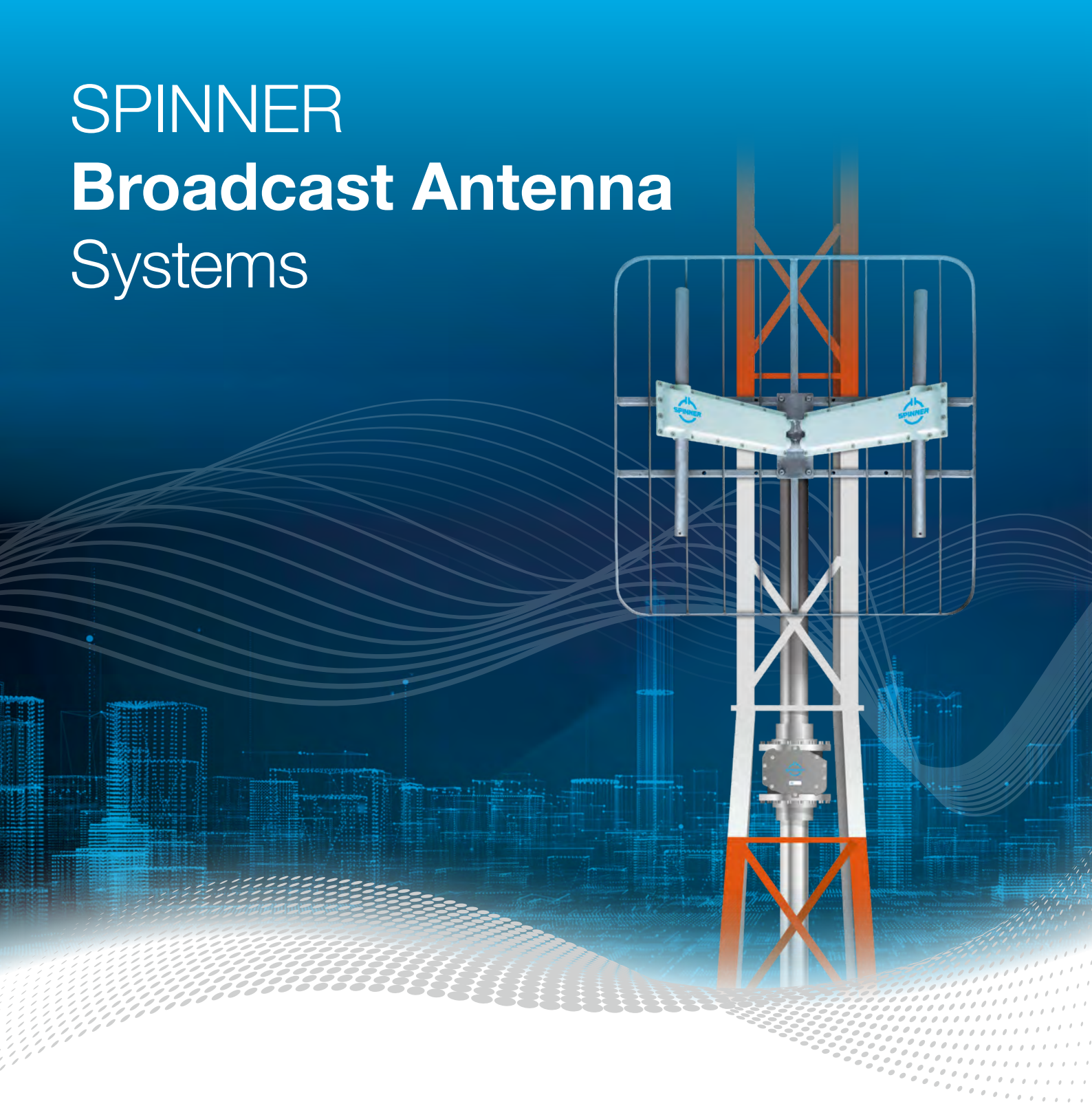
SPINNER
Broadcast Antenna
Systems



Antennas for FM, VHF and UHF

HIGH FREQUENCY PERFORMANCE WORLDWIDE
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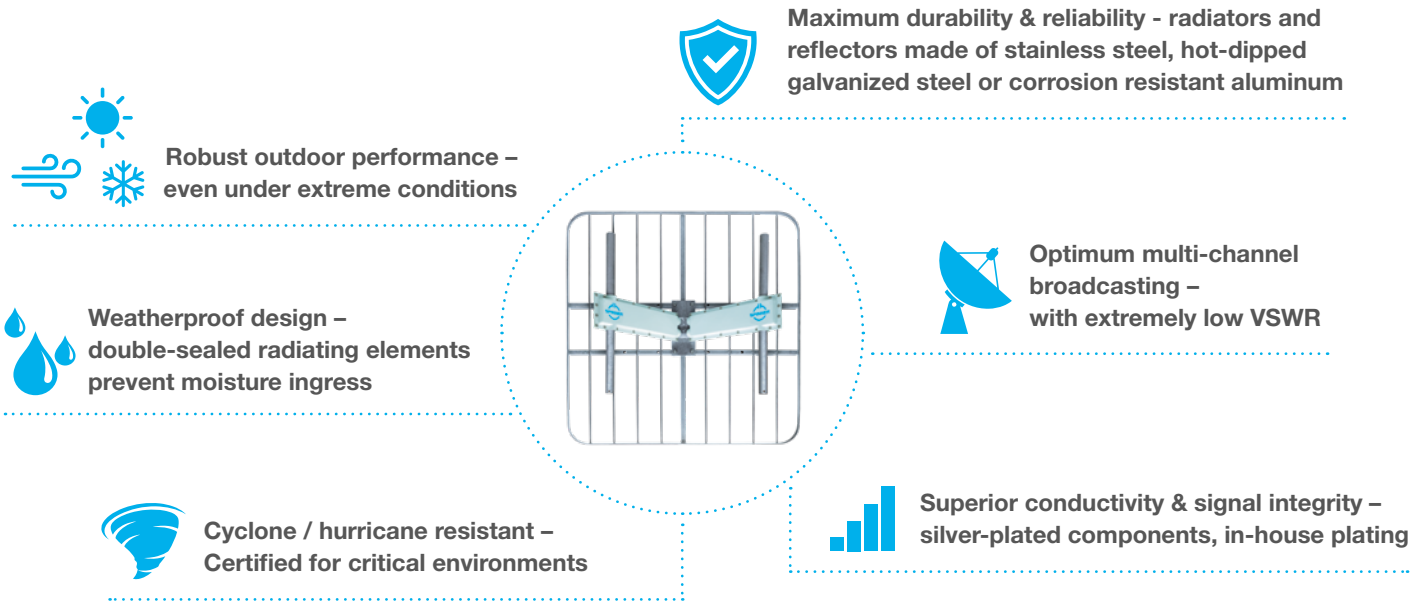
For more information on products, please use our Product Finder at products.spinner-group.com

You can get the latest new edition of our Broadcast Antennas catalog, as well as our general Broadcast catalog, in the download section of our website. Please follow this link: www.spinner-group.com/downloads

The specifications given here as well as the illustrations are for information. They shall only be confirmed by SPINNER‘s written offer and are subject to technical amendments.

Content

SPINNER Broadcast Antennas - The Next Generation



A New Era in Broadcasting Technology

With the strategic acquisition of the complete broadcast product IP portfolio from Radio Frequency Systems (RFS), the SPINNER Group has significantly expanded its position as a world leader in high-frequency solutions. SPINNER is not only continuing the renowned RFS legacy but is actively advancing these technologies to meet the evolving demands of modern broadcast networks.

Our Competence

From transmitter to antenna by integrating RFS technology, SPINNER now offers comprehensive end-to-end solutions—starting directly at the transmitter output and extending to the radiated wave.

Innovation & Development

We manufacture and optimize established RFS antenna systems while developing new, future-proof solutions based on this proven technology.

Maintenance & Legacy Support

Operators of existing RFS installations can rely on SPINNER for essential maintenance products and replacement components, ensuring the longevity of their infrastructure.

System Design & Software

Utilizing specialized antenna design tools and software SPINNER plans and simulates complete antenna systems. We calculate radiation patterns, null-fill, and beam-tilt exactly to customer specifications to guarantee optimal network coverage.

This catalog presents our current range of FM, VHF, and UHF antenna solutions, engineered to combine maximum mechanical robustness with exceptional electrical performance.

Beyond our standard portfolio, SPINNER welcomes custom requests. Our expert team is ready to support you at every stage of the design and layout process for your specific antenna system. In addition to the products shown on the following pages, various product versions are available on request, e.g. with other input connector size or color. All radiation patterns shown in this catalogue are typical illustrations at mid-band.

Turnkey Solutions and Services

The implementation of a broadcast antenna system requires a structured engineering methodology that integrates RF design, structural verification, and coordinated project execution. SPINNER supports every phase of this process, beginning with site surveys, technical consultancy, and detailed specification of electrical and mechanical parameters. Based on these inputs, antenna selection and system configuration are defined to ensure optimal performance under site-specific boundary conditions.

Engineering activities include electromagnetic field calculations, radiation pattern and power/voltage load calculations, as well as static and dynamic mechanical analysis to validate structural integrity under wind and environmental loading. Manufacturing, logistics, and installation are professionally coordinated with project teams and local partners to ensure accurate implementation and minimized on-site complexity.

Following installation, acceptance testing and performance verification confirm compliance with defined specifications. Regular measurements, preventive maintenance, and repair services ensure sustainable long-term operation and protect the customer's investment.

Survey, Consultancy and Specification

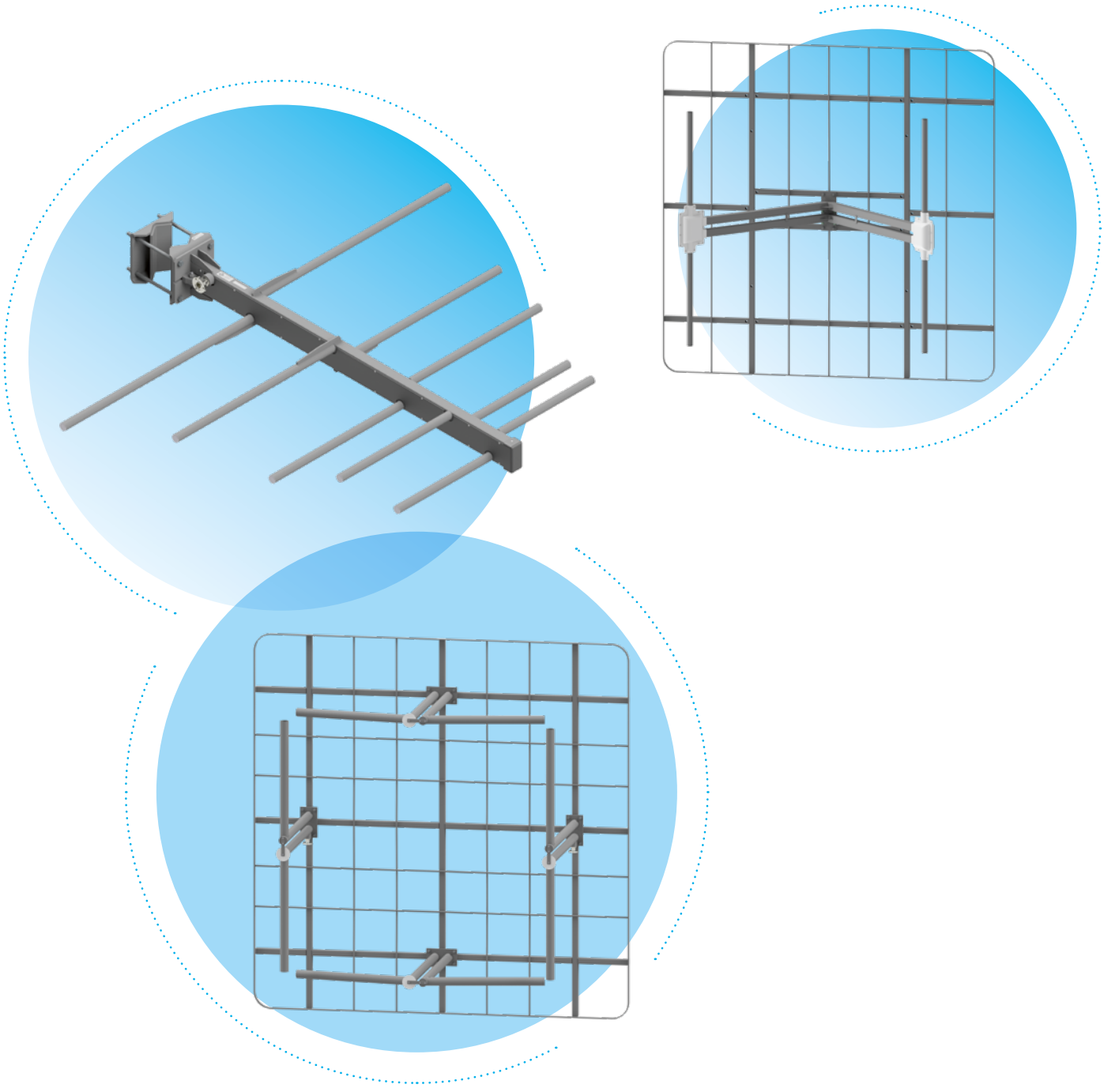
Product Selection, System Configuration

Calculation from radiation pattern to mechanical design

Delivery, Installation and Coordination of Project Team and Local Partners

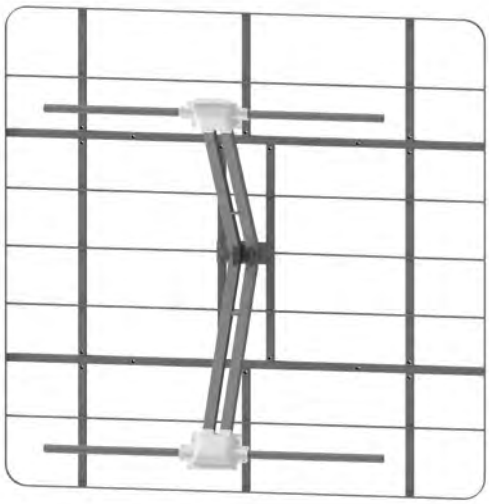
Acceptance Test, Regular Measurements, Repair Service

FM Antennas



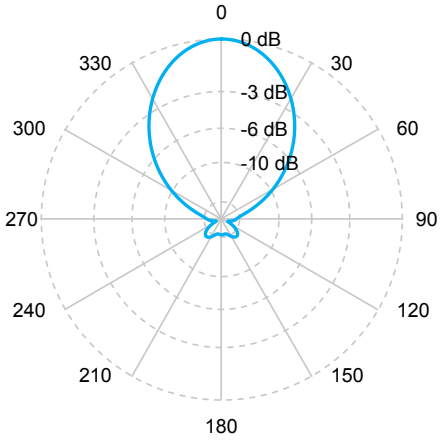
FM Antenna – 904HPS | BN 938575

Band II Panel



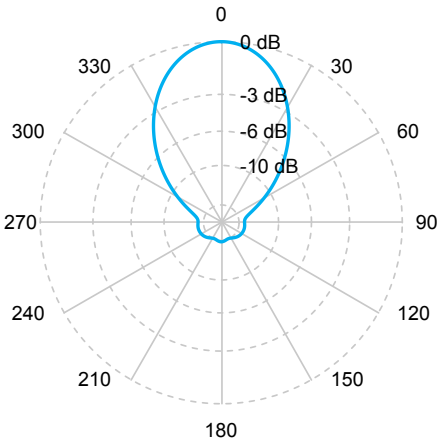
- Particularly suitable for arrays on round or 4-sided towers
- Stainless steel radiator, hot-dipped galvanised reflector

Part number (BN)	**938575**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	5 kW
Frequency	87.5 – 108 MHz
Polarization	Horizontal
Gain	7.5 dBd
Return loss, min.	20 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	2200 mm x 2200 mm x 920 mm
Weight	76 kg
Effective area front	1.08 m²
Effective area side	0.72 m²
Mounting	4 mounting points at 1030 mm centres
Survival windspeed	240 km/h
Material	Radiator: stainless steel Reflector: hot-dipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Horizontal polarization



Vertical Radiation Pattern E/E_{max}

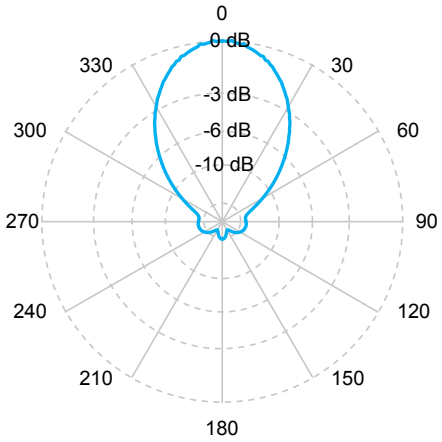
Horizontal polarization

FM Antenna – 904VPS | BN 938575C0001

Band II Panel

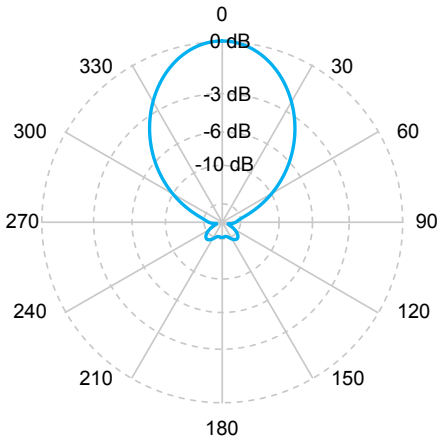
- Particularly suitable for arrays on round or 4-sided towers
- Stainless steel radiator, hot-dipped galvanised reflector

Part number (BN)	**938575C0001**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	5 kW
Frequency	87.5 – 108 MHz
Polarization	Vertical
Gain	7.5 dBd
Return loss, min.	20 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	2200 mm x 2200 mm x 920 mm
Weight	76 kg
Effective area front	1.08 m²
Effective area side	0.89 m²
Mounting	4 mounting points at 1030 mm centres
Survival windspeed	240 km/h
Material	Radiator: stainless steel Reflector: hot-dipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Vertical polarization



Vertical Radiation Pattern E/E_{max}

Vertical polarization

FM Antenna – 904HPSD | BN 75485A

Band II Panel

- Particularly suitable for arrays on round or 4-sided towers
- Hot-dipped galvanised radiator and reflector
- Reflector attachment points adapted to widely installed base

Part number (BN)	**75485A**

Radio Frequency Characteristics

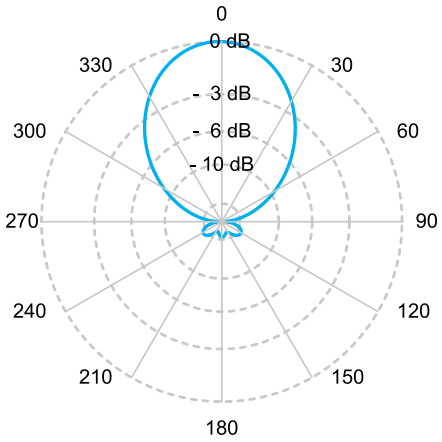
Input	7/8" EIA
Max. power	5 kW
Frequency	87.5 – 108 MHz
Polarization	Horizontal
Gain	7.7 dBd
Return loss, min.	21 dB
Impedance	50 Ohm

Mechanical Characteristics

Dimensions (LxWxD)	2490 mm x 1740 mm x 825 mm
Weight	61 kg
Effective area front	1.05 m²
Effective area side	0.71 m²
Mounting	6 x M16 (ISO 4017) screws
Survival windspeed	290 km/h
Pressurization	Up to input connector
Material	Radiator: hot-dipped galvanized steel Reflector: hot-dipped galvanised steel Radome: ASA Inner conductor: brass and aluminium

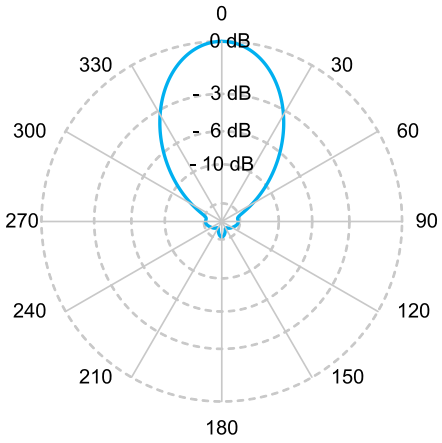
Environmental Conditions

Operation	
Ambient temperature range	-40 to +60°C



Horizontal Radiation Pattern E/E_{max}

Horizontal polarization



Vertical Radiation Pattern E/E_{max}

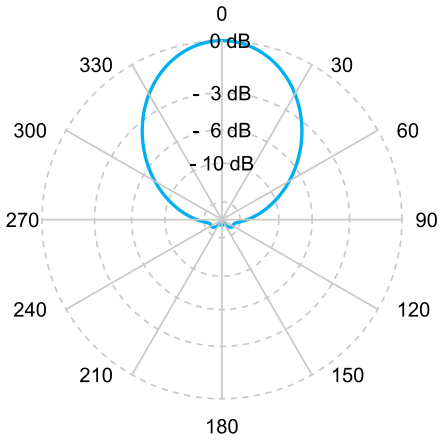
Horizontal polarization

FM Antenna – 903HPSD | BN 77466A

Band II Panel

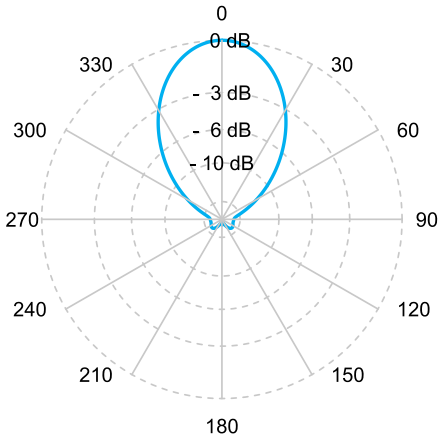
- Particularly suitable for arrays on round or 3-sided towers
- Hot-dipped galvanised radiator and reflector
- Reflector attachment points adapted to widely installed base

Part number (BN)	**77466A**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	5 kW
Frequency	87.5 – 108 MHz
Polarization	Horizontal
Gain	7 dBd
Return loss, min.	21 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	2490 mm x 1740 mm x 825 mm
Weight	65 kg
Effective area front	1.05 m²
Effective area side	0.71 m²
Mounting	6 x M16 (ISO 4017) screws
Survival windspeed	290 km/h
Pressurization	Up to the input connector
Material	Radiator: hot-dipped galvanised steel Radome: ASA
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Horizontal polarization

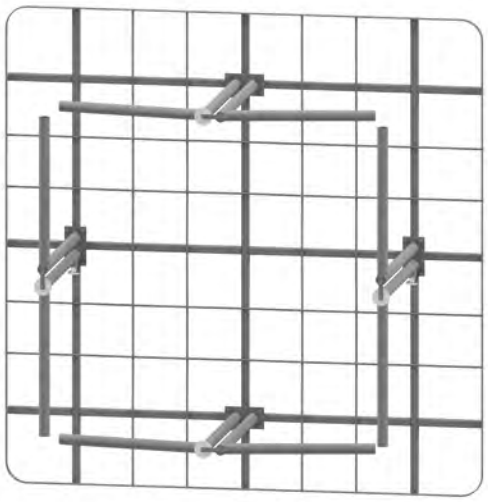


Vertical Radiation Pattern E/E_{max}

Horizontal polarization

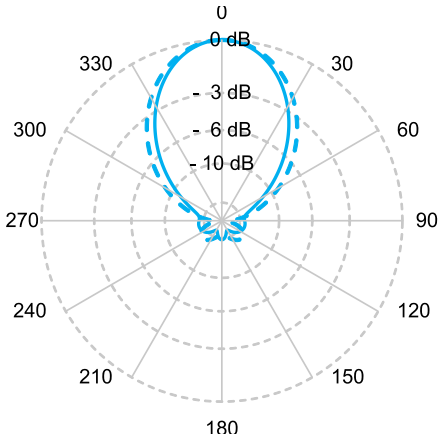
FM Antenna – 904CP | BN 938571

Band II Panel



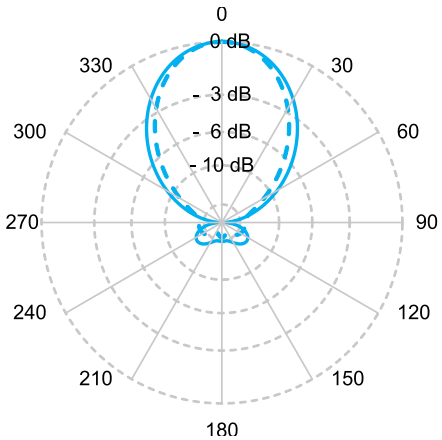
- Particularly suitable for arrays on round or 4-sided towers
- Stainless steel radiator, hot-dipped galvanised reflector
- For elliptical, circular, horizontal, vertical or slant polarization

Part number (BN)	**938571**
Radio Frequency Characteristics	
Input	4 x 7/8" EIA
Max. power	4 x 5 kW
Frequency	87.5 – 108 MHz
Polarization	Elliptical, circular, horizontal, vertical, slant
Gain	4.5 dBd in case of circular polarization
Return loss, min.	26 dB in case of circular polarization
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Dimensions (LxWxD)	2200 mm x 2200 mm x 903 mm
Weight	93 kg
Effective area front	1.26 m²
Effective area side	1.03 m²
Mounting	4 x U bolts
Survival windspeed	240 km/h
Pressurization	10-25 kPa
Material	Radiator: stainless steel Reflector: hot-dipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Horizontal polarization
Vertical polarization

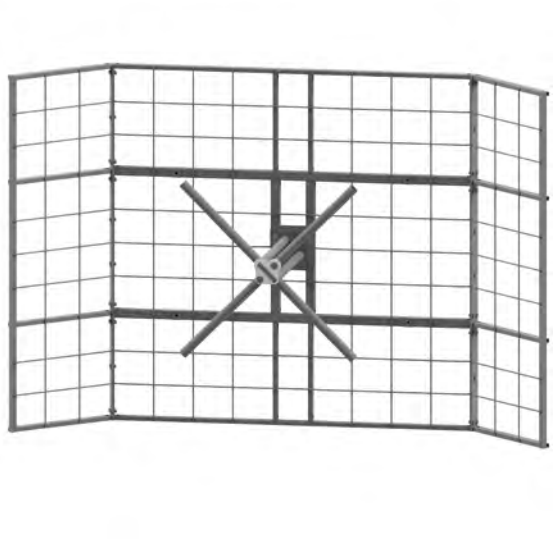


Vertical Radiation Pattern E/E_{max}

Horizontal polarization
Vertical polarization

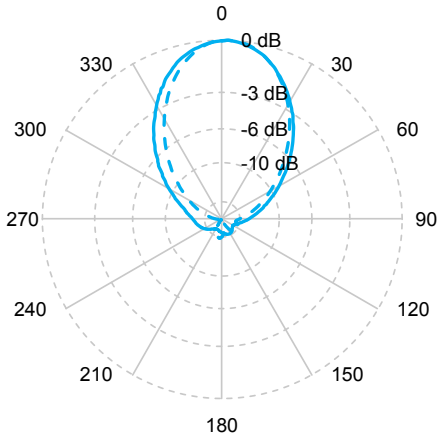
FM Antenna – 904CPX | BN 938572

Band II Panel



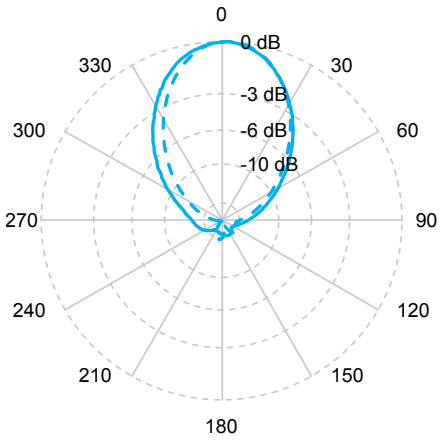
- Particularly suitable for arrays on round or 4-sided towers
- Stainless steel radiator, hot-dipped galvanised reflector

Part number (BN)	**938572**
Radio Frequency Characteristics	
Input	2 x 7/8" EIA
Max. power	2 x 5 kW
Frequency	87.5 – 108 MHz
Polarization	Circular
Gain	4 dBd
Return loss, min.	20 dB
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Dimensions (LxWxD)	2000 mm x 3300 mm x 861 mm
Weight	98 kg
Effective area front	1.58 m²
Effective area side	1.37 m²
Mounting	4 x M12 x 80 mm bolts
Survival windspeed	240 km/h
Pressurization	10-25 kPa
Material	Radiator: stainless steel Reflector: hot shipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Horizontal polarization
Vertical polarization



Vertical Radiation Pattern E/E_{max}

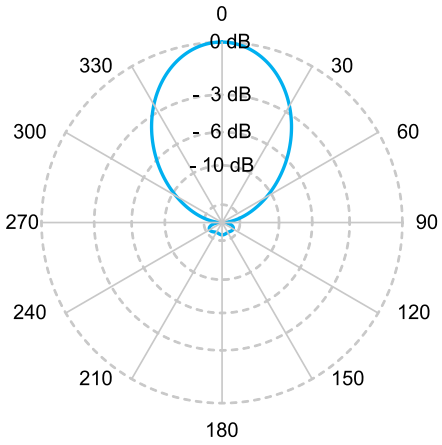
Horizontal polarization
Vertical polarization

FM Antenna – LFM | BN 74001A

Band II Log-Periodic Antenna

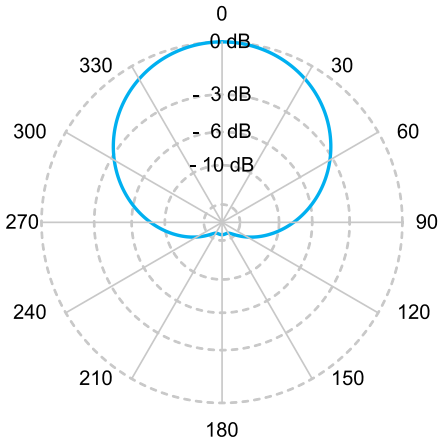
- Resistant to icing
- Low windload

Part number (BN)	**74001A**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	5 kW
Frequency	87.5 – 108 MHz
Polarization	Horizontal
Gain	5.2 dBd
Return loss, min.	22 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	1489 mm x 1772 mm x 180 mm
Weight	21 kg
Effective area front	0.24 m²
Effective area side	0.26 m²
Mounting	4 x M12 (ISO 4017) screws to counterflange or to tube masts 60 – 120 mm by brackets supplied
Survival windspeed	275 km/h
Pressurization	Up to the input connector
Material	Radiator: hot-dipped galvanized steel Radome: ASA
Color	RAL 9005 jet black
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Horizontal polarization



Vertical Radiation Pattern E/E_{max}

Horizontal polarization

FM Antenna – 818_716 | BN 938574

Band II Dipole Antenna

- Low weight and windload
- Stainless steel radiator

Part number (BN)	**938574**

Radio Frequency Characteristics

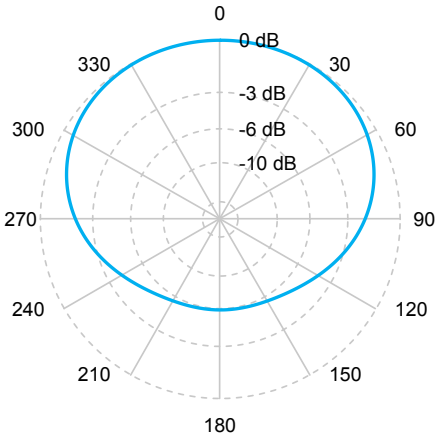
Input	7-16 female
Max. power	3 kW
Frequency	87.5 – 108 MHz
Polarization	Vertical
Gain	1.9 dBd
Return loss, min.	20 dB
Impedance	50 Ohm unbalanced

Mechanical Characteristics

Dimensions (LxWxD)	1510 mm x 60 mm x 840 mm
Weight	11 kg
Effective area front	0.1 m²
Effective area side	0.2 m²
Mounting	Brackets for clamp dia. 43-76 mm
Survival windspeed	240 km/h
Material	Radiator: stainless steel

Environmental Conditions

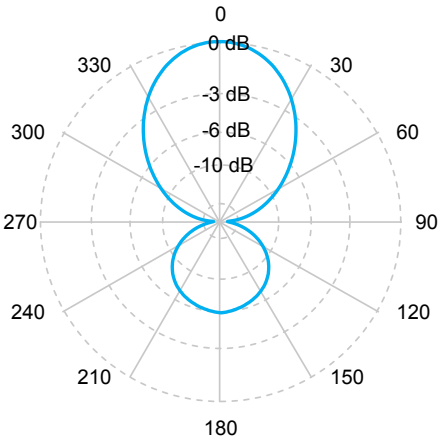
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Vertical polarization

Radiator mounted on slim steel tube, tower influence not considered



Vertical Radiation Pattern E/E_{max}

Vertical polarization

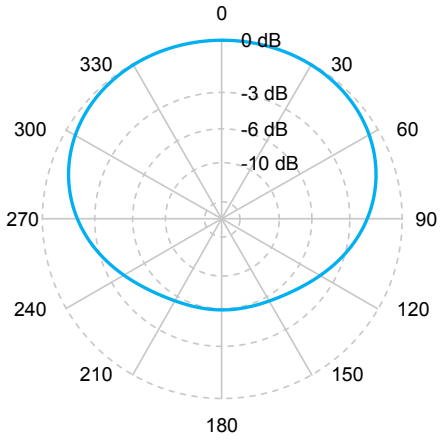
Radiator mounted on slim steel tube, tower influence not considered

FM Antenna – 818_78 | BN 938574C0001

Band II Dipole Antenna

- Low weight and windload
- Stainless steel radiator

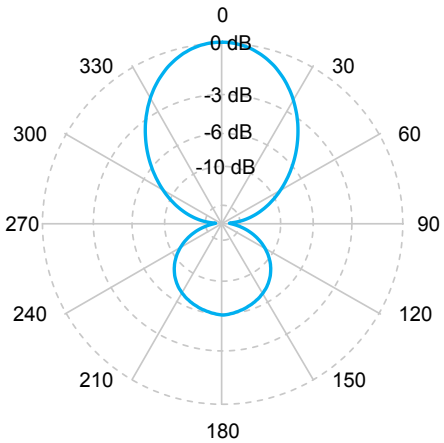
Part number (BN)	**938574C0001**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	5 kW
Frequency	87.5 – 108 MHz
Polarization	Vertical
Gain	1.9 dBd
Return loss, min.	20 dB
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Dimensions (LxWxD)	1510 mm x 60 mm x 840 mm
Weight	11 kg
Effective area front	0.1 m²
Effective area side	0.2 m²
Mounting	Brackets for clamp dia. 43-76 mm
Survival windspeed	240 km/h
Material	Radiator: stainless steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Vertical polarization

Radiator mounted on slim steel tube, tower influence not considered



Vertical Radiation Pattern E/E$_{max}$

Vertical polarization

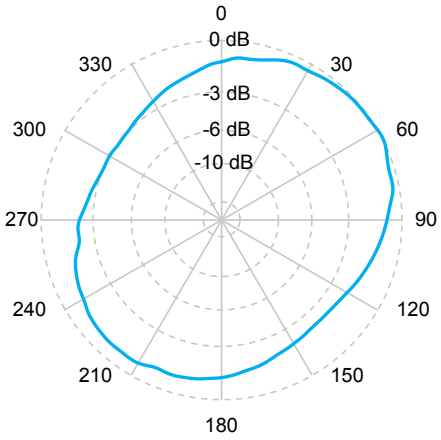
Radiator mounted on slim steel tube, tower influence not considered

FM Antenna – 828HP-2 | BN 77277A

Band II Array

- Low weight and windload
- Stainless steel radiator
- Elliptical polarization

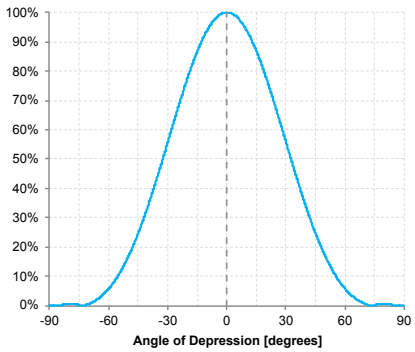
Part number (BN)	**77277A**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	10 kW
Frequency	87.5 – 108 MHz
Polarization	Elliptical
Gain	-0.1 dBd
Return loss, min.	20 dB
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Weight	95 kg
Effective area front	0.12 m²
Effective area side	0.5 m²
Mounting	Brackets for 40-100 mm pole mount
Survival windspeed	240 km/h
Pressurization	Pressurized
Material	Radiator: stainless steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Vertical polarization

Tower influence not considered

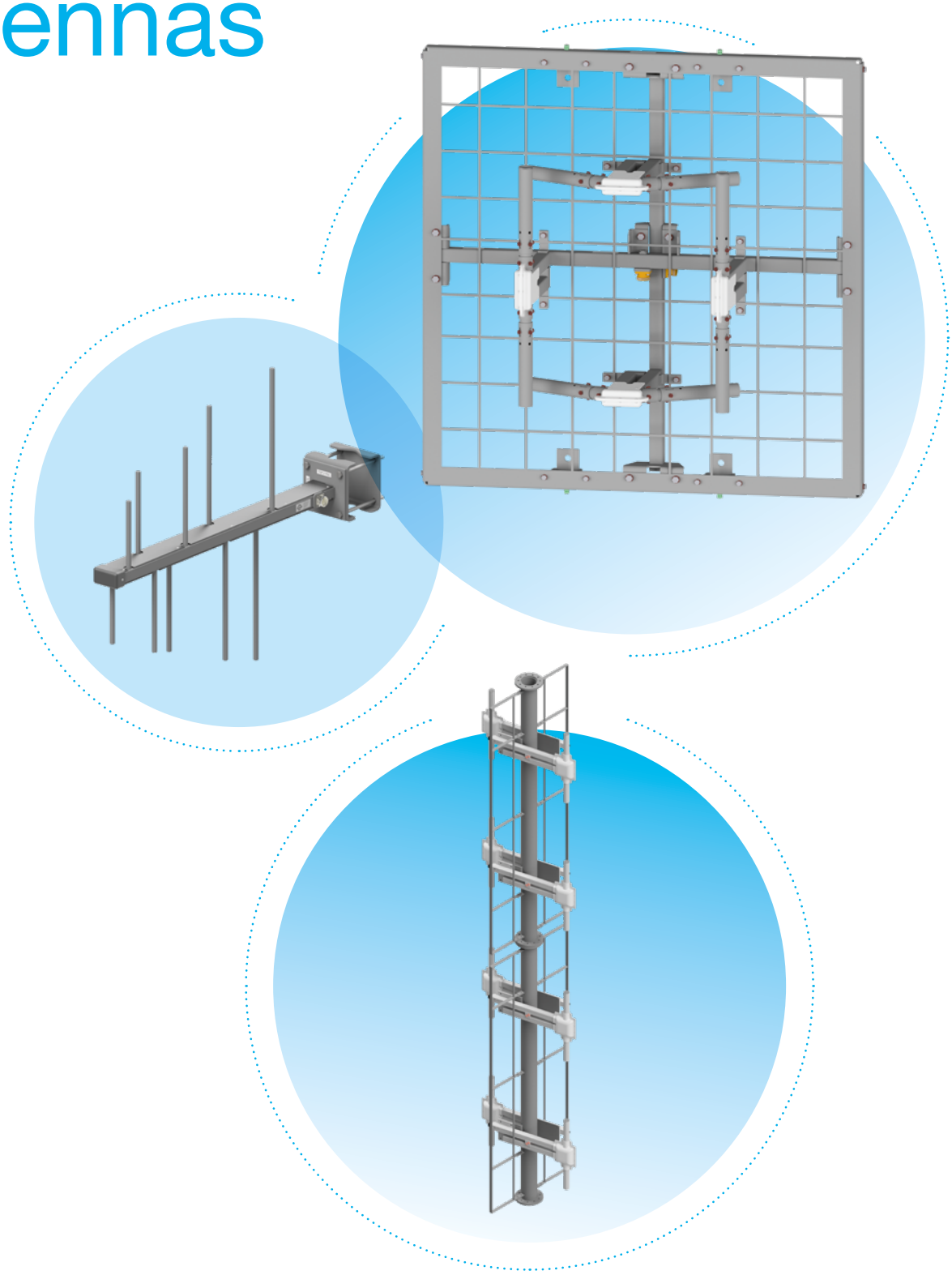


Vertical Radiation Pattern E/E$_{max}$

Vertical polarization

Tower influence not considered

VHF – Band III Antennas

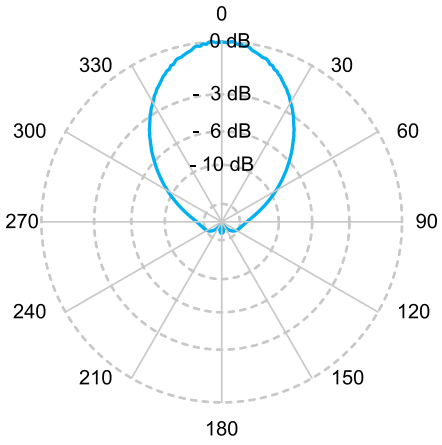


VHF Antenna – 659_716 | BN 71291A

Band III Panel

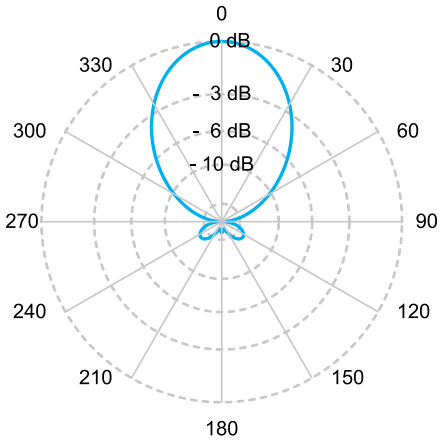
- Particularly suitable for arrays on round or 4-sided towers
- Hot-dipped galvanised radiator and reflector

Part number (BN)	**71291A**
Radio Frequency Characteristics	
Input	7-16 female
Max. power	3 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	8 dBd
Return loss, min.	26 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	1300 mm x 1275 mm x 517 mm
Weight	35 kg
Effective area front	0.4 m²
Effective area side	0.5 m²
Mounting	4 x 12 mm bolts
Survival windspeed	240 km/h
Material	Radiator: hot-dipped galvanised steel Reflector: hot-dipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Vertical polarization



Vertical Radiation Pattern E/E_{max}

Vertical polarization

VHF Antenna – 659_78 | BN 938576

Band III Panel

- Particularly suitable for arrays on round or 4-sided towers
- Hot-dipped galvanised radiator and reflector

Part number (BN)	**938576**

Radio Frequency Characteristics

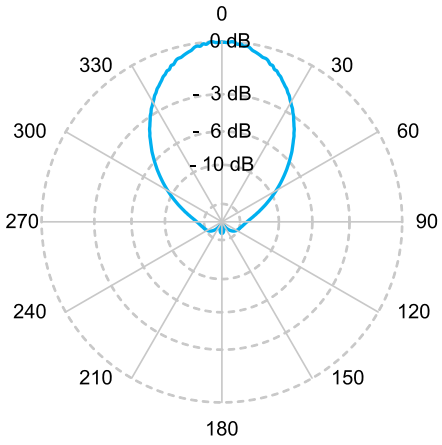
Input	7/8" EIA
Max. power	4 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	8 dBd
Return loss, min.	26 dB
Impedance	50 Ohm

Mechanical Characteristics

Dimensions (LxWxD)	1300 mm x 1275 mm x 517 mm
Weight	35 kg
Effective area front	0.4 m²
Effective area side	0.5 m²
Mounting	4 x 12 mm bolts
Survival windspeed	240 km/h
Material	Radiator: hot-dipped galvanised steel Reflector: hot-dipped galvanised steel

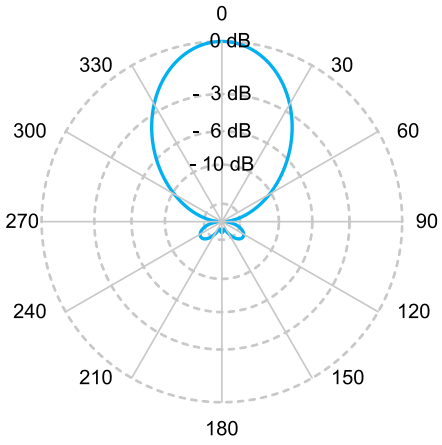
Environmental Conditions

Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Vertical polarization



Vertical Radiation Pattern E/E_{max}

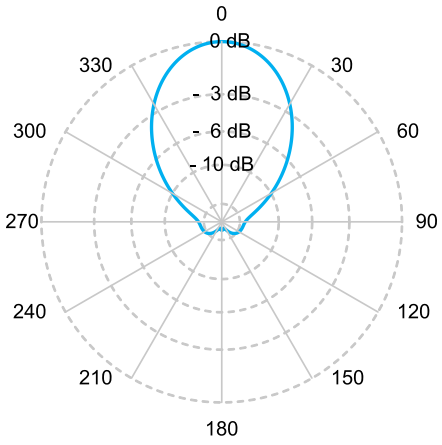
Vertical polarization

VHF Antenna – 660_716 | BN 71292A

Band III Panel

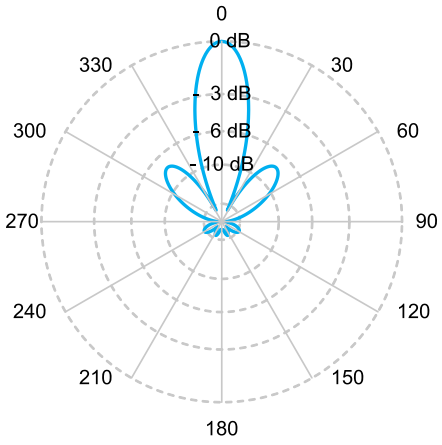
- Particularly suitable for arrays on round or 4-sided towers
- Hot-dipped galvanised radiator and reflector

Part number (BN)	**71292A**
Radio Frequency Characteristics	
Input	7-16 female
Max. power	3 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	11 dBd
Return loss, min.	26 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	1275 mm x 2800 mm x 518 mm
Weight	80 kg
Effective area front	0.8 m²
Effective area side	1.1 m²
Mounting	4 x 12 mm bolts
Survival windspeed	240 km/h
Material	Radiator: hot-dipped galvanised steel Reflector: hot-dipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Vertical polarization



Vertical Radiation Pattern E/E$_{max}$

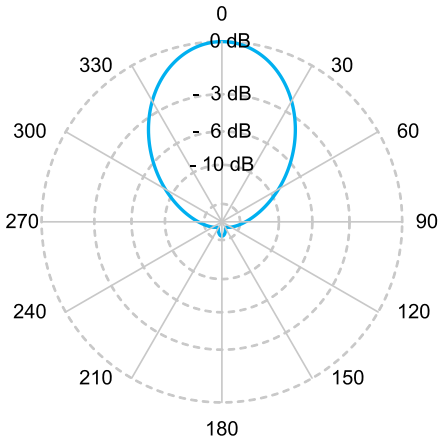
Vertical polarization

VHF Antenna – 660_78 | BN 938577

Band III Panel

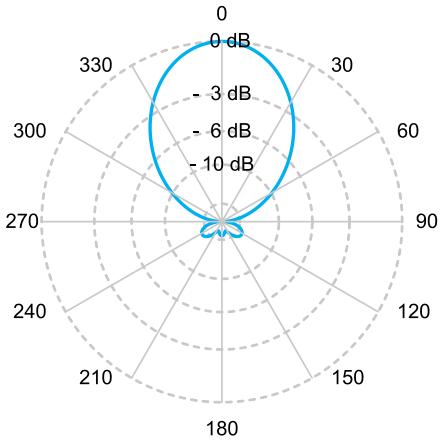
- Particularly suitable for arrays on round or 4-sided towers
- Hot-dipped galvanised radiator and reflector

Part number (BN)	**938577**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	4 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	11 dBd
Return loss, min.	26 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	2800 mm x 1275 mm x 518 mm
Weight	80 kg
Effective area front	0.8 m²
Effective area side	1.1 m²
Mounting	4 x 12 mm bolts
Survival windspeed	240 km/h
Material	Radiator: hot-dipped galvanised steel Reflector: hot-dipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Vertical polarization

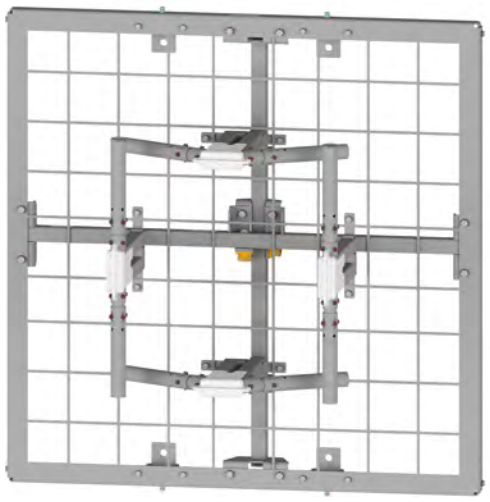


Vertical Radiation Pattern E/E_{max}

Vertical polarization

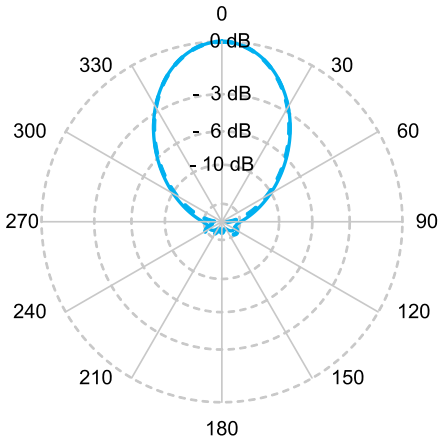
VHF Antenna – 670CP | BN 72495A

Band III Panel



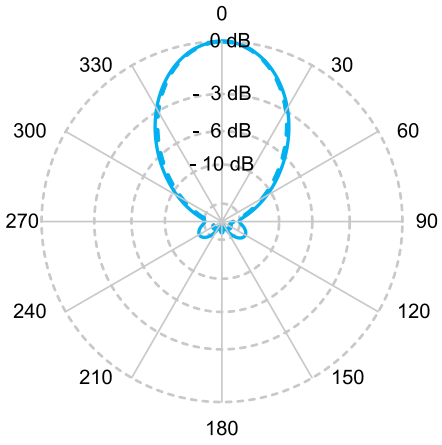
- Particularly suitable for arrays on round or 4-sided towers
- Stainless steel radiator, hot-dipped galvanised reflector
- Fully re-engineered for DTV+

Part number (BN)	**72495A**
Radio Frequency Characteristics	
Input	2 x 7-16 female
Max. power	2 x 2.5 kW
Frequency	252 – 280 MHz
Polarization	Elliptical, circular, horizontal, vertical, slant
Gain	4.5 dBd in case of circular polarization
Return loss, min.	25 dB in one channel
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	947 mm x 947 mm x 345 mm
Weight	23 kg
Effective area front	0.8 m²
Effective area side	0.3 m²
Mounting	4 x M12 (ISO 4017) screws
Survival windspeed	290 km/h
Material	Radiator: stainless steel Reflector: hot-dipped galvanised steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Horizontal polarization
Vertical polarization



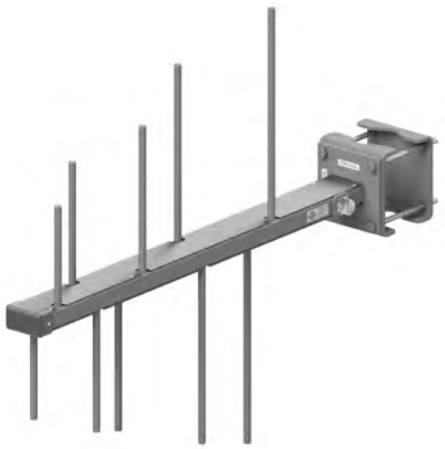
Vertical Radiation Pattern E/E_{max}

Horizontal polarization
Vertical polarization

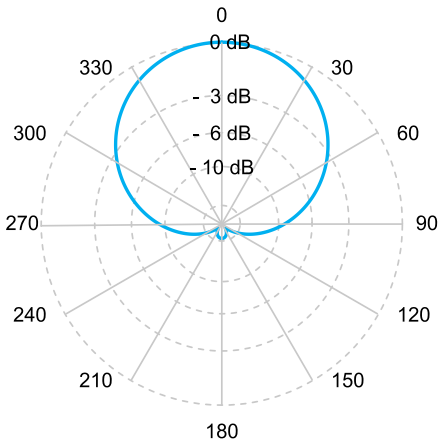
VHF Antenna – LVHF | BN 74002A

Band III Log-Periodic Antenna

- Low windload
- Resistant to icing

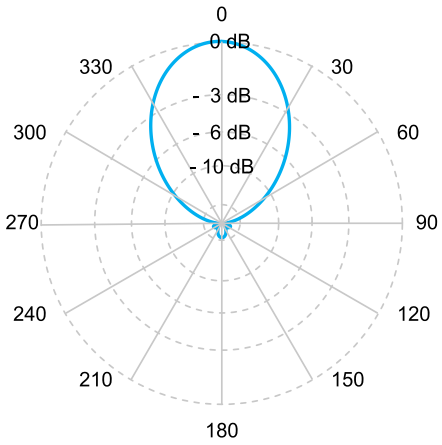


Part number (BN)	**74002A**
Radio Frequency Characteristics	
Input	7-16 female
Max. power	2 kW
Frequency	174 – 240 MHz
Polarization	Horizontal & Vertical
Gain	5 dBd
Return loss, min.	19 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	925 mm x 850 mm x 155 mm
Weight	10 kg
Effective area front	0.08 m²
Effective area side	0.15 m²
Mounting	4 x M12 (ISO 4017) screws to counterflange or to tube masts 60 – 120 mm by brackets supplied
Survival windspeed	275 km/h
Pressurization	up to input connector
Material	Radiator: hot-dipped galvanized steel Radome: ASA
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E_{max}

Vertical polarization



Vertical Radiation Pattern E/E_{max}

Vertical polarization

VHF Antenna – 628_716 | BN 938573

Band III Dipole Antenna

- Low weight and windload
- Stainless steel radiator

Part number (BN)	**938573**

Radio Frequency Characteristics

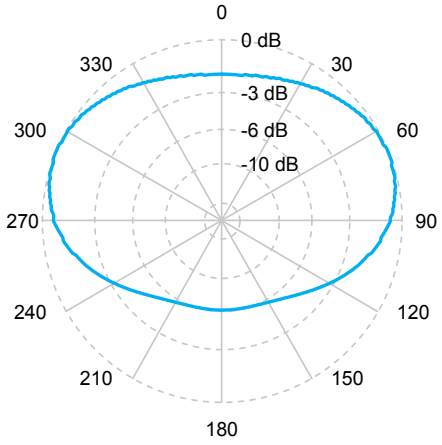
Input	7-16 female
Max. power	2.5 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	1.9 dBd
Return loss, min.	17 dB
Impedance	50 Ohm

Mechanical Characteristics

Dimensions (LxWxD)	831 mm x 701.8 mm x 100 mm
Weight	8 kg
Effective area front	0.08 m²
Effective area side	0.27 m²
Mounting	Clamping dia. 43-76 mm (not included)
Survival windspeed	240 km/h
Material	Radiator: stainless steel

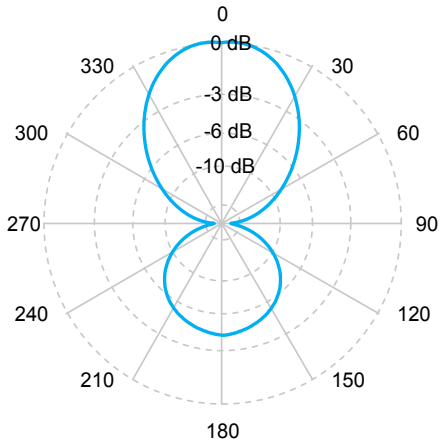
Environmental Conditions

Operation	
Ambient temperature range	-40 °C to + 60 °C



Horizontal Radiation Pattern E/E_{max}

Vertical polarization



Vertical Radiation Pattern E/E_{max}

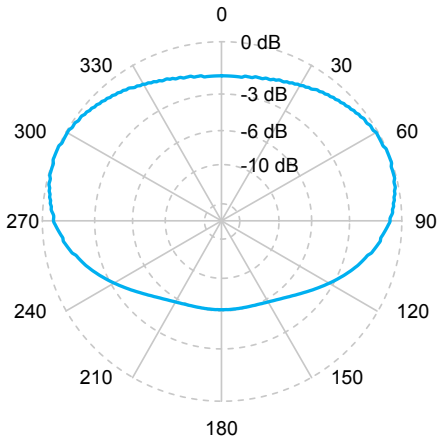
Vertical polarization

VHF Antenna – 628_78 | BN 76036A

Band III Dipole Antenna

- Low weight and windload
- Stainless steel radiator

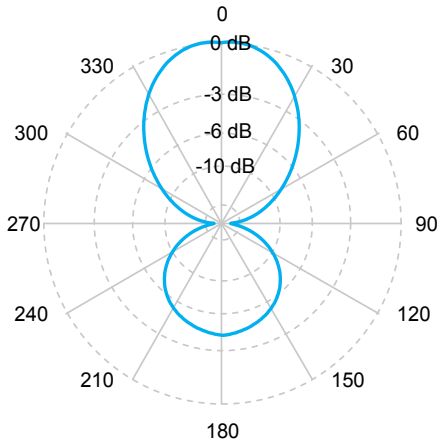
Part number (BN)	**76036A**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	5 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	1.9 dBd
Return loss, min.	17 dB
Impedance	50 Ohm
Mechanical Characteristics	
Dimensions (LxWxD)	827 mm x 692 mm x 100 mm
Weight	8 kg
Effective area front	0.08 m²
Effective area side	0.27 m²
Mounting	Clamping dia. 43-76 mm (not included)
Survival windspeed	240 km/h
Material	Radiator: stainless steel
Environmental Conditions	
Operation	
Ambient temperature range	-40 °C to + 60 °C



Horizontal Radiation Pattern E/E_{max}

Vertical polarization

Radiator mounted on slim steel tube, tower influence not considered



Vertical Radiation Pattern E/E_{max}

Vertical polarization

Radiator mounted on slim steel tube, tower influence not considered

VHF Antenna – TVHF-2 | BN 74517A

Band III Array

- Omnidirectional radiation pattern
- For top-mounting on mast

Part number (BN)	**74517A**

Radio Frequency Characteristics

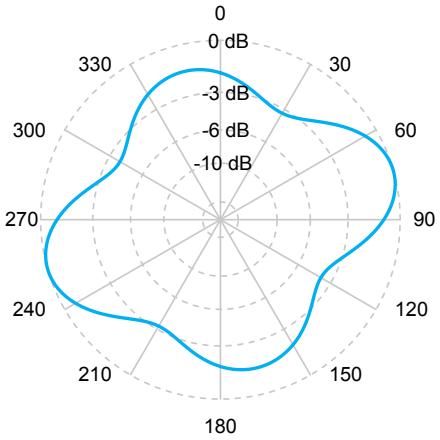
Input	1 5/8" EIA
Max. power	8 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	4.5 dBd
Return loss, min.	21 dB
Impedance	50 Ohm

Mechanical Characteristics

Dimensions (LxWxD)	2630 mm x 1030 mm x 900 mm
Weight	~150 kg
Effective area front	0.95 m²
Effective area side	0.95 m²
Mounting	Top mount on flange
Survival windspeed	275 km/h
Pressurization	Up to input connector
Material	Radiator: hot-dipped galvanized steel/ stainless steel Radome: ASA Mast: hot-dipped galvanized steel

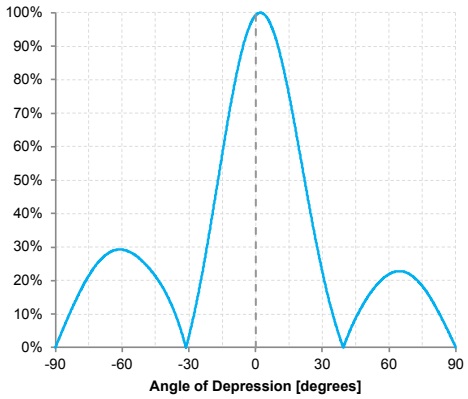
Environmental Conditions

Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Vertical polarization



Vertical Radiation Pattern E/E$_{max}$

Vertical polarization

VHF Antenna – TVHF-4 | BN 74518A

Band III Array

- Omnidirectional radiation pattern
- For top-mounting on mast

Part number (BN)	**74518A**

Radio Frequency Characteristics

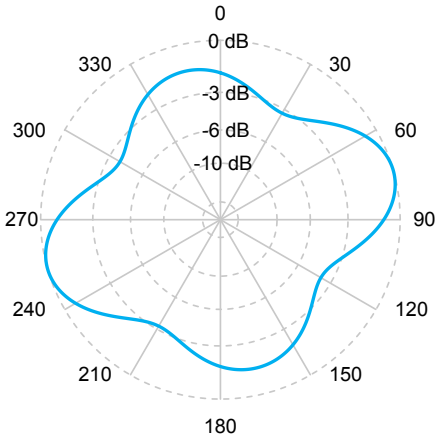
Input	2 x 1 5/8” EIA
Max. power	2 x 8 kW
Frequency	174 – 240 MHz
Polarization	Vertical
Gain	7.5 dBd
Return loss, min.	21 dB
Impedance	50 Ohm

Mechanical Characteristics

Dimensions (LxWxD)	5260 mm x 1030 mm x 900 mm
Weight	~300 kg
Effective area front	1.95 m²
Effective area side	1.95 m²
Mounting	Top mount on flange
Survival windspeed	275 km/h
Material	Radiator: hot-dipped galvanized steel/ stainless steel Radome: ASA Mast: hot-dipped galvanized steel

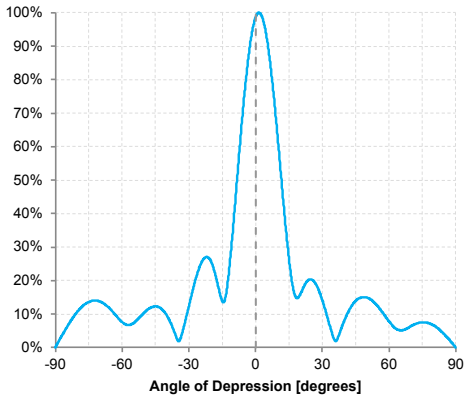
Environmental Conditions

Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Vertical polarization



Vertical Radiation Pattern E/E$_{max}$

Vertical polarization

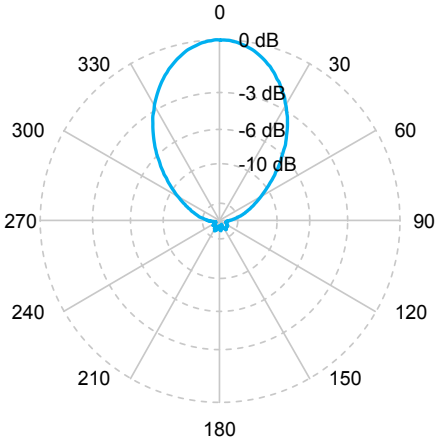
UHF - Band IV/V Antennas

UHF-Band IV/V Antenna – PHP_716 | BN 71028A

UHF Panel

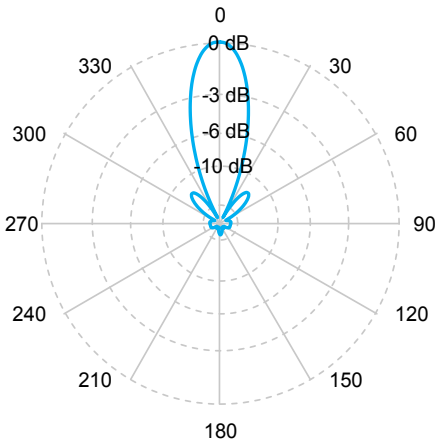
- Building block for various antenna set-ups
- Particularly suitable for arrays on 4-sided carriers

Part number (BN)	**71028A**
Radio Frequency Characteristics	
Input	7-16 female
Max. power	1.75 kW
Frequency	470 – 862 MHz
Polarization	Horizontal
Gain	11.0 – 13.0 dBd
Return loss, min.	25 dB
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Dimensions (LxWxD)	500 mm x 1090 mm x 271 mm
Weight	11.5 kg
Effective area front	0.55 m²
Effective area side	0.4 m²
Mounting	4 x 10 mm (3/8) bolts
Survival windspeed	240 km/h
Pressurization	Up to input connector
Material	Radiator: aluminium Reflector: aluminium Radome: fiberglass
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Horizontal polarization



Vertical Radiation Pattern E/E$_{max}$

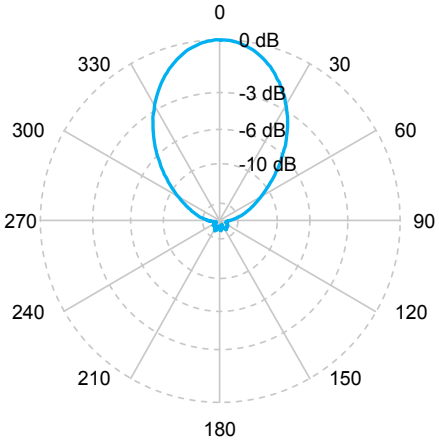
Horizontal polarization

UHF-Band IV/V Antenna – PHP_78 | BN 71029A

UHF Panel

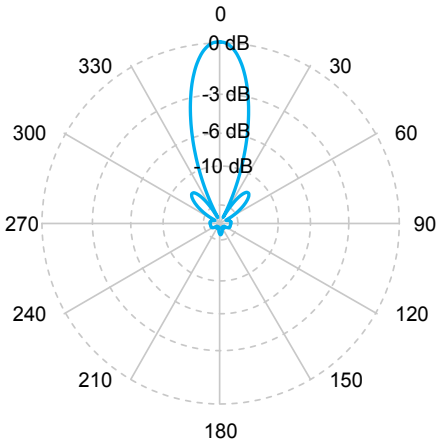
- Building block for various antenna set-ups
- Particularly suitable for arrays on 4-sided carriers
- N probe at antenna input

Part number (BN)	**71029A**
Radio Frequency Characteristics	
Input	7/8" EIA
Max. power	2.5 kW
Frequency	470 – 862 MHz
Polarization	Horizontal
Gain	11.0 – 13.0 dBd
Return loss, min.	25 dB
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Dimensions (LxWxD)	500 mm x 1090 mm x 271 mm
Weight	11.5 kg
Effective area front	0.55 m²
Effective area side	0.4 m²
Mounting	4 x 10 mm (3/8) bolts
Survival windspeed	240 km/h
Pressurization	Up to input connector
Material	Radiator: corrosion resistant aluminium Reflector: aluminium Radome: fiberglass
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Horizontal polarization



Vertical Radiation Pattern E/E$_{max}$

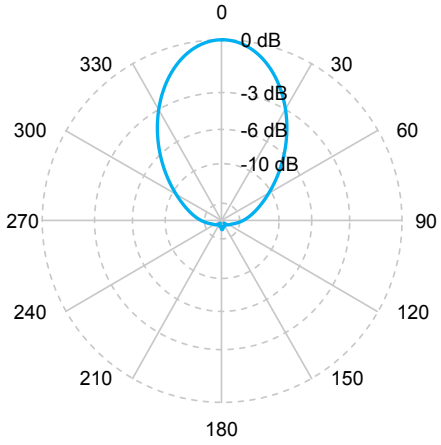
Horizontal polarization

UHF-Band IV/V Antenna – PVP_716 | BN 77460A

UHF Panel

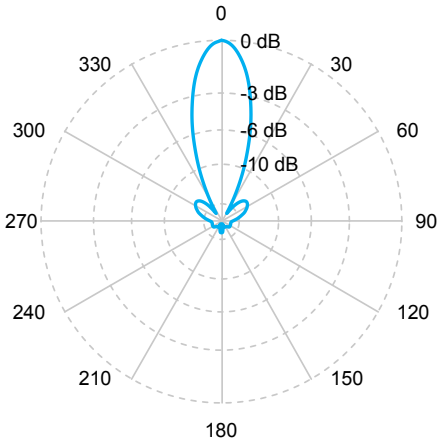
- Building block for various antenna set-ups
- Particularly suitable for arrays on 4-sided carriers

Part number (BN)	**77460A**
Radio Frequency Characteristics	
Input	7-16 female
Max. power	1.75 kW
Frequency	470 – 862 MHz
Polarization	Vertical
Gain	11.0 – 13.0 dBd
Return loss, min.	25 dB
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Dimensions (LxWxD)	1090 mm x 579 mm x 271 mm
Weight	12 kg
Effective area front	0.55 m²
Effective area side	0.4 m²
Mounting	4x12 mm bolts
Survival windspeed	240 km/h
Pressurization	Up to input connector
Material	Radiator: aluminium Reflector: aluminium Radome: fiberglass
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Vertical polarization



Vertical Radiation Pattern E/E$_{max}$

Vertical polarization

UHF-Band IV/V Antenna – PVP_78 | BN 77464A

UHF Panel

- Building block for various antenna set-ups
- Particularly suitable for arrays on 4-sided carriers
- N probe at antenna input

Part number (BN)	**77464A**

Radio Frequency Characteristics

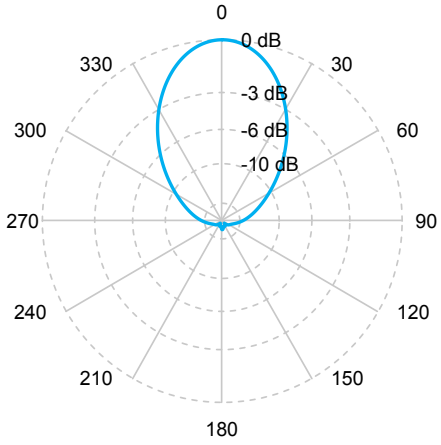
Input	7/8" EIA
Max. power	2.5 kW
Frequency	470 – 862 MHz
Polarization	Vertical
Gain	11.0 - 13.0 dBd
Return loss, min.	25 dB
Impedance	50 Ohm unbalanced

Mechanical Characteristics

Dimensions (LxWxD)	1090 mm x 579 mm x 271 mm
Weight	12 kg
Effective area front	0.55 m²
Effective area side	0.4 m²
Mounting	4x12 mm bolts
Survival windspeed	240 km/h
Pressurization	Up to input connector
Material	Radiator: aluminium Reflector: aluminium Radome: fiberglass

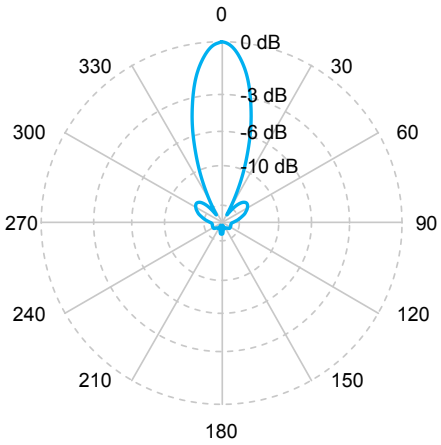
Environmental Conditions

Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Vertical polarization



Vertical Radiation Pattern E/E$_{max}$

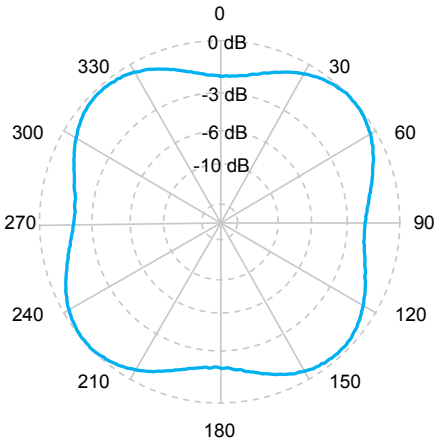
Vertical polarization

UHF-Band IV/V Antenna – STA8-LMP | BN 76066A

UHF Superturnstile

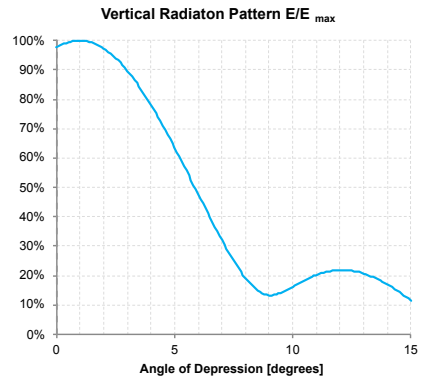
- Low wind load
- Omnidirectional radiation pattern
- Plug-and-Play antenna

Part number (BN)	**76066A**
Radio Frequency Characteristics	
Input	1 5/8" EIA
Max. power	5 kW
Frequency	470 – 862 MHz
Polarization	Horizontal
Gain	10.1 dBd
Return loss, min.	20 dB
Impedance	50 Ohm unbalanced
Mechanical Characteristics	
Dimensions (LxD)	4400 mm x 269 mm
Weight	80 kg
Effective area	0.75 m²
Mounting	4x12 mm bolts
Survival windspeed	225 km/h
Pressurization	Up to input connector
Material	Support: hot-dipped galvanized steel Radome: fiberglass
Environmental Conditions	
Operation	
Ambient temperature range	-40 to +60 C°



Horizontal Radiation Pattern E/E$_{max}$

Horizontal polarization



Vertical Radiation Pattern E/E$_{max}$

Horizontal polarization

Accessories

Power Dividers

Power dividers are used to distribute the transmitter energy to various radiators in a system, usually with up to 8-way division. Equal power dividers as well as unequal power dividers with a wide range of power ratios are available and may be engineered to customers requirements.

- Broadband design for FM, VHF or UHF Band
- Various DIN, EIA or IEC connectors available
- Low insertion losses and low VSWR

Radio Frequency Characteristics

Input	Nf, 7-16f, 13-30f, 7/8" EIA, 1 5/8" EIA, 4 ½" IEC, 6 1/8" EIA	
Frequency	VHF Band I VHF FM Band II VHF ATC VHF Band III UHF ATC UHF Band IV/V	47 – 88 MHz 87.5 – 108 MHz 118 – 138 MHz 174 – 230 MHz (up to 240 MHz on request) 225 – 400 MHz 470 – 862 MHz
Input return loss	> 32 dB (> 23 dB for ATC products)	
Insertion loss, typically	< 0.1 dB	
No. of outputs, power division ratio	On request	
Power division variation (unequal split), typically	< ± 10% of specified ratio	
Output phase variation (unequal split), typically	< ± 10°	
Impedance	50 Ohm	

Mechanical Characteristics

Dimensions (LxW)	Depends on product, contact SPINNER for details.
Weight	Depends on product, contact SPINNER for details.
Mounting	By means of special clamps, to be ordered separately
Material	Inner conductor: Silver plated brass or aluminum Outer conductor: Copper or brass with protective paint, RAL 7035
Pressurization	Product is pressure tight, typical operational pressure 300 mbar

Environmental Conditions

Operation	
Ambient temperature range	-40 to +60 C°

RF Cable Products for Broadcast Antennas

SPINNER Connection Cables – Engineered for Performance. Built for Reliability.

SPINNER connection cables are manufactured at our Lauenstein facility in Saxony, Germany, where precision engineering meets uncompromising quality standards. We use only premium-grade cables and connectors to ensure outstanding electrical and mechanical performance.

Every assembled cable harness undergoes 100% testing, including comprehensive reflection and phase measurements. Each unit is individually verified and clearly labeled, guaranteeing consistent performance, maximum operational reliability, and seamless integration into demanding broadcast systems.

For broadcast applications, the following jumper cable sizes are available:

- Foam dielectric cables: 1/2", 7/8", 1 5/8"
- Air dielectric cables: 7/8", 1 1/8", 1 5/8"

To ensure perfect compatibility, SPINNER offers these cables with a broad selection of connectors:

- N male, 7-16 male, 13-30 male, 7/8" EIA, 1 5/8" EIA

RF main feeder cables up to 6 1/8" are available, complete with matching accessories – delivering reliable performance even under the most demanding conditions.

Fixation Brackets, Steel Spines & GRP Radomes

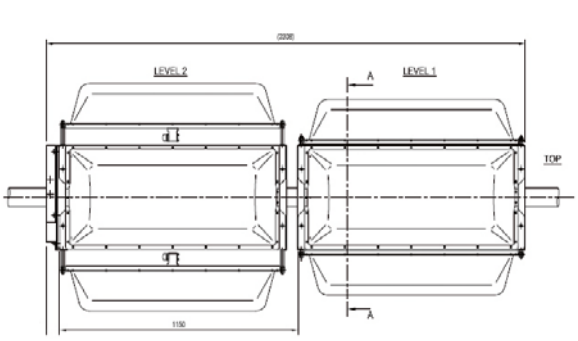
Reliable performance starts with a solid structure. SPINNER provides high-quality fixation brackets, steel spines, and GRP radomes designed to exactly fit to the system requirements, ensuring durability, and long-term operational safety of broadcast antenna systems.

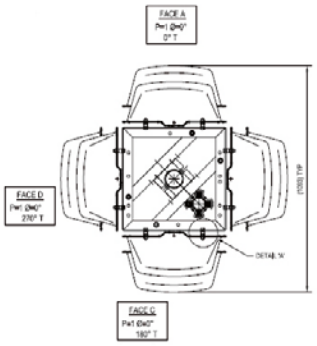
Our antenna and splitter support structures are available as standardized components or as fully customized solutions tailored to site-specific requirements.

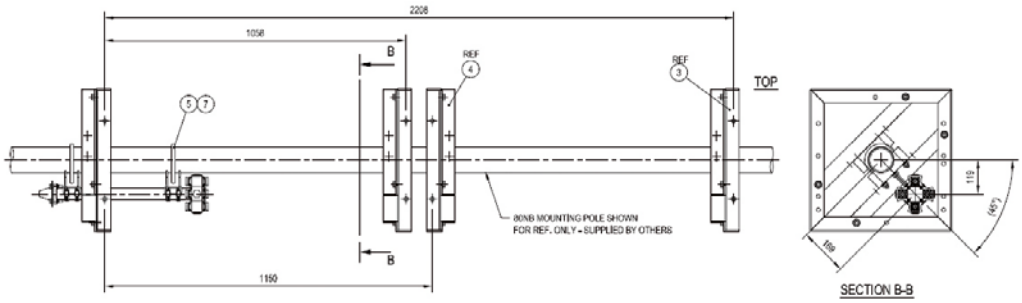
Our scope of supply includes:

- Mechanical design and engineering
- Static and dynamic structural calculations
- Manufacturing and delivery
- Pre-installation and system integration support

By combining structural expertise with broadcast system know-how, SPINNER ensures reliable installation, simplified assembly, and long-term performance even under demanding environmental conditions.







Inquiry Form

Please provide the following information so we can design the optimal antenna for your needs.

Please send form to:
bc@spinner-group.com

Company Information

Company name			
Contact person			
Address			
Phone		Email	
Others			

Station Information

Station name	
Coordinates	

Project Information

Frequency [MHz]/Channel/Block	1.	2.	3.	4.	5.
Tx Power[kW]/Channel/Block	1.	2.	3.	4.	5.
Transmitting System:	Analog ☐	Digital ☐			
Min. power rating for System [kW]:					
Polarization:	Horizontal ☐	Vertical ☐	Slant ☐	Circular ☐	Elliptical ☐
Antenna gain [dBd]:	Panels per bay:	No. of bays:		ERP (kW):	
Combiner:	Yes ☐ No ☐	Direct Acces Unit: Yes ☐ No ☐		Patch panel: Yes ☐ No ☐	
Half antenna mode:	Yes ☐ No ☐	Half Power ☐	Full Power ☐	1 Feeder ☐	2 Feeder ☐

Horizontal Radiation Pattern

Omnidirectional ☐	Directional ☐
If not omnidirectional, please specify requirements on extra papers.	

Vertical Radiation Pattern

Beam tilt (in degrees)		Null-fill (in %)	

Tower/Mast

	Square ☐	Triangular ☐	Round ☐	Pipe mast ☐
Azimuth direction of tower face				
Side length or diameter				

Feeder Cable

Cable	Size	Air ☐	Foam ☐
Connectors	Size	Connector Types	
	Length (m):	Dehydrator	Yes ☐ No ☐

Remarks

Special climatic conditions (e.g. height above sea level, ambient temperature > 40° C, etc.)

HIGH FREQUENCY PERFORMANCE WORLDWIDE

SPINNER designs and builds cutting-edge radio frequency systems, setting performance and longevity standards for others to follow. The company's track record of innovation dates back to 1946, and many of today's mainstream products are rooted in SPINNER inventions.

Industry leaders continue to count on SPINNER's engineering excellence to drive down their costs of service and ownership with premium-quality, off-the-shelf products and custom solutions. Headquartered in Munich, Germany, the global frontrunner in RF components remains the first choice in simple-yet-smart RF solutions.

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