^2
	Side	0.03 m^2
WIND LOAD	Front	135 N
(wind speed 150Km/h)	Side	45 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		755 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.193/03 Subject to alteration

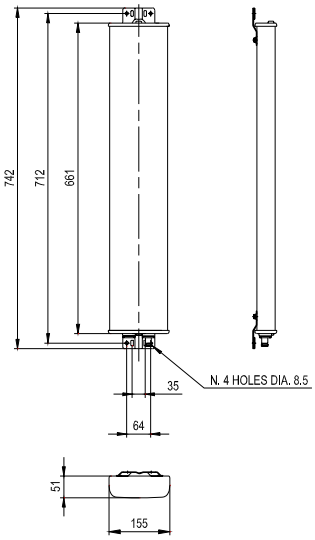
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 20°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

PLEASE NOTE:

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The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity.
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DS 921.510.193/03 Subject to alteration

3.5 WLL 14-120
120° SECTOR ANTENNA
FOR WLL 3.5 GHz

SIRA
SISTEMI RADIO

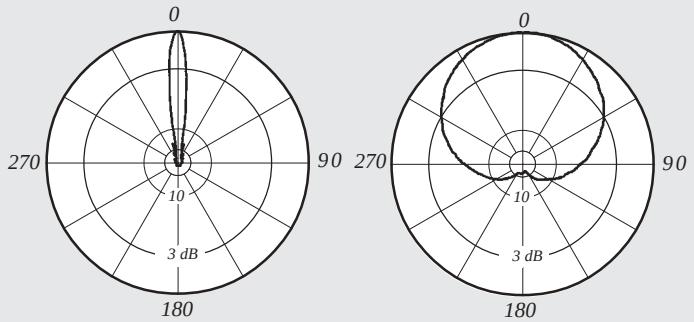
ELECTRICAL DATA

ANTENNA TYPE	3.5 WLL 14-120
FREQUENCY RANGE	3.4 ÷ 3.8 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	150 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	14.5 dBi
HALF POWER BEAMWIDTH	
Vertical plane	7°
Horizontal plane	120°
FRONT TO BACK RATIO	≥ 23 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		661 x 155 x 49 mm
WEIGHT		2.4 Kg
WIND SURFACE	Front	0.10 m^2
	Side	0.03 m^2
WIND LOAD	Front	135 N
(wind speed 150Km/h)	Side	45 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		755 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.194/03 Subject to alteration

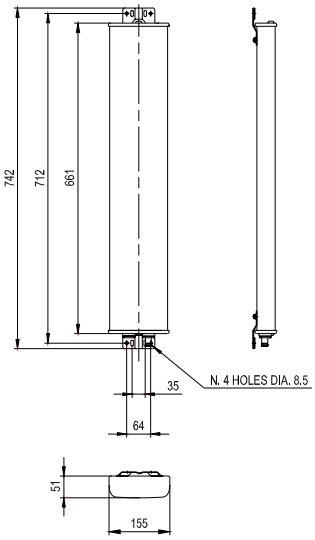
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 20°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

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The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity.
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The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufactures must be obeyed.

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DS 921.510.194/03 Subject to alteration

2.2 WLL 16-65
65° SECTOR ANTENNA
FOR WLL 2.2 GHz

SIRA
SISTEMI RADIO

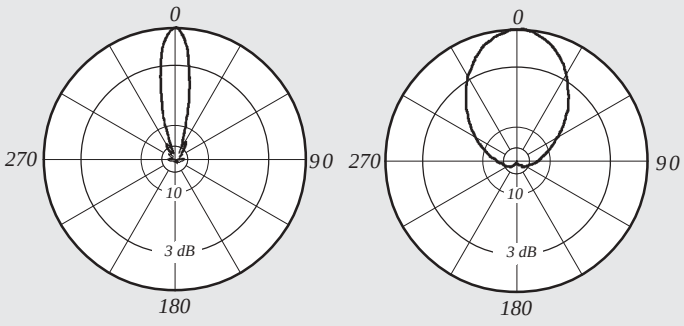
ELECTRICAL DATA

ANTENNA TYPE	2.2 WLL 16-65
FREQUENCY RANGE	2 ÷ 2.3 GHz
IMPEDANCE	50 ohm
CONNECTOR	7/16 f
MAX POWER	200 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	16.5 dBi
HALF POWER BEAMWIDTH	
Vertical plane	11°
Horizontal plane	65°
FRONT TO BACK RATIO	≥ 25 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		872 x 166 x 47 mm
WEIGHT		3 Kg
WIND SURFACE	Front	0.14 m^2
	Side	0.04 m^2
WIND LOAD	Front	165 N
(wind speed 150Km/h)	Side	65 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On the wall or on pole with pipe clamps of ϕ 42 to 114 mm
PACKING		950 x 180 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.207/01 Subject to alteration

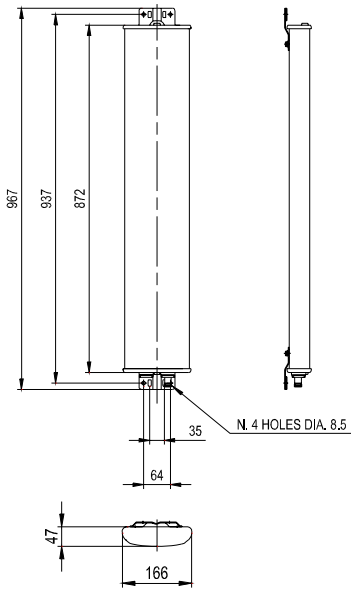
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 15°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

The metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

TÜV ISO 9001

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The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity.
Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.
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The limits for the coupling torque of RF-connectors, recommended by the connector manufactures must be obeyed.

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DS 921.510.207/01 Subject to alteration

2.4 W-LAN 10-90
90° SECTOR ANTENNA
FOR W-LAN 2.4 GHz

SIRA
SISTEMI RADIO

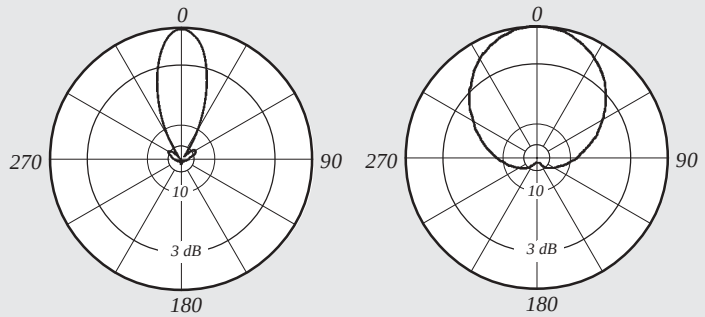
ELECTRICAL DATA

ANTENNA TYPE	2.4 W-LAN 10-90
FREQUENCY RANGE	2.4 ÷ 2.485 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	50 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	10.5 dBi
HALF POWER BEAMWIDTH	
Vertical plane	30°
Horizontal plane	90°
FRONT TO BACK RATIO	≥ 25 dB
LIGHTNING PROTECTION	All metal parts DC grounded

MECHANICAL DATA

DIMENSIONS		347 x 155 x 49 mm
WEIGHT		1.5 Kg
WIND SURFACE	Front	0.05 m^2
	Side	0.02 m^2
WIND LOAD	Front	70 N
(wind speed 150Km/h)	Side	23 N
ICING PROTECTION		Full radome
RADOME COLOUR		Grey (std.) others on request
MOUNTING		On wall or on pole
PACKING		440 x 175 x 90 mm

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.213/03 Subject to alteration

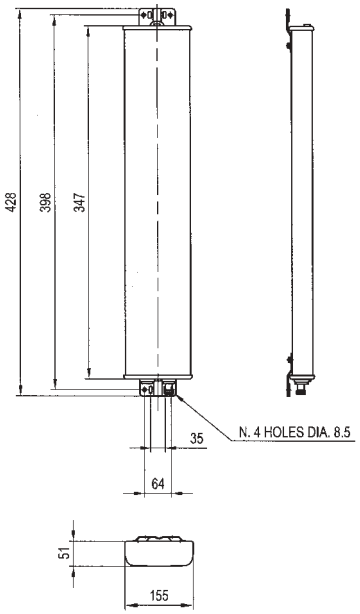
ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

ACCESSORIES

Type No.	Description	Remarks	Weight appr.	Units per antenna
734 360	2 clamps	Pole: 34 - 60 mm diameter	60 g	1
734 361	2 clamps	Pole: 60 - 80 mm diameter	70 g	1
734 362	2 clamps	Pole: 80 - 100 mm diameter	80 g	1
734 363	2 clamps	Pole: 100 - 120 mm diameter	90 g	1
734 364	2 clamps	Pole: 120 - 140 mm diameter	110 g	1
734 365	2 clamps	Pole: 45 - 125 mm diameter	80 g	1
738 546	1 clamp	Pole: 50 - 115 mm diameter	1.0 kg	2
732 327	1 downtilt kit	Downtilt angle: 0° - 40°	1.0 kg	1

Wall mountig: No additional mounting kit needed



Materials:

Reflector screen: Aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding:

All metal parts of the antenna including the mounting kit and the inner conductor are DC grounded.

Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.

PLEASE NOTE:

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The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity.
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The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufactures must be obeyed.

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DS 921.510.213/03 Subject to alteration

2.4 W-LAN 03-360/N OMNIDIRECTIONAL ANTENNA 3 dBi W-LAN 2.4 GHz

SIRA
SISTEMI RADIO

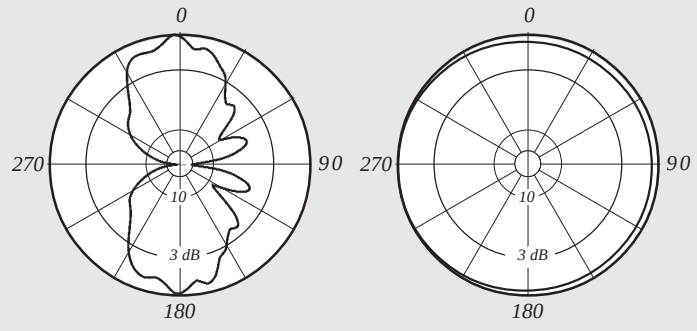
ELECTRICAL DATA

ANTENNA TYPE	2.4 W-LAN 03-360/N
FREQUENCY RANGE	2.4 ÷ 2.485 GHz
IMPEDANCE	50 ohm
CONNECTOR	N f
MAX POWER	10 W
VSWR	≤ 1.5
POLARIZATION	Vertical
GAIN	3 dBi
HALF POWER BEAMWIDTH	
Vertical plane	60°
Horizontal plane	360°

MECHANICAL DATA

DIMENSIONS	137 x ø 16 mm
WEIGHT	90 g
WIND SURFACE	0.002 m^2
WIND LOAD	2 N (wind speed 150 Km/h)
RADOME COLOUR	Grey (std.) others on request
MOUNTING	One hole mounting (16 mm diameter) to surfaces of max. 10 mm thickness
ICING PROTECTION	Full radome
PACKING	Plastic bag

RADIATION PATTERNS (mid band)



vertical plane **horizontal plane**

DS 921.510.262/01 Subject to alteration

ADDITIONAL INFORMATION

SIRA
SISTEMI RADIO

Materials:

Antenna base: Weather-proof aluminium.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.

Grounding:

All metal parts of the antenna are DC grounded.
The inner conductor is not DC grounded.

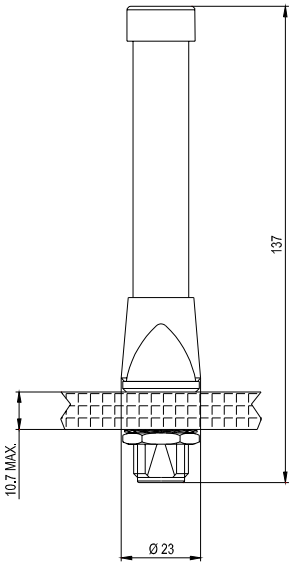
Environmental conditions:

SIRA cellular antennas are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E.

Ice protection: Due to the very sturdy antenna construction and the protection of the radiating system by the radome, the antenna remains operational even under icy conditions.

Environmental tests:

SIRA antennas have passed environmental tests as recommended in ETS 300 019-2-4.



PLEASE NOTE:

As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.
The mechanical design is based on the environmental conditions as stipulated in ETS 300 019-1-4, which include the static mechanical load imposed on an antenna by wind at maximum velocity.
Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of an antenna or even cause it to fall to the ground. These facts must be considered during the site planning process.
The installation team must be properly qualified and also be familiar with the relevant national safety regulations.
The details given in our data sheets have to be followed carefully when installing the antennas and accessories.
The limits for the coupling torque of RF-connectors, recommended by the connector manufactures must be obeyed.

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