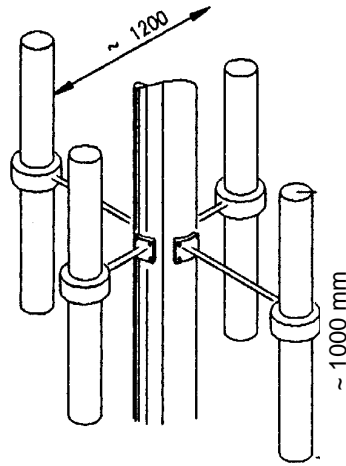


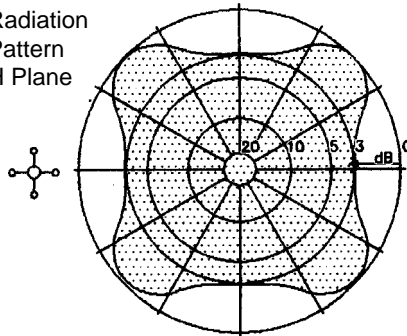
ORDERNUMBER	TYPE
WS A00 54 1.	omnidirectional, heavy duty, with radome
WS A00 84 1.	omnidirectional groundplane with radome
WS A00 84 15 .	omnidirectional antenna with radome, side mounted
WS A00 86 1	omnidirectional groundplane, adjustable
WS A00 92 1	broadband disccone 118 - 1100 MHz
WS A01 12 10 .	3 dB offset pattern antenna without radome
WS A01 13 10 .	3 dB offset pattern antenna, heavy duty with radome
WS A01 13 10 . spec.	dipole with long bracket
WS A01 52 20 5	halo antenna
WS A02 02 .1 .	2 element yagi antenna without radome
WS A02 03 .1 .	2 element yagi antenna, heavy duty with radome
WS A03 02 .1 .	3 element yagi antenna without radome
WS A03 03 .1 .	3 element yagi antenna, heavy duty with radome
WS A04 02 .1 .	4 element yagi antenna without radome
WS A04 03 .1 .	4 element yagi antenna, heavy duty with radome
WS A06 02 12 .	6 element yagi antenna without radome
WS A06 03 12 .	6 element yagi antenna, heavy duty with radome
WS A80 22 31 3	logper antenna 108 - 470 MHz
WS A80 22 31 1	logper antenna 108 ... 1100 MHz



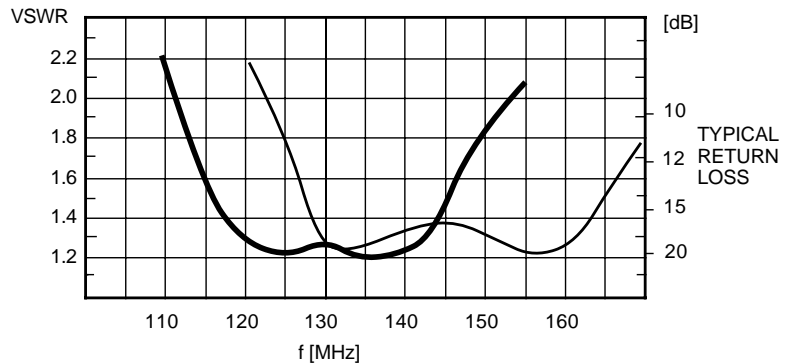
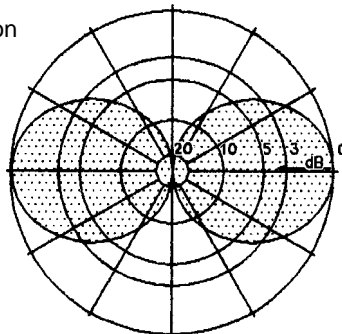
TYPE NO.	WS A00 54 18: 118 - 144 MHz WS A00 54 19: 130 - 162 MHz further frequencies on request
DESCRIPTION	dipole with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.4
POWER	max. 300 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	N male inside the mast other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on tubular mast with diameter ≤ 500 mm cable runs inside or outside the mast (please specify diameter)

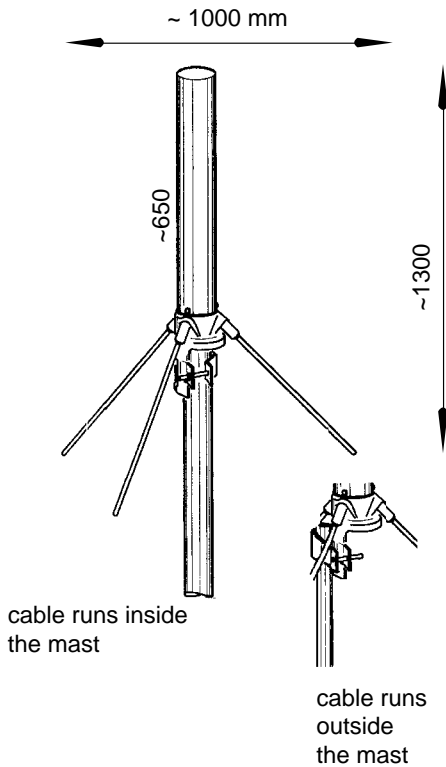
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	11 kg
WIND AREA	0.33 m ²
WIND LOAD	421 N (150 km/h) 316 N (130 km/h)

Horizontal Radiation Pattern H Plane



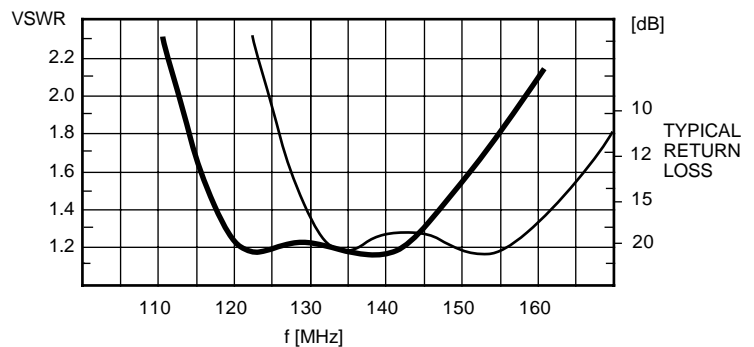
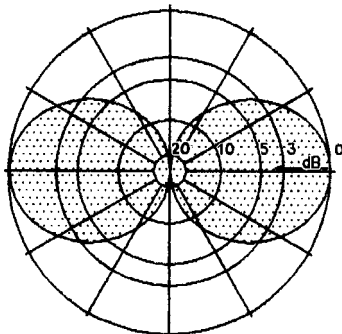
Vertical Radiation Pattern E Plane

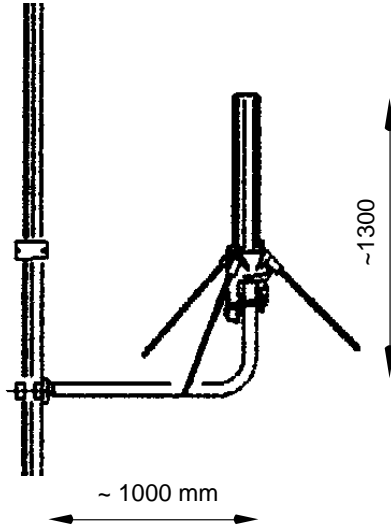




TYPE NO.	WS A00 84 14: 108 - 136 MHz WS A00 84 15: 118 - 144 MHz WS A00 84 16: 130 - 162 MHz further frequencies on request
DESCRIPTION	antenna with radome The radome protects the antenna from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band < 1.5
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	~ 1 m cable ending with N male the cable must NOT be shortened (transformer) other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	to 40 - 66 mm ø mast cable runs inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	1.7 kg
WIND AREA	0.046 m ²
WIND LOAD	59 N (150 km/h) 44 N (130 km/h)

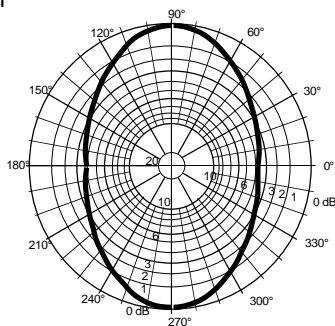
Vertical
Radiation
Pattern
E Plane



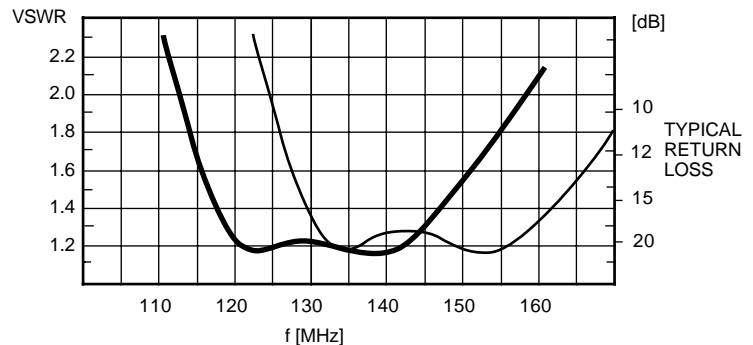
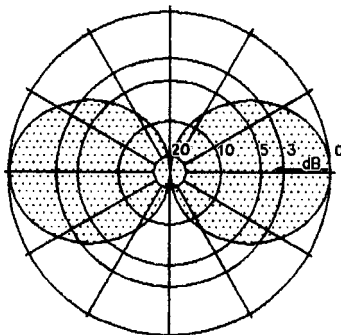


TYPE NO.	WS A00 84 15 5: 118 - 144 MHz WS A00 84 15 6: 130 - 162 MHz further frequencies on request
DESCRIPTION	antenna with radome The radome protects the antenna from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.4, at the limits of the band <1.5
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° deviation from circulatory ± 2 dB vertical, E plane: 78°
TERMINATION	~ 1 m cable ending with N male the cable must NOT be shortened (transformer) other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	side mounted lateral to the mast <i>mast-ø clamp</i> 30-80 mm WG 51 (standard) 50-104 mm WG 52 (option) cable runs inside the support
MATERIAL	aluminium, hot dip galvanized steel, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	4 kg
WIND AREA	0.1 m ²
WIND LOAD	127 N (150 km/h) 95 N (130 km/h)

Horizontal Radiation Pattern H Plane

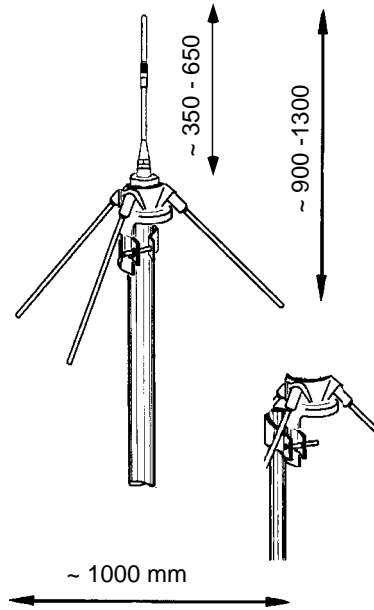


Vertical Radiation Pattern E Plane



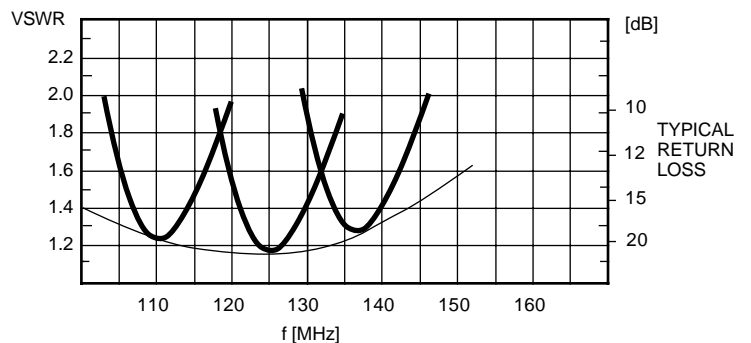
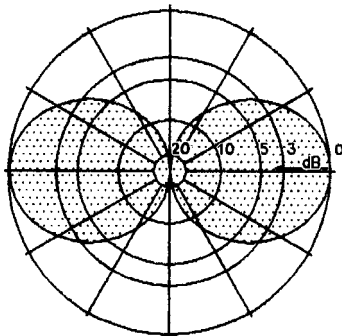
KW 1-08

WIPIC reserves the right to amend specifications in the light of continuing development.



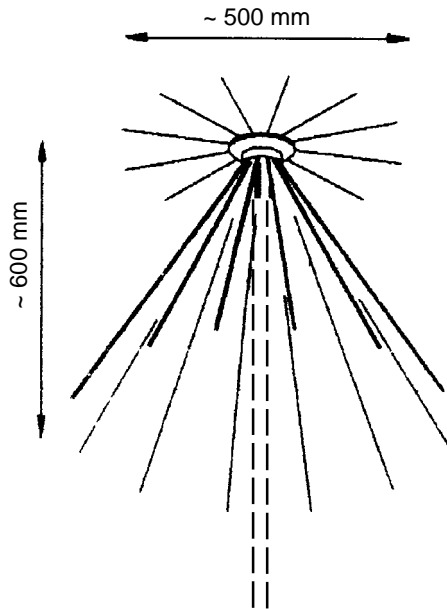
TYPE NO.	WS A00 86 1: 104 ... 144 MHz further frequencies on request
DESCRIPTION	light groundplane antenne with adjustable radiator a tuning table is delivered with the antenna
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.4 on tuned frequency
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	1 m cable RG 213/U ending with N male other termination on request
GROUNDING	radiator not DC grounded
MOUNTING	to 40 - 66 mm ø mast cable runs inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	1.5 kg
WIND AREA	0.05 m ²
WIND LOAD	63 N (150 km/h) 47 N (130 km/h)

Vertical
Radiation
Pattern
E Plane



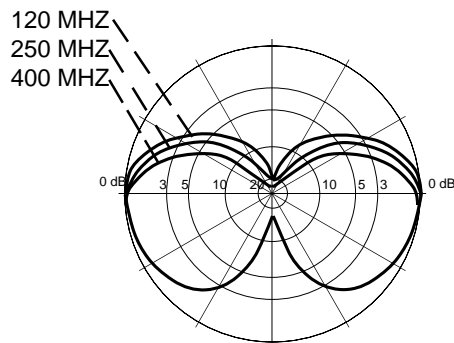
KW 1-08

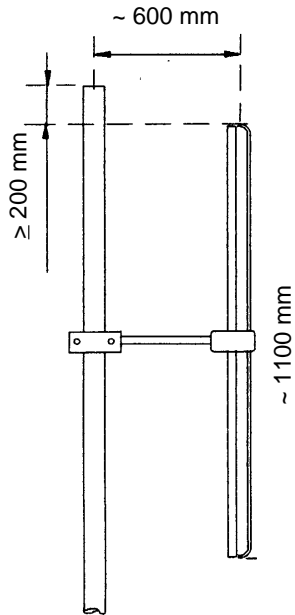
WIPIC reserves the right to amend specifications in the light of continuing development.



TYPE NO.	WS A00 92 1: 118 - 1100 MHz
DESCRIPTION	wideband omnidirectional antenna
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. $\lambda/2$ dipole)
VSWR	< 2 from 118 - 500 MHz < 2.8 from 80 - 1100 MHz
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity \pm 2 dB)
TERMINATION	1 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with outer \varnothing 42 mm, reduction for other \varnothing on request (option)
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	2.4 kg
WIND AREA	0.19 m ²
WIND LOAD	242 N (150 km/h) 182 N (130 km/h)

VERTICAL RADIATION PATTERN
(E PLANE)

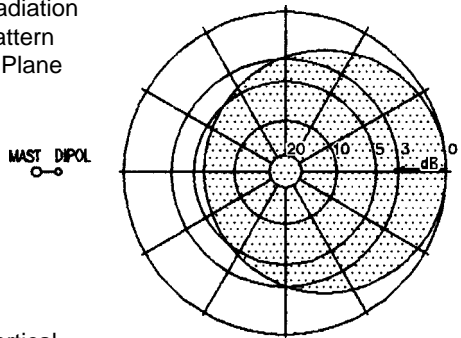




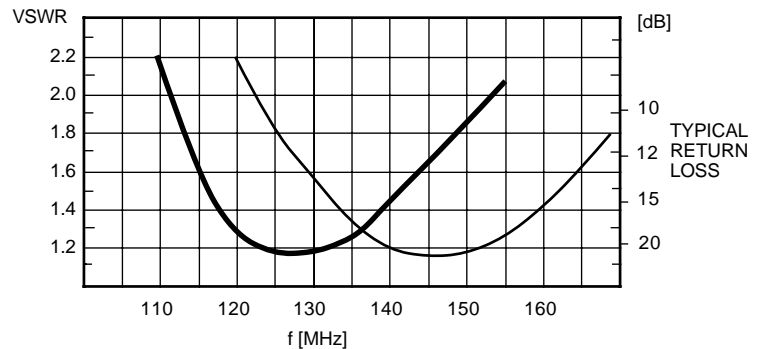
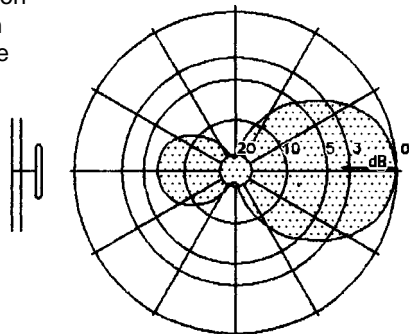
TYPE NO.	WS A01 12 10 7: 110 - 136 MHz WS A01 12 10 8: 118 - 144 MHz WS A01 12 10 9: 130 - 162 MHz light execution without radome
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	+3 dB (ref. to λ/2 dipole) -3 dB in reverse direction
VSWR	< 1.3, at the limits of the band < 1.6
POWER	max. 200 watts, higher ratings on request
3 dB BEAMWIDTH	horizontal (H-plane): 180° vertical (E-plane): 75°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	with mounting bracket WG 11, 30 - 80 mm or WG 12, 50 - 104 mm (option)
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastic

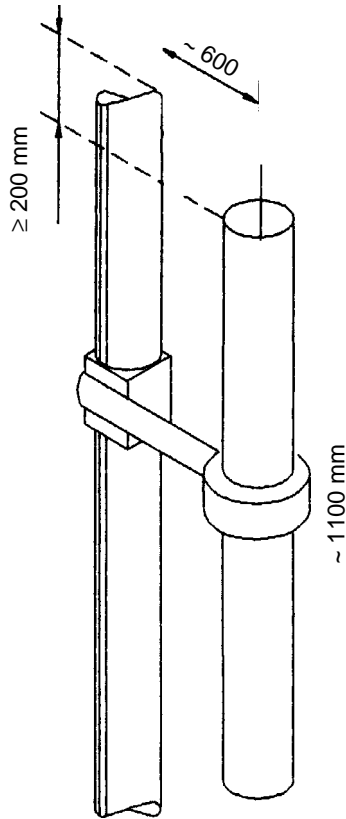
WEIGHT	1.2 kg
WIND AREA	0.04 m ²
WIND LOAD	50 N (150 km/h) 40 N (130 km/h)

Horizontal Radiation Pattern H Plane



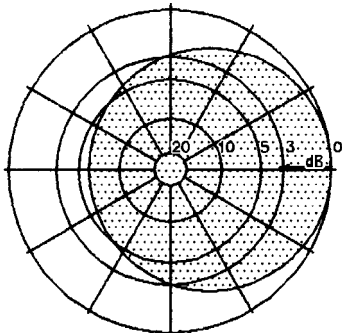
Vertical Radiation Pattern E Plane



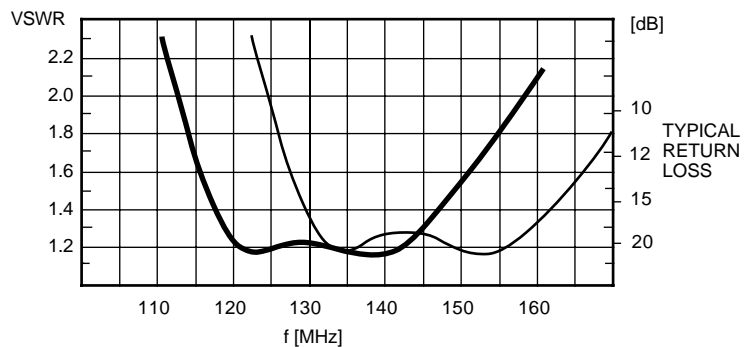
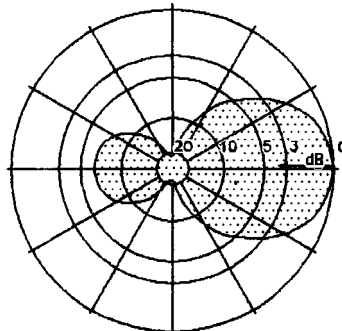
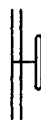


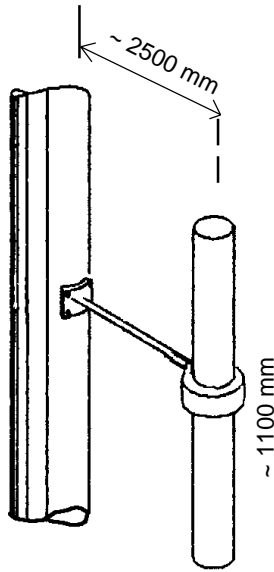
TYPE NO.	WS A01 13 10 7: 110 - 136 MHz WS A01 13 10 8: 118 - 144 MHz WS A01 13 10 9: 130 - 162 MHz further frequencies on request
DESCRIPTION	heavy duty with radome The radome protects the antenna against environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	+3 dB (ref. to λ/2 dipole) -3 dB in reverse direction
VSWR	< 1.3, at the limits of the band < 1.6
POWER	max. 500 watts, higher ratings on request
3 dB BEAMWIDTH	horizontal (H-plane) 180° vertical (E-plane) 75°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	with mounting bracket WG 17, 30 - 80 mm or WG 18, 50 - 104 mm (option)
MATERIAL	aluminium, bolts of stainless steel, radom of UV-stabilized polyethylene
WEIGHT	3 kg
WIND AREA	0.11 m ²
WIND LOAD	140 N (150 km/h) 105 N (130 km/h)

Horizontal Radiation Pattern H Plane



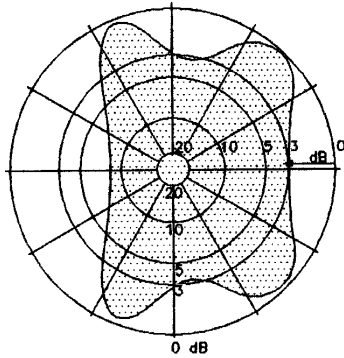
Vertical Radiation Pattern E Plane



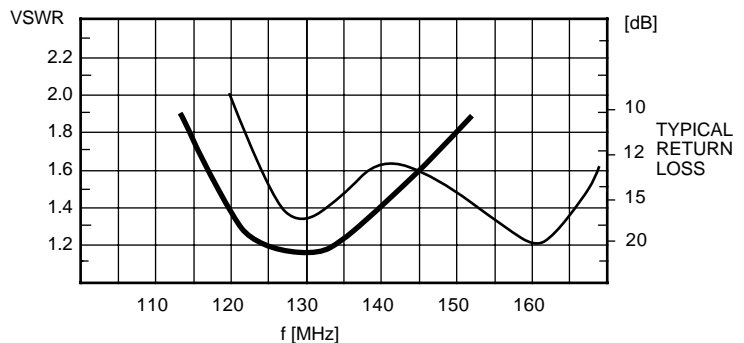
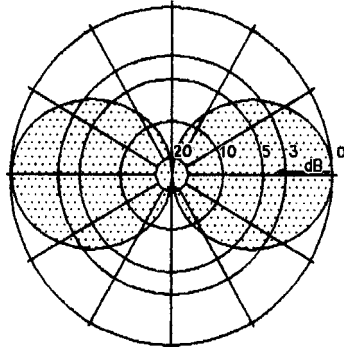


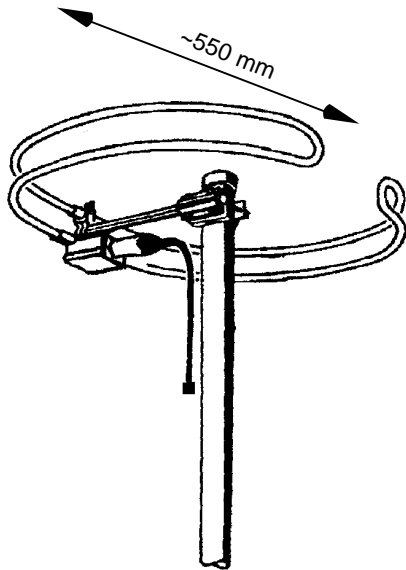
TYPE NO.	WS A01 13 10 8 spec.: 118 - 144 MHz WS A01 13 10 9 spec.: 130/162 MHz execution with long bracket further frequencies on request
DESCRIPTION	heavy duty, with radome The radomes protects the antenna dipoles against environmental influences, icing, and increases the lightning protection. By the long bracket the radiation pattern becomes nearly omnidirectional, independent of the mast-ø
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. to λ/2 dipole)
VSWR	< 1.3, at the limits of the band < 1.5 (see SWR graph)
POWER	500 watts
3 dB BEAMWIDTH	horizontal (H-plane): omnidirectional deviation from circularity ± 3 dB vertical (E-plane): 78°
TERMINATION	3m RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	with flange no. 12 (see <i>chapt. 10</i>) cable runs inside the mast
MATERIAL	aluminium, bolts of stainless steel, radome of UV-stabilized polyethylene
WEIGHT	5.5 kg
WIND AREA	0.2 m ²
WIND LOAD	260 N (150 km/h) 190 N (130 km/h)

Horizontal
Radiation
Pattern
H Plane



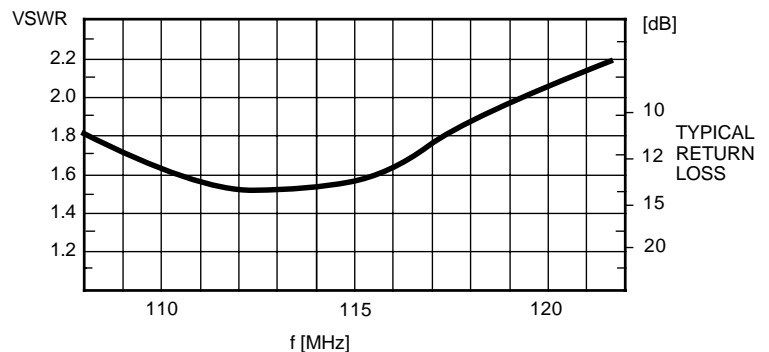
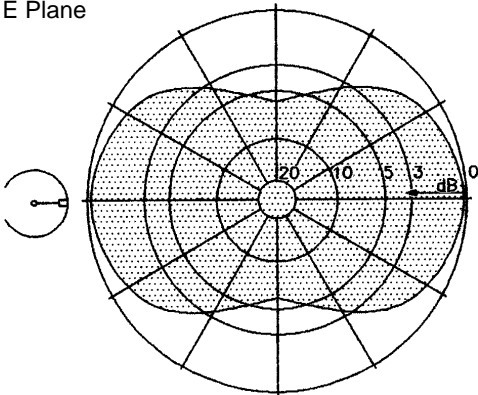
Vertical
Radiation
Pattern
E Plane





TYPE NO.	WS A01 52 20 5: 108 - 118 MHz further frequencies on request	
POLARIZATION	horizontal	
IMPEDANCE	50 Ω	
GAIN	-0.8 dB (ref. λ/2 dipole)	
VSWR	< 2	
POWER	max. 300 watts	
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ± 3 dB)	
TERMINATION	2 m cable RG 214/U ending with N male other termination on request	
GROUNDING	all metal parts are DC grounded	
MOUNTING	mast-∅ 30 - 80 mm 50 - 104 mm	clamp WG 8 (standard) WG 9 (option)
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics	
WEIGHT	1.1 kg	
WIND AREA	0.04 m ²	
WIND LOAD	50 N (150 km/h) 40 N (130 km/h)	

Horizontal
Radiation
Pattern
E Plane



WIPIC reserves the right to amend specifications in the light of continuing development.

KW 1-08

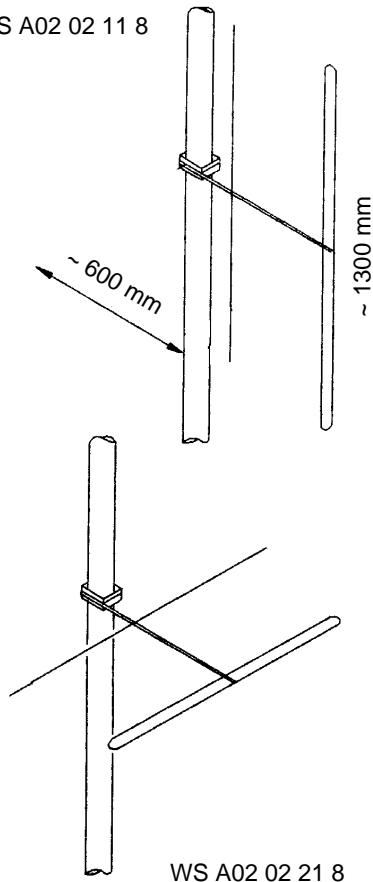
LETRONA AG

Schulstrasse 22, CH-9504 Frittschen
Tel.: +41 071 654 64 64, Fax : +41 071 654 64 65
E-Mail: info@letrona.ch

Section 9. 10/20

SQS
Management-System
Zertifiziert ISO 9001:2000
Reg. - Nr. 11996-3

WS A02 02 11 8



WS A02 02 21 8

TYPE NO.

WS A02 02 11 7: 108 - 114 MHz vertical polarization
WS A02 02 11 8: 118 - 144 MHz vertical polarization
WS A02 02 11 4: 107 - 116 MHz vertical polarization
WS A02 02 21 . : 107 ... 144 MHz horiz. polarization
 light execution without radome

IMPEDANCE

50 Ω

GAIN

3.5 dB (ref. to λ/2 dipole)

VSWR

< 1.3, at the limits of the band < 1.5

POWER

max. 150 watts, higher power on request

3 dB BEAMWIDTH

in polarization, E-plane: 74°
 vertical to pol. H-plane: 130°

TERMINATION

2 m cable RG 213/U ending with N male
 other termination on request

GROUNDING

all metal parts are DC grounded

MOUNTING

mast ∅ *clamp* (see *chapt. 10*)
 30 - 80 mm WG 11 (standard)
 50 - 104 mm WG 12 (option)
 clamp for other mast ∅ on request

MATERIAL

aluminium, bolts of stainless steel, weather-resistant
 plastic

WEIGHT

2.2 kg

WIND AREA

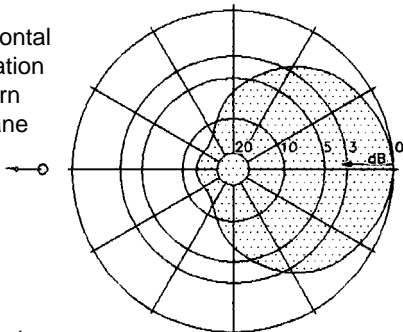
0.06 m²

WIND LOAD

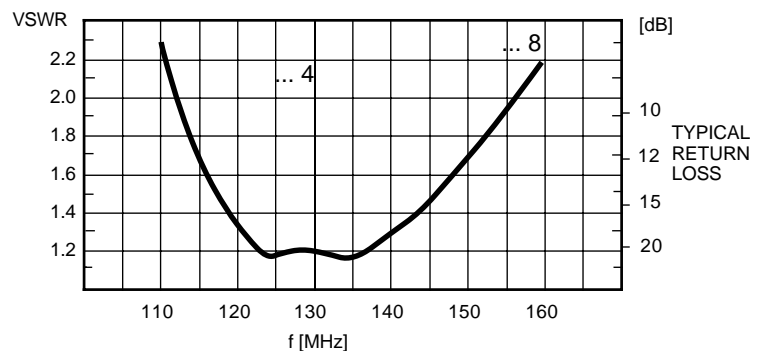
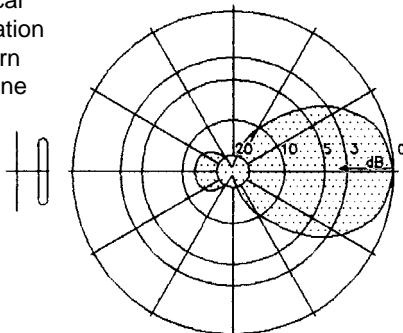
76 N (150 km/h)

57 N (130 km/h)

Horizontal
Radiation
Pattern
H Plane



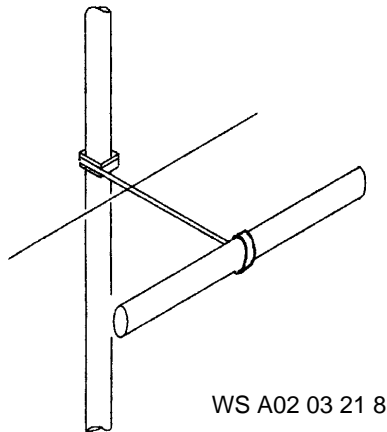
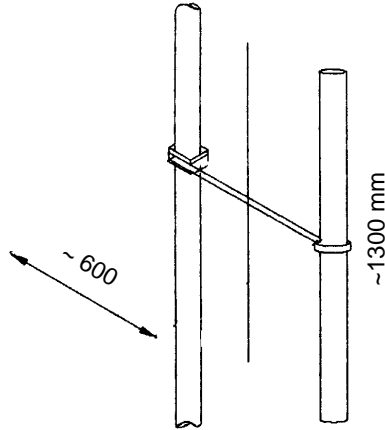
Vertical
Radiation
Pattern
E Plane



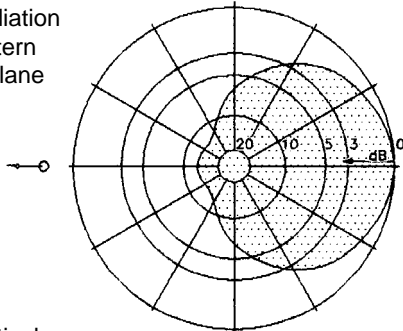
KW 1-08

WIPIC reserves the right to amend specifications in the light of continuing development.

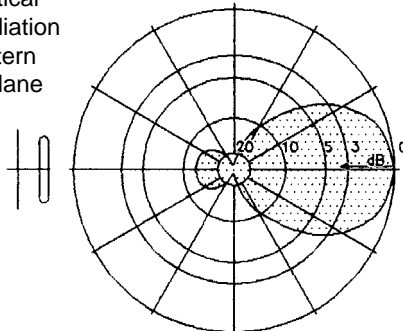
WS A02 03 11 8



Horizontal
Radiation
Pattern
H Plane



Vertical
Radiation
Pattern
E Plane



KW 1-L

TYPE NO.

WS A02 03 11 7: 110 - 136 MHz vertical polarization
WS A02 03 11 8: 118 - 144 MHz vertical polarization
WS A02 03 21 7: 110 - 136 MHz horizontal polarization
WS A02 03 21 8: 118 - 144 MHz horizontal polarization
 further frequencies on request

DESCRIPTION

heavy duty, with radome
 The radome protects the antenna dipole against environmental influences, icing, and increases the lightning protection.

IMPEDANCE

50 Ω

GAIN

3.5 dB (ref. to λ/2 dipole)

VSWR

< 1.3, at the limits of the band < 1.5

POWER

max. 150 watts, higher power on request

3 dB BEAMWIDTH

in polarization, E-plane: 74°
 vertical to pol. H-plane: 130°

TERMINATION

2 m cable RG 213/U with N male
 other termination on request

GROUNDING

all metal parts are DC grounded

MOUNTING

mast ∅ *clamp* (see chapt. 10)
 30 - 80 mm WG 17 (standard)
 50 - 104 mm WG 18 (option)
 other clamp on request

MATERIAL

aluminium, bolts of stainless steel, radome of UV-stabilized polyethylene

WEIGHT

5 kg

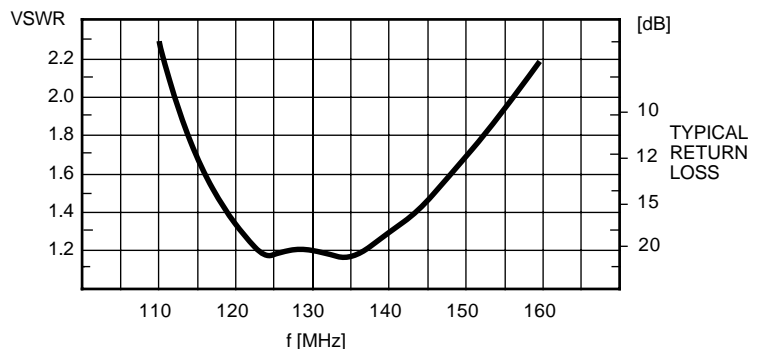
WIND AREA

0.16 m²

WIND LOAD

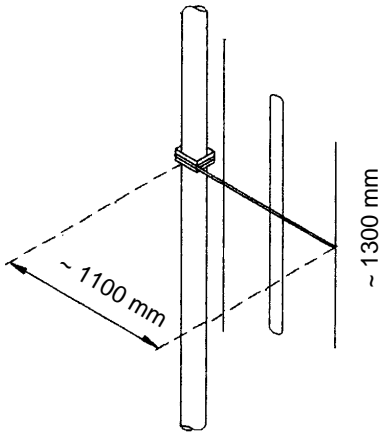
204 N (150 km/h)

153 N (130 km/h)



WIPIC reserves the right to amend specifications in the light of continuing development.

WS A03 02 11 8



TYPE NO. WS A03 02 11 7: 108 - 136 MHz vertical polarization
WS A03 02 11 8: 118 - 144 MHz vertical polarization

WS A03 02 21 7: 108 - 136 MHz horizontal polarization
WS A03 02 21 8: 118 - 144 MHz horizontal polarization
light execution without radome

IMPEDANCE 50 Ω

GAIN 5 dB (ref. to $\lambda/2$ dipole)

VSWR < 1.3, at the limits of the band < 1.4

POWER max. 150 watts, higher power on request

3 dB BEAMWIDTH in polarization E-plane: 60°
vertical to pol. H-plane: 110°

TERMINATION 2 m cable RG 213/U ending with N male
other termination on request

GROUNDING all metal parts are DC grounded

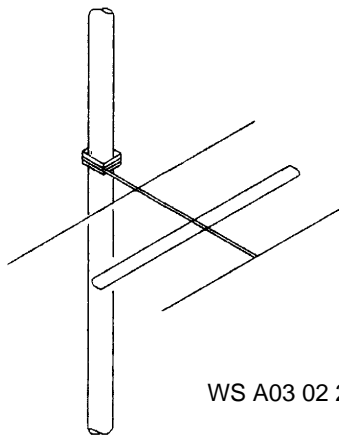
MOUNTING mast \varnothing clamp (see chapt. 10)
30 - 80 mm WG 11 (standard)
50 - 104 mm WG 12 (option)
clamp for other mast- \varnothing on request

MATERIAL aluminium, bolts of stainless steel, weather-resistant
plastics

WEIGHT 2.4 kg

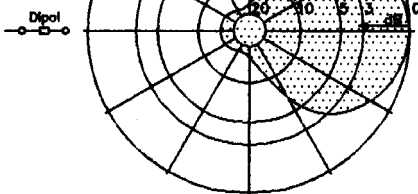
WIND AREA 0.08 m²

WIND LOAD 102 N (150 km/h)
76 N (130 km/h)

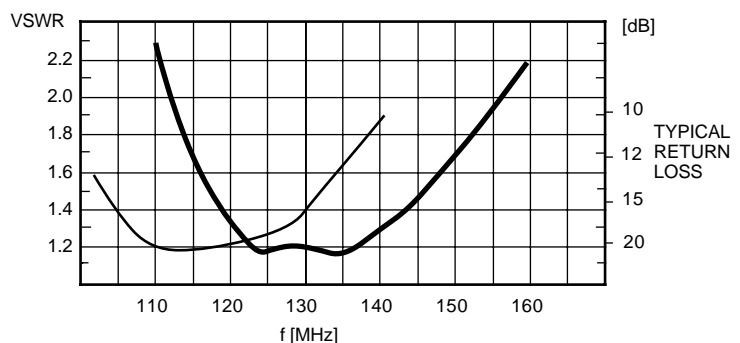
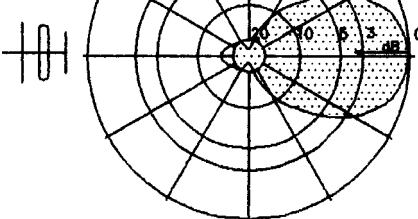


WS A03 02 21 8

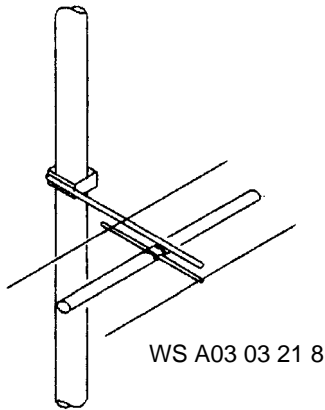
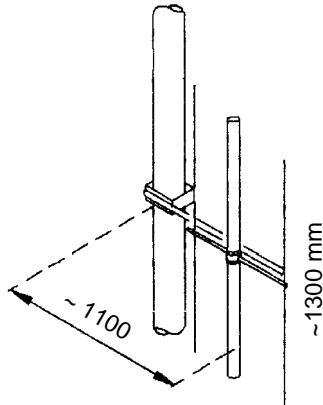
Horizontal
Radiation
Pattern
H Plane



Vertical
Radiation
Pattern
E Plane



WS A03 03 11 8



TYPE NO. WS A03 03 11 7: 108 - 136 MHz vertical polarization
WS A03 03 11 8: 118 - 144 MHz vertical polarization

WS A03 03 21 7: 108 - 136 MHz horizontal polarization
WS A03 03 21 8: 118 - 144 MHz horizontal polarization
further frequencies on request

DESCRIPTION heavy duty, with radome
The radome protects the antenna dipole against environmental influences, icing, and increases the lightning protection.

IMPEDANCE 50 Ω

GAIN 5 dB (ref. to λ/2 dipole)

VSWR < 1.3, at the limits of the band < 1.4

POWER max. 500 watts, higher power on request

3 dB BEAMWIDTH in polarization, E-plane: 66°
vertical to pol. H-plane: 110°

TERMINATION 2 m cable RG 213/U with N male
other termination on request

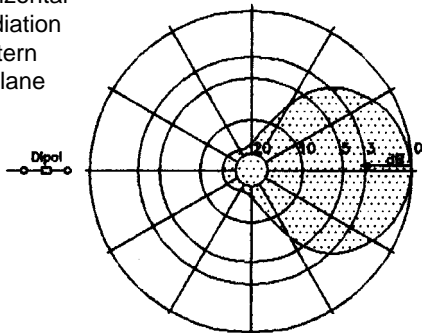
GROUNDING all metal parts are DC grounded

MOUNTING mast ø clamp (see chapt. 10)
30 - 80 mm WG 17 (standard)
50 - 104 mm WG 18 (option)
clamp for other mast-ø on request

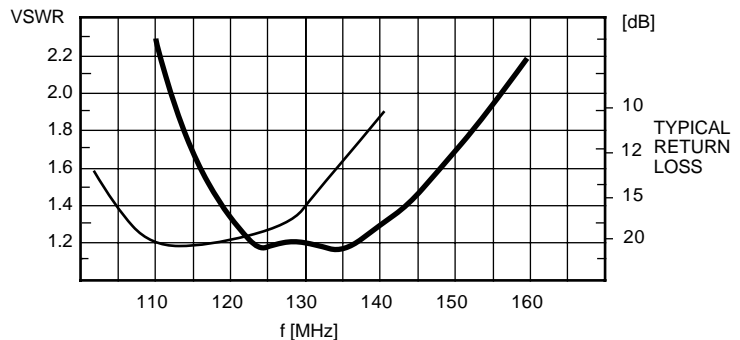
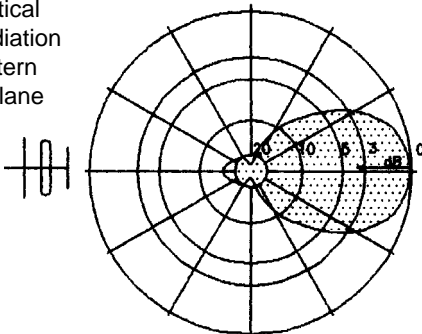
MATERIAL aluminium, bolts of stainless steel, radome of UV-stabilized polyethylene

WEIGHT 4.8 kg
WIND AREA 0.18 m²
WIND LOAD 230 N (150 km/h)
170 N (130 km/h)

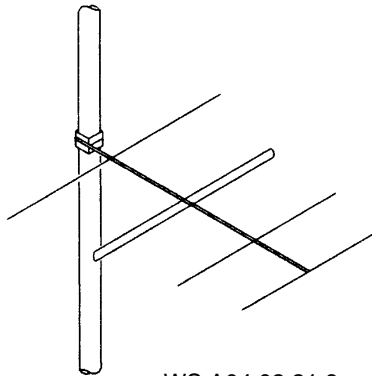
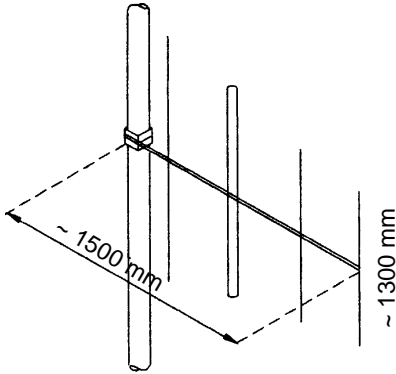
Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane



WS A04 02 11 8



WS A04 02 21 8

TYPE NO. WS A04 02 11 7: 110 - 136 MHz vertical polarization
 WS A04 02 11 8: 118 - 144 MHz vertical polarization
 WS A04 02 21 7: 110 - 136 MHz horizontal polarization
 WS A04 02 21 8: 118 - 144 MHz horizontal polarization
 light execution without radome

IMPEDANCE 50 Ω
GAIN 6.5 dB (ref. to λ/2 dipole)
VSWR < 1.3, at the limits of the band < 1.4
POWER max. 150 watts, higher power on request

3 dB BEAMWIDTH in polarization E-plane: 58°
 vertical to pol. H-plane: 90°

TERMINATION 2 m cable RG 213/U ending with N male
 other termination on request

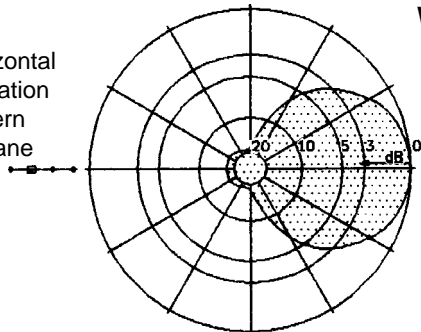
GROUNDING all metal parts are DC grounded

MOUNTING mast ø clamp (see chapt. 10)
 30 - 80 mm WG 11 (standard)
 50 - 104 mm WG 12 (option)
 clamp for other mast-ø on request

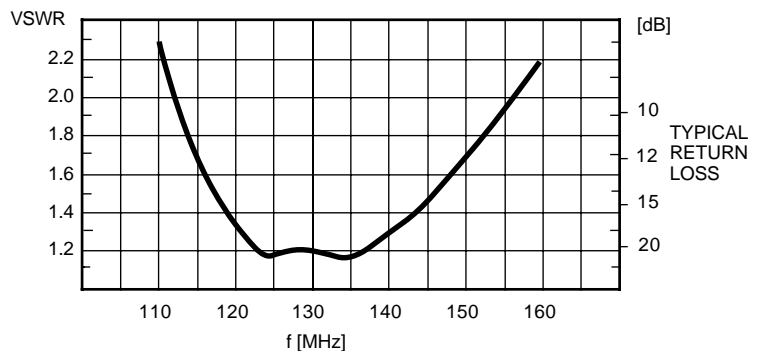
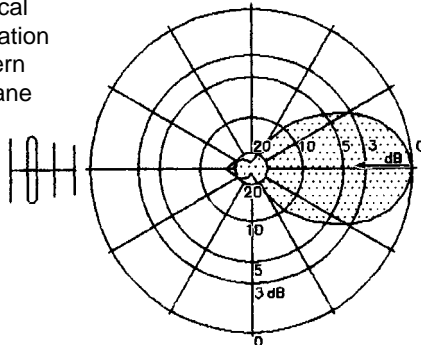
MATERIAL aluminium, bolts of stainless steel, weather-resistant plastic

WEIGHT 2.5 kg
WIND AREA 0.1 m²
WIND LOAD 130 N (150 km/h)
 95 N (130 km/h)

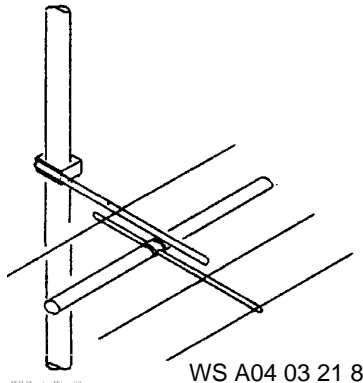
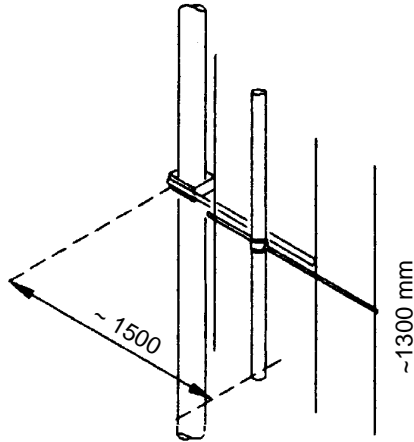
Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane

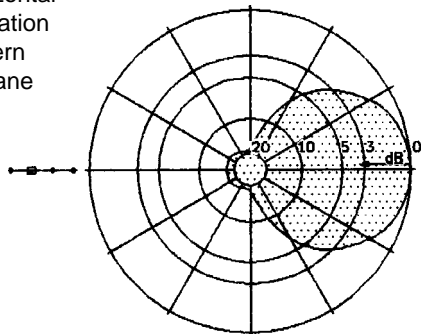


WS A04 03 11 8

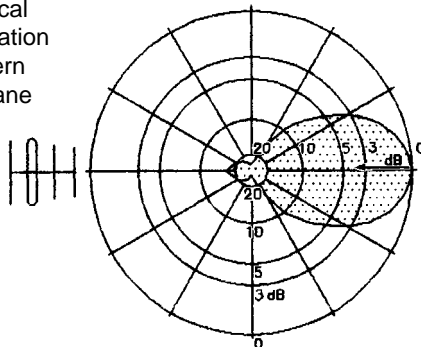


WS A04 03 21 8

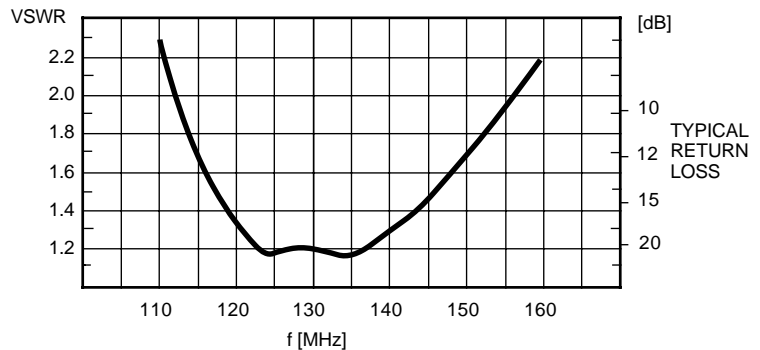
Horizontal
Radiation
Pattern
H Plane

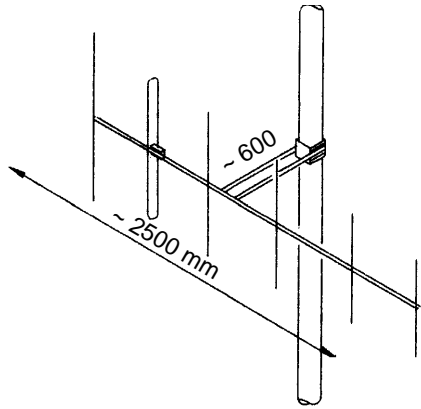


Vertical
Radiation
Pattern
E Plane



TYPE NO.	WS A04 03 11 7: 110 - 136 MHz vertical polarization WS A04 03 11 8: 118 - 144 MHz vertical polarization WS A04 03 21 7: 110 - 136 MHz horizontal polarization WS A04 03 21 8: 118 - 144 MHz horizontal polarization further frequencies on request
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipole against environmental influences, icing, and increases the lightning protection.
IMPEDANCE	50 Ω
GAIN	6.5 dB (ref. to λ/2 dipole)
VSWR	< 1.3, at the limits of the band < 1.4
POWER	max. 500 watts, higher power on request
3 dB BEAMWIDTH	in polarization E-plane: 58° vertical to pol. H-plane: 90°
TERMINATION	2 m cable RG 213/U with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	<i>mast</i> ∅ <i>clamp</i> (see chapt. 10) 30 - 80 mm WG 17 (standard) 50 - 104 mm WG 18 (option) clamp for other mast-∅ on request
MATERIAL	aluminium, bolts of stainless steel, radome of UV-stabilized polyethylene
WEIGHT	5.4 kg
WIND AREA	0.2 m ²
WIND LOAD	255 N (150 km/h) 190 N (130 km/h)





TYPE NO. WS A06 02 12 7: 110 - 136 MHz
WS A06 02 12 8: 118 - 144 MHz
light execution without radome

POLARISATION vertical (horizontal on request)

IMPEDANCE 50 Ω

GAIN 3.5 dB (ref. $\lambda/2$ dipole)
f/b: ~ 18 dB

VSWR < 1.3, at the limits of the band < 1.5

POWER max. 150 watts

3 dB BEAMWIDTH horizontal, H plane: 70°
vertical, E plane: 48°

TERMINATION 2 m cable RG 213/U ending with N male
other termination on request

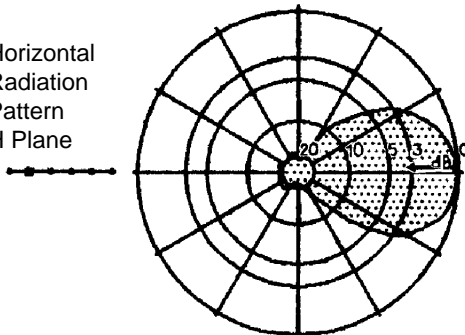
GROUNDING all metal parts are DC grounded

MOUNTING mast- \emptyset clamp (see chapt. 10)
30 - 80 mm WG 55 (standard)
50 - 104 mm WG 56 (option)
clamp for other mast- \emptyset on request

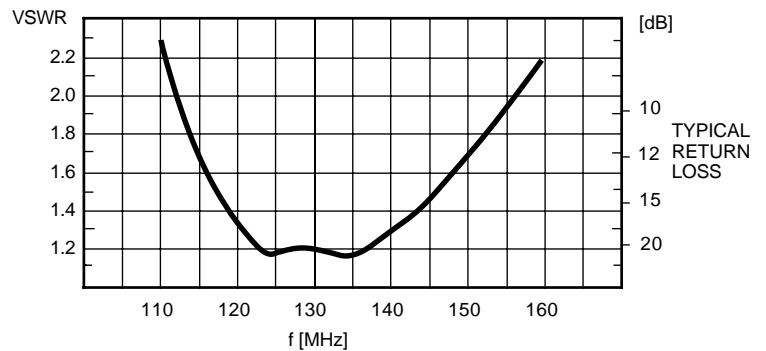
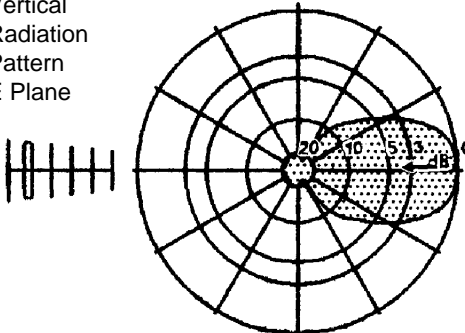
MATERIAL aluminium, bolts of stainless steel, weather-resistant
plastics

WEIGHT 4.4 kg
WIND AREA 0.16 m²
WIND LOAD 200 N (150 km/h)
150 N (130 km/h)

Horizontal
Radiation
Pattern
H Plane



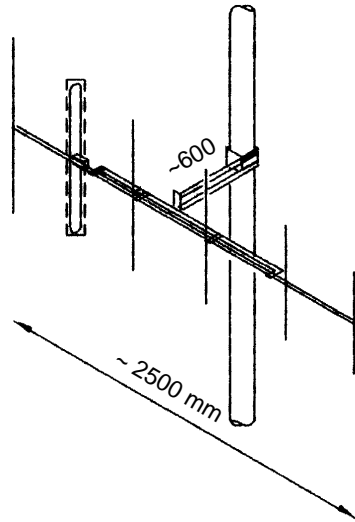
Vertical
Radiation
Pattern
E Plane



6-ELEMENT YAGI ANTENNA

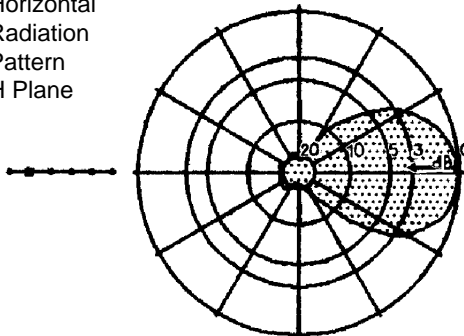
WS A06 03 12 .

110 ... 144 MHz

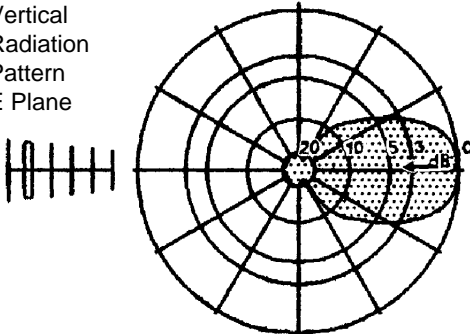


TYPE NO.	WS A06 03 12 7: 110 - 136 MHz WS A06 03 12 8: 118 - 144 MHz further frequencies on request
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
POLARISATION	vertical (horizontal on request)
IMPEDANCE	50 Ω
GAIN	8.5 dB (ref. λ/2 dipole) f/b: ~ 18 dB
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 70° vertical, E plane: 48°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	<i>mast-ø</i> <i>clamp (see chapt. 10)</i> 30 - 80 mm WG 63 (standard) 50 - 104 mm WG 64 (option) clamp for other mast-ø on request

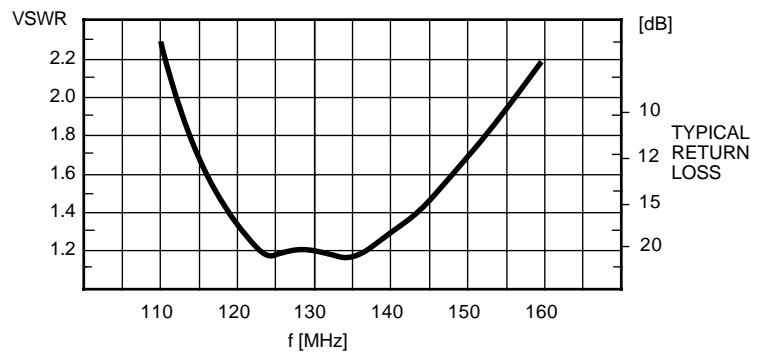
Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane



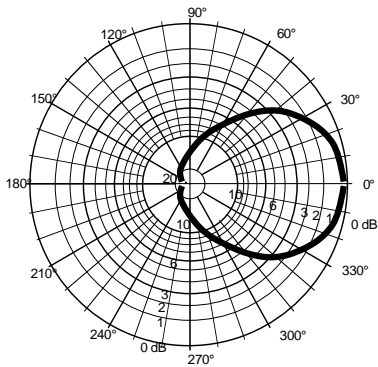
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	9.1 kg
WIND AREA	0.32 m ²
WIND LOAD	410 N (150 km/h) 310 N (130 km/h)





TYPE NO.	WS A80 22 31 3: 108 - 470 MHz other bands of request
POLARIZATION	vertical or horizontal
IMPEDANCE	50 Ω
GAIN	5 - 6.2 dB ref. λ/2 dipole 7-8.4 dBi F/B < 30 dB
VSWR	≤ 2 preferred < 1.5
POWER	300 - 1000 watts (depends on frequency)

**RADIATION
PATTERNH
H-PLANE**



3 dB BEAMWIDTH	E-plane: 60° H-plane: 96°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request

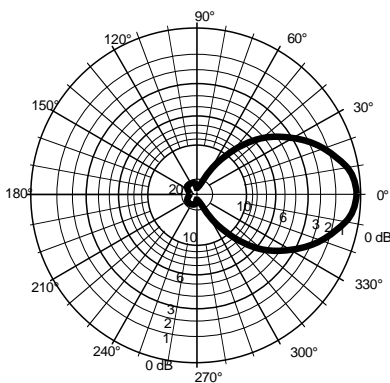
GROUNDING all metal parts are DC grounded

MOUNTING	mast-ø	clamp
	30 - 80 mm	WG 11 (standard)
	50 - 104 mm	WG 12 (option)
	clamp for other mast-ø on request	

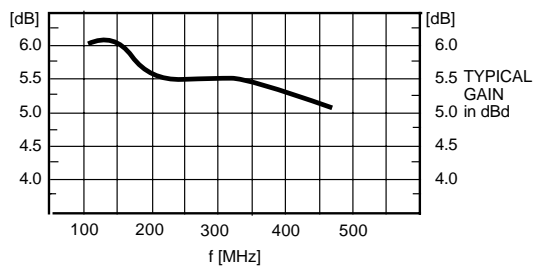
MATERIAL aluminium, bolts of stainless steel, weather-resistant plastics

DIMENSIONS	boomlength	~ 2.5 m
	longest element	~ 1.4 m

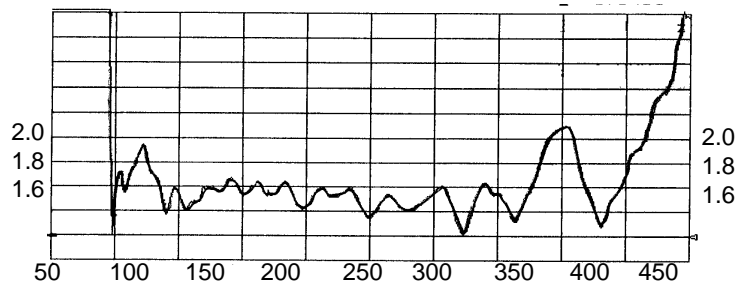
**RADIATION
PATTERNH
E-PLANE**

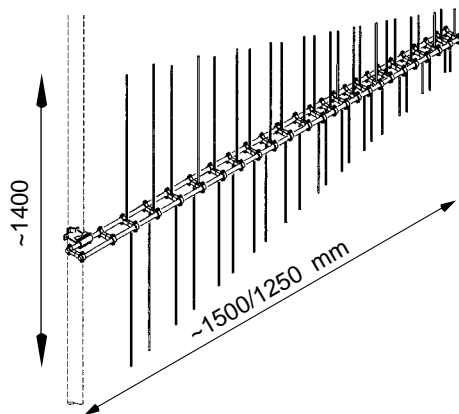


WEIGHT	4.5 kg
WIND AREA	0.15 m ²
WIND LOAD	191 N at 150 km/h 143 N at 130 km/h



TYPICAL SWR





TYPE NO.	WS A80 22 31 1	108 - 1100 MHz
	other bands of request	
POLARIZATION	vertikal (horizontal on request)	
IMPEDANCE	50 or 75 Ω on request	
GAIN	5-6dB ref. $\lambda/2$ Dipol 7-8 dBi F/B 20 - 25 dB	
VSWR	≤ 2.5 preferred < 1.5	
POWER	300 - 1000 watts (depends on frequency)	
3 dB BEAMWIDTH	E-plane:	60 - 70°
	H-plane:	110 - 130°
TERMINATION	2 m cable RG 213/U or RG 11 ending with N male other termination on request	
GROUNDING	all metal parts are DC grounded	
MOUNTING	mast- \emptyset	clamp
	30 - 80 mm	WG 11 (standard)
	50 - 104 mm	WG 12 (option)
	clamp for other mast- \emptyset on request	
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics	
WEIGHT	A80 22	
WIND AREA	3.1 kg	
WIND LOAD	0.19 m ² 270 N (150 km/h) 200 N (130 km/h)	