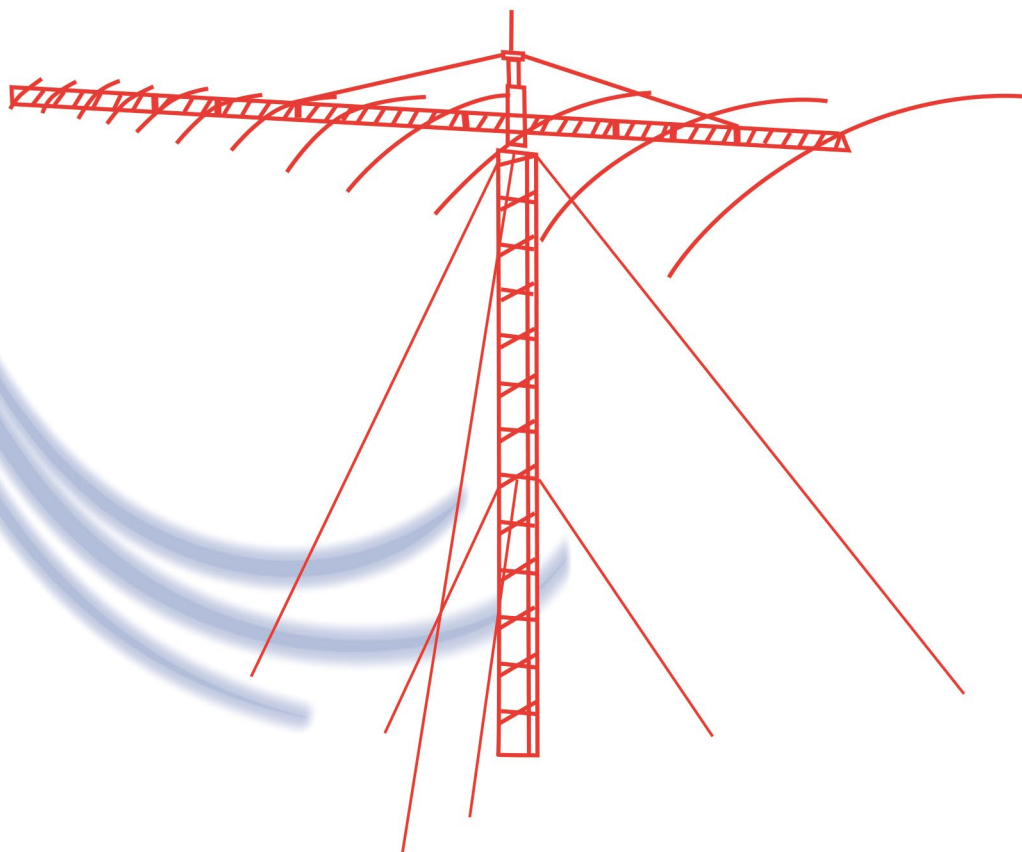


HF ANTENNAS



=> [Search by Part Number](#)



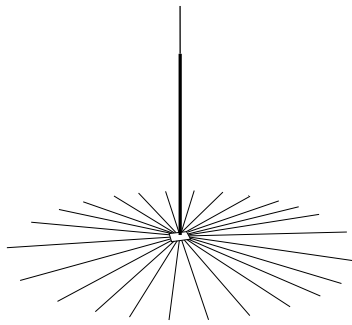


For Long Range Communications

- ⇒ Robust Construction for Harsh Environment
- ⇒ 100% RF Controlled
- ⇒ Low VSWR for Power Transmission
- ⇒ Tactical Versions for Short Deployment Time

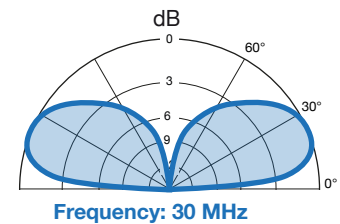
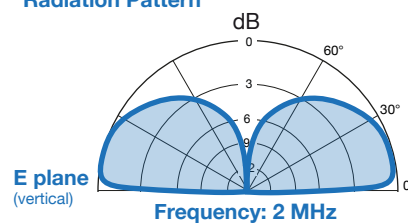
AFA - VLF / LF / HF	3	AHLZ 2.8 - 30T	16
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AFA - VLF / LF / HF

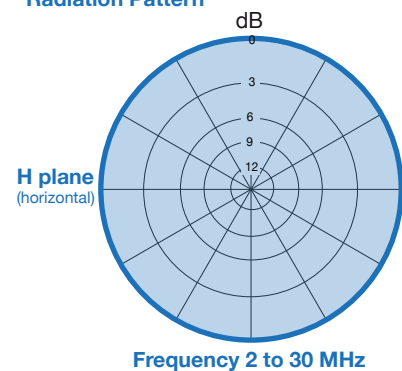


Frequency range	10 KHz to 30 MHz	Height	4 m
Impedance	50 Ω	Standard grounding	$\varnothing$ 3 m (24 radials)
VSWR in the band	< 7 (2-30 MHz)	Materials	AGS - POM C - stainless steel
Polarization	Vertical	Weight	17 kg
Radiation pattern		Windspeed resistance	160 km/h without frost
- E plan	Medium elevation 15°	Temperature range	-40° to +70°C
- H plan	Omni at $\pm$ 0.5 dB	Color	White RAL 9010
Connector	Nf		

Radiation Pattern



Radiation Pattern

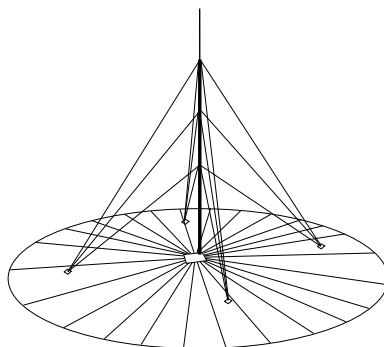


[Return to Search by Part Number](#)

P/N	Model
99-0158	AFA - VLF/LF/HF standard version



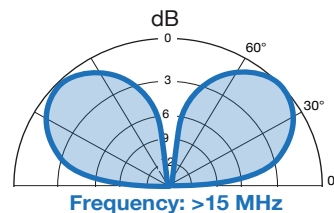
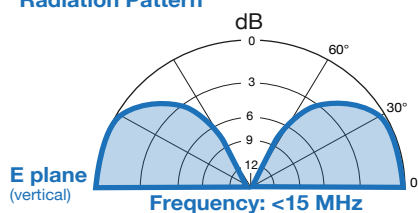
AOF HF 2 - 30



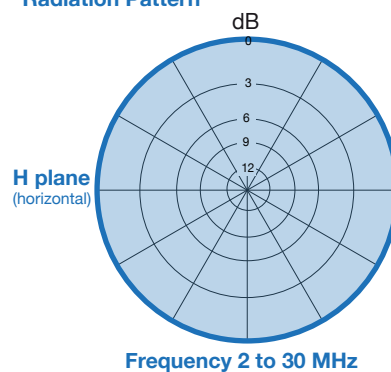
HF Antennas

Frequency range	2 to 30 MHz	Dimensions on ground	
Impedance	50 Ω	- Staying	Ø 10 m
VSWR in the band	< 1.5 (with tuning box)	- Standard grounding	Ø 40 m (24 radials)
Maximum gain		- High density grounding	Ø 60 m (24 radials)
- at 3 MHz	0 dBi	Height	12.4 m
- at 6 MHz	2.5 dBi	Staying	3 levels of 4 parafil stays
- at 15 MHz	5 dBi	Materials	AGS - POM C - stainless
Polarization	Vertical	Windspeed resistance	200 km/h without frost
Radiation pattern		Temperature range	-40° to +70°C
- E plan	Medium elevation 25°	Color	Army green (IR NATO 24x5)
- H plan	Omni at ± 0.5 dB		
Maximum input power	1 kW cw		
Connector	N f		

Radiation Pattern



Radiation Pattern



[Return to Search by Part Number](#)

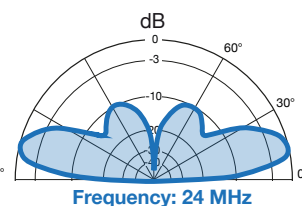
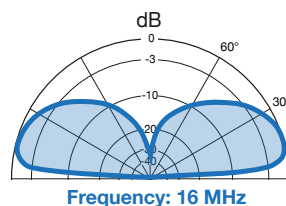
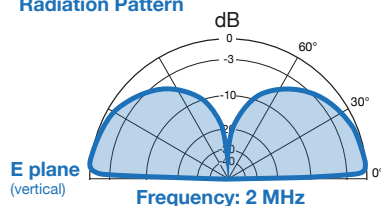
P/N	Model
99-0046	AOF HF 2-30 standard version

AHF FA 5 - 10

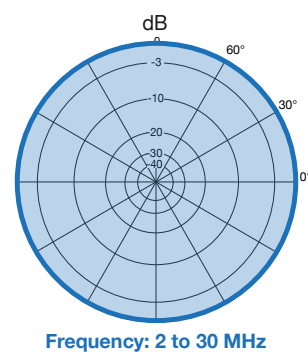


Frequency range	2 to 30 MHz	Height	7 m
Impedance	50 Ω	Standard grounding	$\varnothing$ 30 m (32 radials)
VSWR in the band	< 5 (5-10 MHz)	Material / coating	AGS / fiberglass
Maximum gain	3 - 4.5 dBi	Windspeed resistance	200 km/h without frost
Polarization	Vertical	Temperature range	-40° to +70°C
Radiation pattern	See diagrams	Color	Grey RAL 7010
Connector	7-16 f		

Radiation Pattern



H plane
(horizontal)

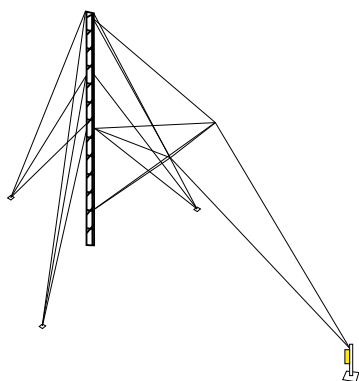


[Return to Search by Part Number](#)

P/N	Model
99-0071	AHF FA 5 - 10 standard version

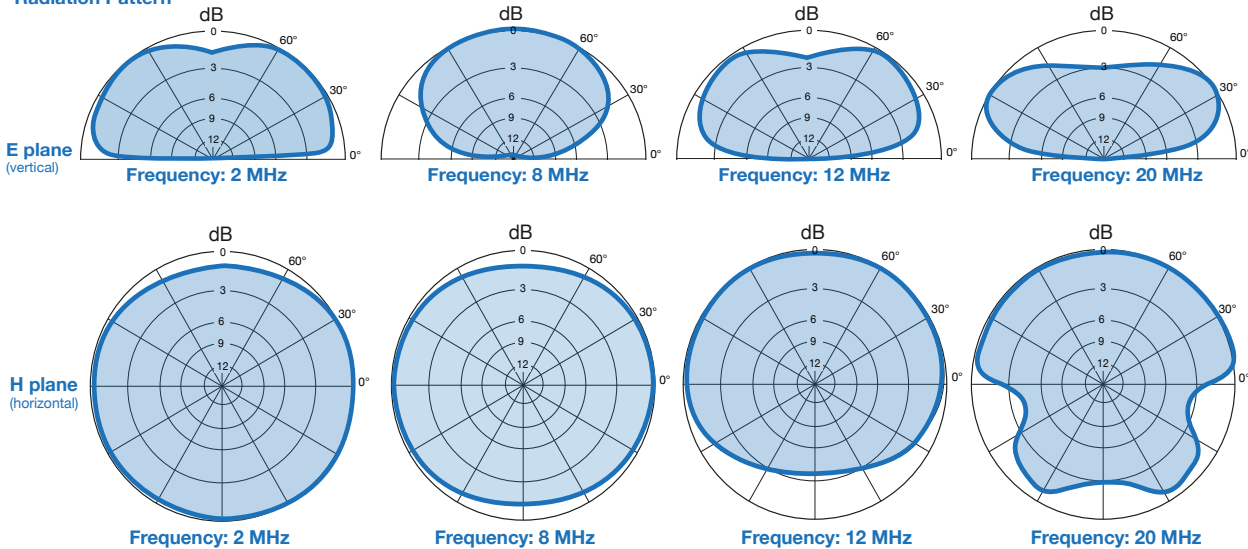


ASD HF 2 - 30



Frequency range	2 to 30 MHz	Dimensions on ground	
Impedance	50 Ω	Trapezium (LB x SB x H)	8 x 6 x 36 m
VSWR in the band	< 2.5	Mast height	
Maximum gain		- standard version	16 m
- at 3 MHz	- 8 dBi	- tactical version	12 m
- at 6 MHz	- 1 dBi		
- at 15 MHz	+ 4 dBi	Staying	
Polarization	Horizontal	- standard version	4 levels of 3 stays
Radiation pattern	see diagrams	- tactical version	3 levels of 4 stays
Maximum input power	1 kW cw	Radiating array material	Stainless steel cables
Connector	Nf	Windspeed resistance	200 km/h without frost
		Temperature range	-40° to +70°C

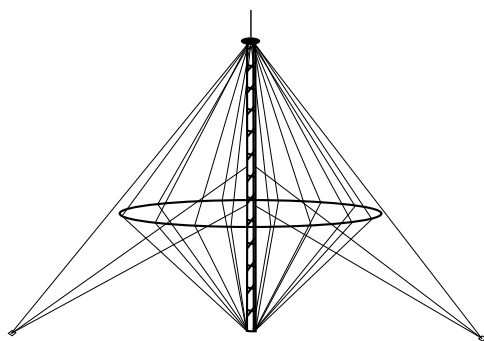
Radiation Pattern



Return to Search by Part Number

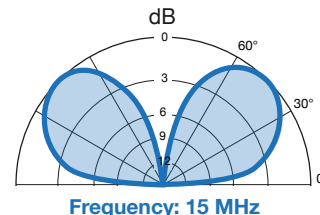
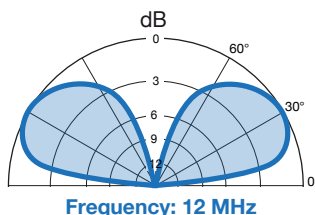
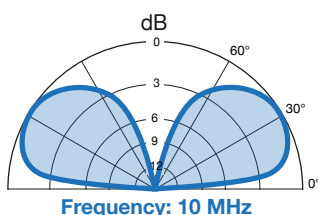
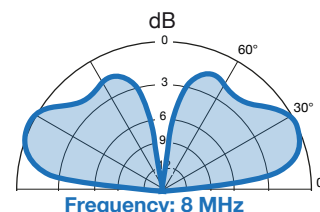
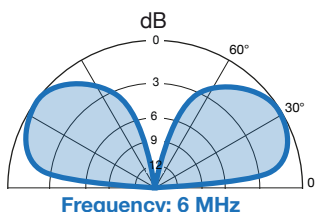
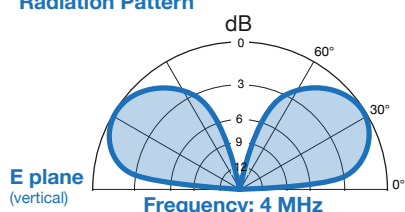
P/N	Model
99-0028	ASD HF 2-30 standard version
99-0029	ASD HF 2-30-T tactical version

ABC HF 4 - 15

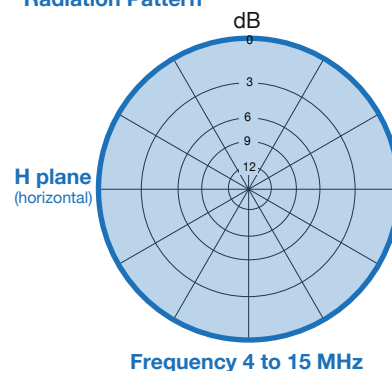


Frequency range	4 to 15 MHz	Dimensions on ground	
Impedance	50 Ω	- Staying	$\varnothing$ 16.5 m
VSWR in the band	< 2.5	- Standard grounding	$\varnothing$ 46 m (32 radials)
Maximum gain		- High density grounding	$\varnothing$ 60 m (60 radials)
- Standard artificial grounding	3 - 4 dBi	Mast height	12 m
- High density artificial grounding	5 - 6 dBi	Staying	2 levels of 3 parafil stays
Polarization	Vertical	Radiating array material	Stainless steel cables
Radiation pattern	see diagrams	Windspeed resistance	200 km/h without frost
Maximum input power	5 kW cw (option 10kW)	Temperature range	-40° to +70°C
Connector	EIA 7/8" (option EIA 1.5/8")		

Radiation Pattern



Radiation Pattern

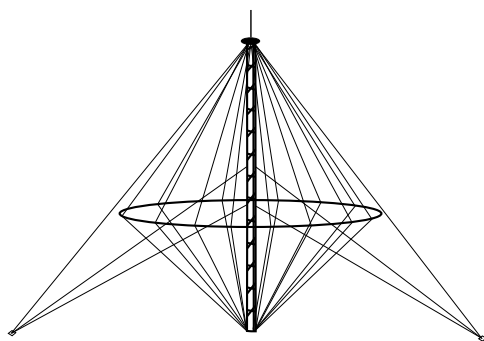


[Return to Search by Part Number](#)

P/N	MODEL
99-0206	ABC HF 4-15 standard version



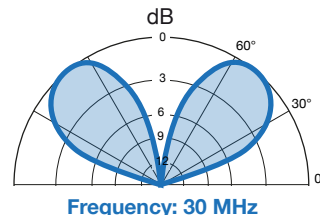
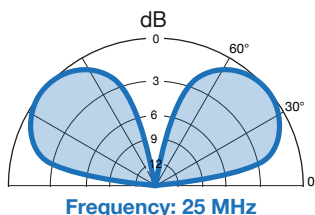
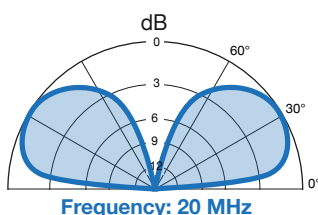
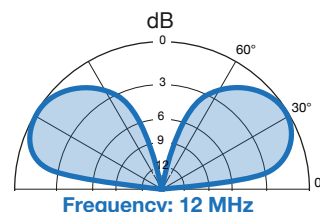
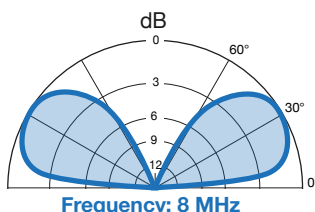
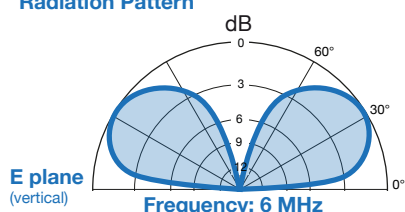
ABC HF 6 - 28



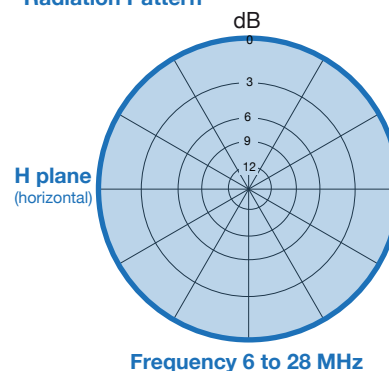
HF Antennas

Frequency range	6 to 28 MHz	Dimensions on ground	
Impedance	50 Ω	- Staying	$\varnothing$ 12.5 m
VSWR in the band	< 2.5	- Standard grounding	$\varnothing$ 38 m (24 radials)
Maximum gain		- High density grounding	$\varnothing$ 60 m (36 radials)
- Standard artificial grounding	4 - 5 dBi	Mast height	7 m
- High density artificial grounding	5 - 6 dBi	Staying	2 levels of 3 parafil stays
Polarization	Vertical	Radiating array material	Stainless steel cables
Radiation pattern	see diagrams	Windspeed resistance	200 km/h without frost
Maximum input power	5 kW cw (option 10kW)	Temperature range	-40° to +70°C
Connector	7-16f (option EIA 7/8")		

Radiation Pattern



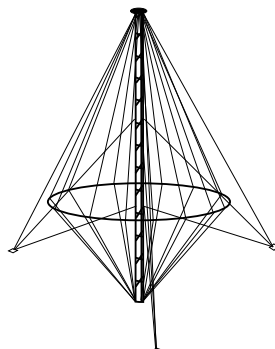
Radiation Pattern



Return to Search by Part Number

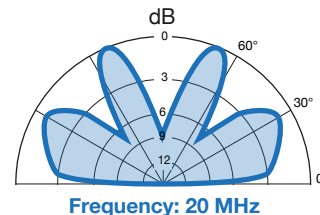
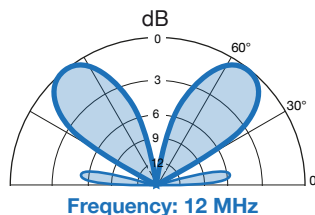
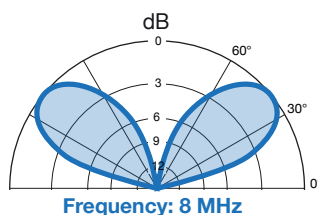
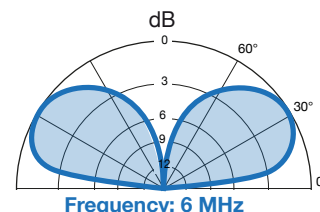
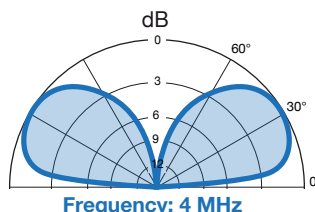
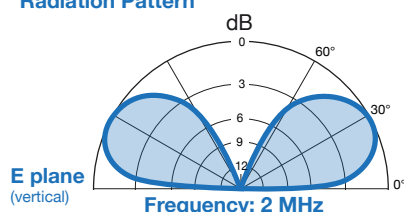
P/N	MODEL
99-0044	ABC HF 6-28 standard version

BCI HF 2 - 30

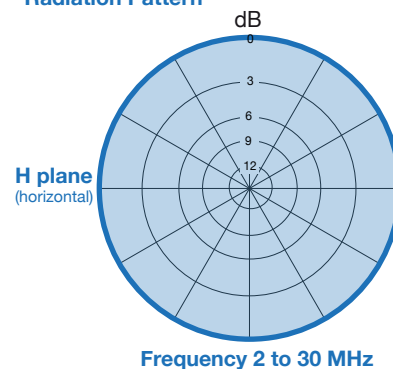


Frequency range	2 to 30 MHz	Dimensions on ground	
Impedance	50 Ω	- Staying	$\varnothing$ 39 m
VSWR in the band	< 2.0	- Standard grounding	$\varnothing$ 90 m (32 radials)
Maximum gain		- High density grounding	$\varnothing$ 120 m (60 radials)
- Standard artificial grounding	3 - 4 dBi	Mast height	33 m
- High density artificial grounding	5 - 6 dBi	Staying	3 levels of 3 parafil stays
Polarization	Vertical	Radiating array material	Stainless steel cables
Radiation pattern	see diagrams	Windspeed resistance	200 km/h without frost
Maximum input power	5 kW cw (option 10 kW)	Temperature range	-40° to +70°C
Connector	EIA 7/8" (option EIA 1.5/8")		

Radiation Pattern



Radiation Pattern

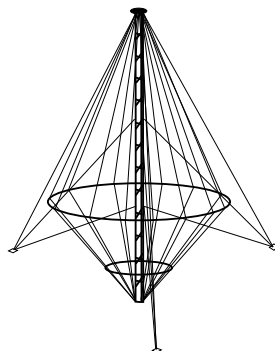


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P/N	MODEL
99-0092	BCI HF 2-30 standard version



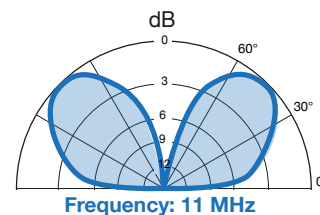
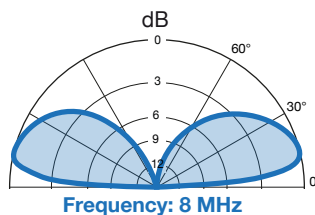
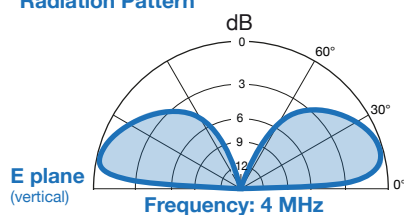
BCI HF 4 - 11



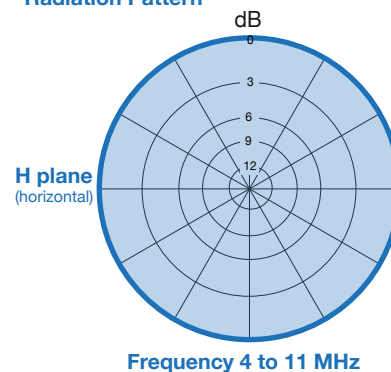
HF Antennas

Frequency range	4 to 11 MHz	Dimensions on ground	
Impedance	50 Ω	- Staying	Ø 20 m
VSWR in the band	< 2	- Standard grounding	Ø 100 m (60 radials)
Maximum gain		- High density grounding	Ø 100 m (120 radials)
- Standard artificial grounding	3 - 4 dBi	Mast height	20 m
- High density artificial grounding	5 - 6 dBi	Staying	4 levels of 3 parafil stays
Polarization	Vertical	Radiating array material	Stainless steel cables
Radiation pattern	see diagrams	Windspeed resistance	200 km/h without frost
Maximum input power	5 kW cw (option 10 kW)	Temperature range	-40° to +70°C
Connector	EIA 7/8" (option EIA 1.5/8")		

Radiation Pattern



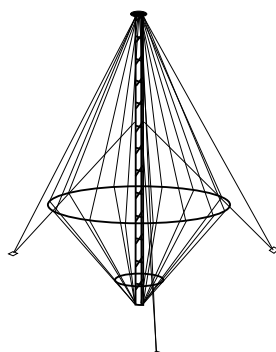
Radiation Pattern



[Return to Search by Part Number](#)

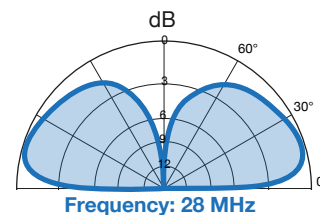
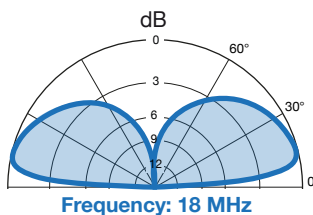
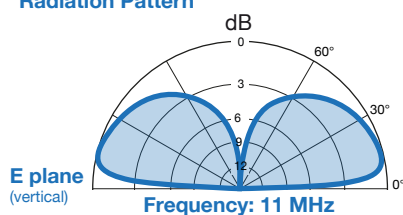
P/N	MODEL
99-0079	BCI HF 4-11 standard version

BCI HF 11 - 28

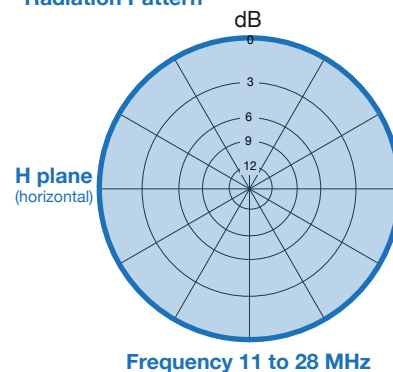


Frequency range	11 to 28 MHz	Dimensions on ground	
Impedance	50 Ω	- Staying	Ø 7 m
VSWR in the band	< 2.0	- Standard grounding	Ø 40 m (60 radials)
Maximum gain		- High density grounding	Ø 40 m (60 radials)
- Standard artificial grounding	3 - 4 dBi	Mast height	33 m
- High density artificial grounding	5 - 6 dBi	Staying	2 levels of 3 parafil stays
Polarization	Vertical	Radiating array material	Stainless steel cables
Radiation pattern	see diagrams	Windspeed resistance	200 km/h without frost
Maximum input power	5 kW cw (option 10 kW)	Temperature range	-40° to +70°C
Connector	EIA 7/8" (option EIA 1.5/8")		

Radiation Pattern



Radiation Pattern

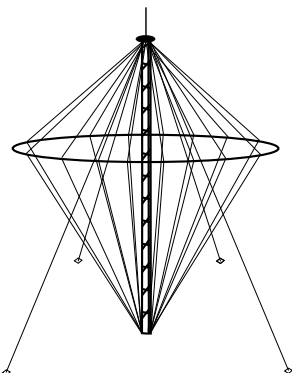


[Return to Search by Part Number](#)

P/N	MODEL
99-0080	BCI HF 11-28 standard version

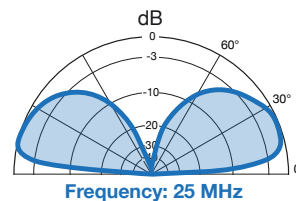
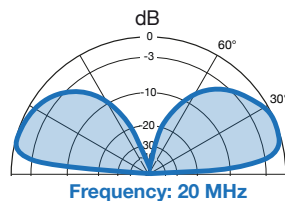
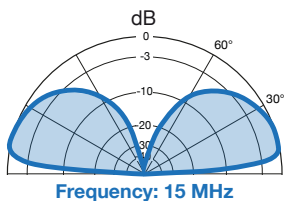
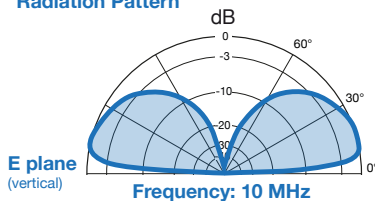


AHF MC 10 - 25

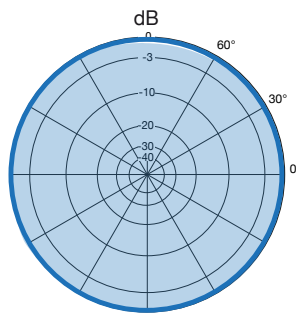


Frequency range	10 to 30 MHz	Dimensions on ground	
Impedance	50 Ω	- Staying	Ø 8 m
VSWR in the band	< 2	- Standard grounding	Ø 30 m (60 radials)
Maximum gain		Mast height	6 m
- Standard artificial grounding	3 - 5 dBi	Staying	1 level of 3 parafil stays
Polarization	Vertical	Radiating array material	Stainless steel cables
Radiation pattern	see diagrams	Windspeed resistance	160 km/h without frost
Maximum input power	5 kW cw	Temperature range	-40° to +70°C
Connector	7-16 f		

Radiation Pattern



H plane
(horizontal)

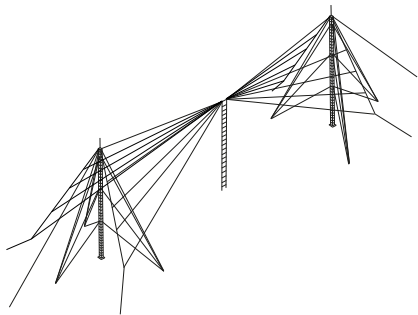


[Return to Search by Part Number](#)

P/N	MODEL
99-0053	AHF MC 10-25 standard version



AHF BHP 3 - 30

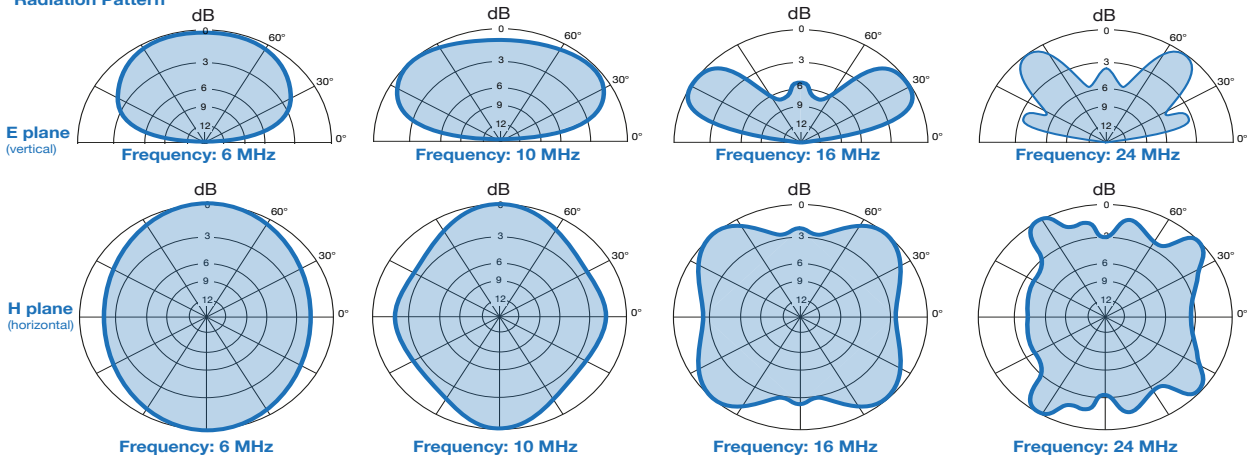


HF Antennas



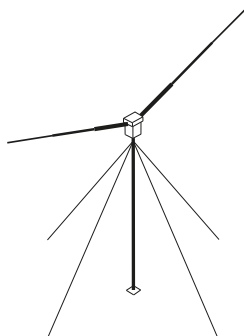
Frequency range	3 to 30 MHz	Dimensions on the ground	75 x 35 m
Impedance	50 Ω	Staying	Ø 20 m
VSWR in the band	< 2.5	Mast height	15 m
Gain	6 to 8 dBi	Mast spacing	45 m
Polarization	Horizontal	Staying	3 levels of 3 parafil stays
Radiation pattern	see diagrams	Radiating array material	Stainless steel cables
Maximum input power	400 W cw (option 10kW)	Windspeed resistance	160 km/h without frost
Connector	Nf (option EIA 1"5/8)	Temperature range	-40° to +70°C

Radiation Pattern



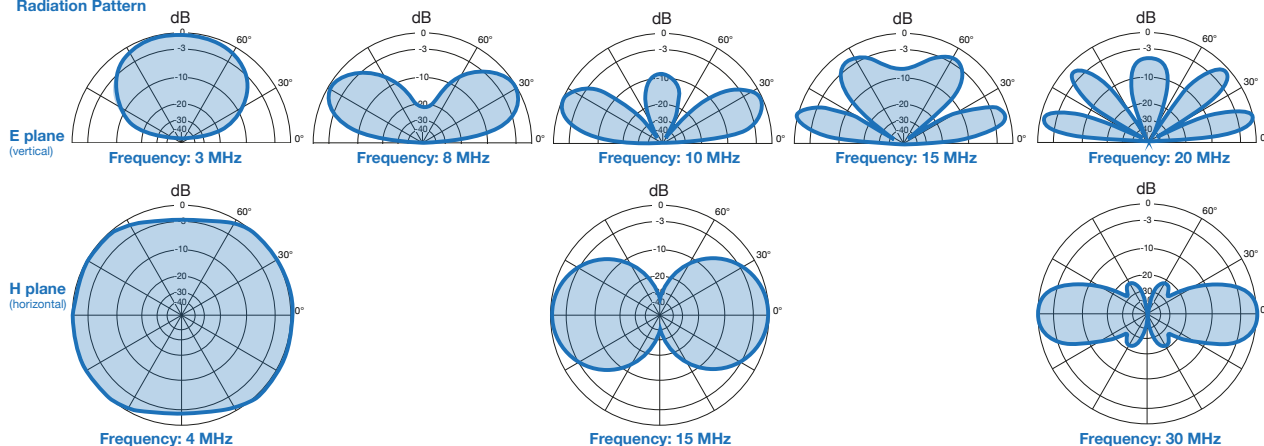
[Return to Search by Part Number](#)

P/N	MODEL
99-0168	AHF BHP 3-30 T standard version



Frequency range	2 - 30 or 3 - 30 MHz	Mast height	6 m
Impedance	50 Ω	Staying	Ø 8 m
VSWR in the band	< 1.5 with tuning box	Staying	1 level of 4 parafil stays
Isotopic gain	0 dBi (F = 2 MHz) 2 to 7 dBi (F > 3 MHz)	Deployment time (3 operators)	2 hours
Polarization	Horizontal	Windspeed resistance	160 km/h without frost
Radiation pattern	see diagrams	Temperature range	-30° to +70°C
Maximum input power	150 W cw (option 1 kW)	Color	Grey RAL 7038
Switching time	< 10 ms		
Connector	N f		

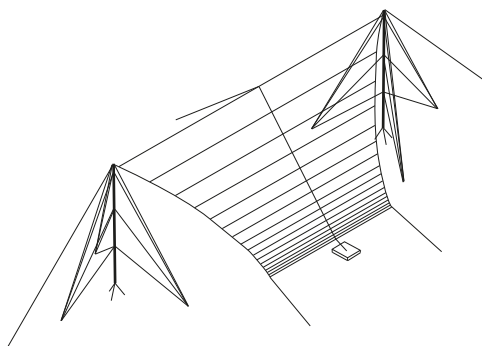
Radiation Pattern



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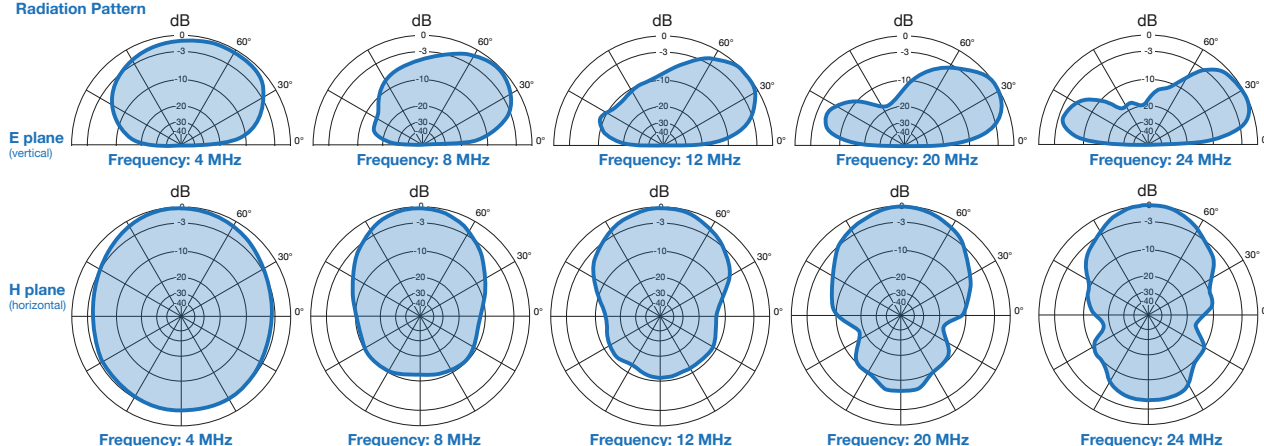
P/N	MODEL	Frequency range (MHz)
99-0169	ADH / SU25 3-30 standard version	3 - 30
99-0170	ADH / SU25 2-30 standard version	2 - 30

AHLX 2.8 - 30T



Frequency range	2.8 to 30 MHz	Dimensions on ground	
Impedance	50 Ω	Trapezium (LB x SB x H)	77 x 25 x 41 m
VSWR in the band	< 2.8	Staying	$\varnothing$ 10 m
Maximum gain	6 - 8.5 dBi	Mast height	21 m
Polarization	Horizontal	Staying	4 levels of 3 stays
Radiation pattern	see diagrams	Radiating array material	Stainless steel cables
Maximum input power	10 kW cw (option 1 kW)	Deployment time (6 operators)	2 hours
Connector	EIA 1.5/8" (option N f)	Windspeed resistance	120 km/h without frost
		Temperature range	-40° to +70°C
		Color	Army green (IR NATO 24x5)

Radiation Pattern

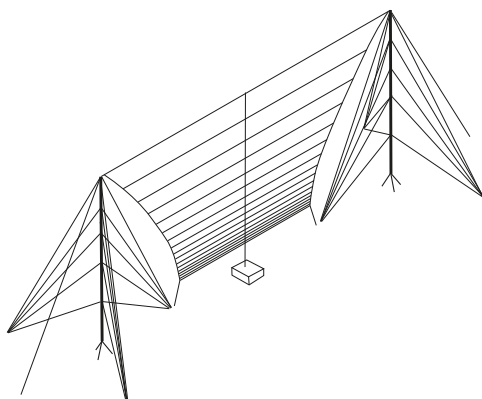


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P/N	MODEL
99-0143	AHLX 2.8-30T 10kW tactical version
99-0145	AHLX 2.8-30T 1kW tactical version



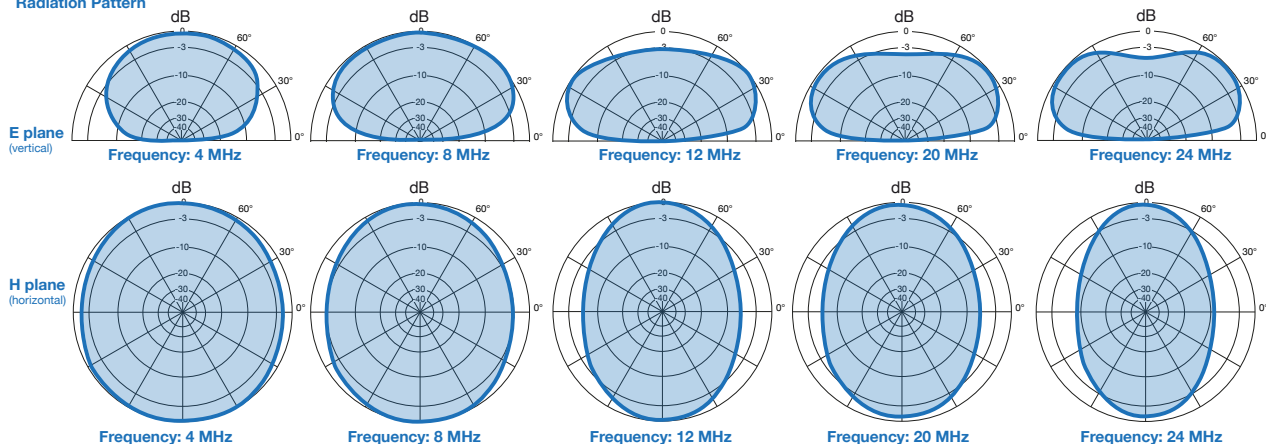
AHLZ 2.8 - 30T



HF Antennas

Frequency range	2.8 to 30 MHz	Dimensions on ground	78 x 23 m
Impedance	50 Ω	Standard grounding	Ø 30 m (24 radials)
VSWR in the band	< 2.6	Staying	Ø 12 m
Maximum gain	6 - 8.5 dBi	Mast height	26 m
Polarization	Horizontal	Staying	5 levels of 3 stays
Radiation pattern	see diagrams	Radiating array material	Stainless steel cables
Maximum input power	10 kW cw (option 1 kW)	Deployment time (6 operators)	2 hours
Connector	EIA 1.5/8" (option N f)	Windspeed resistance	120 km/h without frost
		Temperature range	-40° to +70°C
		Color	Army green (IR NATO 24x5)

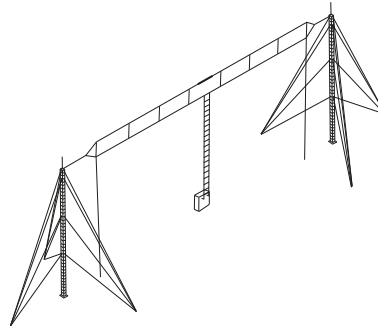
Radiation Pattern



[Return to Search by Part Number](#)

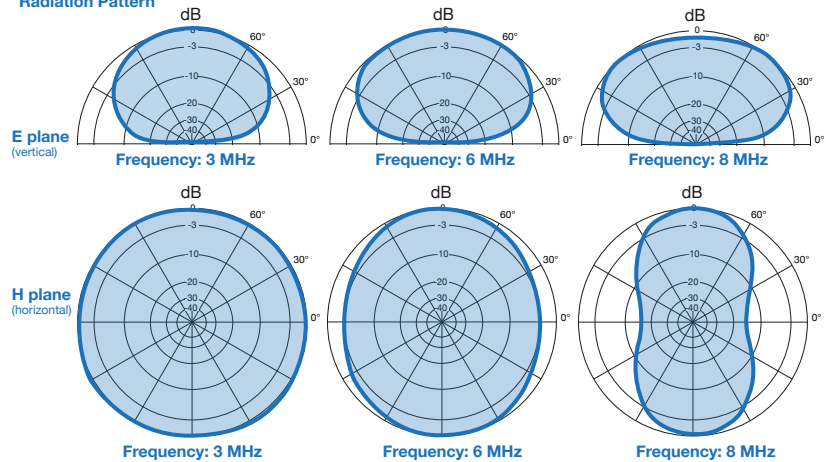
P/N	MODEL
99-0144	AHLZ 2.8-30T 10kW tactical version
99-0146	AHLZ 2.8-30T 1kW tactical version

ADA 2 - 10 - 12m



Frequency range	2 to 10 MHz	Dimensions on ground	58 x 13 m
Impedance	50 Ω	Staying	$\varnothing$ 12 m
VSWR in the band	< 3	Height	12 m
Maximum gain		Staying	3 levels of 3 parafil stays
- at 2 MHz	-4 dBi	Radiating array material	Stainless steel cables
- at 4 MHz	+4 dBi	Windspeed resistance	160 km/h without frost
- at 10 MHz	+3 dBi	Temperature range	-40° to +70°C
Polarization	Horizontal	Color	ICAO Red / White
Radiation pattern	See diagrams		
Maximum input power	1 kW cw		
Connector	N f		

Radiation Pattern



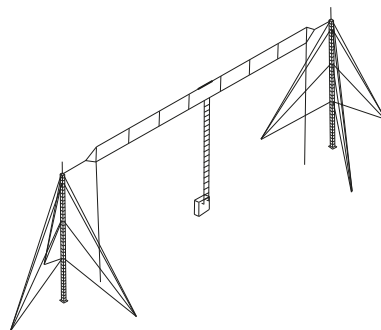
[Return to Search by Part Number](#)

P/N	Model
99-0167	ADA 2-10-12m standard version

Other models available on request for frequency range 3 - 15 MHz and 4 - 20 MHz

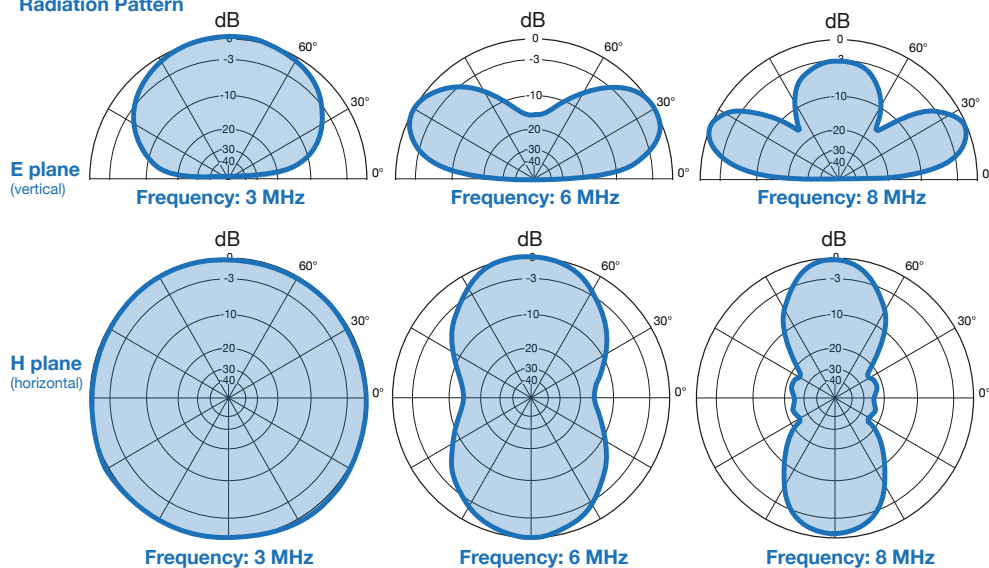


ADA 2 - 10 - 24m



Frequency range	2 to 10 MHz	Dimensions on ground	72 x 24 m
Impedance	50 Ω	Staying	$\varnothing$ 24 m
VSWR in the band	< 3	Height	24 m
Maximum gain		Staying	6 levels of 3 parafil stays
- at 2 MHz	-4 dBi	Radiating array material	Stainless steel cables
- at 4 MHz	+4 dBi	Windspeed resistance	160 km/h without frost
- at 10 MHz	+3 dBi	Temperature range	-40° to +70°C
Polarization	Horizontal	Color	ICAO Red / White
Radiation pattern	See diagrams		
Maximum input power	1 kW cw		
Connector	N f		

Radiation Pattern

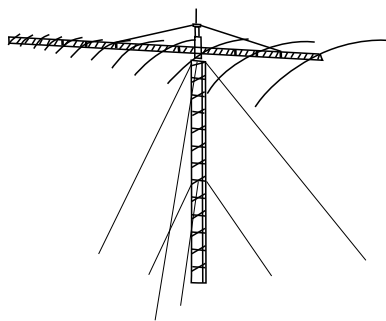


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P/N	Model
99-0207	ADA 2 - 10 - 24 m standard version

Other models available on request for frequency range 3 - 15 MHz and 4 - 20 MHz

HLO 4 - 30



Frequency range

- Tx 4 to 30 MHz
- Rx 2 to 30 MHz

Impedance

50 Ω

VSWR in the band

< 2.0

Maximum gain

12 dBi

Polarization

Horizontal

Radiation pattern

see diagrams

Maximum input power

10 kW cw

Connector

EIA 1.5/8"

Mast height

34.50 m

Ground staying

Ø 54 m

Dipole span

36 m

Boom lenght

28 m

Number of dipole

14

Boom weight

1750 kg

Rotation speed

360° in 2 minutes

Staying

3 levels of 3 stays

Material radiating array/pylon

AGS/Hot galvanized steel

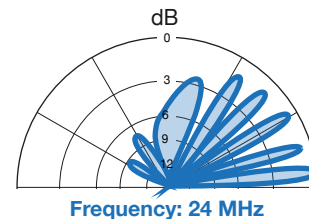
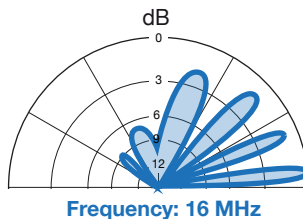
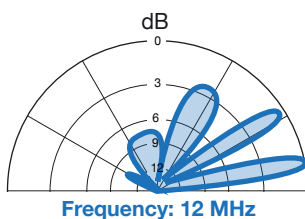
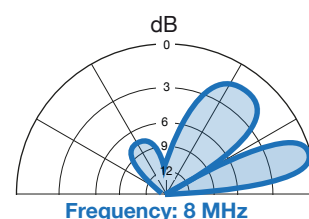
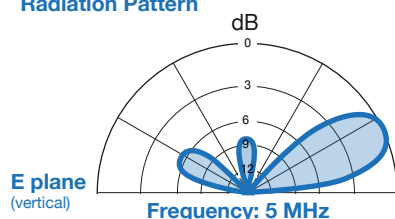
Windspeed resistance

200 km/h without frost

Temperature range

-40° to +70°C

Radiation Pattern

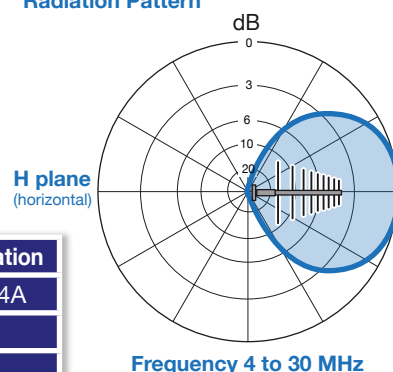


Remote antenna rotation UCRA in option.

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P/N	Model	Motor	Boom	Identification
99-0126	HLO 4-30	Standard	Standard	AN-584A
99-0215	HLO 4-30D	EM Protected	Standard	
99-0045	AOLOG HF 4-30	EM Protected	Reinforced	
99-0011B	UCRA Antenna rotation control unit			

Radiation Pattern



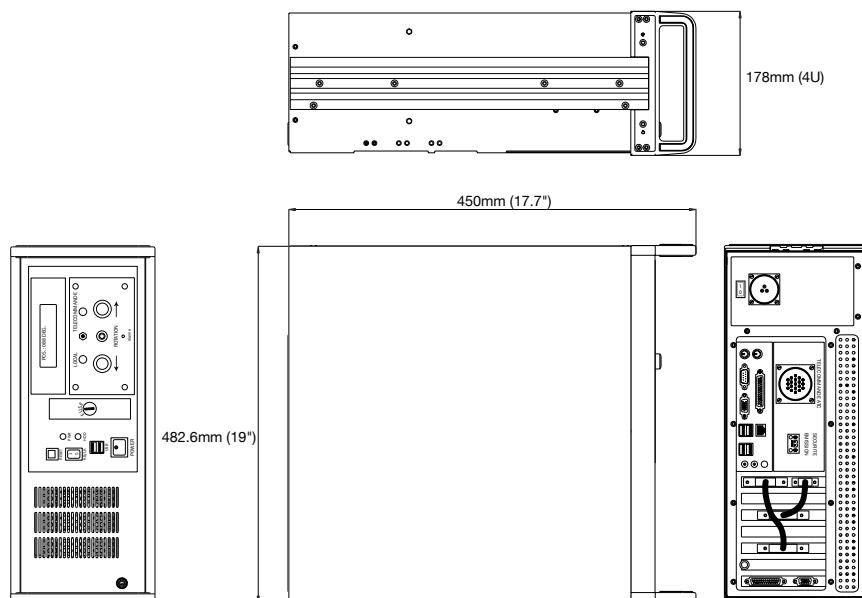
UCRA Antenna Rotation Control Unit



HF Antennas



Construction	Black painted steel
Dimension (WxDxH)	19" (482.6mm) x 17.7" (450mm) x 7" (177mm, 4U)
Operating temperature	0° to +55°C
Main power supply	Full range AC 100/240 V, 50/60 Hz (350W)
Antenna rotation modes	- Local by using front panel controls - Remote by using serial RS232 or network IPV4
Operating system	Microsoft Windows 10 professional 32 Bits
Remote control software	RS232 or IPV4 versions
Front panel indicators	2 lines, 16 characters backlit LCD for angle and alarms display.
Rear panel interfaces	- DB25 male connector for serial RS232 - 2 pin COMBICON connector for normally closed RF transmitter safety loop - SLEM319L (19 pins) connector for antenna power control system - SLEM23C (3 pins) connector for main power supply.
Accessories supplied	17" flat LCD display, USB keyboard, optical mouse and external DVD driver



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P/N	MODEL
99-0011B	UCRA Antenna rotation control unit

Chock Coil Inductor for HLO / AOLOG HF Antenna

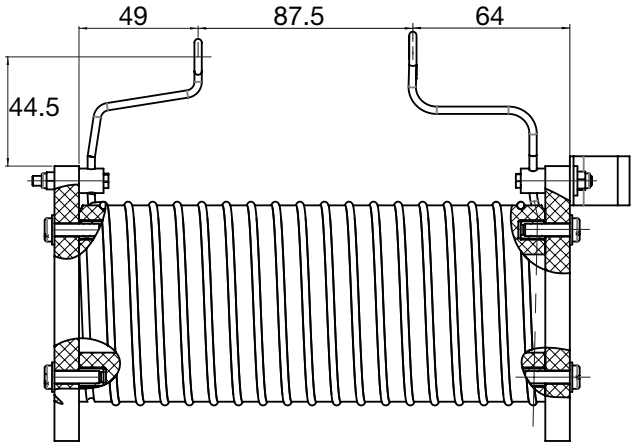
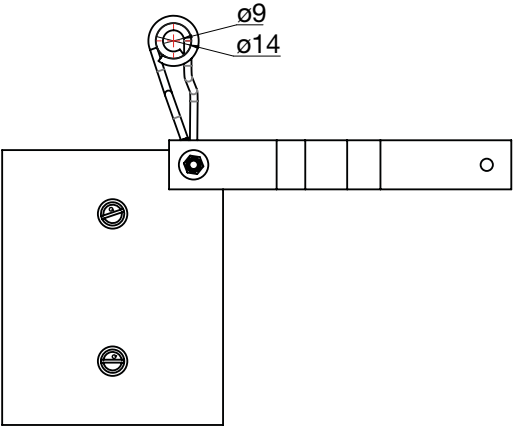


HF Antennas



Inductance
Material
Weight

Pom C + Al
1.4 kg



Dimensions in mm

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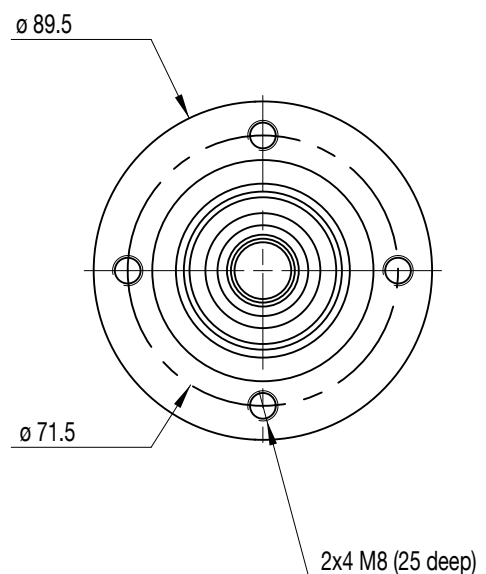
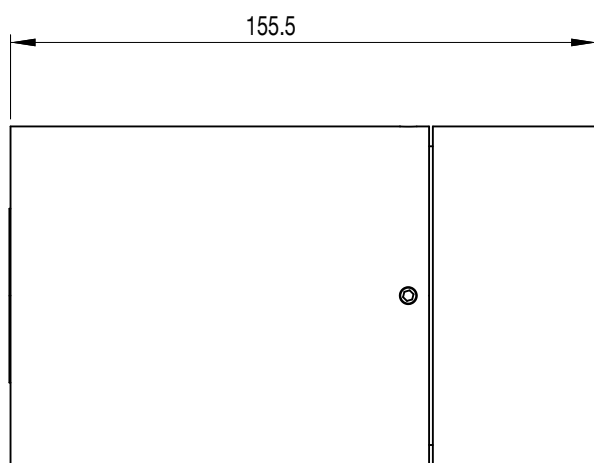
P/N	Model
98-1010	Chock Coil Inductance for HLO / AOLOG HF Antenna

Rotary Joint EIA 1.5/8"



HF Antennas

Impedance	50 Ω
Frequency	DC-30 MHz
Max power	10 kW
VSWR	< 1.03
Insertion loss	< 0.1 dB
Interface	EIA 1.5/8"
Material	Al
Weight	2.5 kg
Accessories included	2 splices EIA 1.5/8" 8 screws HM8x30 + washer 2 O-ring



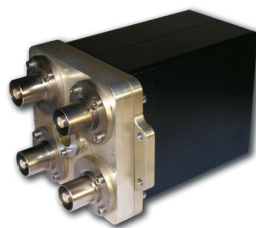
Dimensions in mm

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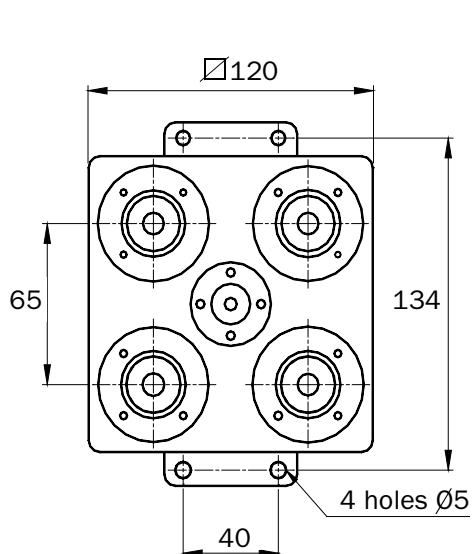
P/N	Model
98-1009	Rotary joint EIA 1.5/8"

10 kW DPDT Coaxial Switch

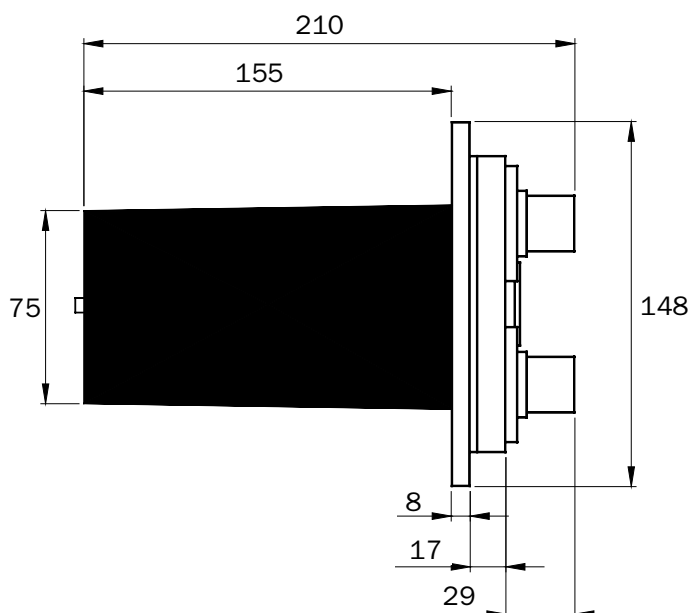
Standard
NF C 96-317



Impedance	50 Ω
Frequency	2 - 30 MHz
Isolation	≥ 80 dB
Insertion loss	≤ 0.05 dB
Actuating voltage	25 V DC $\pm 15\%$
Actuating impulse	1.3 A - 100 ms
Operate time	≤ 100 ms
Life ratings	$\geq 100\,000$ switches
Case material	Al
Coaxial connectors	Rigid Line 7/8"
Weight	3.3 kg



Dimensions in mm



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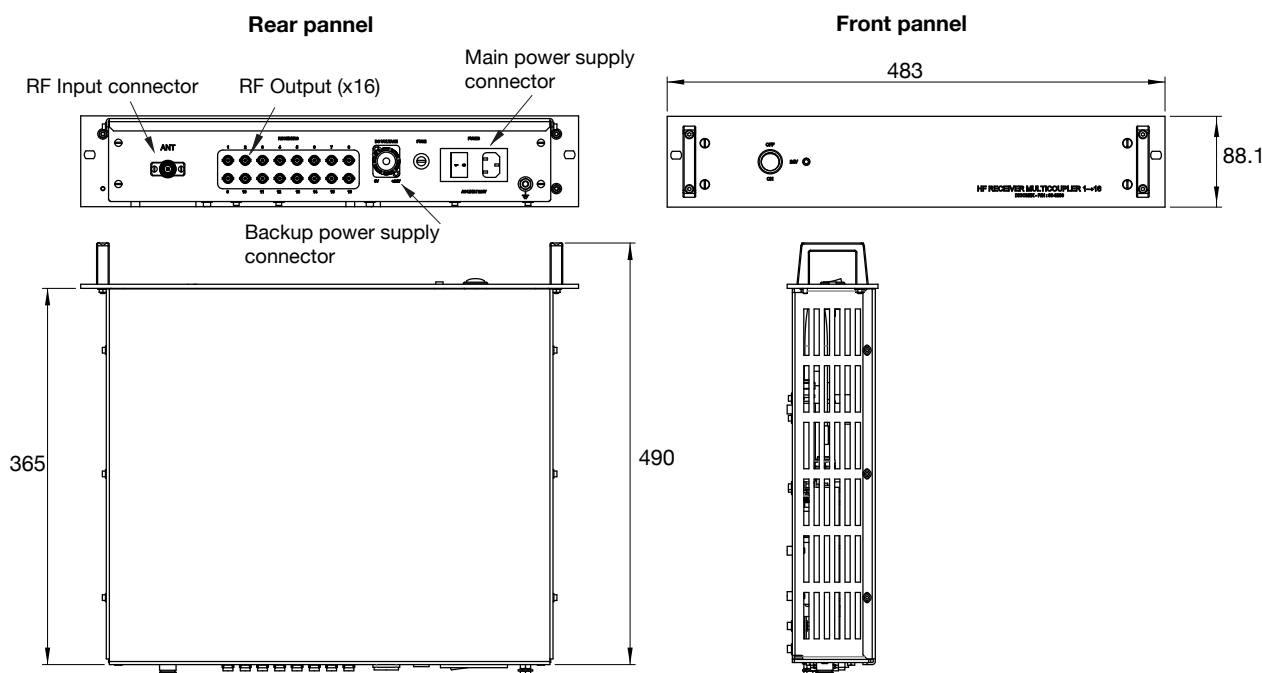
P/N	Model
18-0006	10 kW DPDT Coaxial switch



16 Ways HF Receiver Multicoupler



Frequency range	2 - 30 MHz	Dimensions (w x h)	19" rack - 4U
Impedance	50 Ω	Depth	365 mm
RF Input ports	1	Materials	AGS - galvanised steel
RF Output ports	16	Temperature range	-10° to +65°C
Maximal input power	+10 dBm	Weight	7.5 kg
Average gain	1.5 dB	RF Input connector	1 x N f
Amplitude balance	<0.3 dB	RF Output connectors	16 x BNC f
Phase balance	<1°	Main power supply connector	C14 IEC
VSWR (Input/Output)	< 2 / <1.2	Back up power supply connector	@Powercon NAC3MPA-1
Isolation	> 25 dB		
Third order intercept	14 dBm		
Noise figure	10 dB		
Main power supply	230 V / 50 Hz - 60 Hz		
Backup power supply	9 Vdc to 24 Vdc		

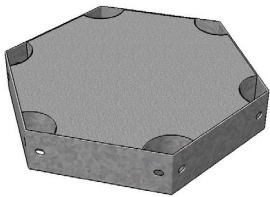


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P/N	MODEL
99-0200	16 ways HF receiver multicoupler



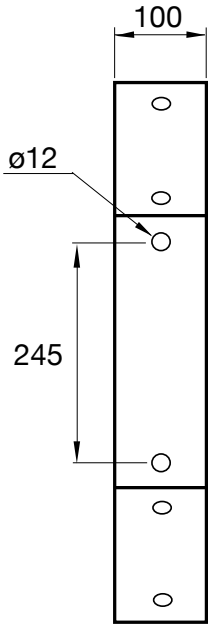
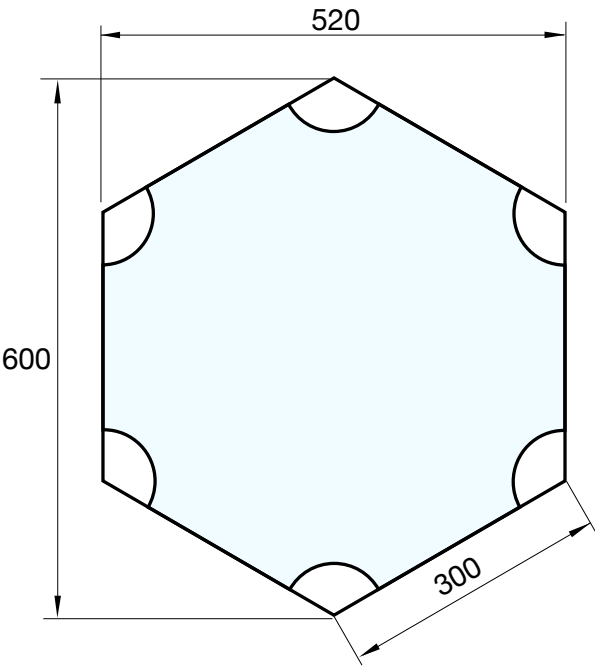
Ballast concrete slab for antennas



HF Antennas



Material: concrete + Galvanized steel
Weight: 50 kg



Dimensions in mm

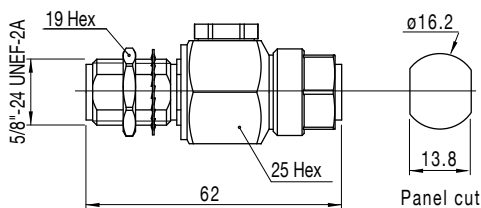
[Return to Search by Part Number](#)

P/N	Model
98-0220	ballast concrete slab 50kg

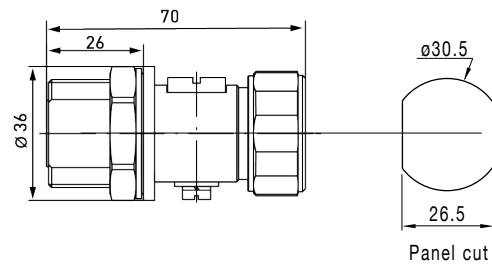
Coaxial lightning protections



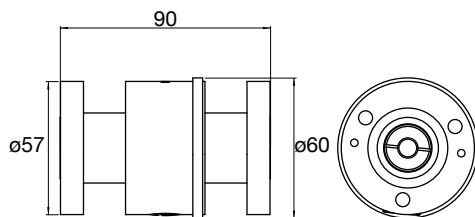
Impedance	50 Ω
Frequency range	DC to 1 GHz
VSWR typical	< 1.20
Maximum power	
– N	1 kW at 30 MHz
– 7-16	5 kW at 30 MHz
– 7/8"	10 kW at 30 MHz
– 1.5/8"	20 kW at 30 MHz



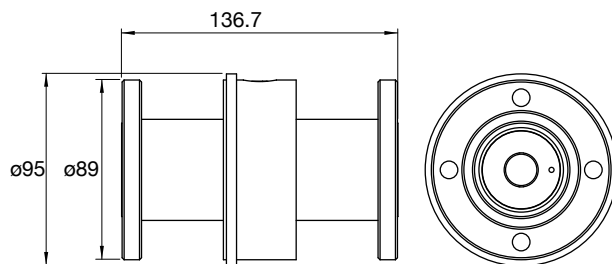
30-0108



30-0114



30-0077



30-0078

Dimensions in mm

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P/N	Model	Weight (kg)
30-0108	N m-f bulhead	0.3
30-0114	7-16 m-f bulhead	0.5
30-0077	EIA 7/8"	0.8
30-0077 T	EIA 7/8" bulhead	0.8
30-0078	EIA 1.5/8"	1.5
30-0078 T	EIA 1.5/8" bulhead	1.5

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30-0077	T26
30-0077 T	T26
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30-0078 T	T26
30-0108	T26
30-0114	T26
98-0220	T25
98-1009	T22
98-1010	T21
99-0011B	T20
99-0028	T6
99-0029	T6
99-0044	T8
99-0045	T19
99-0046	T4
99-0053	T12
99-0071	T5
99-0079	T10
99-0080	T11
99-0092	T9
99-0126	T19
99-0143	T15
99-0144	T16
99-0145	T15
99-0146	T16
99-0158	T3
99-0167	T17
99-0168	T13
99-0169	T14
99-0170	T14
99-0200	T24
99-0206	T7
99-0207	T18
99-0215	T19

HF Antennas



