



be innovative

be reliable

be partner

FM
Band III
DAB
Band IV & V

ANTENNAS, POWER DIVIDERS & SYSTEMS

BELCO FOCUSES ON MAINTAINING A RESPONSIVE, FLEXIBLE AND QUALITY-ORIENTED COMPANY.
THIS IS ALSO EVIDENCED BY MAINTAINING UNI EN ISO 9001:2015 CERTIFICATION SINCE 2002.



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.:
CERT-10938-2002-AQ-MIL-SINCERT

Initial certification date:
06 August 2002

Valid:
17 July 2023 – 16 July 2026

This is to certify that the management system of

BELCO S.r.l.

Via Lodi, 86 - 21042 Caronno Pertusella (VA) - Italy

has been found to conform to the Quality Management System standard:

ISO 9001:2015

This certificate is valid for the following scope:

Design and manufacture of coaxial passive components and equipment for telecommunications, broadcasting and low voltage distribution applications. Trade and after sales servicing of components and equipments for professional electronics (IAF 19, 29)

Place and date:
Vimercate (MB), 20 June 2023



SGQ N° 003 A
SGA N° 003 D
SGE N° 007 M
SCR N° 004 F

EMAS N° 009 P
PRD N° 003 B
PRS N° 094 C
SSI N° 002 G

Membro di MILA EA per gli schemi di accreditamento
SGQ, SGA, PRD, PRS, ISP, GHG, LAB e LAT, di MILA IAF
per gli schemi di accreditamento SGQ, SGA, SSI, FSM
e PRD e di MILA ILAC per gli schemi di accreditamento
LAB, MED, LAT e ISP

For the issuing office:
DNV - Business Assurance
Via Energy Park, 14, - 20871 Vimercate (MB) - Italy

Claudia Baroncini
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

ACCREDITED UNIT: DNV Business Assurance Italy S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy - TEL: +39 68 99 905. www.dnv.it

OUR MISSION

**BELCO IS COMMITTED TO BE RECOGNIZED BY CLIENTS AS PREFERRED PARTNER
EXCELLING IN THE QUALITY OF PRODUCTS ,SERVICES AND COMPETITIVENESS.**

**WE ARE A COMPANY OF PEOPLE DEDICATED TO INNOVATION, RELIABILITY,
EFFICIENCY AND SUSTAINABILITY.**



Belco S.r.l. has specialized in the production and sale of passive electronic components throughout Italy since 1981. Originally, the company operated as a broker and sales agent, dealing mainly with military products. Before long, our activities expanded to other products and fields of application.

In fact, after a few years it became clear that the company's mission was shifting to the innovative and growing fields of Telecommunications and Broadcasting.

1993 was the decisive year that marked our entry into these interesting markets, where we have been growing steadily ever since, allowing us, in 1996, to launch our in-house designed and manufactured products for both Italy and abroad.

In 2006 it was decided to complete and enrich the Broadcasting offer with the acquisition of the Broadcasting Division of Telesystem srl, a historical company in the antenna sector.





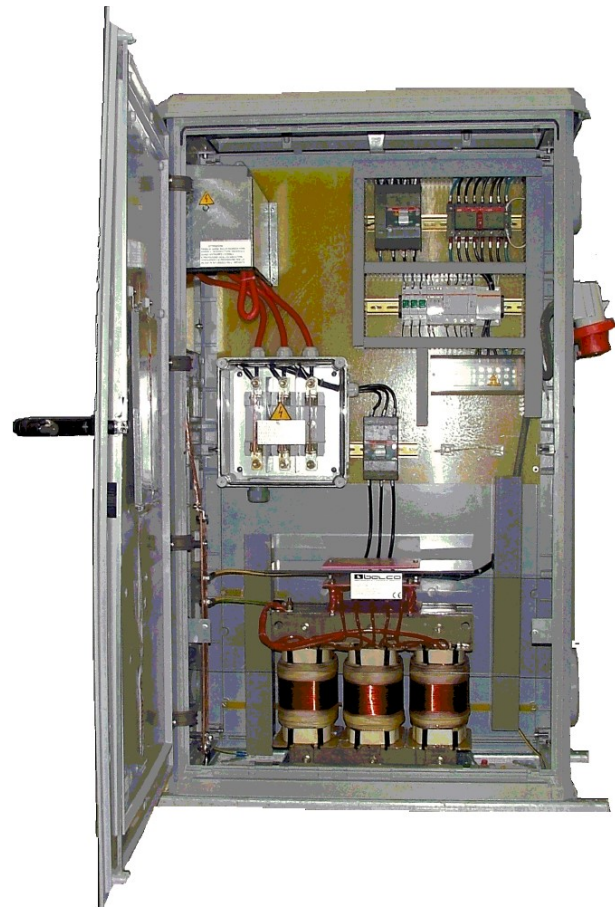
In addition to acting as a distributor for various manufacturers and their products, we have successfully implemented our "Belco" brand of components and equipment over 30 years:

RF Coaxial connectors and adapters

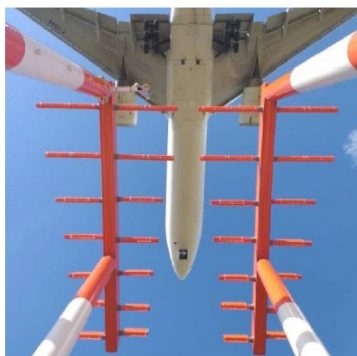
RF connection systems

Low voltage switchboards for power distribution and transmitter/RBS protection

Transmission antennas and power dividers



Belco specializes in design, engineering and production of custom products based on new requests or existing specifications.



Radio & TV Transmitting System



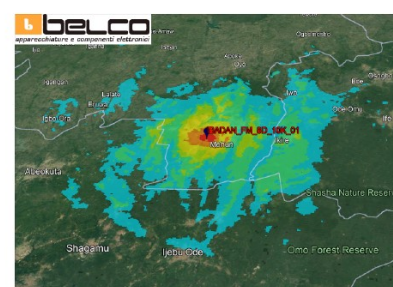
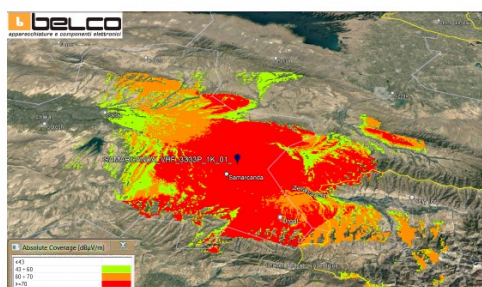
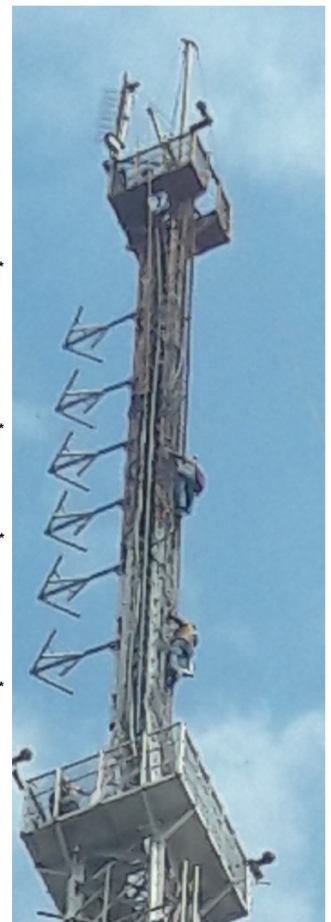
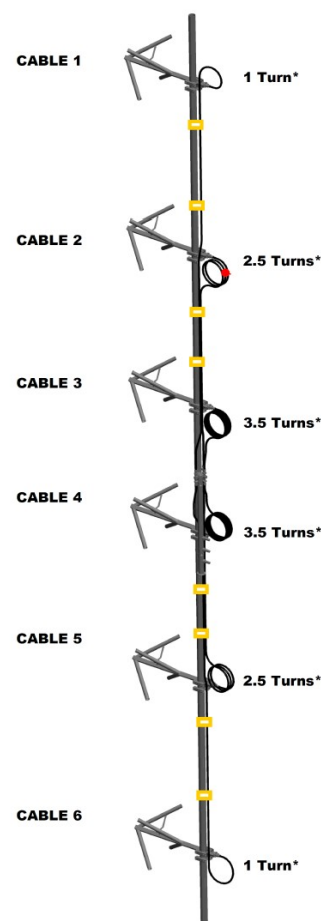
With a wide range of products specifically for Radio and TV Broadcasting applications, Belco can provide a complete antenna system as well as single components:

Antennas
Power Dividers
Branching cables
Antenna cables
Feeding cables
Accessories (Grounding kit, hoisting grip ...)

To assist customer in all typical steps involved in the radio television antenna system realisation, Belco is able to offer, on request, a complete antenna system development service which includes:

On site survey
Antenna system analysis
Antenna lay-out design
Feeding network design (including beam tilt, vertical null fill and VSWR optimisation) Coverage forecast including territory effects and interference analysis Commissioning and supervision.

To optimise customer's purchase planning we are able to deliver all antenna system components as well as the related materials (combiners, patch panels, dehydrators etc...) in a unique complete package solution.



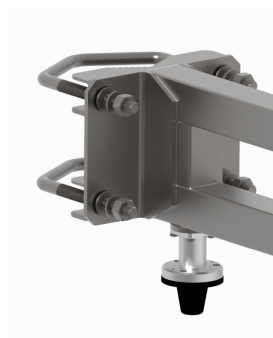
87.5 ÷ 108 MHz

TYPE	DESCRIPTION
BAN2000.00	FM Heavy Duty Galvanised Dipole
BAN2000.01	FM Heavy Duty Stainless Steel Dipole
BAN2000.02	FM Light Weight Alluminum Dipole
BAN2000.03	FM Light Weight Stainless Steel Dipole
BAN2000.04	FM Stainless Steel Dipole
BAN0241ASX-AFX	FM Circular Polarization Dipole
BAN0241AH1	FM Circular Polarization High Power Dipole
BAN0170A	FM Two Element Yagi
BAN0235AH1	FM Two Element High Power Yagi
BAN093A	FM Three Element Yagi
BAN092E	FM Three Element Heavy Duty Yagi
BAN0209B	FM Four Element Yagi
BAN2015	FM Five Elements Log Periodic
BAN019A	FM One Dipole Panel
BAN020C	FM Two Dipoles 90° Panel
BAN023C	FM Two Dipoles 120° Panel
BAN2100	FM Circular Polarized Panel

BAN2000.00 BAN2000.01

FM Heavy Duty Dipole

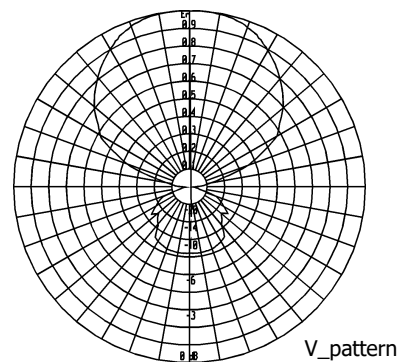
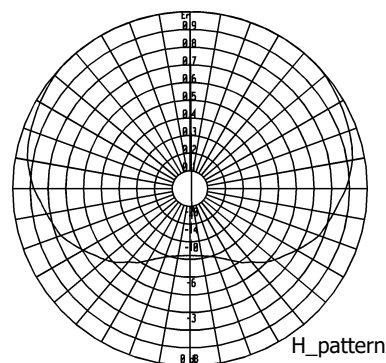
Type	BAN2000
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.25 (-19.0 dB)
Gain	2.0 dBd
HPBW H-pattern	$\pm 105^\circ$
HPBW V-pattern	$\pm 36^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	See Below Table
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	Up to the input Connector
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	115 N
Wind load at 160 km/h Lateral	220 N
Dimensions	138 x 90 x 12 cm
Weight (incl. Brackets)	12.0 kg
Mounting System	See Below



Pole Mount $\varnothing 40 \div 114$ mm

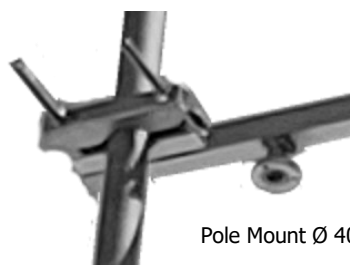
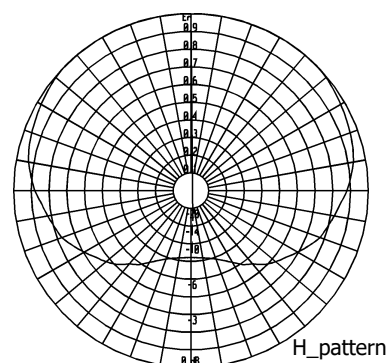
Ordering Information

p/n	Input Connector	Max Power	External Parts Material
BAN2000.00.01	7/16 (f)	3.5 kW	Galvanised Steel
BAN2000.00.02	7/8" EIA	5 kW	Galvanised Steel
BAN2000.01.01	7/16 (f)	3.5 kW	Passivated Stainless Steel
BAN2000.01.02	7/8" EIA	5 kW	Passivated Stainless Steel

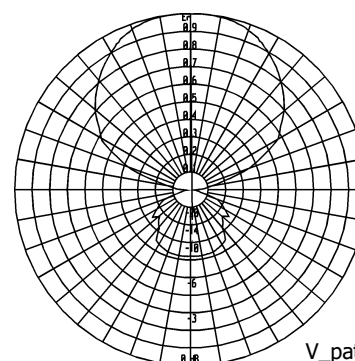


BAN2000.02**FM light weight Aluminium Dipole**

Type	BAN2000.02
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.35 (-16.5 dB)
Gain	2.0 dBd
HPBW H-pattern	$\pm 105^\circ$
HPBW V-pattern	$\pm 36^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Aluminum
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	95 N
Wind load at 160 km/h Lateral	150 N
Dimensions	140 x 90 x 5 cm
Weight (incl. Brackets)	4.0 kg
Mounting System	See Below

Pole Mount $\varnothing 40 \div 114$ mm**RADIATION PATTERN**

H_pattern



V_pattern

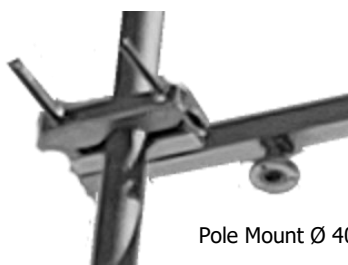
Ordering Information

p/n	Input Connector	Max Power
BAN2000.02.00	n(f)	0.8 kW
BAN2000.02.01	7/16 (f) din	2.0 kW
BAN2000.02.02	7/8" EIA	3.0 kW

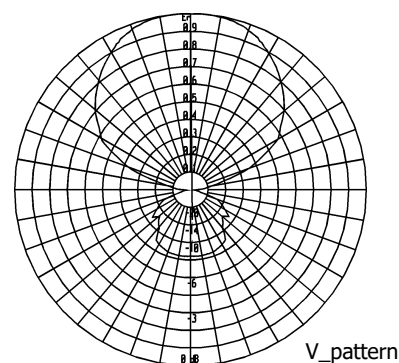
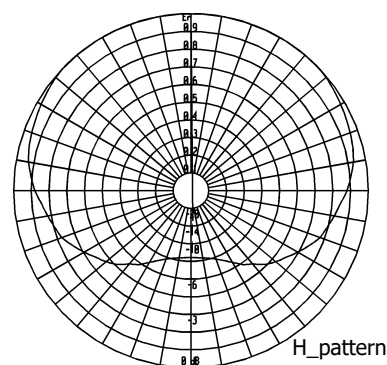
BAN2000.03

FM light weight Stainless Steel Dipole

Type	BAN2000.03
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.35 (-16.5 dB)
Gain	2.0 dBd
HPBW H-pattern	$\pm 105^\circ$
HPBW V-pattern	$\pm 36^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	95 N
Wind load at 160 km/h Lateral	150 N
Dimensions	140 x 90 x 5 cm
Weight (incl. Brackets)	7.0 kg
Mounting System	See Below


Pole Mount $\varnothing 40 \div 114$ mm

RADIATION PATTERN

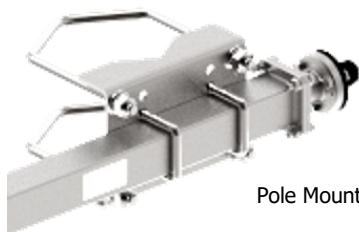
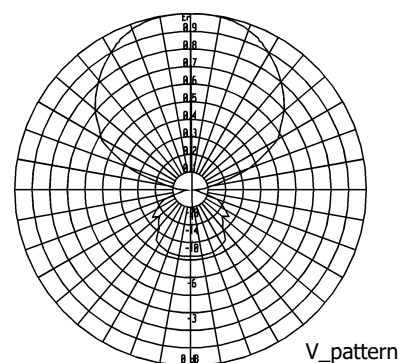
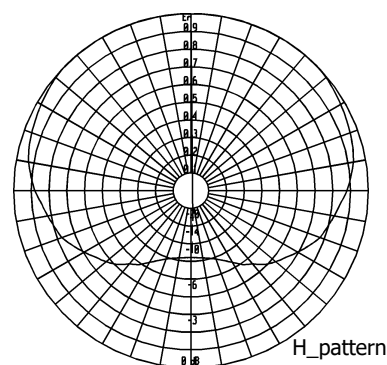


Ordering Information

p/n	Input Connector	Max Power
BAN2000.03.00	n(f)	0.8 kW
BAN2000.03.01	7/16 (f) din	2.0 kW
BAN2000.03.02	7/8" EIA	3.0 kW

BAN2000.04**FM Dipole**

Type	BAN2000.04
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.25 (-19.0 dB)
Gain	2.0 dBd
HPBW H-pattern	$\pm 105^\circ$
HPBW V-pattern	$\pm 36^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	105 N
Wind load at 160 km/h Lateral	180 N
Dimensions	147 x 115 x 15 cm
Weight (incl. Brackets)	9.0 kg
Mounting System	See Below

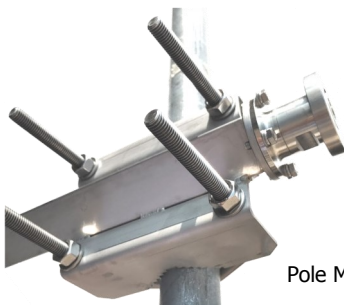
**RADIATION PATTERN**Pole Mount $\varnothing 40 \div 114$ mm**Ordering Information**

p/n	Input Connector	Max Power
BAN2000.04.00	n(f)	0.8 kW
BAN2000.04.01	7/16 (f) din	3.5 kW
BAN2000.04.02	7/8" EIA	5.0 kW

BAN0241A

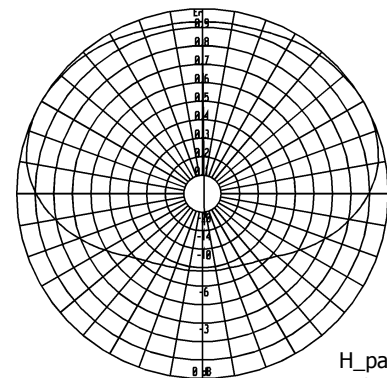
FM Circular Polarization Dipole

Type	BAN0241A
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.40 (-15.0 dB)
Gain	-1.5 dBd
Radiation Pattern	See Below
Polarization	Circular
Max power	See Below Table
Input connector	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	Yes
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	80 N
Wind load at 160 km/h Lateral	305 N
Dimensions	156 x 115 x 115 cm
Weight (incl. Brackets)	13.0 kg
Mounting System	See Below

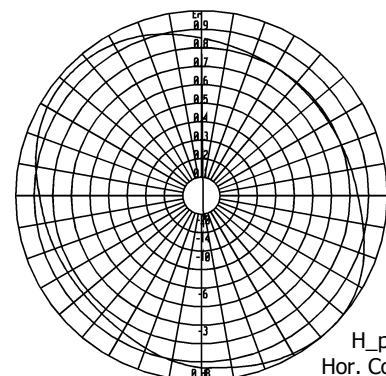


Pole Mount $\varnothing$ 40÷114 mm

RADIATION PATTERN



H_pattern
Vert. Component



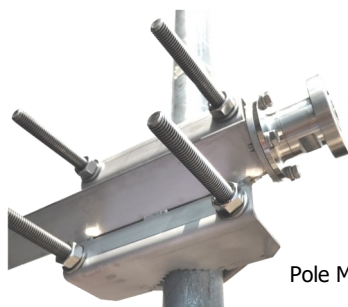
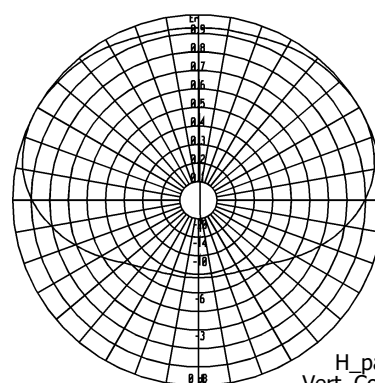
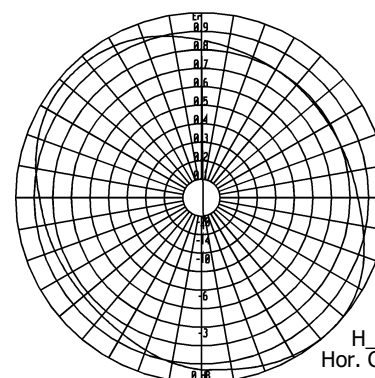
H_pattern
Hor. Component

Ordering Information

p/n	Input Connector	Max Power	Lay Out
BAN0241ASX.01	7/16 (f)	3.0 kW	dismountable
BAN0241ASX.02	7/8" EIA	5.0 kW	dismountable
BAN0241AFX.01	7/16 (f)	3.0 kW	fully welded
BAN0241AFX.02	7/8" EIA	5.0 kW	fully welded

BAN0241AH1**FM Circular Polarization High Power Dipole**

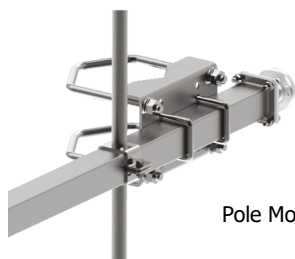
Type	BAN0241AH1
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.40 (-15.0 dB)
Gain	-1.5 dBd
Radiation Pattern	See Below
Polarization	Circular
Max power	See Below Table
Input connector	7/8" EIA , 1 5/8" eia
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	Yes
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	102 N
Wind load at 160 km/h Lateral	410 N
Dimensions	156 x 115 x 115 cm
Weight (incl. Brackets)	23.0 kg
Mounting System	See Below

Pole Mount $\varnothing$ 40÷114 mm**RADIATION PATTERN**H_pattern
Vert. ComponentH_pattern
Hor. Component**Ordering Information**

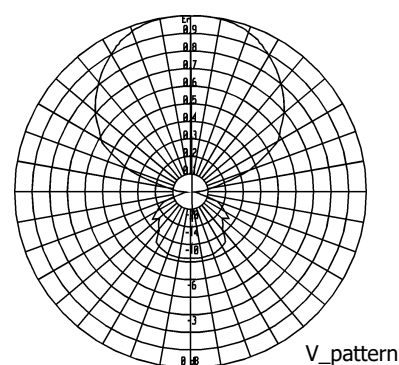
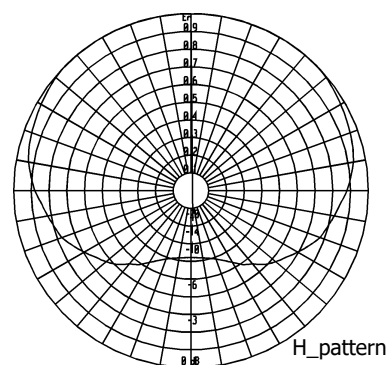
p/n	Input Connector	Max Power	Lay Out
BAN0241AH1.02	7/8" EIA	7.0 Kw	fully welded
BAN0241AH1.03	1 5/8" EIA	13.0 kW	fully welded

BAN0170A**FM Two Element Yagi**

Type	BAN0170A
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.30 (-17.7 dB)
Gain	3.7 dBd
HPBW H-pattern	$\pm 81^\circ$
HPBW V-pattern	$\pm 35^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	115 N
Wind load at 160 km/h Lateral	230 N
Dimensions	160 x 115 x 15 cm
Weight (incl. Brackets)	10.5 kg
Mounting System	See Below

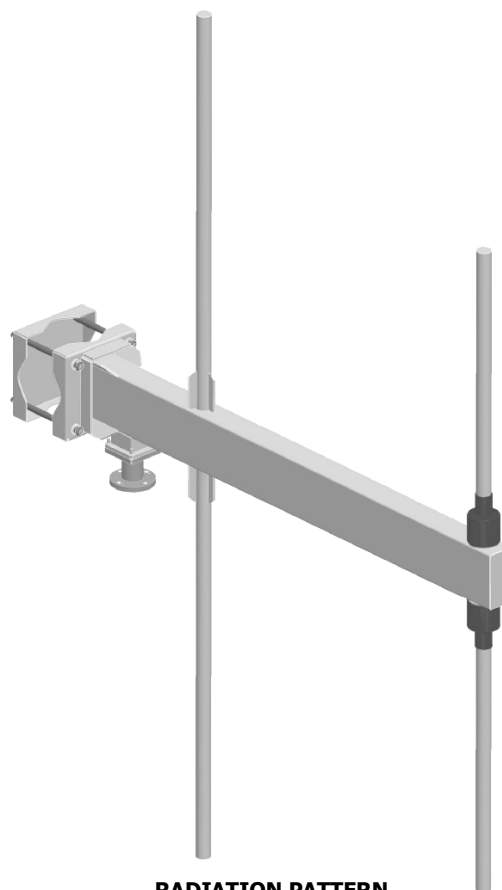
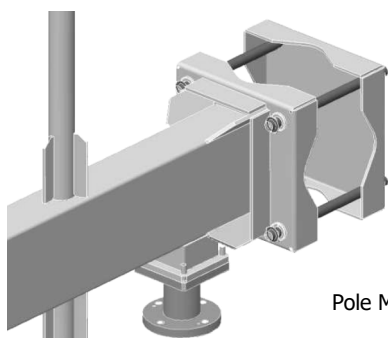
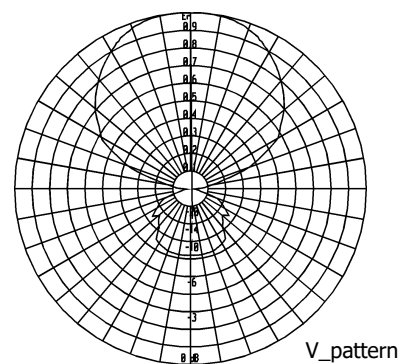
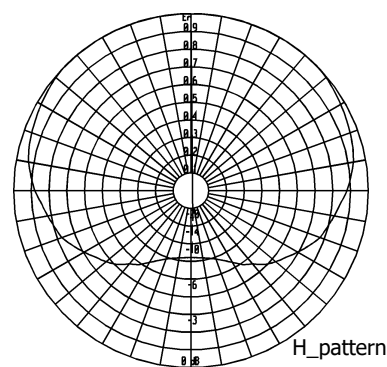
Pole Mount $\varnothing 40 \div 114$ mm**Ordering Information**

p/n	Input Connector	Max Power
BAN0170A.00	n(f)	0.8 kW
BAN0170A.01	7/16 (f) din	3.5 kW
BAN0170A.02	7/8" EIA	5.0 kW

**RADIATION PATTERN**

BAN0235AH1**FM Two Element High Power Yagi**

Type	BAN0235AH1
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.35 (-17.7 dB)
Gain	3.7 dBd
HPBW H-pattern	$\pm 81^\circ$
HPBW V-pattern	$\pm 35^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector (Elbow)	7/8" EIA , 1 5/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Silver plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	135 N
Wind load at 160 km/h Lateral	290 N
Dimensions	187 x 124 x 20 cm
Weight (incl. Brackets)	25.0 kg
Mounting System	See Below

**RADIATION PATTERN**Pole Mount $\varnothing 40\div114$ mm**Ordering Information**

p/n	Input Connector	Max Power
BAN0235AH1.02	7/8" EIA	5.0 kW
BAN0235AH1.03	1 5/8"	13.0 kW

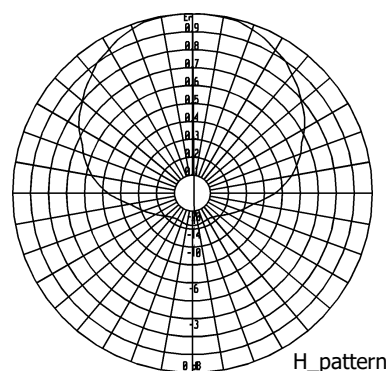
BAN093A

FM Three Element Yagi

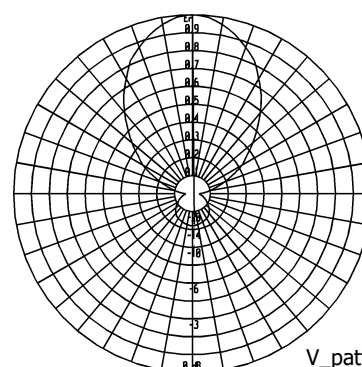
Type	BAN093A
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.30 (-17.7 dB)
Gain	4.5 dBd
HPBW H-pattern	$\pm 66^\circ$
HPBW V-pattern	$\pm 31^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	150 N
Wind load at 160 km/h Lateral	300 N
Dimensions	160 x 170 x 15 cm
Weight (incl. Brackets)	14.0 kg
Mounting System	See Below



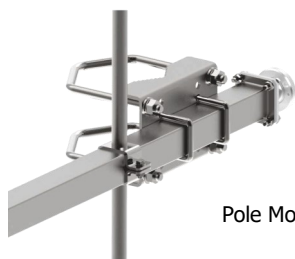
RADIATION PATTERN



H_pattern



V_pattern

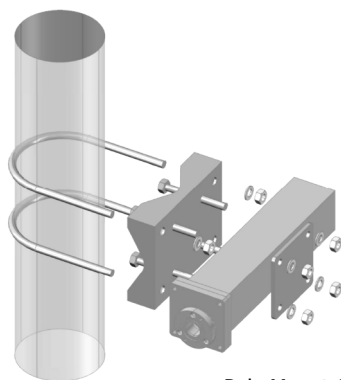

Pole Mount $\varnothing 40 \div 114$ mm

Ordering Information

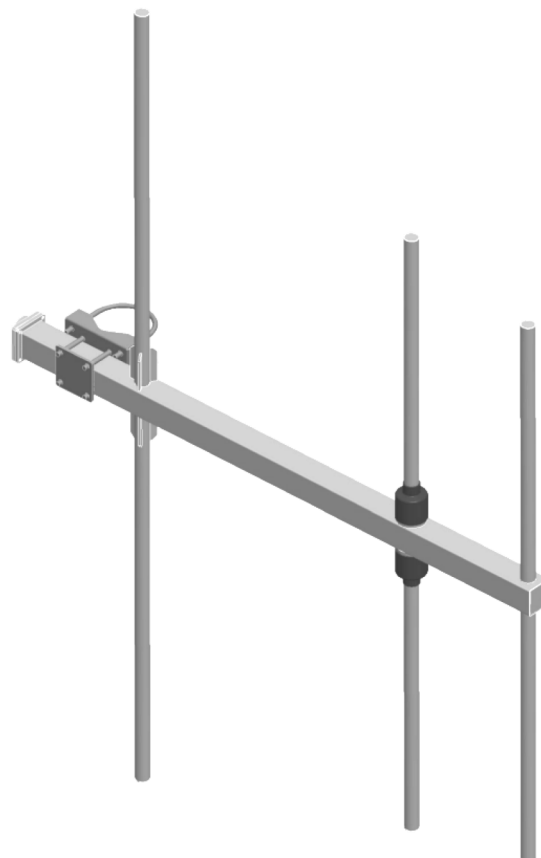
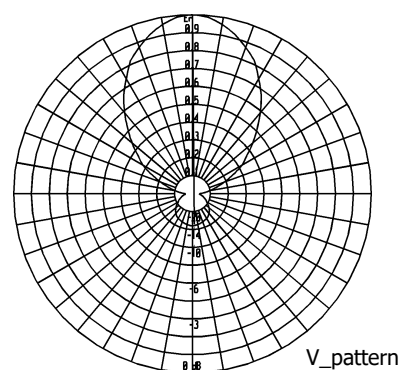
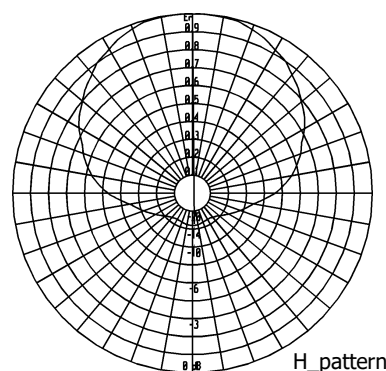
p/n	Input Connector	Max Power
BAN093A.00	n(f)	0.8 kW
BAN093A.01	7/16 (f) din	3.5 kW
BAN093A.02	7/8" EIA	5.0 kW

BAN092E**FM Three Element Heavy Duty Yagi**

Type	BAN092E
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.30 (-17.7 dB)
Gain	4.5 dBd
HPBW H-pattern	$\pm 63^\circ$
HPBW V-pattern	$\pm 32^\circ$
Polarization	Vertical / Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	150 N
Wind load at 160 km/h Lateral	300 N
Dimensions	173 x 133 x 8 cm
Weight (incl. Brackets)	12.0 kg
Mounting System	See Below

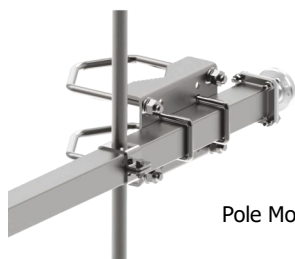
Pole Mount $\varnothing 60 \div 114$ mm**Ordering Information**

p/n	Input Connector	Max Power
BAN092E.01	7/16 (f) din	3.5 kW
BAN092E.02	7/8" EIA	5.0 kW

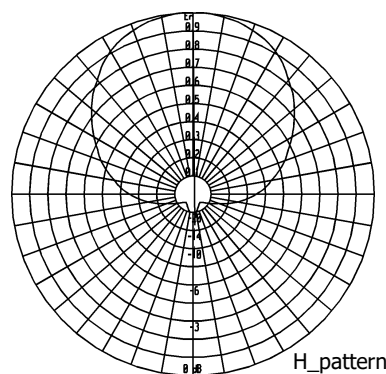
**RADIATION PATTERN**

BAN0209B**FM Four Element Yagi**

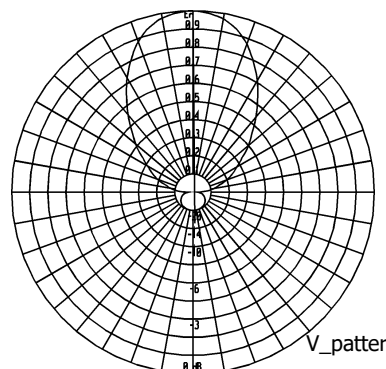
Type	BAN0209B
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.30 (-17.7 dB)
Gain	5.4 dBd
HPBW H-pattern	$\pm 56^\circ$
HPBW V-pattern	$\pm 31^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	165 N
Wind load at 160 km/h Lateral	330 N
Dimensions	160 x 170 x 15 cm
Weight (incl. Brackets)	15.0 kg
Mounting System	See Below

Pole Mount $\varnothing 40 \div 114$ mm**Ordering Information**

p/n	Input Connector	Max Power
BAN0209B.00	n(f)	0.8 kW
BAN0209B.01	7/16 (f) din	3.5 kW
BAN0209B.02	7/8" EIA	5.0 kW

**RADIATION PATTERN**

H_pattern



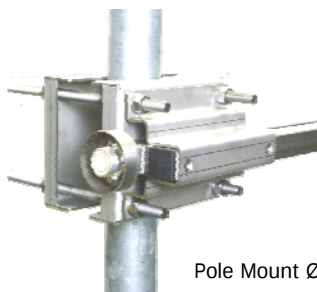
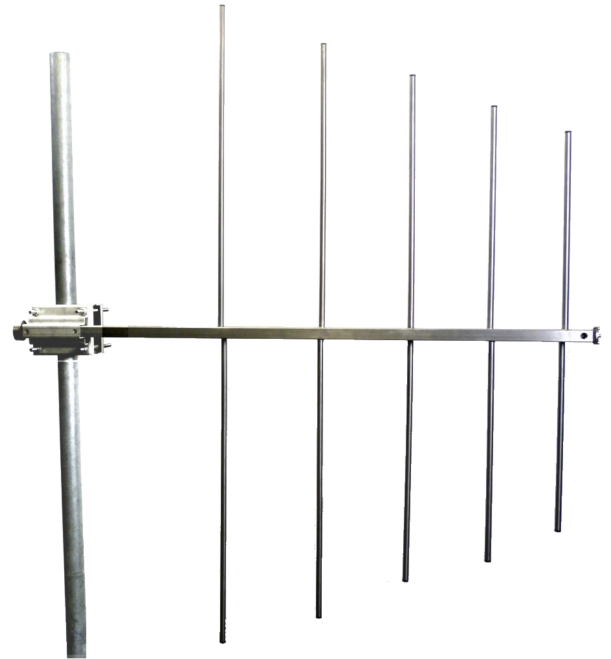
V_pattern

BAN2015

FM Five Element Log Periodic

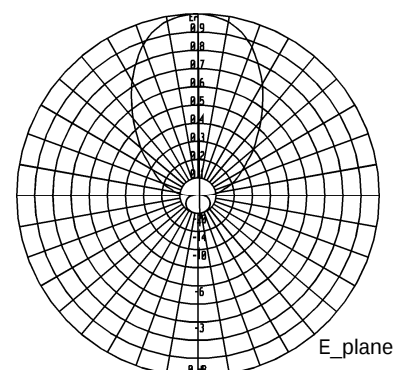
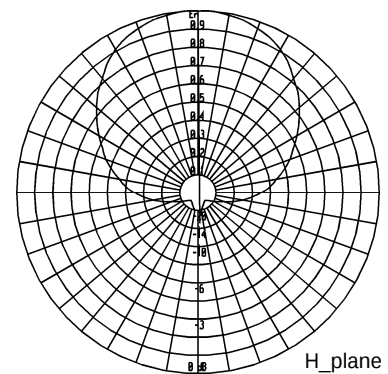
87.5 ÷ 108 MHz

Type	BAN2015
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.25 (-19.0 dB)
Gain	6.2 dBd
HPBW H-plane	$\pm 50^\circ$
HPBW E-plane	$\pm 38^\circ$
Polarization	Vertical / Horizontal
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Survival wind velocity	180 km/h
Wind load at 160 km/h Frontal	115 N
Wind load at 160 km/h Lateral	315 N
Dimensions	155 x 170 x 8 cm
Weight (incl. Brackets)	10.5 kg
Mounting System	See Below



Pole Mount $\varnothing 40 \div 114$ mm

RADIATION PATTERN



Ordering Information

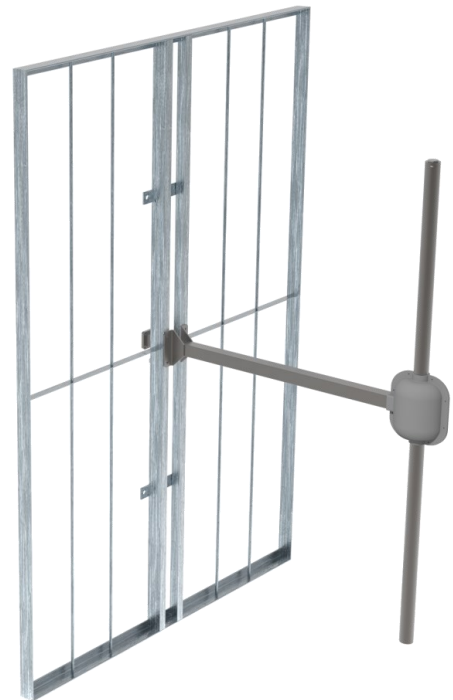
p/n	Input Connector	Max Power
BAN2015.00	n(f)	0.8 kW
BAN2015.01	7/16 (f)	2.0 kW
BAN2015.02	7/8" EIA	3.5 kW

BAN019A

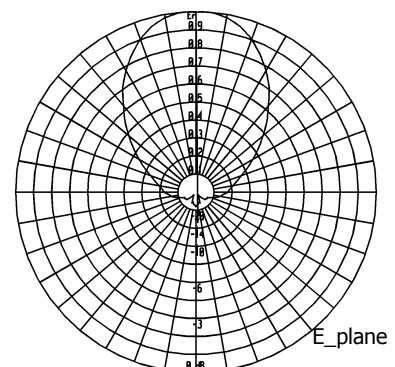
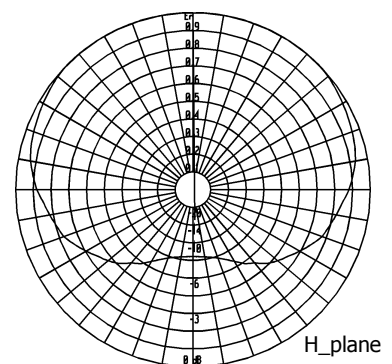
One Dipole Panel

87.5 ÷ 108 MHz

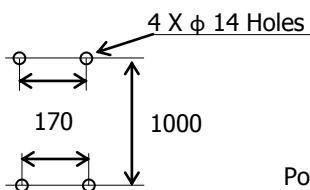
Type	BAN019A
ELECTRICAL	
Frequency	87.5 ÷ 108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.25 (-19.1 dB)
Gain	4.5 dBd
HPBW H-plane	$\pm 76^\circ$
E-plane	$\pm 38^\circ$
Polarization	Vertical
Input connector	7/8" EIA or 7/16 (F) din
Power Rating	See Below Table
Lightning Protection	All metallic parts DC grounded
MECHANICAL	
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	920 N
Lateral	185 N
Dimensions	200 x 140 x 110 cm
Weight	42 kg
Pressurizable	Yes
Environment Protection	UV resistant Fiberglass Radome
Reflector material and finishing	Hot Dip Galvanized Steel
Dipoles material and finishing	Passivated Stainless Steel
Connector material and finishing	Nickel plated Brass
Internal lines material and finishing	Passivated Aluminum
Insulators material	Virgin PTFE
Mounting System	See Below



RADIATION PATTERN



Spine Mount Foot Print



Pole mount available upon request

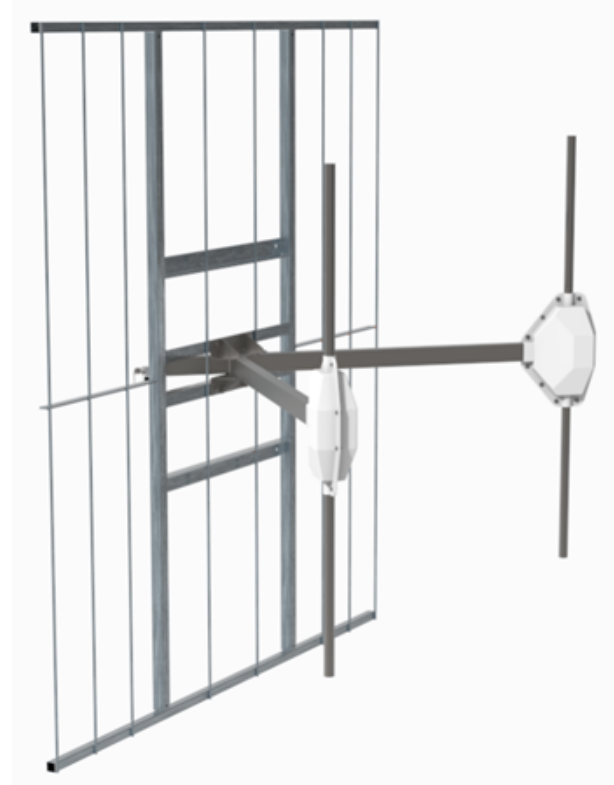
Ordering Information

p/n	Input Connector	Max Power
BAN019A.01	7/16 (f)	2.5 kW
BAN019A.02	7/8" EIA	5.0 kW

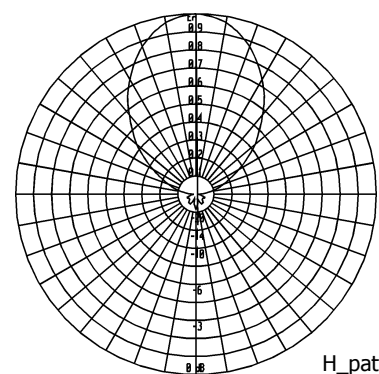
BAN020C

FM Two Dipoles 90° Panel

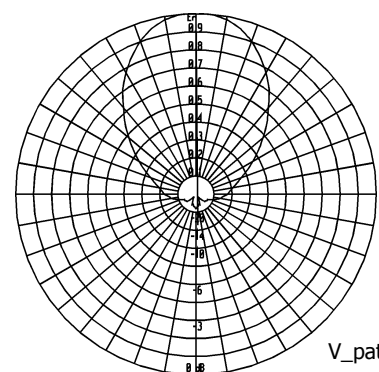
Type	BAN020C
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.15 (-23.1 dB)
Gain	7.0 dBd
HPBW H-pattern	$\pm 31^\circ$
HPBW V-pattern	$\pm 36^\circ$
Polarization	Vertical / Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material (Screen)	Hot Dip galvanized Steel
External parts material (Dipoles)	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Mounting Hardware material	Stainless Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome*
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	1600 N
Wind load at 160 km/h Lateral	980 N
Dimensions	200 x 220 x 100 cm
Weight	51.0 kg
Mounting System	See Below



RADIATION PATTERN



H_pattern



V_pattern

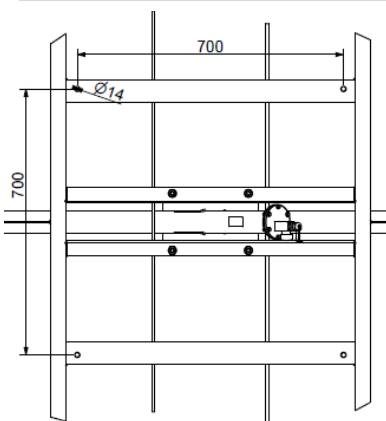
* Order separately

$\phi = 14$
Trough holes

MOUNTING SYSTEM

On frame according to the mounting lay-out beside

Pole mount available on request.



Ordering Information

p/n	Input Connector	Max Power
BAN020C.01	7/16 (f)	3.5 kW
BAN020C.02	7/8" EIA	5.0 kW

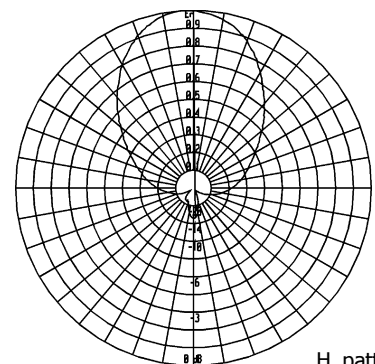
BAN023C

FM Two Dipoles 120° Panel

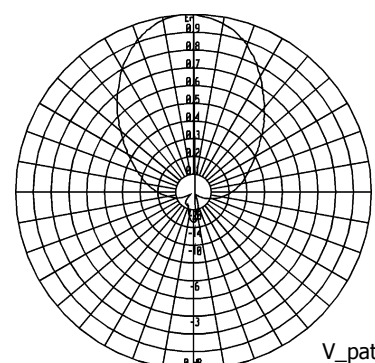
Type	BAN023C
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.15 (-23.1 dB)
Gain	6.7 dBd
HPBW H-pattern	$\pm 38^\circ$
HPBW V-pattern	$\pm 41^\circ$
Polarization	Vertical / Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material (Screen)	Hot Dip galvanized Steel
External parts material (Dipoles)	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Mounting Hardware material	Stainless Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome*
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	1600 N
Wind load at 160 km/h Lateral	980 N
Dimensions	200 x 220 x 100 cm
Weight	51.0 kg
Mounting System	See Below



RADIATION PATTERN



H_pattern



V_pattern

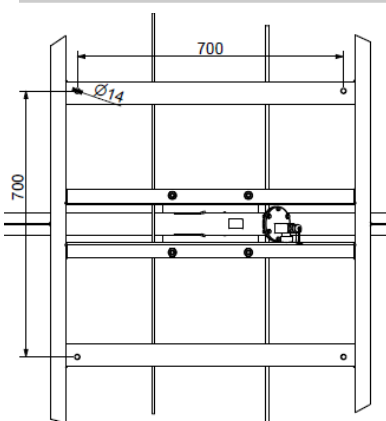
* Order separately

$\phi = 14$
Trough holes

MOUNTING SYSTEM

On frame according to the mounting lay-out beside

Pole mount available on request.

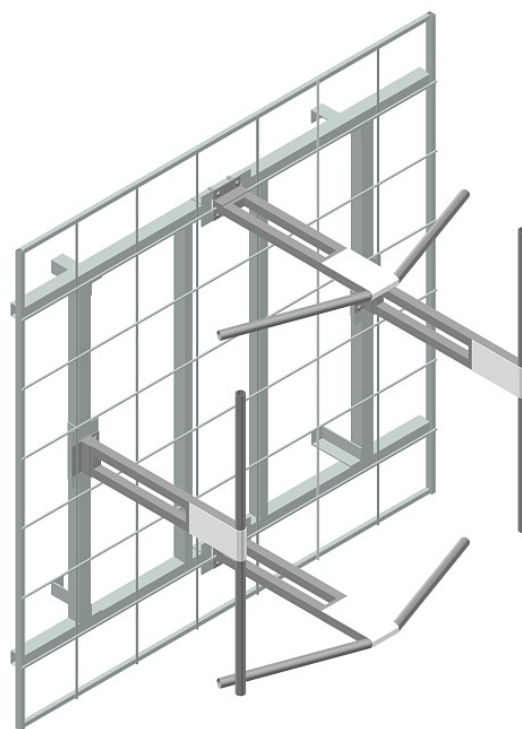
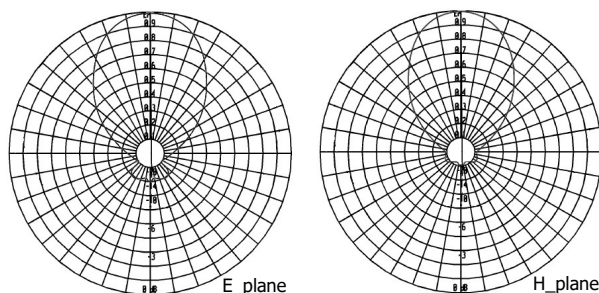
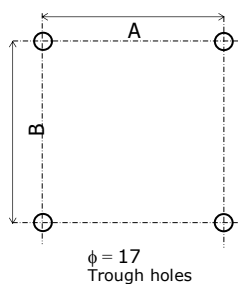
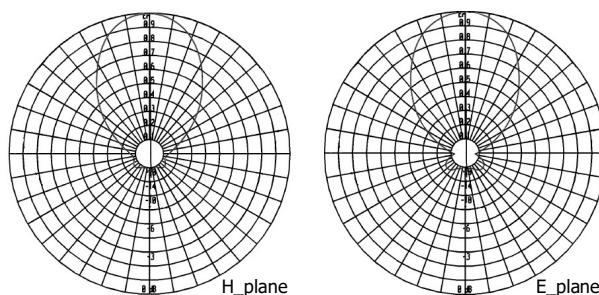


Ordering Information

p/n	Input Connector	Max Power
BAN023C.01	7/16 (f)	3.5 kW
BAN023C.02	7/8" EIA	5.0 kW

BAN2100**FM Circular Polarized 90° Panel**

Type	BAN2100
ELECTRICAL	
Frequency	87.5÷108 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.1 (-26.5 dB) (circ. pol.)
Gain Linear Pol. / Circular Pol.	7.5 dBd / 4.5 dBd
HPBW Hor. Pol. E-plane / H-plane	$\pm 66^\circ$ / $\pm 62^\circ$
HPBW Vert. Pol. E-plane / H-plane	$\pm 64^\circ$ / $\pm 62^\circ$
Polarization	Linear / Circular / Elliptical
Max power	See Below Table
Input connector (x 4)	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material (Screen)	Hot dip galvanised Steel
External parts material (Dipoles)	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Mounting Hardware material	Stainless Steel
Pressurization	yes
Environment Protection	U.V. resistant ABS Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	1600 N
Wind load at 160 km/h Lateral	980 N
Dimensions	220 x 220 x 100 cm
Weight	98.0 kg
Mounting System	See Below

**RADIATION PATTERN****Horizontal Polarization****Vertical Polarization****MOUNTING SYSTEM**

On frame according to the mounting lay-out beside, where:
 A = 1400 mm
 B = 1400 mm

Pole mount available on request.

Ordering Information

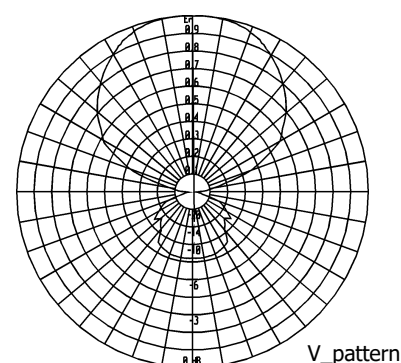
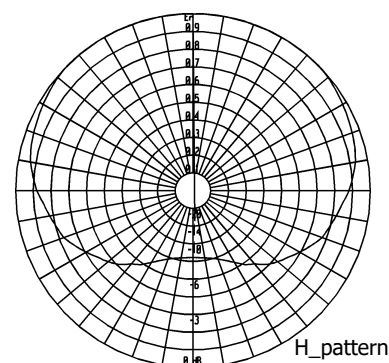
p/n	Input Connector	Max Power
BAN2100.01	7/16 (f) din	3.5 kW (each connector)
BAN2100.02	7/8" EIA	5.0 kW (each connector)

174 ÷ 240 MHz

TYPE	DESCRIPTION
BAN3000.01	VHF+DAB Heavy Duty Dipole
BAN3000.02	VHF+DAB Light weight Dipole
BAN3200	VHF+DAB Two Stacked Dipole
BAN033FX WB	VHF+DAB Four Elements Yagi
BAN039FX WB	VHF+DAB Six Elements Yagi
BAN3400	VHF+DAB Eight Elements Log Periodic
BAN3500	VHF+DAB Two Dipoles Panel

BAN3000.01**VHF + DAB Heavy Duty Dipole**

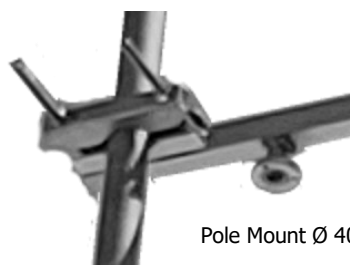
Type	BAN3000.01
ELECTRICAL	
Frequency	174 ÷ 230 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.2 (-20.6 dB)
Gain	2.0 dBd
HPBW H-pattern	$\pm 105^\circ$
HPBW V-pattern	$\pm 36^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	no
Environment Protection	U.V. resistant A.B.S. Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	75 N
Wind load at 160 km/h Lateral	115 N
Dimensions	89 x 78 x 6 cm
Weight (incl. Brackets)	7.0 kg
Mounting System	See Below

**RADIATION PATTERN**Pole Mount $\varnothing$ 60÷114 mm**Ordering Information**

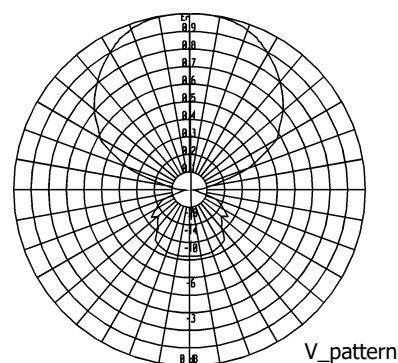
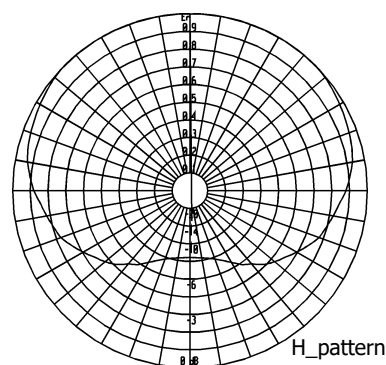
p/n	Input Connector	Max Power
BAN3000.01.01	7/16 (f) din	2.0 kW
BAN3000.01.02	7/8" EIA	3.5 kW

BAN3000.02**VHF + DAB light weight Dipole**

Type	BAN3000.02
ELECTRICAL	
Frequency	200 ÷ 240 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.3 (-17.7 dB)
Gain	2.0 dBd
HPBW H-pattern	$\pm 105^\circ$
HPBW V-pattern	$\pm 36^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Aluminum
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	no
Survival wind velocity	200 km/h
Wind load at 160 km/h Frontal	50 N
Wind load at 160 km/h Lateral	85 N
Dimensions	67 x 67 x 5 cm
Weight (incl. Brackets)	3.0 kg
Mounting System	See Below



Pole Mount Ø 40÷114 mm

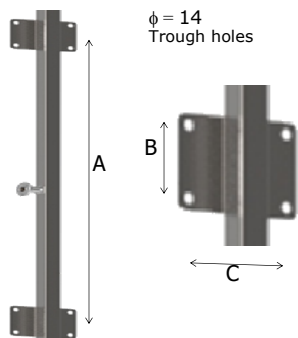
RADIATION PATTERN**Ordering Information**

p/n	Input Connector	Max Power
BAN3000.02.00	n(f)	0.8 kW
BAN3000.02.01	7/16 (f) din	1.5 kW

BAN3200

VHF + DAB Two Stacked Dipole

Type	BAN3200
ELECTRICAL	
Frequency	174 ÷ 230 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.25 (-19.1 dB)
Gain	5.5 dBd
HPBW H-pattern	$\pm 105^\circ$
HPBW V-pattern	$\pm 18^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	See below table
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	no
Environment Protection	U.V. resistant A.B.S. Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	190 N
Wind load at 160 km/h Lateral	410 N
Dimensions	230 x 50 x 27 cm
Weight (incl. Brackets)	18.0 kg
Mounting System	See Below



MOUNTING SYSTEM

On frame according to the mounting lay-out beside, where:

A = 1150 mm

B = 90 mm

C = 140 mm

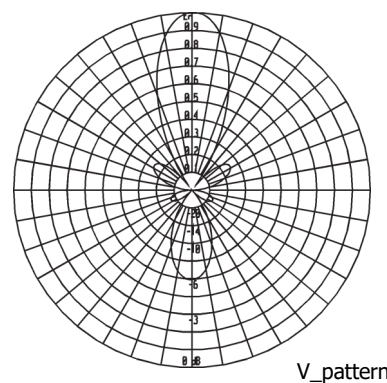
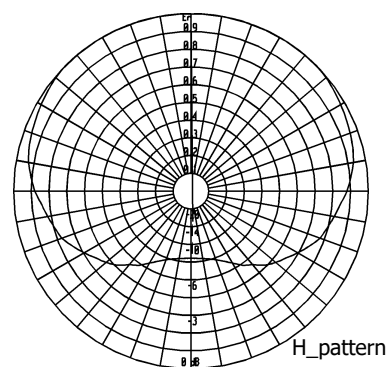
Pole mount available on request.

Ordering Information

p/n	Input Connector	Max Power	External Parts Material
BAN3200.00.01	7/16 (f)	2 kW	Galvanised Steel
BAN3200.00.02	7/8" EIA	3.5 kW	Galvanised Steel
BAN3200.01.01	7/16 (f)	2 kW	Passivated Stainless Steel
BAN3200.01.02	7/8" EIA	3.5 kW	Passivated Stainless Steel

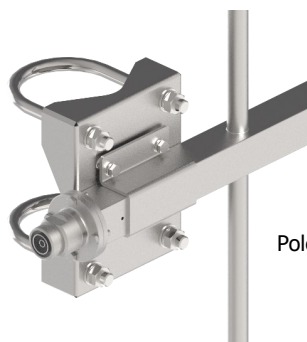
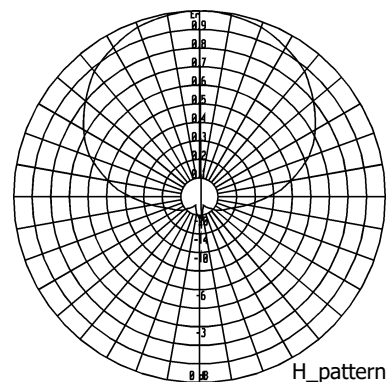


RADIATION PATTERN

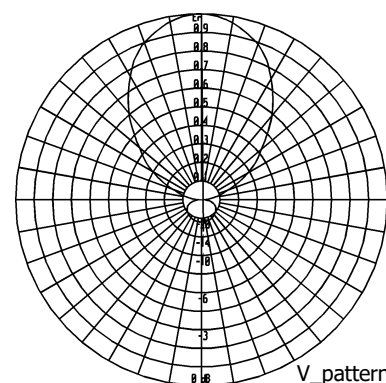


BAN033FX WB**VHF + DAB Four Elements Yagi**

Type	BAN033FX WB
ELECTRICAL	
Frequency	174 ÷ 230 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.25 (-19.1 dB)
Gain	5.3 dBd
HPBW H-pattern	$\pm 53^\circ$
HPBW V-pattern	$\pm 32^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Survival wind velocity	220 km/h
Wind load at 160 km/h Frontal	138 N
Wind load at 160 km/h Lateral	175 N
Dimensions	84 x 84 x 5 cm
Weight (incl. Brackets)	3.8 kg
Mounting System	See Below

Pole Mount $\varnothing 60 \div 114$ mm**RADIATION PATTERN**

H_pattern



V_pattern

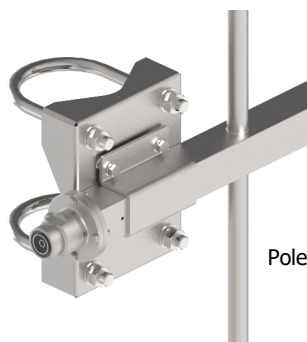
Ordering Information

p/n	Input Connector	Max Power
BAN033FX WB.01	7/16 (f) din	1.5 kW
BAN033FX WB.02	7/8" EIA	2.0 kW

BAN039FX WB

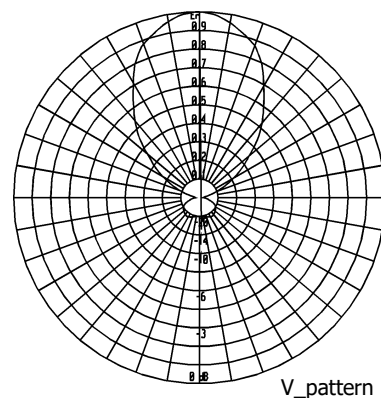
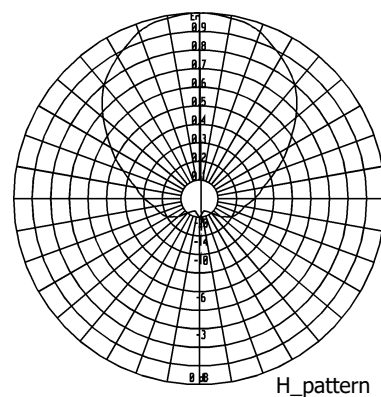
VHF + DAB Six Elements Yagi

Type	BAN039FX WB
ELECTRICAL	
Frequency	174 ÷ 230 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.30 (-17.7 dB)
Gain	8.0 dBd
HPBW H-pattern	$\pm 40^\circ$
HPBW V-pattern	$\pm 23^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	yes
Survival wind velocity	220 km/h
Wind load at 160 km/h Frontal	138 N
Wind load at 160 km/h Lateral	210 N
Dimensions	135 x 88 x 5 cm
Weight (incl. Brackets)	4.2 kg
Mounting System	See Below



Pole Mount $\varnothing 60 \div 114$ mm

RADIATION PATTERN

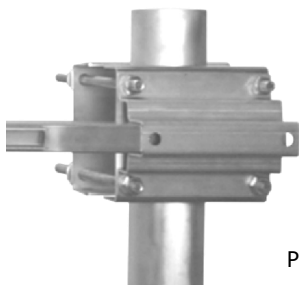
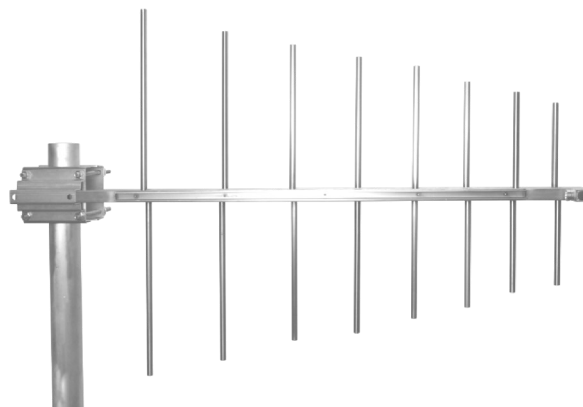
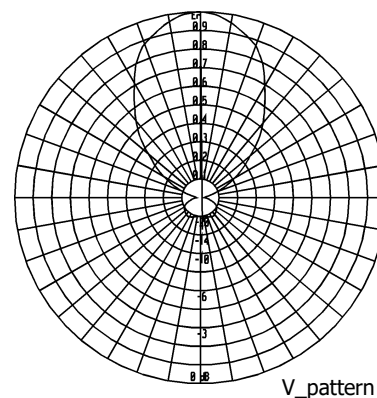
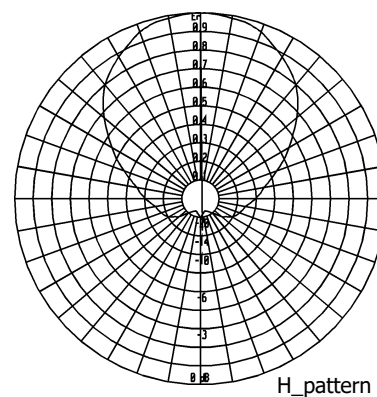


Ordering Information

p/n	Input Connector	Max Power
BAN039FX WB.01	7/16 (f) din	1.5 kW
BAN039FX WB.02	7/8" EIA	2.0 kW

BAN3400**VHF + DAB Eight Element Log Periodic**

Type	BAN3400
ELECTRICAL	
Frequency	174 ÷ 230 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.20 (-20.8 dB)
Gain	6.5 dBd
HPBW H-pattern	$\pm 47^\circ$
HPBW V-pattern	$\pm 30^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	n(f) , 7/16 (f) din
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Passivated Stainless Steel
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	no
Survival wind velocity	180 km/h
Wind load at 160 km/h Frontal	148 N
Wind load at 160 km/h Lateral	290 N
Dimensions	142 x 92 x 8 cm
Weight (incl. Brackets)	11.5 kg
Mounting System	See Below

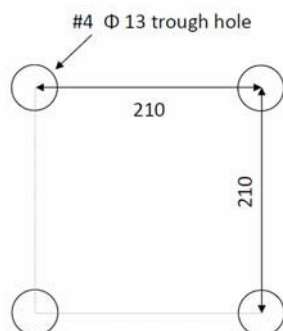
Pole Mount $\varnothing$ 60÷114 mm**RADIATION PATTERN****Ordering Information**

p/n	Input Connector	Max Power
BAN3400.00	n(f)	0.8 kW
BAN3400.01	7/16 (f) din	1.5 kW

BAN3500

VHF + DAB Two Dipoles Panel

Type	BAN3500
ELECTRICAL	
Frequency	174 ÷ 230 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.12 (-24.9 dB)
Gain	7.5 dBd
HPBW H-pattern	$\pm 29^\circ$
HPBW V-pattern	$\pm 29^\circ$
Polarization	Vertical / Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
External parts material	Painted Alluminum
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material	Stainless Steel
Pressurization	no
Environment Protection	U.V. resistant A.B.S. Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	310 N
Wind load at 160 km/h Lateral	120 N
Dimensions	130 x 100 x 40 cm
Weight	14.0 kg
Mounting System	See Below



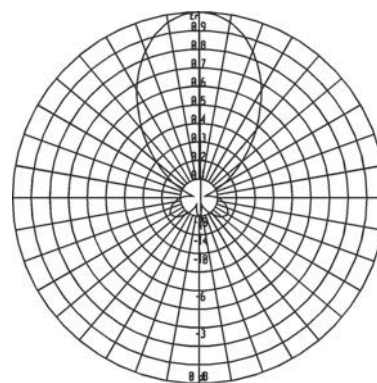
Tower Mount drilling
Pole mount available upon request

Ordering Information

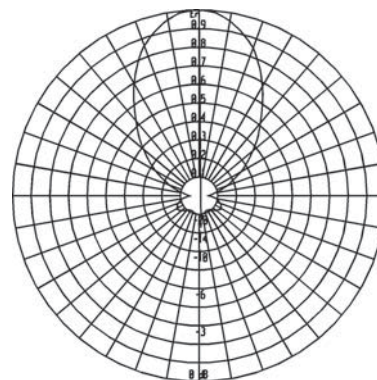
p/n	Input Connector	Max Power	Polarisation
BAN3500.01.01	7/16 (f)	2 kW	Vertical
BAN3500.01.02	7/8" EIA	3.5 kW	Vertical
BAN3500.02.01	7/16 (f)	2 kW	Horizontal
BAN3500.02.02	7/8" EIA	3.5 kW	Horizontal



RADIATION PATTERN



H_pattern



V_pattern

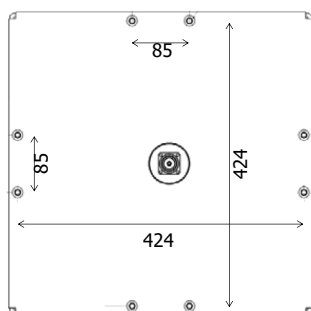
470÷860 MHz

TYPE	DESCRIPTION
BAN087	UHF Two Dipoles Panel
BAN4000	UHF Four Dipoles Panel Hor. Polarization
BAN0109BV	UHF Four Dipoles Panel Ver. Polarization
BAN4001	UHF Four Dipoles Panel Slant Polarization
BAN4009	UHF Multi Pol. Four Dipoles Panel
BAN4100	UHF 120° Four Dipoles Panel (470÷710 MHz)
BAN4200	UHF 120° Four Dipoles Panel (606÷710 MHz)
BAN4400	Two Bays Turnstile Omnidirectional
BAN4500	Four Bays Turnstile Omnidirectional

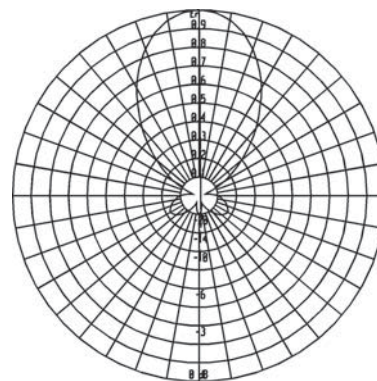
BAN087**UHF Two Dipoles Panel**

Type	BAN087
ELECTRICAL	
Frequency	470 ÷ 860 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.18 (-21.7 dB)
Gain	8.5 dBd
HPBW H-pattern	$\pm 29^\circ$
HPBW V-pattern	$\pm 29^\circ$
Polarization	Horizontal / Vertical
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements and back Plane	Passivated Stainless Steel
Internal lines material	Silver Plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material*	Hot dip galvanised Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	400 N
Wind load at 160 km/h Lateral	220 N
Dimensions	52 x 52 x 25 cm
Weight	5.0 kg
Mounting System	See Below

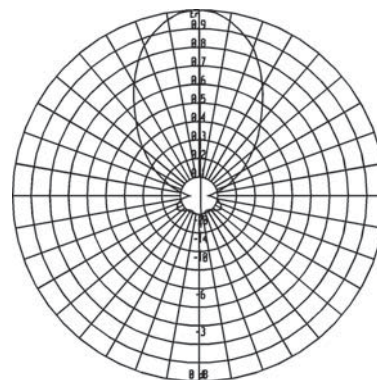
* Order separately



Tower Mount trough #8 M8 Treads
Pole mount available upon request

**RADIATION PATTERN**

H_pattern



V_pattern

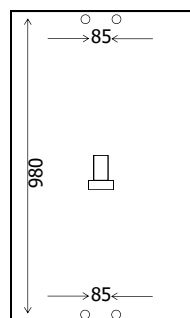
Ordering Information

p/n	Input Connector	Max Power
BAN087.00	n(f)	0.8 kW
BAN087.01	7/16 (f) din	1.5 kW
BAN087.02	7/8" EIA	2.0 kW

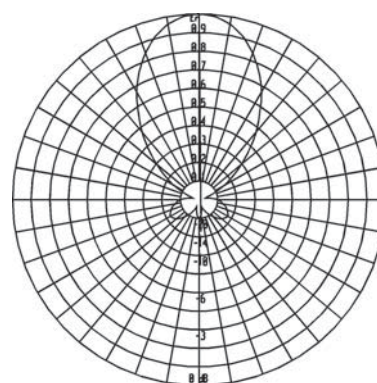
BAN4000**UHF Four Dipoles Panel Hor. Polarization**

Type	BAN4000
ELECTRICAL	
Frequency	470 ÷ 860 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.1 (-26.4 dB)
Gain	11.5 dBd
HPBW H-pattern	$\pm 30^\circ$
HPBW V-pattern	$\pm 11.5^\circ$
Polarization	Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements and back Plane	Passivated Stainless Steel
Internal lines material	Silver Plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material*	Hot dip galvanised Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	890 N
Wind load at 160 km/h Lateral	400 N
Dimensions	100 x 52 x 25 cm
Weight	15.0 kg
Mounting System	See Below

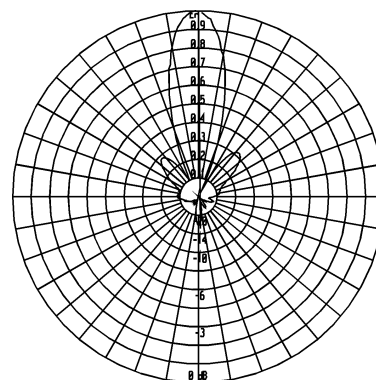
* Order separately



Tower Mount trough #4 M8 Treads
Pole mount available upon request

**RADIATION PATTERN**

H_pattern



V_pattern

Ordering Information

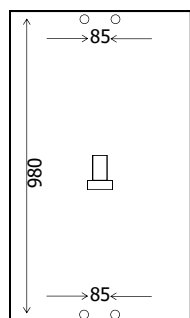
p/n	Input Connector	Max Power
BAN4000.01	7/16 (f) din	1.5 kW
BAN4000.02	7/8" EIA	2.5 kW

BAN0109BV

UHF Four Dipoles Panel Ver. Polarization

Type	BAN0109BV
ELECTRICAL	
Frequency	470 ÷ 860 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.12 (-24.9 dB)
Gain	10.8 dBd
HPBW H-pattern	$\pm 30^\circ$
HPBW V-pattern	$\pm 14^\circ$
Polarization	Vertical
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements and back Plane	Passivated Stainless Steel
Internal lines material	Silver Plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material*	Hot dip galvanised Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	870 N
Wind load at 160 km/h Lateral	400 N
Dimensions	100 x 52 x 25 cm
Weight	11.0 kg
Mounting System	See Below

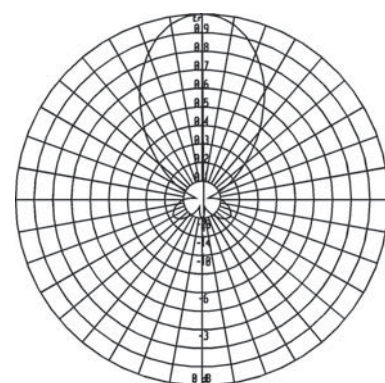
* Order separately



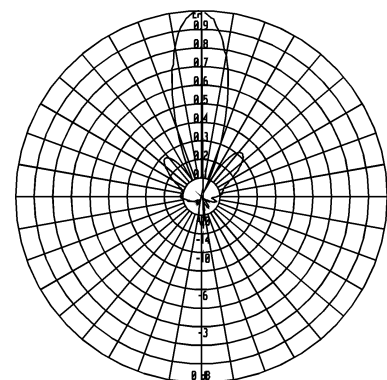
Tower Mount trough #4 M8 Treads
Pole mount available upon request



RADIATION PATTERN



H_pattern



V_pattern

Ordering Information

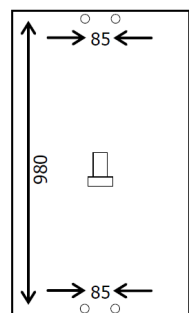
p/n	Input Connector	Max Power
BAN0109BV.01	7/16 (f) din	1.5 kW
BAN0109BV.02	7/8" EIA	2.5 kW

BAN4001

UHF Four Dipoles Panel Slant Pol.

Type	BAN4001
ELECTRICAL	
Frequency	470 ÷ 860 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.1 (-26.5 dB)
Gain	11.5 dBd
HPBW H-pattern	$\pm 30.0^\circ$ (H.comp.) $\pm 28.0^\circ$ (V.comp.)
HPBW V-pattern	$\pm 12.5^\circ$ (H.comp.) $\pm 11.5^\circ$ (V.comp.)
Polarization	Horizontal 80% vertical 20%
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Aluminium
Radiating Elements and back Plane	Stainless Steel
Internal lines material	Silver Plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material*	Hot dip galvanised Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	890 N
Wind load at 160 km/h Lateral	400 N
Dimensions	108 x 52 x 25 cm
Weight	15.0 kg
Mounting System	See Below

* Order separately

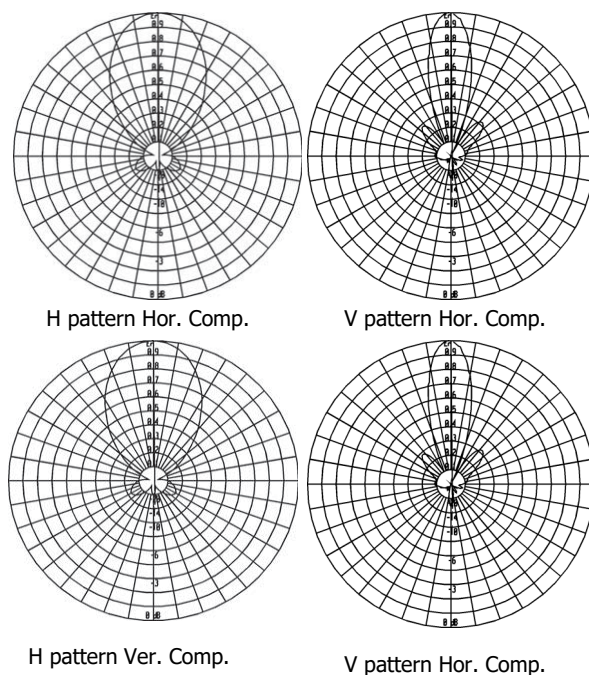


Tower Mount trough #4 M8 Treads
Pole mount available upon request

Ordering Information

p/n	Input Connector	Max Power
BAN4001.01	7/16 (f) din	1.5 kW
BAN4001.02	7/8" EIA	2.5 kW

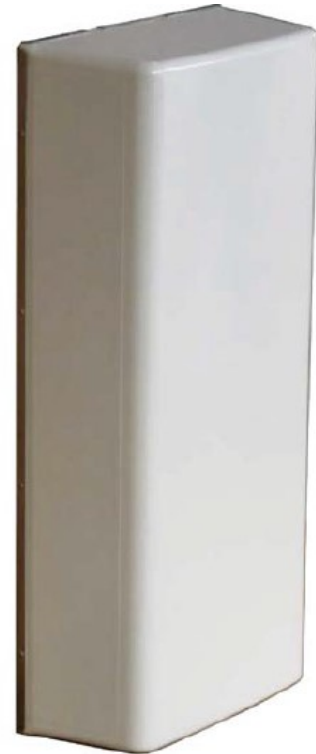
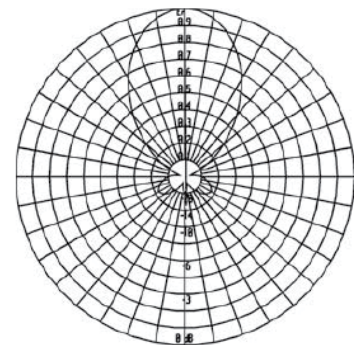
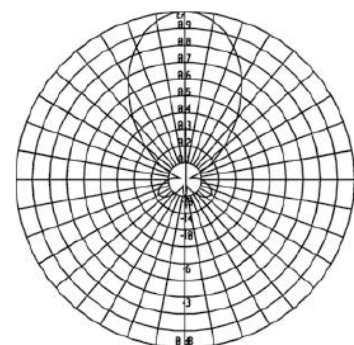
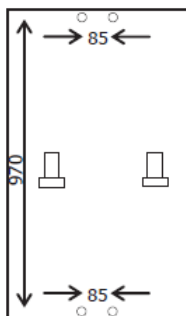
RADIATION PATTERN



BAN4009**UHF Multi Pol. Four Dipoles Panel
470÷740 MHz**

Type	BAN4009
ELECTRICAL	
Frequency	470 ÷ 740 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.12 (-25.0 dB)
Gain	11.0 dBd
HPBW H-pattern	$\pm 30^\circ$
HPBW V-pattern	$\pm 28^\circ$
Polarization	Hor. Ver. Circ. Ellipt.
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements and back Plane	Passivated Stainless Steel
Internal lines material	Silver Plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material*	Hot dip galvanised Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	890 N
Wind load at 160 km/h Lateral	400 N
Dimensions	100 x 45 x 25 cm
Weight	15.0 kg
Mounting System	See Below

* Order separately

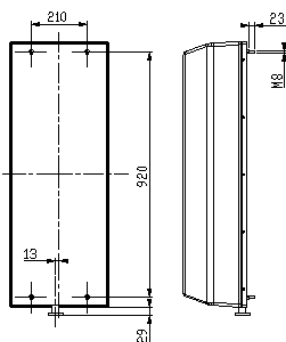
**RADIATION PATTERN**h_pattern
Hor. Componenth_pattern
Ver. ComponentTower Mount trough #4 M8 Treads
Pole mount available upon request**Ordering Information**

p/n	Input Connector	Max Power
BAN4009.01	7/16 (f) din	1.0 kW
BAN4009.02	7/8" EIA	1.5 kW

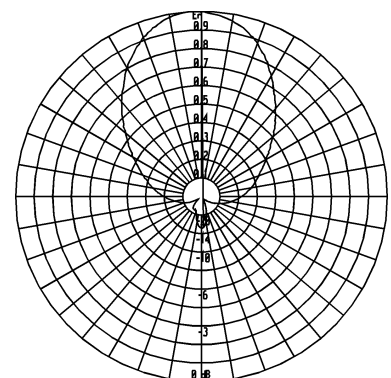
BAN4100**UHF 120° Four Dipoles Panel****470÷710 MHz**

Type	BAN4100
ELECTRICAL	
Frequency	470 ÷ 710 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.09 (-27.3 dB)
Gain	10.0 dBd
HPBW H-pattern	$\pm 38.0^\circ$
HPBW V-pattern	$\pm 12.5^\circ$
Polarization	Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements and back Plane	Passivated Stainless Steel
Internal lines material	Silver Plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material*	Hot dip galvanised Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	700 N
Wind load at 160 km/h Lateral	300 N
Dimensions	108 x 53 x 25 cm
Weight	14.0 kg
Mounting System	See Below

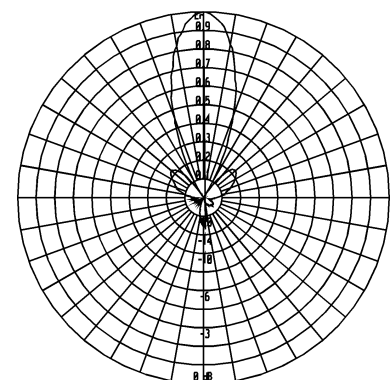
* Order separately



Tower Mount trough #4 M8 Treads
Pole mount available upon request

**RADIATION PATTERN**

H_pattern



V_pattern

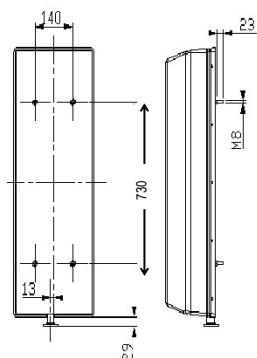
Ordering Information

p/n	Input Connector	Max Power
BAN4100.01	7/16 (f) din	2.0 kW
BAN4100.02	7/8" EIA	3.3 kW

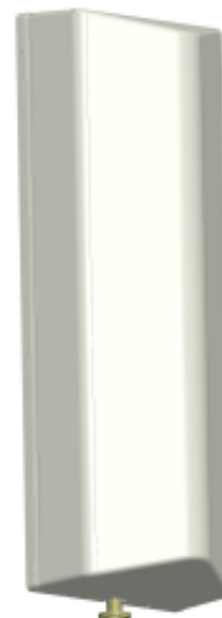
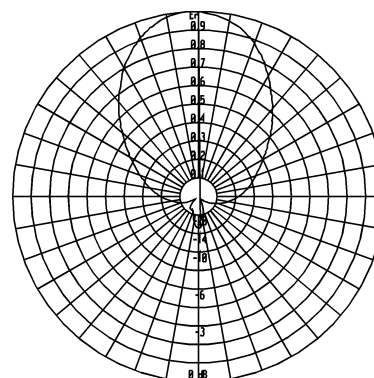
BAN4200**UHF 120° Four Dipoles Panel****606 ÷ 710 MHz**

Type	BAN4200
ELECTRICAL	
Frequency	606 ÷ 710 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.09 (-27.3 dB)
Gain	10.0 dBd
HPBW H-pattern	± 38.0°
HPBW V-pattern	± 12.5°
Polarization	Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8"EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements and back Plane	Passivated Stainless Steel
Internal lines material	Silver Plated Aluminum
Insulators material	Virgin PTFE
Brackets and Hardware material*	Hot dip galvanised Steel
Pressurization	yes
Environment Protection	U.V. resistant Fiberglass Radome
Survival wind velocity	240 km/h
Wind load at 160 km/h Frontal	700 N
Wind load at 160 km/h Lateral	300 N
Dimensions	108 x 53 x 25 cm
Weight	14.0 kg
Mounting System	See Below

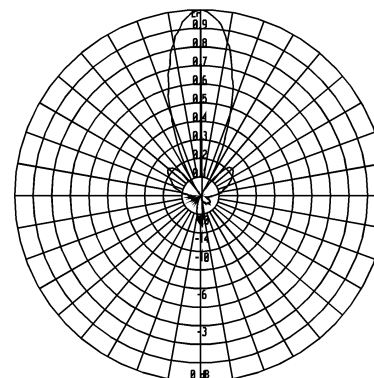
* Order separately



Tower Mount trough #4 M8 Treads
Pole mount available upon request

**RADIATION PATTERN**

H_pattern



V_pattern

Ordering Information

p/n	Input Connector	Max Power
BAN4200.01	7/16 (f) din	1.5 kW
BAN4200.02	7/8" EIA	2.0 kW

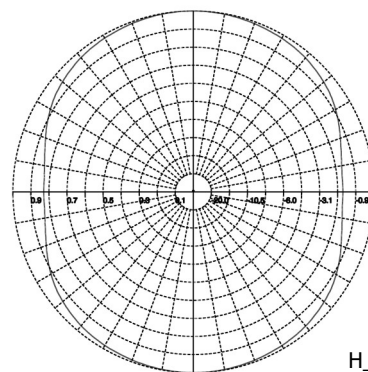
BAN4400

Two Bays Turnstile Omnidirectional

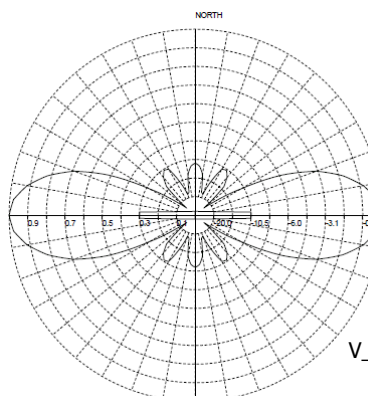
Type	BAN4400
ELECTRICAL	
Frequency	470 ÷ 860 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.12 (-24.9 dB)
Gain	5.5 dBd
HPBW H-pattern	See below
HPBW V-pattern	$\pm 22^\circ$
Polarization	Horizontal
Max power	See Below Table
Input connector	7/16 (f) din , 7/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements material	Passivated Aluminum
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets material	Hot dip galvanised Steel
Hardware material	Stainless Steel
Pressurization	no
Environment Protection	U.V. resistant A.B.S. Radome
Survival wind velocity	180 km/h
Wind load at 160 km/h	350 N
Dimensions	ϕ 36 x 150 cm
Weight (incl. Brackets)	24.0 kg
Mounting System	See Below



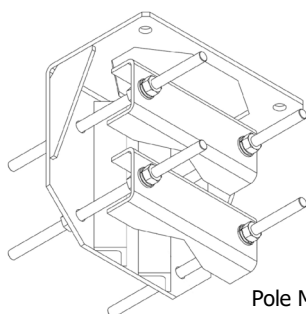
RADIATION PATTERN



H_pattern



V_pattern



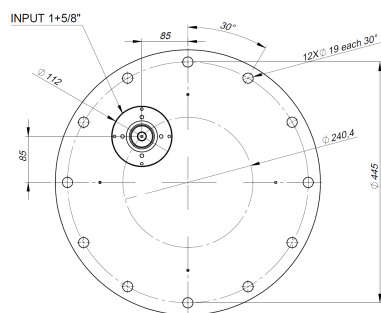
Pole Mount ϕ 60÷114 mm

Ordering Information

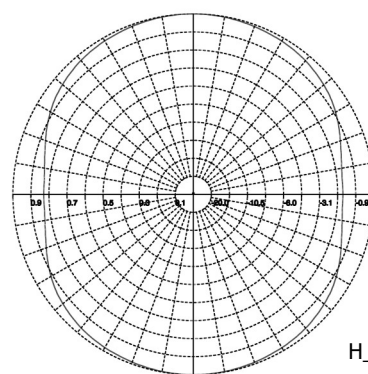
p/n	Input Connector	Max Power
BAN4400.01	7/16 (f) din	1.0 kW
BAN4400.02	7/8" EIA	2.0 kW

BAN4500**Four Bays Turnstile Omnidirectional**

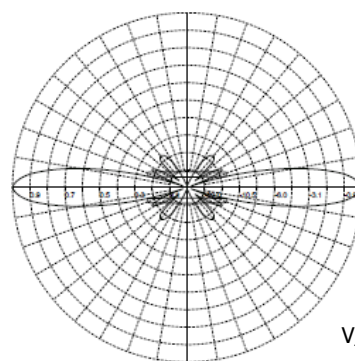
Type	BAN4500
ELECTRICAL	
Frequency	470 ÷ 860 MHz
Impedance	50 Ω unbalanced
V.S.W.R. (R.L)	< 1.12 (-24.9 dB)
Gain	8.5 dBd
HPBW H-pattern	See below
HPBW V-pattern	$\pm 11^\circ$
Polarization	Horizontal
Max power	See Below Table
Input connector	7/8" EIA, 1 5/8" EIA
Lightning Protection	DC grounded
MECHANICAL	
Connector material	Nickel plated Brass
Radiating Elements material	Passivated Aluminum
Internal lines material	Passivated Aluminum
Insulators material	Virgin PTFE
Brackets material	Hot dip galvanised Steel
Hardware material	Stainless Steel
Pressurization	no
Environment Protection	U.V. resistant A.B.S. Radome
Survival wind velocity	180 km/h
Wind load at 160 km/h	770 N
Dimensions	ϕ 36 x 300 cm
Weight (incl. Brackets)	65.0 kg
Mounting System	See Below

**Ordering Information**

p/n	Input Connector	Max Power
BAN4500.02	7/8" EIA	2.0 kW
BAN4500.03	1 5/8" EIA	5.0 kW

**RADIATION PATTERN**

H_pattern



V_pattern

POWER DIVIDERS

DESCRIPTION
EIA 3-1/8" Input Connector Power Dividers
EIA 1-5/8" Input Connector Power Dividers
EIA 7/8" Input Connector Power Dividers
DIN 7/16 Input Connector Power Dividers
N Input Connector Power Dividers

EIA 3-1/8" Input Connector Power Dividers

MAIN CHARACTERISTICS

Band	87.5 MHz	174÷245 MHz	470÷860 MHz
Lengh approx.	1650 mm	900 mm	570 mm
Input power up to	50 kW	40 kW	20 kW
Impedance	50 Ω		
R.L.	≤ 30.0		
Input connector	EIA 3-1/8"		
Insertion Loss	≤ 0.05		
Internal lines material	Silver plated Brass or Alluminium		
Outer conductor	Brass with protective paint		
Output connector	EIA 1+5/8" (EIA 7/8" available on request)		

In-phase outputs.

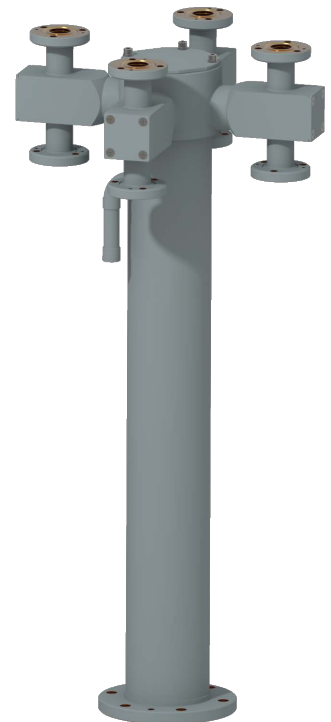
Standard with rotating input flanges and fixed output flanges (rotating output flanges on request).

Inners are not included (order separately).

Unbalanced power dividers available on request.

Brackets for pole mounting (70 - 114mm) type ST-PS-3-4 (order separately).

All the dividers are equipped with Venting Hole for dual use with air and foam feeding cables.



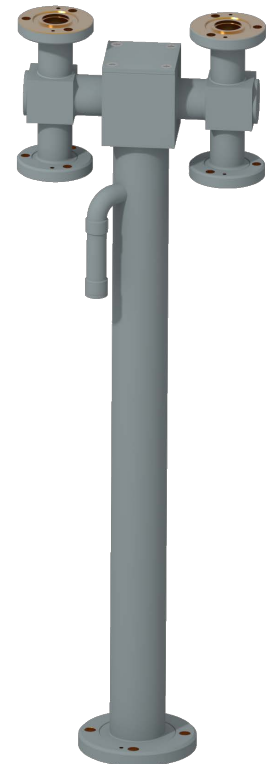
BALANCED POWER DIVIDERS OUT EIA 1+5/8"			
Number of outputs	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	3172	1172	1290
3	3173	1173	1490
4	3174	1174	1340
5	3175	1175	1370
6	3176	1176	1420
8	3178	1178	1520

BALANCED POWER DIVIDERS OUT DIN 7/8"			
Number of outputs	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	3182	1182	1291
3	3183	1183	1491
4	3184	1184	1341
5	3185	1185	1371
6	3186	1186	1421
8	3188	1188	1521

EIA 1-5/8" Input Connector Power Dividers

MAIN CHARACTERISTICS

Band	52 ÷ 88 MHz	87.5 ÷ 108 MHz	174 ÷ 245 MHz	470 ÷ 860 MHz
Length approx.	2500 mm	1650 mm	900 mm	610 mm
Input power up to	25 kW	15 kW	10 kW	5 kW
Impedance	50 Ω			
R.L.	≤ 30.0			
Input connector	EIA 1-5/8"			
Insertion Loss	≤ 0.05 dB			
Internal lines material	Silver plated Brass or Alluminium			
Outer conductor	Brass with protective paint			
Output connector	EIA 7/8" or 7/16 female (EIA 1 - 5/8" available on request)			



In-phase outputs.

Standard with rotating input flanges and fixed output flanges (rotating output flanges on request).

Inners are not included (order separately).

Unbalanced power dividers available on request.

Brackets for pole mounting (70 - 114mm) type ST-PS-78-158 (order separately).

All the dividers are equipped with venting hole for dual use with air and foam feeding cables.

BALANCED POWER DIVIDERS OUT EIA 7/16"

Number of outputs	52 - 59.5 MHz	61 - 68 MHz	80 - 88 MHz	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	6202A	6202B	6202C	3132	1142	1281
3	6203A	6203B	6203C	3133	1143	1481
4	6204A	6204B	6204C	3134	1144	1331
5	6205A	6205B	6205C	3135	1145	1381
6	6206A	6206B	6206C	3136	1146	1431
8	6208A	6208B	6208C	3138	1148	1531

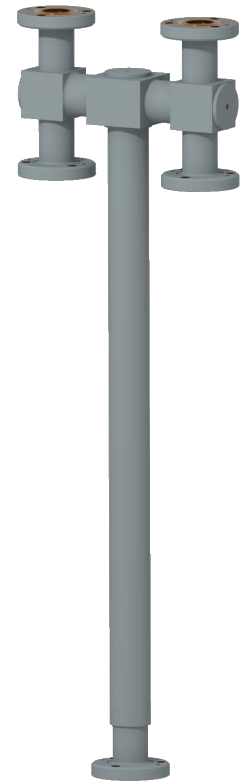
BALANCED POWER DIVIDERS OUT DIN 7/8"

Number of outputs	52 - 59.5 MHz	61 - 68 MHz	80 - 88 MHz	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	6212A	6212B	6212C	3112	1132	1280
3	6213A	6213B	6213C	3113	1133	1480
4	6214A	6214B	6214C	3114	1134	1330
5	6215A	6215B	6215C	3115	1135	1380
6	6216A	6216B	6216C	3116	1136	1430
8	6218A	6218B	6218C	3118	1138	1530

EIA 7/8" Input Connector Power Dividers

MAIN CHARACTERISTICS

Band	52 ÷ 88 MHz	87.5 ÷ 108 MHz	174 ÷ 245 MHz	470 ÷ 860 MHz
Lenght approx.	2500 mm	1650 mm	890 mm	630 mm
Input power up to	10 kW	5 kW	3.5 kW	2.5 kW
Impedance	50 Ω			
R.L.	≤ 30.0			
Input connector	EIA 7/8"			
Insertion Loss	≤ 0.1			
Internal lines material	Silver plated Brass or Alluminum			
Outer conductor	Brass with protective paint			
Output connector	EIA 7/8" or DIN 7/16 female (N female on request)			



In-phase outputs.

Standard with fixed input flanges and fixed output flanges (rotating output flanges on request).

Inners are not included (order separately).

Unbalanced output power dividers available on request.

Brackets for pole mounting (70 - 114mm) type ST-PS-78-158 (order separately).

Venting hole for dual use with air and foam feeding cables available on request

BALANCED POWER DIVIDERS OUT DIN 7/16 FEM.

Number of outputs	52 - 59.5 MHz	61 - 68 MHz	80 - 88 MHz	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	6112A	6112B	6112C	3122	1152	1260
3	6113A	6113B	6113C	3123	1153	1460
4	6114A	6114B	6114C	3124	1154	1310
5	6115A	6115B	6115	3125	1155	1360
6	6116A	6116B	6116C	3126	1156	1410
8	6118A	6118B	6118C	3128	1158	1510

BALANCED POWER DIVIDERS OUT EIA 7/8"

Number of outputs	52 - 59.5 MHz	61 - 68 MHz	80 - 88 MHz	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	6102A	6102B	6102C	3102	1122	1250
3	6103A	6103B	6103C	3103	1123	1450
4	6104A	6104B	6104C	3104	1124	1300
5	6105A	6105B	6105C	3105	1125	1350
6	6106A	6106B	6106C	3106	1126	1400
8	6108A	6108B	6108C	3108	1128	1500

DIN 7/16 Input Connector Power Dividers

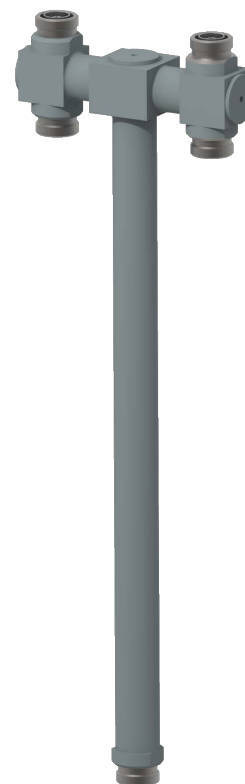
MAIN CHARACTERISTICS

Band	52 ÷ 88 MHz	87.5 ÷ 108 MHz	174 ÷ 245 MHz	470 ÷ 860 MHz
Length approx.	2500 mm	1650 mm	890 mm	610 mm
Input power up to	6 kW	3 kW	2.5 kW	1.5 kW
Impedance	50 Ω			
R.L.	≤ 30.0			
Input connector	DIN 7/16			
Insertion Loss	≤ 0.1			
Internal lines material	Silver plated Brass or Alluminium			
Outer conductor	Brass with protective paint			
Output connector	DIN 7/16 female or N female			

In-phase outputs.

Unbalanced output power dividers available on request.

Brackets for pole mounting (40 - 114mm) type BST-01 (order separately).



BALANCED POWER DIVIDERS OUT DIN 7/16 DIN FEM.

Number of outputs	52 - 59.5 MHz	61 - 68 MHz	80 - 88 MHz	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	6132A	6132B	6132C	3142	1112	1251
3	6133A	6133B	6133C	3143	1113	1451
4	6134A	6134B	6134C	3144	1114	1301
5	6135A	6135B	6135C	3145	1115	1351
6	6136A	6136B	6136C	3146	1116	1401
8	6137A	6137B	6137C	3148	1118	1501

BALANCED POWER DIVIDERS OUT N

Number of outputs	52 - 59.5 MHz	61 - 68 MHz	80 - 88 MHz	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	6142A	6142B	6142C	3152	1162	1252
3	6143A	6143B	6143C	3153	1163	1452
4	6144A	6144B	6144C	3154	1164	1302
5	6145A	6145B	6145C	3155	1165	1352
6	6146A	6146B	6146C	3156	1166	1402
8	6147A	6147B	6147C	3158	1168	1502

N Input Connector Power Dividers

MAIN CHARACTERISTICS

Band	512 ÷ 88 MHz	87.5 ÷ 108 MHz	174 ÷ 245 MHz	470 ÷ 860 MHz
Length approx.	2400 mm	1650 mm	950 mm	610 mm
Input power up to	2 kW	0.8 kW	0.5 kW	0.3 kW
Impedance	50 Ω			
V.S.W.R.	≤ 26.4			
Input connector	N Female			
Insertion Loss	≤ 0.12 dB			
Internal lines material	Silver plated Brass or Aluminium			
Outer conductor	Brass with protective paint			
Output connector	N female			

In-phase outputs.
Brackets for pole mounting (40 - 76 mm) type BST-01 (order separately).



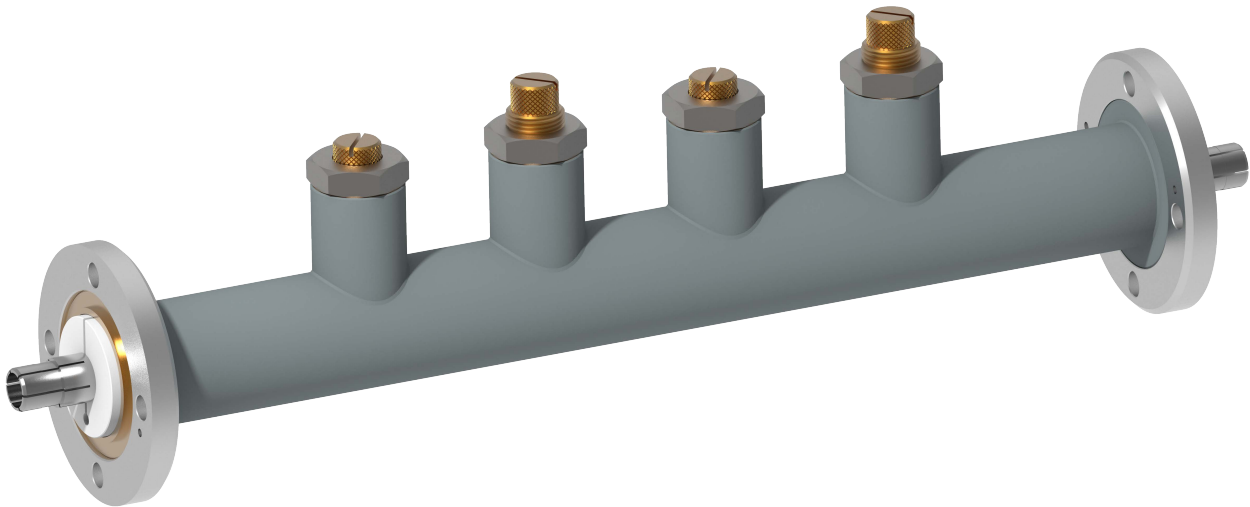
BALANCED POWER DIVIDERS OUT N F

Number of outputs	52 - 59.5 MHz	61 - 68 MHz	80 - 88 MHz	87.5 - 108 MHz	174 - 245 MHz	470 - 860 MHz
2	6122A	6122B	6122C	3162	1102	1202
3	6123A	6123B	6123C	3163	1103	1203
4	6124A	6124B	6124C	3164	1104	1204

LINE MATCHERS

FINE MATCHERS

For outdoor use



Impedance (Ohm)	50
Insertion Loss (dB)	0.05 max
Return Loss (dB)	< -32
Operational Temperature (°C)	-30 ÷ +50
Materials	Aluminium, Brass Copper, PTFE,
External Finishing	Painted
Inners	included
Tuning Sections	4

P/N	IN/OUT	POWER RATING	L (mm)	FREQ. (MHz)
BFT_F_7878	7/8" EIA	5.5 kW	1640	87.5 ÷ 108
BFT_F_158158	1 5/8" EIA	14 kW	1480	
BFT_F_318318	3 1/8" EIA	52 kW	1520	
BFT_V_7878	7/8" EIA	3.8 kW	900	174 ÷ 240
BFT_V_158158	1 5/8" EIA	10 kW	740	
BFT_V_318318	3 1/8" EIA	35 kW	780	
BFT_U_7878	7/8" EIA	2.2 kW	460	470 ÷ 862
BFT_U_158158	1 5/8" EIA	5.6 kW	410	
BFT_U_318318	3 1/8" EIA	20 kW	450	

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