







**S**ono lieto di darvi il benvenuto nel mondo dei prodotti Protel e festeggiare con Voi un traguardo molto importante per tutti noi, 35 anni di attività. Era il 1988 quando iniziò la nostra avventura, che ci ha portato oggi a riconoscere con estremo orgoglio di aver fatto un buon lavoro.

L'entusiasmo e la caparbia costante, ci ha consentito di progettare e produrre antenne che oggi sono apprezzate in tutto il mondo e che consentono a centinaia di migliaia di persone di comunicare tutti i giorni tra loro in qualsiasi ambiente e condizione climatica. Questo per noi è il miglior biglietto da visita, motivo di gratificazione professionale e stimolo per ogni collaboratore che lavora nella nostra azienda. In questi 35 anni, la grande passione e l'impegno ci hanno

sempre guidato e spronato a raggiungere tutti gli obiettivi che le nostre idee e quelle dai nostri clienti ci hanno imposto. Questo ci ha consentito di crescere insieme a loro e raggiungere risultati sempre più ambiziosi ed importanti.

**N**on vi nascondo che ogni tanto ripercorrendo tutti questi anni a ritroso e ripensando a tutte le avventure, i progetti gli studi e prove fatte, nasce un leggero senso di mestizia per il tempo passato, ma questa sensazione è subito sedata da i costanti importanti obiettivi che tutti i giorni chiunque lavora nella nostra azienda si pone. La nostra filosofia e quella di cercare costantemente di migliorare qualsiasi cosa noi progettiamo e costruiamo per offrire a tutti i nostri clienti un prodotto sempre più performante e rispondente alle esigenze del mercato e delle richieste che ci pervengono. **NON** abbiamo mai ignorato o sottovalutato nessuna richiesta specifica, gran parte del nostro catalogo che oggi vede più di duecento prodotti, è stata realizzata su input diretto o indiretto dei nostri clienti, senza contare le decine e decine di progetti che abbiamo studiato e prodotto ma che non sono stati resi pubblici. Io vi confermo che sono molto felice di aver raggiunto questo importante traguardo con Voi. Sono anche sicuro che se non siete ancora nostri clienti, lo diventerete in futuro, perché se siete veri appassionati, progettisti o utilizzatori esigenti, prima o poi penserete di provare una nostra antenna e ne apprezzerete sicuramente i risultati. Io vi do appuntamento al prossimo traguardo e Vi posso personalmente assicurare che il nostro impegno è sempre ai massimi livelli al fine di realizzare prodotti sempre più affidabili, competitivi e rispondenti alle Vostre richieste.

### **Roberto Anzelmo**

(Founder & CEO)

*\* I am pleased to welcome you to the Protel products' world and celebrate with you all a very important achievement for us, 35 years of business. It was back in 1988 when our adventure began, and now, looking back after 34 years, we can recognize with great pride that we have done a good job. Sturdy enthusiasm and tenacity allowed us to design, produce and improve antennas and communication systems that are widely appreciated all over the world and allow hundreds of thousands of people to communicate every day in any environment and climate. This is for us the best presentation, a reason for professional gratification for every employee working in our company. During the last 35 years, our great passion, commitment and ideas always made us reach all the goals, creating long last relationships with highly satisfied customers. This commitment to our customers' satisfaction allowed us to grow together and achieve ambitious and important results, even more. I cannot hide the fact that every now and then, looking back to all these years and thinking about all the adventures, the projects, the studies and the tests done; there is a slight sense of nostalgia for the time gone by. However, this feeling is immediately mitigated by the sense of achievement and gratification, besides the constant ambitious goals that every day anyone working in our company sets.*

*Our company philosophy is to constantly seek excellence in everything we design and create, in order to offer our customers premium products that meet the needs of the market and the demand. We have never ignored or underestimated any specific request. Our catalog now sees more than 200 products, and it has been created over the years following the close collaboration with our customers and stakeholders. Protel can also count dozens of projects studied, designed and produced, but never been made public. I am very happy to have achieved this important goal with you all.*

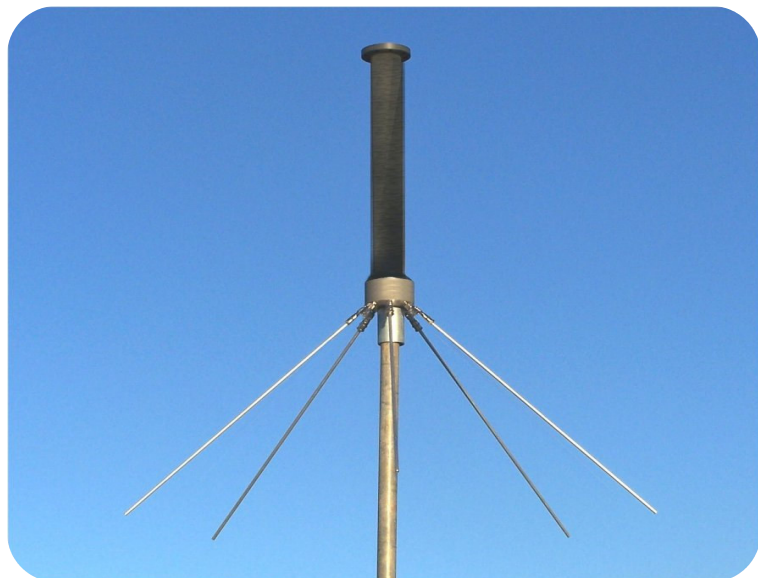
*If you are not one of our customers yet, I am sure that you will become one in the near future, if you are true enthusiast, a designer or demanding user, sooner or later you will come across to one our antennas and you will definitely appreciate the results.*

*Let me invite you to the next challenge and I can personally assure you that our commitment will always be at the highest level in order to make products even more reliable and competitive, and to meet and exceed your requirements.*

**Roberto Anzelmo**

(Founder & CEO)

PAGE	TYPE	FREQUENCY MHz
<b>OMNIDIRECTIONAL</b>		
1	AR0213XZ	87.5÷108
1	AR0213IRXZ	87.5÷108
2	AR0213EPZ	87.5÷108
3	AR0313AXZ DAB	174÷200
3	AR0313BXZ DAB	200÷240
3	AR0313AIRXZ DAB	174÷200
3	AR0313BIRXZ DAB	200÷240
4	ARM2FM	87.5÷108
5	ARM1DAB.A	174÷208
5	ARM1DAB.B	195÷240
<b>DIRECTIONAL</b>		
6	ARL60R/F80XZ	60÷80
7	ARL70V2500XZ	70÷2500
8	ARL70RF2500XZ	70÷2500
9	ARL80R/F150XZ	80÷150
10	ARL80R/F1500XZ	80÷1500
11	ARL87R/F108XZ	87.5÷108
12	ARL108R/F170XZ	108÷170
13	ARL100R/F500XZ	100÷500
14	ARL150R/F1300XZ	150÷1300
15	ARL170R/F250XZ	170÷250
16	ARL170R/F1000 XZ	170÷1000
17	ARL380/F3000XZ	380÷3000
18	ARL470F700XS	470÷700
19	ARL470SF790XZ	470÷790
20	ARL690F2700XZ	690÷2700
21	ARK101XZ <small>HANDHELD INTERFERENCE FINDER</small>	790-960/1710-2170/ 2500-2700
22	ARK102XZ <small>HANDHELD INTERFERENCE FINDER</small>	750÷1000
23	ARK103XZ <small>HANDHELD INTERFERENCE FINDER</small>	1350÷2200
24	ARBFAXZ <small>HANDHELD INTERFERENCE FINDER</small>	2400÷2700
24	ARBFAXZ <small>HANDHELD INTERFERENCE FINDER</small>	3400÷3700
24	ARBFAXZ <small>HANDHELD INTERFERENCE FINDER</small>	5100÷5850
<b>AMPLIFIER</b>		
25	LNA07400 <small>ULTRA LOW NOISE FIGURE</small>	700÷4000



### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	87.5÷108
<b>Bandwidth</b>	MHz	20.5
<b>Gain max .</b>	dBi	2.2
<b>Return loss</b>	dB	87.5-108 Mhz ≥ -12
<b>Return loss</b>	dB	90 - 104 Mhz ≥ -14
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V
<b>H beamwidth 98 Mhz</b>	-3 dB	360°
<b>E beamwidth 98 Mhz</b>	-3 dB	90°
<b>Max Power</b>	W	500 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension length</b>	mm	750XØ130
<b>Elements numbers</b>		4
<b>Weight without clamp</b>	kg	1.9
<b>Wind surface</b>	m <sup>2</sup>	0.05
<b>Front wind load</b>	Kg	2.1 ( 25 m/s )
<b>Mounting</b>	mm	Ø 30

### MATERIALS

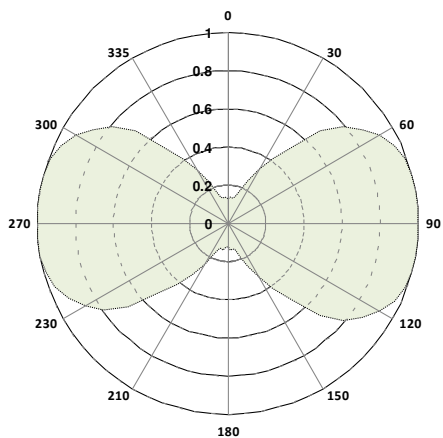
Anticorodal alluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

### ACCESSORIES

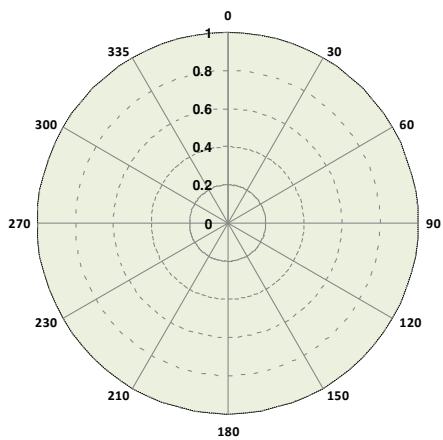
<b>SUPIS01</b>	Isolation fiberglass pole ø 35 x 1000
<b>BAG213xz</b>	Transport bag

### ORDERING AND PACKAGING INFORMATIONS

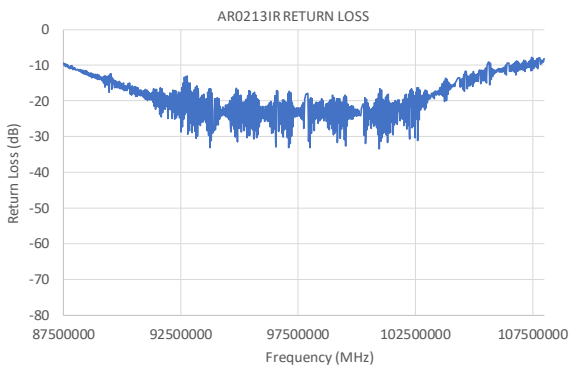
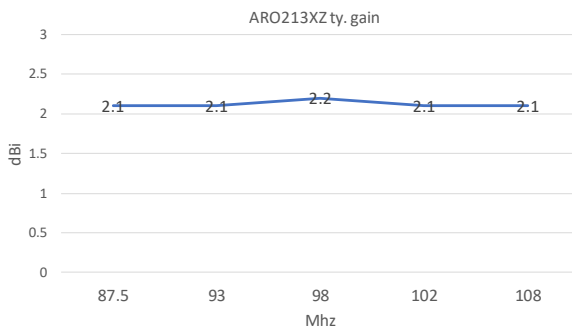
ARO213XZ	With unscrewed elements
ARO213IXZ	With folding elements
PACKAGING mm.	900x150x150 / weight 3 Kg without clamps



98 Mhz E plane



98 Mhz H plane



In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. ---- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation with periodical maintenance.



### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	87.5 ÷ 108
<b>Bandwidth</b>	MHz	20.5
<b>Gain max .</b>	dBi	2.2
<b>Return loss</b>	dB	87.5-108 Mhz ≥ -12
<b>Return loss</b>	dB	90 - 104 Mhz ≥ -14
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V
<b>H beamwidth 98 Mhz</b>	-3 dB	360°
<b>E beamwidth 98 Mhz</b>	-3 dB	90°
<b>Max Power</b>	W	500 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension length</b>	mm	750XØ130
<b>Bending Elements</b>	n.	4 x 0 ÷ 135°
<b>Weight without clamp</b>	kg	1.9
<b>Wind surface</b>	m <sup>2</sup>	0.05
<b>Front wind load</b>	Kg	2.1 ( 25 m/s )
<b>Mounting</b>	mm	Ø 30
<b>umidity filter</b>		

### MATERIALS

Anticorodal aluminium - Brass - Teflon

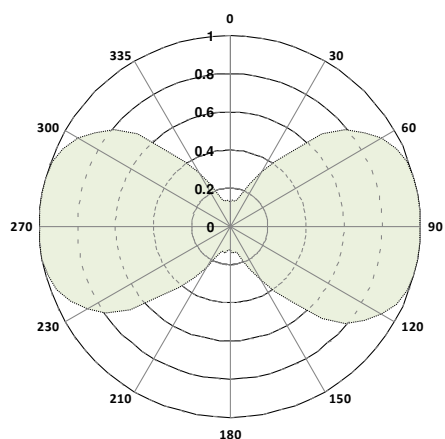
Polyvinyl chloride RoHS compliance IP65 Lanthane VS621

### ACCESSORIES

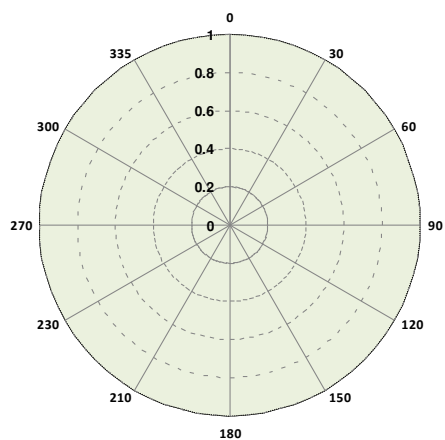
<b>ST213EI</b>	20X20 mobile mast adapter
<b>BAG213xz</b>	Transport bag

### ORDERING AND PACKAGING INFORMATIONS

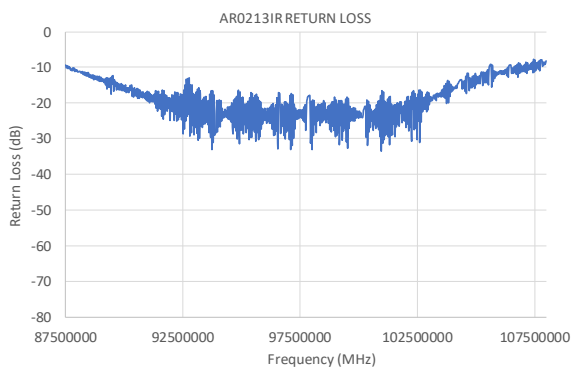
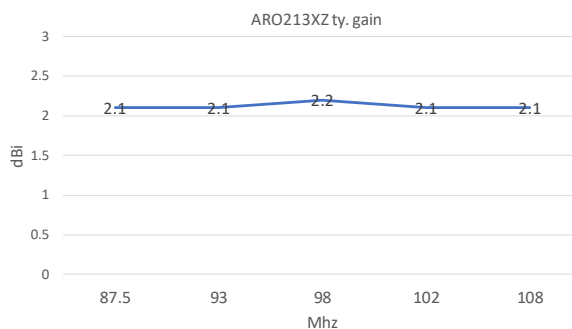
ARO213EPXZ	With bending elements ( <b>patent pending mechanism</b> )
ST213	Ø30 mm pole adapter
PACKAGING mm.	900x150x150 / weight 3 Kg without clamps



98 Mhz E plane



98 Mhz H plane



In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. ---- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation site and must control the installation with periodical maintenance.





# Antenna type. ARO313IRXZDAB ARO313XZDAB

OMNIDIRECTIONAL BROADBAND ANTENNA 174÷240 MHz



Antenna omnidirezionale per la banda VHF DAB 174÷ 240 Mhz. Studiata per impieghi fissi e mobili. Costruita di serie con copertura in cloruro di polivinile contro urti ed agenti atmosferici. Tutti gli elementi radianti, sono elettricamente collegati a massa. Per facilitare il trasporto, gli elementi sono ad innesto rapido (AR0313IRXZDAB) o svitabili (AR0313XZDAB). Di serie viene fornito il giunto di fissaggio Ø 30 mm. tra l'antenna ed il palo di sostegno.

Omnidirectional antenna for the VHF DAB band 174÷ 240 Mhz. Studied for mobile and stationary applications. Built with a covering made in polyvinyl chloride against knocks and atmospheric agents. All the radiating elements, are electrically connected to ground. To facilitate transport, the elements are quick-fit (AR0313IRXZDAB) or unscrewable (AR0313XZDAB). Always standard equipment is provided the coupling fixing Ø 30 mm between the antenna and the pole.

## ELECTRICAL DATA

Frequency range A	MHz	174 ÷ 200
Frequency range B	Mhz	200 ÷ 240
Bandwidth	MHz	40
Gain typ.	dBi	2.2
Return loss 30 Mhz	dB	≥-12
Return loss 10 Mhz	dB	≥-25
Nominal impedance	Ω	50
Polarization		V
E beamwidth typ.	-3 dB	95°
H beamwidth typ.	-3 dB	360°

Max Power	W	500
Connector		N female
Lightning protection	All metal parts are D.C. grounded	

## MECHANICAL DATA

Dimension length	mm	640 x 375
Weight	kg	1.95
Ice protection	polyvinyl chloride full radome	

## MATERIALS

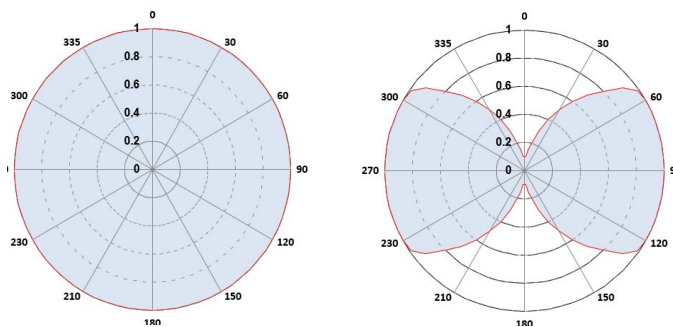
Aluminium – Teflon – Brass – Stainless steel

## ACCESSORIES

CODE	TYPE	DIMEN.	WEIGHT
Supis03	□ alluminium	30x500	0,9 kg.

## ORDERING INFORMATION

AR0313XZ DAB	A	170 ÷ 200	Mhz
AR0313XZ DAB	B	200 ÷ 240	Mhz
AR0313IRXZ DAB	A	170 ÷ 200	Mhz
AR0313IRXZ DAB	B	200 ÷ 240	Mhz









In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. ---- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation site and must control the installation with periodical maintenance.

Updating  
10/2016

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-  BROADBAND FM ANTENNA
-  OMNIDIRECTIONAL PATTERN
-  LINEAR POLARIZATION
-  INDEPENDENT GROUND PLANE
-  HIGH MECHANICAL PERFORMANCE
-  FULL RADOME - D.C. GROUNDED

• Antenna omnidirezionale mobile con base magnetica per la banda FM 87.5÷108 MHz. La copertura protettiva in UPVC preserva l'antenna anche da forti e violenti agenti atmosferici. L'antenna è elettricamente a massa per proteggere perfettamente i dispositivi radio ad essa collegati. Il fissaggio rapido è ottenuto tramite tre forti magneti posizionati a 120 ° sotto il disco di riferimento.

• Omnidirectional mobile antenna with magnetic base for the FM band 87.5 ÷ 108 MHz. The protective cover in UPVC protects the antenna even from strong and violent atmospheric agents. The antenna is electrically grounded to perfectly protect the radio devices connected to it. Quick fixing is achieved by means of three strong magnets positioned 120 ° below the reference disc.

• Antena móvil omnidireccional con base magnética para la banda FM 87,5 ÷ 108 MHz. La cubierta protectora en UPVC protege la antena incluso de agentes atmosféricos fuertes y violentos. La antena está eléctricamente conectada a tierra para proteger perfectamente los dispositivos de radio conectados a ella. La fijación rápida se logra mediante tres potentes imanes colocados 120 ° por debajo del disco de referencia

• Antenne mobile omnidirectionnelle avec base magnétique pour la bande FM 87,5 ÷ 108 MHz. Le capot de protection en UPVC protège l'antenne même des agents atmosphériques forts et violents. L'antenne est mise à la terre électriquement pour protéger parfaitement les appareils radio qui y sont connectés. La fixation rapide est obtenue au moyen de trois aimants puissants positionnés à 120° sous le disque de référence

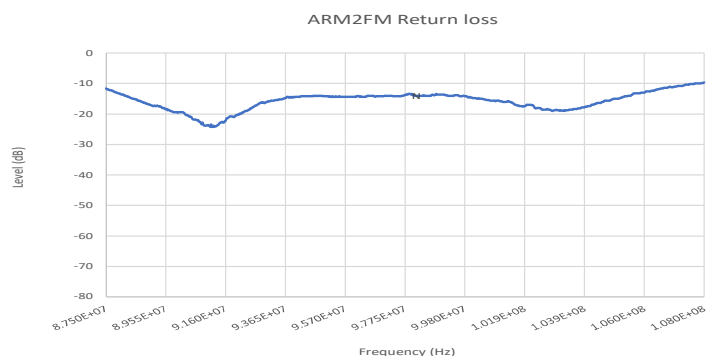
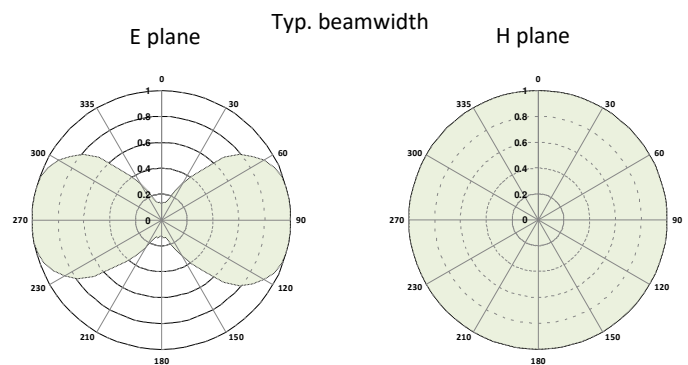
ELECTRICAL DATA		
Frequency range	MHz	87.5 ÷ 108
Gain max.	dBi	2.2
Return loss max.	dB	≥ -12
VSWR max.		≤ 1.67:1
Nominal impedance	Ω	50
Polarization	Ω	V
H beamwidth typ.	-3 dB	360°
E beamwidth typ.	-3 dB	80°
Max Power	W	500
Connector		N f.
Operating temp.	°C	-20÷70°
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	880 x Ø 310 x Ø 100
Weight	kg	4.5
Max. speed of movement	Km/h	110
Mounting	mm	n. 3 magnets 120 ° Ø122

**MATERIALS**  
Aluminium – Teflon – Polyvinyl chloride -RoHS compliance

**ORDERING AND PACKAGING INFORMATION**  
packaging 400x400x1000

ACCESSORIES		
BAG-01	400X900X1300	Polyvinyl chloride suitcase 3 Kg



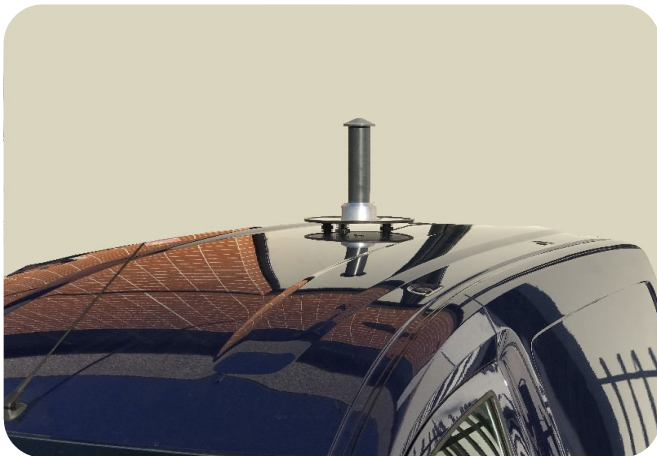
In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. --- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the installation site is compatible with the installation with periodical maintenance.



# Antenna type ARM1DAB.

MOBILE OMNIDIRECTIONAL T.DAB ANTENNA

## 174÷208/195÷240 MHz



- BROADBAND T.DAB ANTENNA
- OMNIDIRECTIONAL PATTERN
- LINEAR POLARIZATION
- INDEPENDENT GROUND PLANE
- HIGH MECHANICAL PERFORMANCE
- FULL RADOME - D.C. GROUNDING

- Antenna omnidirezionale mobile con base magnetica per le bande digitali terrestri VHF DAB. Costruita in due modelli, ARM1DAB.A 174 - 208 MHz blocco 5A÷9D e ARM1DAB.B 195- 240 MHz blocco 8A÷13F. La copertura protettiva in UPVC preserva l'antenna anche da forti e violenti agenti atmosferici. L'antenna è elettricamente a massa per proteggere perfettamente i dispositivi radio ad essa collegati. Il fissaggio rapido è ottenuto tramite tre forti magneti posizionati a 120 ° sotto il disco di riferimento.
- Mobile omnidirectional antenna with magnetic base for digital terrestrial VHF DAB bands. Built in two models, ARM1DAB.A 174 - 208 MHz block 5A ÷ 9D and ARM1DAB.B 195-240 MHz block 8A ÷ 13F. The UPVC protective cover protects the antenna even from strong and violent atmospheric agents. The antenna is electrically grounded to perfectly protect the radio devices connected to it. Quick fixing is obtained by means of three strong magnets positioned 120° under the reference disk.
- Antena omnidireccional móvil con base magnética para bandas digitales terrestres VHF DAB. Construido en dos modelos, ARM1DAB.A 174 - 208 MHz bloque 5A ÷ 9D y ARM1DAB.B 195-240 MHz bloque 8A ÷ 13F. La cubierta protectora de UPVC protege la antena incluso de agentes atmosféricos fuertes y violentos. La antena está conectada a tierra para proteger perfectamente los dispositivos de radio conectados a ella. La fijación rápida se obtiene mediante tres imanes fuertes colocados a 120° debajo del disco de referencia.
- Antenne omnidirectionnelle mobile à base magnétique pour bandes DAB VHF terrestres numériques. Construit en deux modèles, ARM1DAB.A 174 - 208 MHz bloc 5A ÷ 9D et ARM1DAB.B 195-240 MHz bloc 8A ÷ 13F. Le capot de protection UPVC protège l'antenne même des agents atmosphériques forts et violents. L'antenne est mise à la terre pour protéger parfaitement les appareils radio qui y sont connectés. La fixation rapide est obtenue au moyen de trois aimants puissants positionnés à 120° sous le disque de référence.

### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	174÷208 block 5A÷9D
<b>Frequency range B</b>	MHz	195÷240 block 8A÷13F
<b>Gain max.</b>	dBi	2.2
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>		V
<b>H beamwidth typ.</b>	-3 dB	360°
<b>E beamwidth typ.</b>	-3 dB	80°
<b>Max Power</b>	W	500
<b>Connector</b>		N f.
<b>Operating temp.</b>	°C	-20÷70°
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension length</b>	mm	400 x ø85 ground ø350
<b>Weight without magnets</b>	kg	2.5
<b>Rated wind velocity</b>	Km/h	180
<b>Mounting</b>	mm	n. 3 magnets 120 ° ø122

### MATERIALS

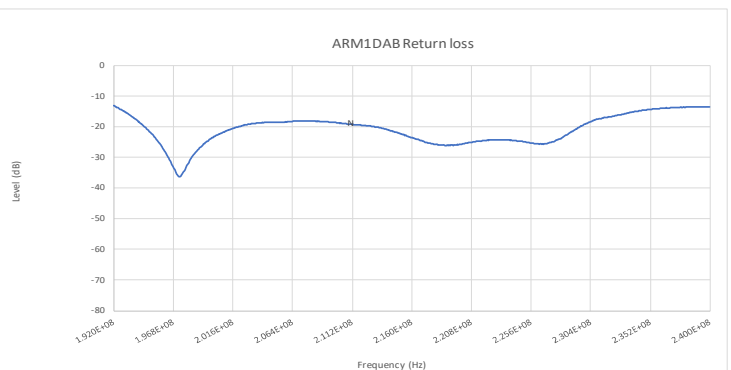
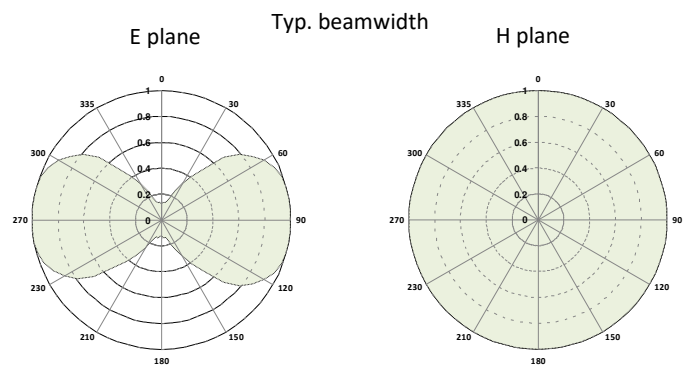
Aluminium -Teflon -Polyvinyl chloride -RoHS compliance

### ORDERING AND PACKAGING INFORMATION

**packaging** 400x400x100

### ACCESSORIES

**BAG-01** | 920X360X130 | Polyvinyl chloride suitcase 3 Kg



In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. --- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the installation site is compatible with the installation with periodical maintenance.

Updating  
06/2020

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### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	60 ÷ 80
<b>Bandwidth</b>	MHz	20
<b>Gain max .</b>	dBi	7.4
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 60 Mhz</b>	-3 dB	110°
<b>H beamwidth 70 Mhz</b>	-3 dB	140°
<b>H beamwidth 80 Mhz</b>	-3 dB	120°
<b>E beamwidth 60 Mhz</b>	-3 dB	60°
<b>E beamwidth 70 Mhz</b>	-3 dB	60°
<b>E beamwidth 80 Mhz</b>	-3 dB	60°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension length</b>	mm	2520X1700x130
<b>Weight without clamp</b>	kg	5
<b>Elements number</b>		5
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.11
<b>Front wind load</b>	Kg	0.81 (25 m/s)
<b>Side wind load</b>	Kg	3.38 (25 m/s)
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

### MATERIALS

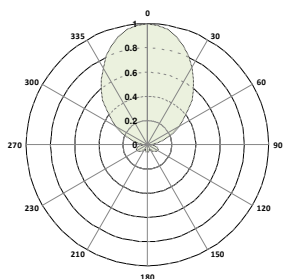
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

### ACCESSORIES

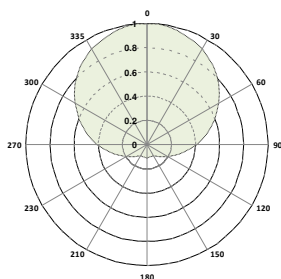
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG6080</b>	Transport bag

### ORDERING AND PACKAGING INFORMATIONS

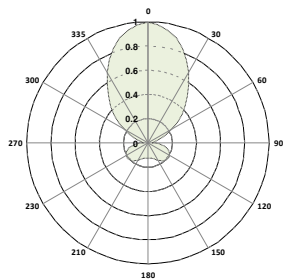
ARL60F80XZ	With unscrewed elements
ARL60R80XZ	With folding elements
PACKAGING mm.	1850x200x200 / weight 3.8 Kg without clamps



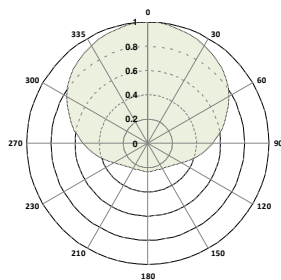
60 Mhz E plane



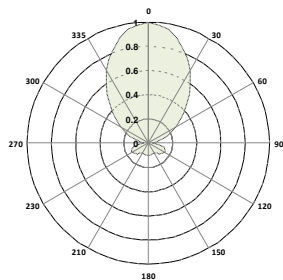
60 Mhz H plane



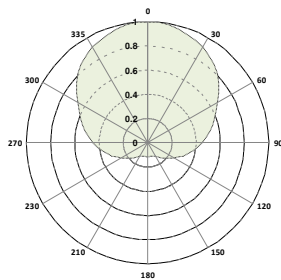
70 Mhz E plane



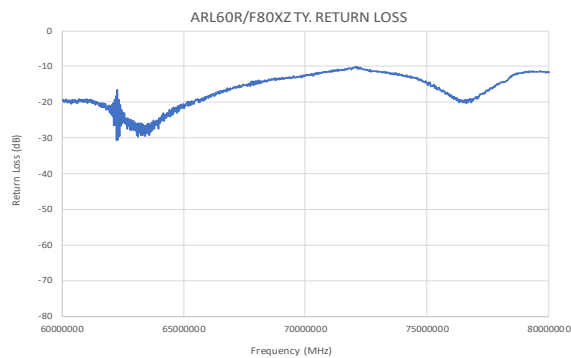
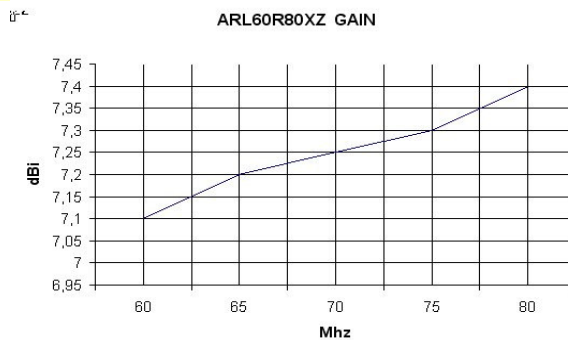
70 Mhz H plane



80 Mhz E plane



80 Mhz H plane



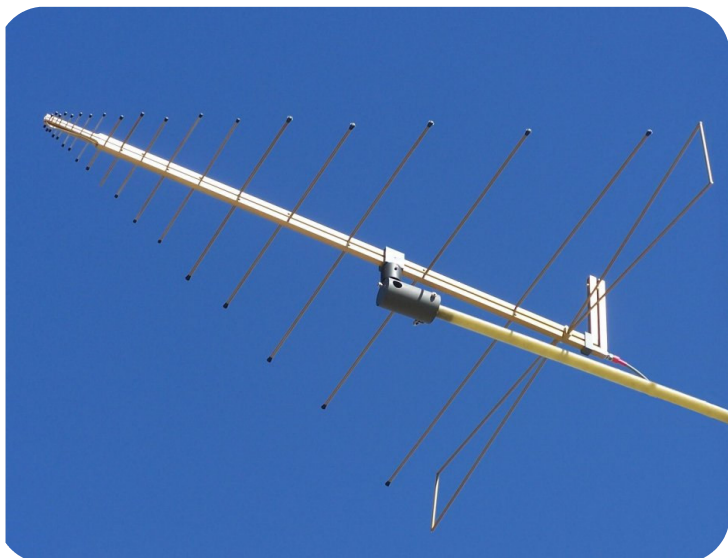
In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. --- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation site and must control the installation with periodical maintenance.



# Antenna type ARL70V2500XZ

DIRECTIONAL BROADBAND ANTENNA

**70 ÷ 2500** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	70 ÷ 2500
<b>Bandwidth</b>	MHz	2430
<b>Gain max .</b>	dBi	6.5
<b>Return loss</b>	dB	≥ -11
<b>VSWR</b>		≤ 1.8:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 70 Mhz</b>	-3 dB	140°
<b>H beamwidth 200 Mhz</b>	-3 dB	125°
<b>E beamwidth 2000 Mhz</b>	-3 dB	100°
<b>E beamwidth 70 Mhz</b>	-3 dB	90°
<b>E beamwidth 200 Mhz</b>	-3 dB	70°
<b>E beamwidth 2000 Mhz</b>	-3 dB	90°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	1750(mast)X1800x120
<b>Elements numbers</b>		19
<b>Weight without clamp</b>	kg	4.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.17
<b>Front wind load</b>	Kg	1.1 ( 25 m/s )
<b>Side wind load</b>	Kg	6.5 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

## MATERIALS

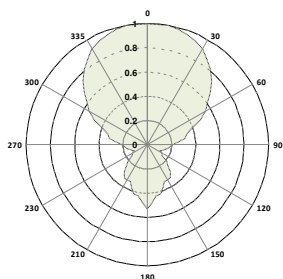
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

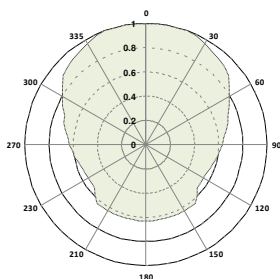
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35x1000
<b>BAG702500</b>	Transport bag

## ORDERING AND PACKAGING INFORMATIONS

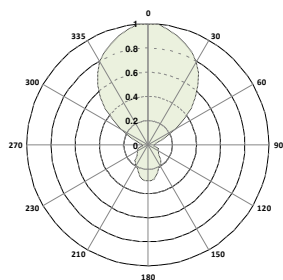
PACKAGING mm. | 1850x200x200 / weight 5.5 Kg without clamps



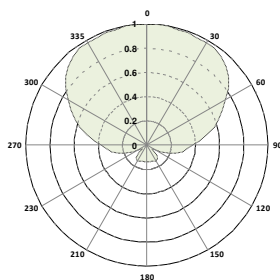
70 Mhz E plane



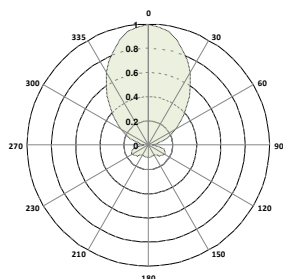
70 Mhz H plane



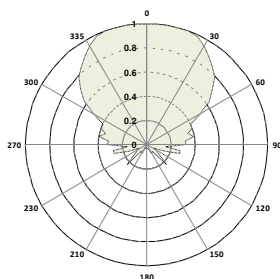
200 Mhz E plane



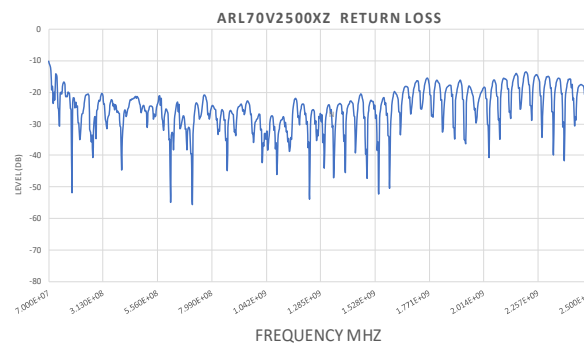
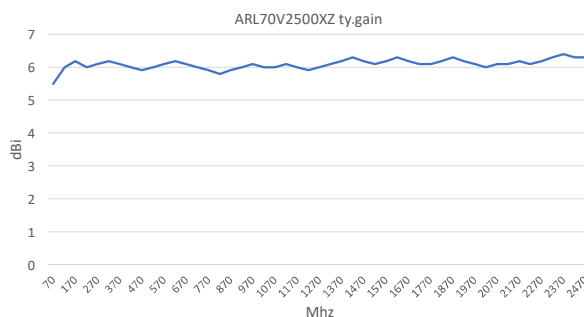
200 Mhz H plane



2000 Mhz E plane



2000 Mhz H plane



In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. --- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation site and must control the installation with periodical maintenance.

Updating  
02/2017

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# Antenna type ARL70R/F2500XZ

DIRECTIONAL BROADBAND ANTENNA

**70 ÷ 2500** MHz

## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	70 ÷ 2500
<b>Bandwidth</b>	MHz	2430
<b>Gain max .</b>	dBi	6.5
<b>Return loss</b>	dB	≥ -11
<b>VSWR</b>		≤ 1.8:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 70 Mhz</b>	-3 dB	140°
<b>H beamwidth 200 Mhz</b>	-3 dB	125°
<b>E beamwidth 2000 Mhz</b>	-3 dB	100°
<b>E beamwidth 70 Mhz</b>	-3 dB	90°
<b>E beamwidth 200 Mhz</b>	-3 dB	70°
<b>E beamwidth 2000 Mhz</b>	-3 dB	90°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	2015(mast)X1940x120
<b>Elements numbers</b>		19
<b>Weight without clamp</b>	kg	4.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.17
<b>Front wind load</b>	Kg	1.1 ( 25 m/s )
<b>Side wind load</b>	Kg	6.5 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

## MATERIALS

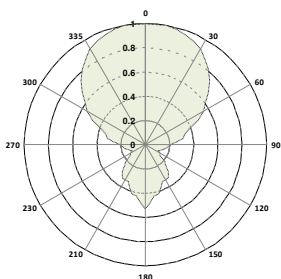
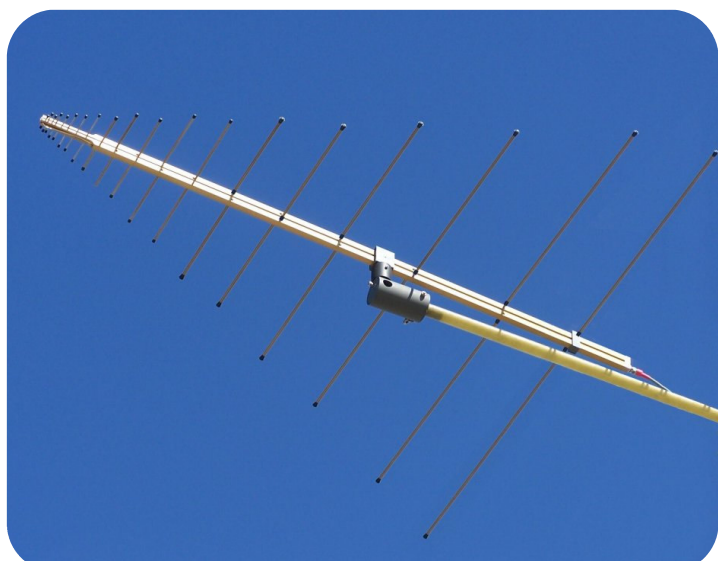
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

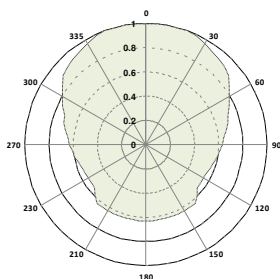
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35x1000
<b>BAG702500</b>	Transport bag

## ORDERING AND PACKAGING INFORMATION

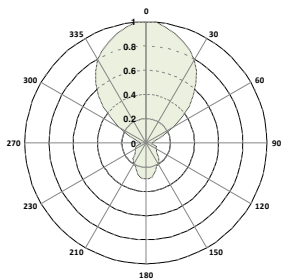
ARL70 <b>F</b> 2500XZ	With unscrewed elements
ARL70 <b>R</b> 2500XZ	With folding elements
<b>PACKAGING</b> mm.	2200x200x200 / weight 5.5 Kg without clamps



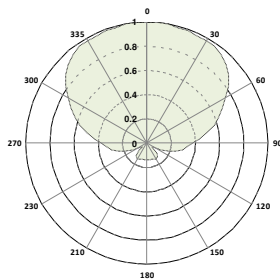
70 Mhz E plane



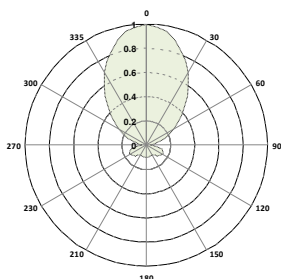
70 Mhz H plane



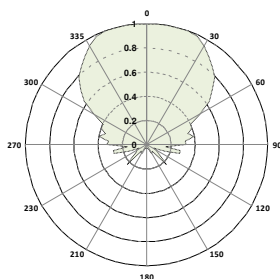
200 Mhz E plane



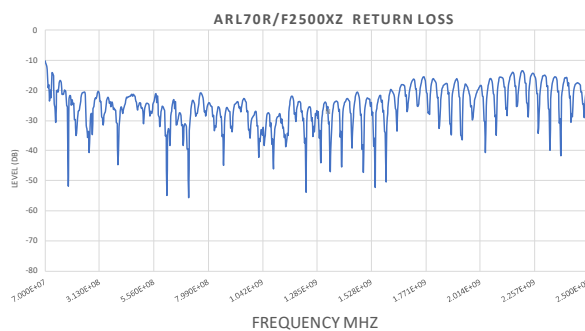
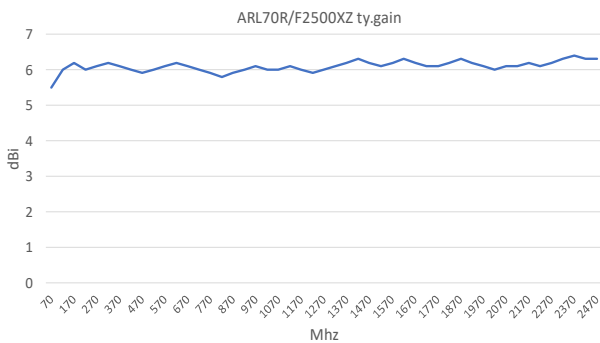
200 Mhz H plane



2000 Mhz E plane



2000 Mhz H plane



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Updating  
02/2017

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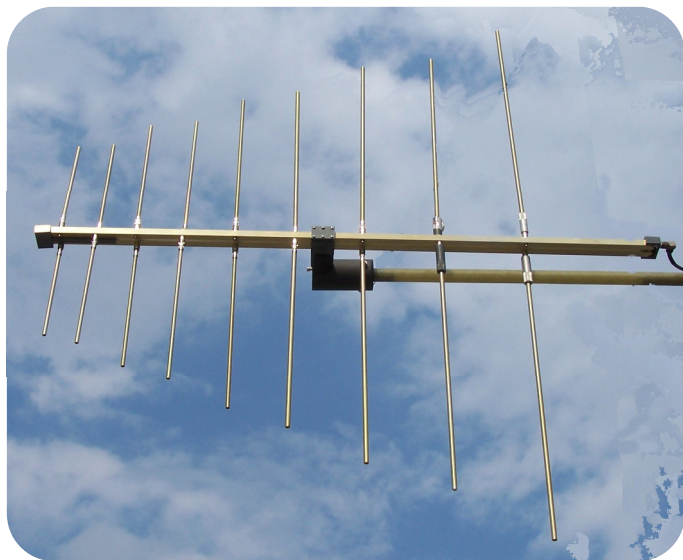




# Antenna type ARL80R/F150XZ

DIRECTIONAL BROADBAND ANTENNA

**80 ÷ 150** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	80 ÷ 150
<b>Bandwidth</b>	MHz	70
<b>Gain max .</b>	dBi	8.8
<b>Return loss</b>	dB	≥ -12
<b>VSWR</b>		≤ 1.7:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 88 Mhz</b>	-3 dB	110°
<b>H beamwidth 110 Mhz</b>	-3 dB	100°
<b>H beamwidth 2000 Mhz</b>	-3 dB	110°
<b>E beamwidth 88 Mhz</b>	-3 dB	60°
<b>E beamwidth 110 Mhz</b>	-3 dB	60°
<b>E beamwidth 140 Mhz</b>	-3 dB	70°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	length 1580X h1850x130
<b>Elements numbers</b>		9
<b>Weight without clamp</b>	kg	4.8
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.17
<b>Front wind load</b>	Kg	1.1 ( 25 m/s )
<b>Side wind load</b>	Kg	6.5 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

## MATERIALS

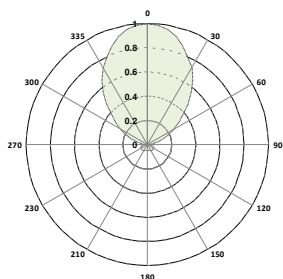
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

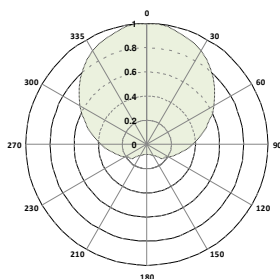
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG80150</b>	Transport bag

## ORDERING AND PACKAGING INFORMATIONS

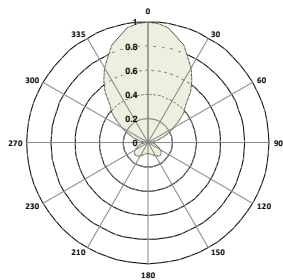
<b>ARL80F150XZ</b>	With unscrewed elements
<b>ARL80R150XZ</b>	With folding elements
<b>PACKAGING mm.</b>	1600x200x200 / weight 6 Kg without clamps



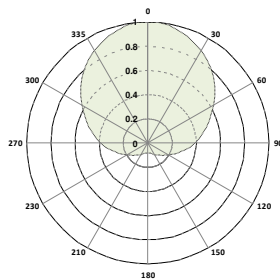
88 Mhz E plane



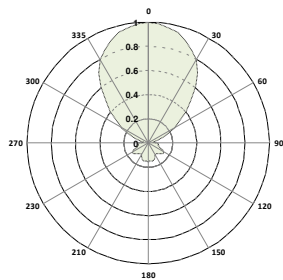
88 Mhz H plane



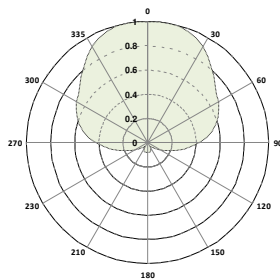
110 Mhz E plane



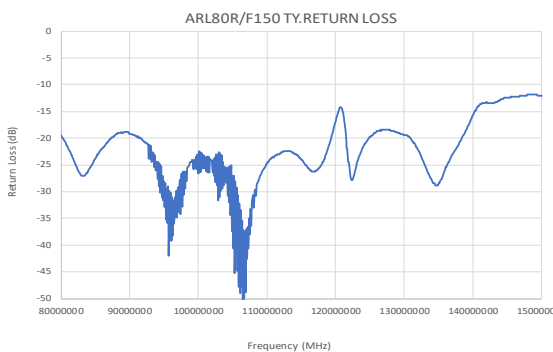
110 Mhz H plane



140 Mhz E plane



140 Mhz H plane



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Updating  
02/2017

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# Antenna type ARL80R/F1500XZ

DIRECTIONAL BROADBAND ANTENNA

**80 ÷ 1500** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	80÷1500
<b>Bandwidth</b>	MHz	1420
<b>Gain max .</b>	dBi	8.5
<b>Return loss</b>	dB	≥ -11
<b>VSWR</b>		≤ 1.8:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 100 Mhz</b>	-3 dB	120°
<b>H beamwidth 400 Mhz</b>	-3 dB	120°
<b>H beamwidth 1200Mhz</b>	-3 dB	90°
<b>E beamwidth 100 Mhz</b>	-3 dB	60°
<b>E beamwidth 400 Mhz</b>	-3 dB	70°
<b>E beamwidth 1200 Mhz</b>	-3 dB	90°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	1480xh1730x130
<b>Elements numbers</b>		21
<b>Weight without clamp</b>	kg	4.5
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.13
<b>Front wind load</b>	Kg	1.1 ( 25 m/s )
<b>Side wind load</b>	Kg	4.9 ( 25 m/s )
<b>Mounting</b>	mm	standard polarizer Ø 30

## MATERIALS

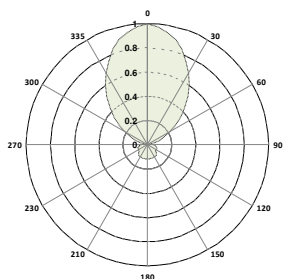
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

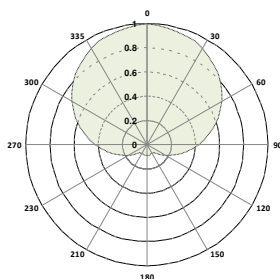
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35x1000
<b>BAG801500</b>	Transport bag

## ORDERING AND PACKAGING INFORMATIONS

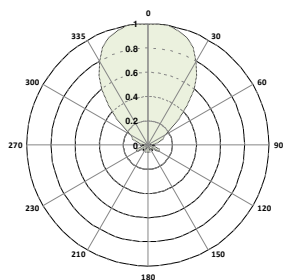
<b>ARL80F1500XZ</b>	With unscrewed elements
<b>ARL80R1500XZ</b>	With folding elements
<b>PACKAGING mm.</b>	1500x200x200 / weight 5 Kg without clamps



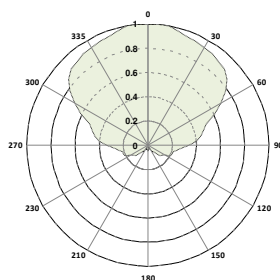
100 Mhz E plane



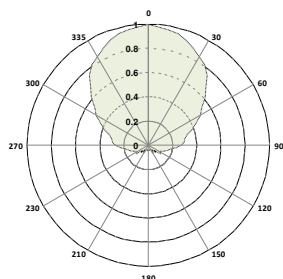
100 Mhz H plane



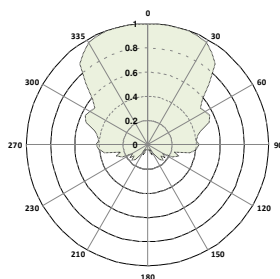
400 Mhz E plane



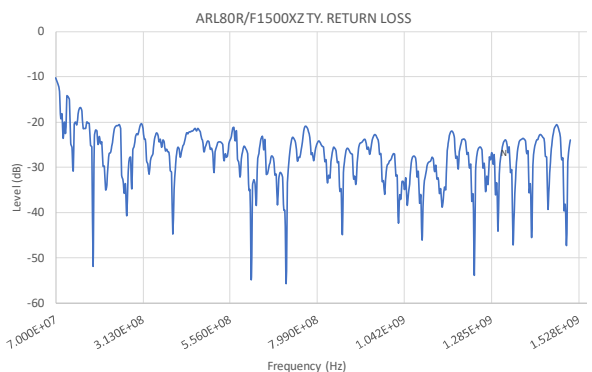
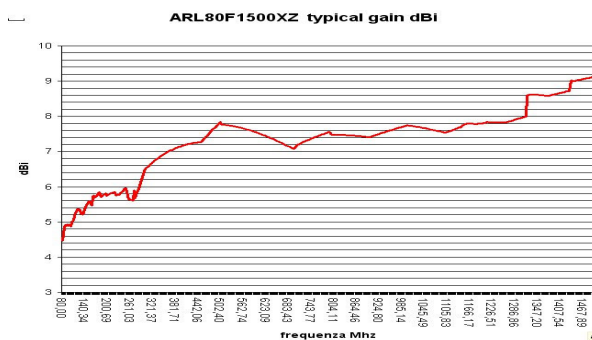
400 Mhz H plane



1200 Mhz E plane



1200 Mhz H plane



In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. --- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation site and must control the installation with periodical maintenance.

Updating  
02/2017

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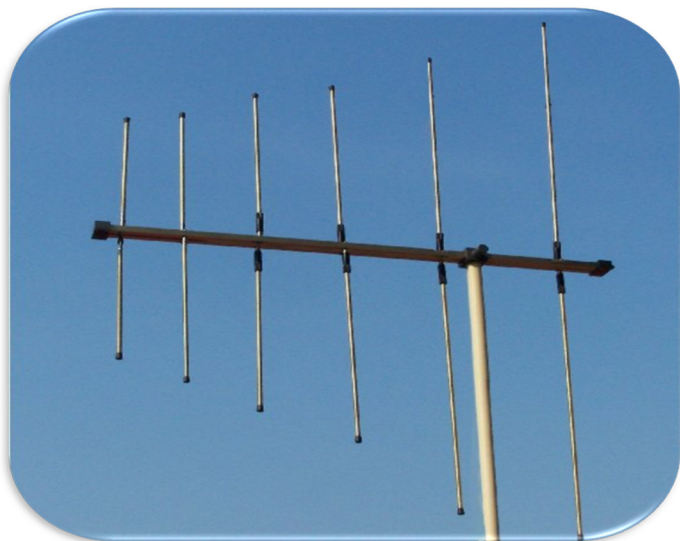




# Antenna type ARL87R/F108XZ

DIRECTIONAL BROADBAND ANTENNA

**87.5 ÷ 108** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	87,5÷108
<b>Bandwidth</b>	MHz	20.5
<b>Gain max .</b>	dBi	7.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 88 Mhz</b>	-3 dB	140°
<b>H beamwidth 98 Mhz</b>	-3 dB	120°
<b>H beamwidth 103 Mhz</b>	-3 dB	120°
<b>E beamwidth 88 Mhz</b>	-3 dB	70°
<b>E beamwidth 98 Mhz</b>	-3 dB	80°
<b>E beamwidth 103 Mhz</b>	-3 dB	70°
<b>Max Power</b>	W	300 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	length1420Xh1760x130
<b>Elements numbers</b>		6
<b>Weight without clamp</b>	kg	3.7
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.13
<b>Front wind load</b>	Kg	1.1 ( 25 m/s )
<b>Side wind load</b>	Kg	4.9 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

## MATERIALS

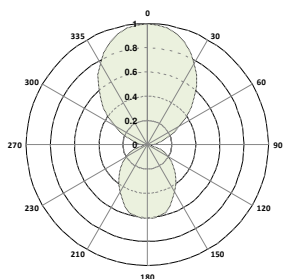
Anticorodal alluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

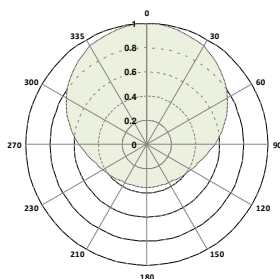
<b>SUPIS01</b>	Isolation fiberglass pole Ø35 x 1000
<b>BAG87108</b>	Transport bag

## ORDERING AND PACKAGING INFORMATIONS

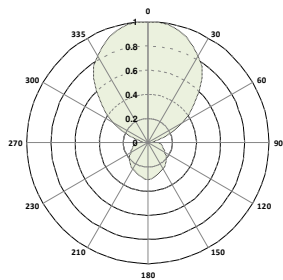
ARL87 <b>F</b> 108XZ	With unscrewed elements
ARL87 <b>R</b> 108XZ	With folding elements
<b>PACKAGING</b> mm.	1500x200x200 / weight 5 Kg without clamps



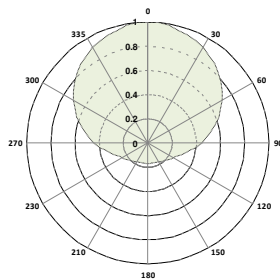
88 Mhz E plane



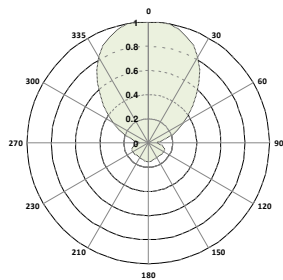
88 Mhz H plane



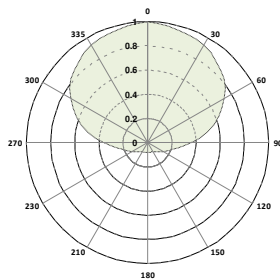
98 Mhz E plane



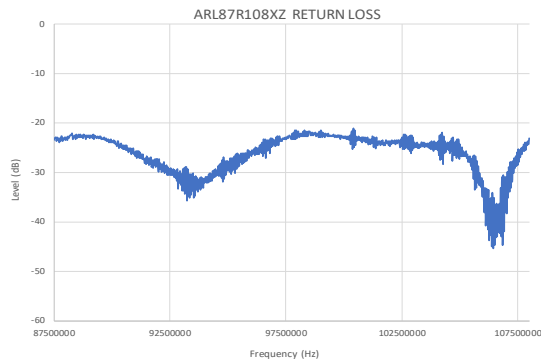
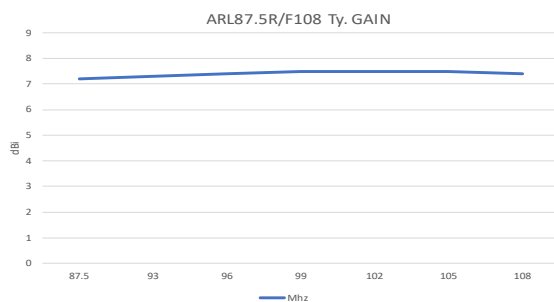
98 Mhz H plane



103 Mhz E plane



103 Mhz H plane



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Updating  
02/2017

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# Antenna type ARL108R/F170XZ

DIRECTIONAL BROADBAND ANTENNA

## 108 ÷ 170 MHz



### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	108÷170
<b>Bandwidth</b>	MHz	62
<b>Gain max .</b>	dBi	9.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 108 Mhz</b>	-3 dB	90°
<b>H beamwidth 140 Mhz</b>	-3 dB	80°
<b>H beamwidth 170Mhz</b>	-3 dB	80°
<b>E beamwidth 108 Mhz</b>	-3 dB	60°
<b>E beamwidth 140 Mhz</b>	-3 dB	50°
<b>E beamwidth 170 Mhz</b>	-3 dB	80°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension length</b>	mm	1733Xh1384x130
<b>Elements numbers</b>		9
<b>Weight without clamp</b>	kg	3.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.17
<b>Front wind load</b>	Kg	1.1 ( 25 m/s )
<b>Side wind load</b>	Kg	4.7 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

### MATERIALS

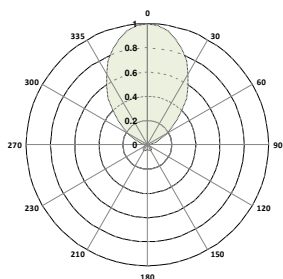
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

### ACCESSORIES

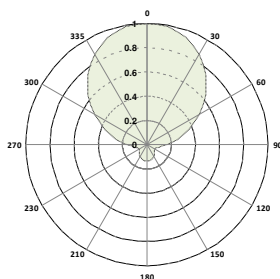
<b>SUPIS01</b>	Isolation fiberglass pole Ø35 x 1000
<b>BAG108170</b>	Transport bag

### ORDERING AND PACKAGING INFORMATIONS

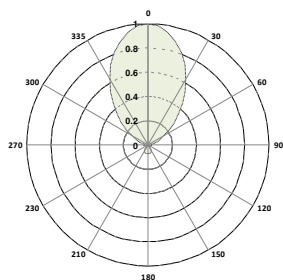
ARL108 <b>F</b> 170XZ	With unscrewed elements
ARL108 <b>R</b> 170XZ	With folding elements
<b>PACKAGING</b> mm.	1800x200x200 / weight 5 Kg without clamps



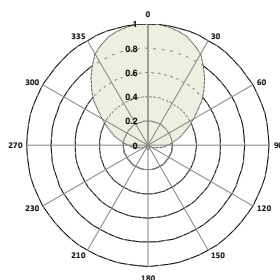
108 Mhz E plane



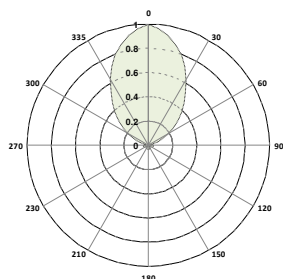
108 Mhz H plane



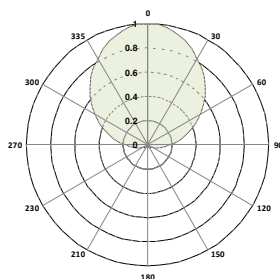
140 Mhz E plane



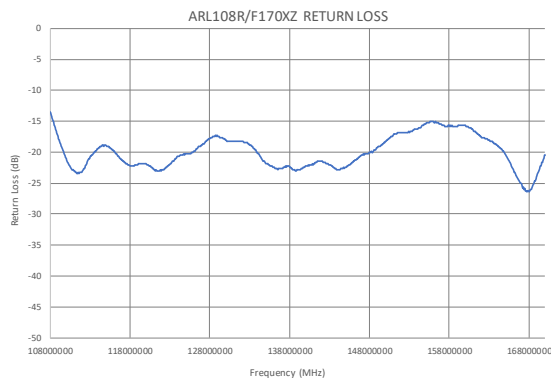
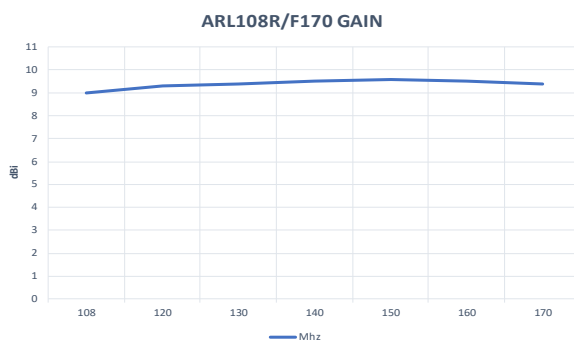
140 Mhz H plane



170 Mhz E plane



170Mhz H plane



In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. --- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the installation site is compatible with the installation with periodical maintenance.

Updating  
02/2017

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# Antenna type ARL100R/F500XZ

DIRECTIONAL BROADBAND ANTENNA

**100 ÷ 500** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	100÷500
<b>Bandwidth</b>	MHz	400
<b>Gain max .</b>	dBi	7
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 400 Mhz</b>	-3 dB	100°
<b>H beamwidth 250 Mhz</b>	-3 dB	110°
<b>H beamwidth 150 Mhz</b>	-3 dB	110°
<b>E beamwidth 400 Mhz</b>	-3 dB	70°
<b>E beamwidth 250 Mhz</b>	-3 dB	60°
<b>E beamwidth 150 Mhz</b>	-3 dB	80°
<b>Max Power</b>	W	100 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	1850xh1500x130
<b>Elements numbers</b>		18
<b>Weight</b>	kg	4.2
<b>Wind surface</b>	m <sup>2</sup>	Front 0.02 side 0.12
<b>Front wind load</b>	Kg	0.8 ( 25 m/s )
<b>Side wind load</b>	Kg	4.1 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	mechanical polarizer Ø 30

## MATERIALS

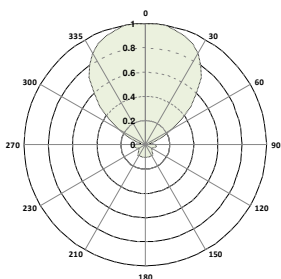
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance-

## ACCESSORIES

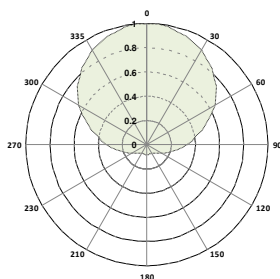
**BAG100F500** Transport bag

## ORDERING AND PACKAGING INFORMATION

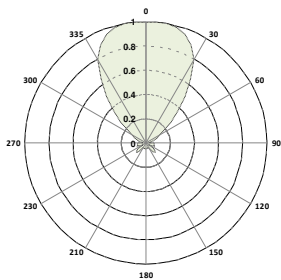
ARL100 <b>F</b> 500XZ	With unscrewed elements
ARL100 <b>R</b> 500XZ	With folding elements
<b>PACKAGING</b> mm.	1900x200x200 / weight 5 Kg



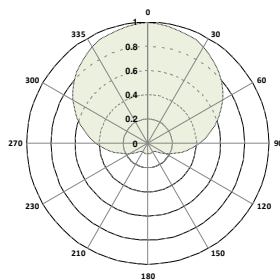
150 Mhz E plane



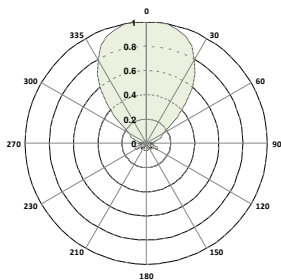
150 Mhz H plane



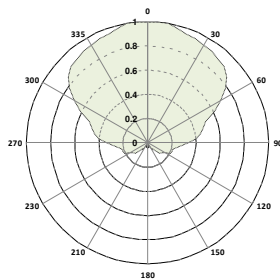
250 Mhz E plane



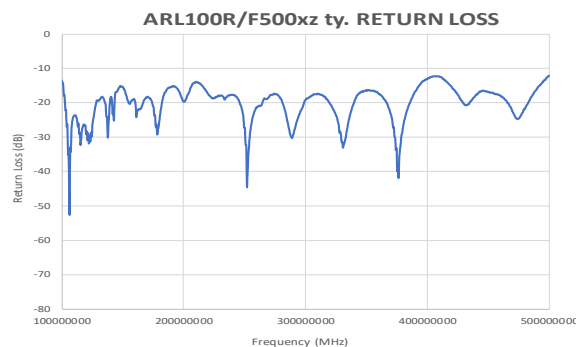
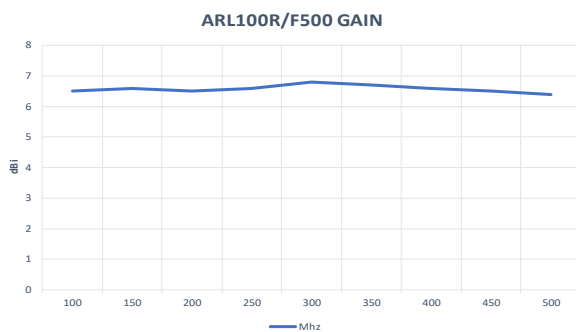
250 Mhz H plane



400 Mhz E plane



400Mhz H plane



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Updating  
04/2018

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# Antenna type ARL150R/F1300XZ

DIRECTIONAL BROADBAND ANTENNA

## 150 ÷ 1300 MHz



### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	150÷1300
<b>Bandwidth</b>	MHz	1150
<b>Gain max .</b>	dBi	9
<b>Return loss</b>	dB	≥ -11
<b>VSWR</b>		≤ 1.8:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 150 Mhz</b>	-3 dB	100°
<b>H beamwidth 400 Mhz</b>	-3 dB	70°
<b>H beamwidth 1000Mhz</b>	-3 dB	70°
<b>E beamwidth 150 Mhz</b>	-3 dB	60°
<b>E beamwidth 400 Mhz</b>	-3 dB	50°
<b>E beamwidth 1000 Mhz</b>	-3 dB	45°
<b>Max Power</b>	W	200 W

**Connector** Nf  
**Lightning protection** All metal parts are D.C. grounded

### MECHANICAL DATA

<b>Dimension length</b>	mm	1490Xh1100x130
<b>Elements numbers</b>		23
<b>Weight without clamp</b>	kg	3.3
<b>Wind surface</b>	m <sup>2</sup>	Front 0.02 side 0.13
<b>Front wind load</b>	Kg	0.8 ( 25 m/s )
<b>Side wind load</b>	Kg	4.9 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

### MATERIALS

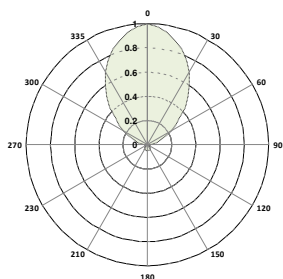
Anticorodal alluminium - Brass - Teflon  
 - Polyvinyl chloride - RoHS compliance

### ACCESSORIES

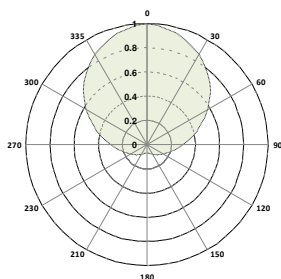
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG1501300</b>	Transport bag

### ORDERING AND PACKAGING INFORMATIONS

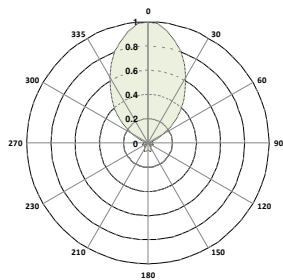
ARL150 <b>F</b> 1300XZ	With unscrewed elements
ARL150 <b>R</b> 1300XZ	With folding elements
<b>PACKAGING</b> mm.	1500x200x200 / weight 4.5 Kg without clamps



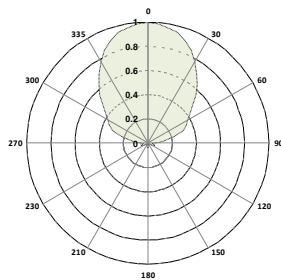
150 Mhz E plane



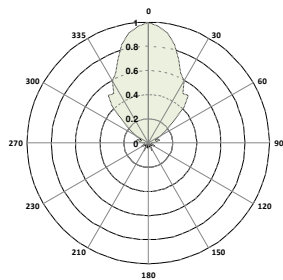
150 Mhz H plane



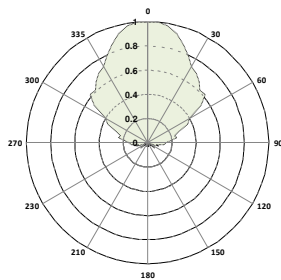
400 Mhz E plane



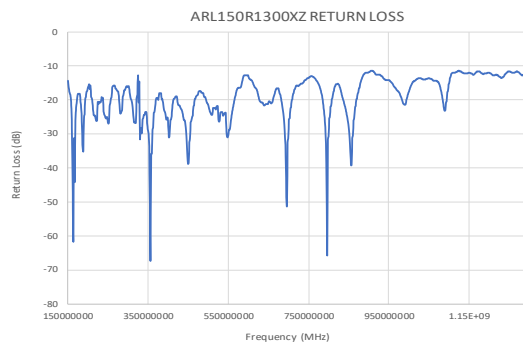
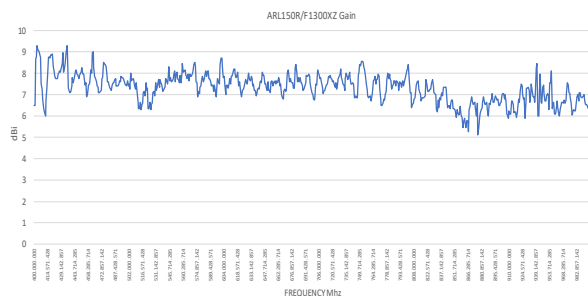
400 Mhz H plane



1000 Mhz E plane



1000 Mhz H plane



In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. ---- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation site and must control the installation with periodical maintenance.

Updating  
02/2017

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# Antenna type ARL170R/F250XZ

DIRECTIONAL BROADBAND ANTENNA

**170 ÷ 250** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	170 ÷ 250
<b>Bandwidth</b>	MHz	80
<b>Gain max .</b>	dBi	9.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 170 Mhz</b>	-3 dB	100°
<b>H beamwidth 200 Mhz</b>	-3 dB	80°
<b>H beamwidth 230 Mhz</b>	-3 dB	90°
<b>E beamwidth 170 Mhz</b>	-3 dB	60°
<b>E beamwidth 200 Mhz</b>	-3 dB	55°
<b>E beamwidth 230 Mhz</b>	-3 dB	50°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	1225X920x130
<b>Elements numbers</b>		8
<b>Weight without clamp</b>	kg	2.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.02 side 0.07
<b>Front wind load</b>	Kg	0.7 ( 25 m/s )
<b>Side wind load</b>	Kg	2.9 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

## MATERIALS

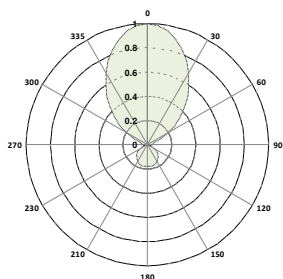
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

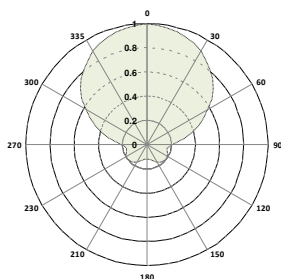
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG170250</b>	Transport bag

## ORDERING AND PACKAGING INFORMATIONS

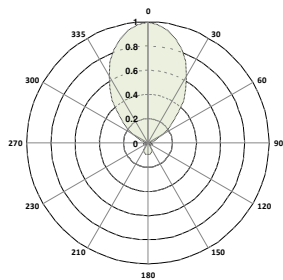
ARL170 <b>F</b> 250XZ	With unscrewed elements
ARL170 <b>R</b> 250XZ	With folding elements
<b>PACKAGING</b> mm.	1300x200x200 / weight 4 Kg



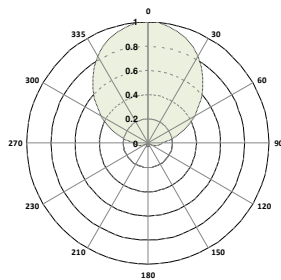
170 Mhz E plane



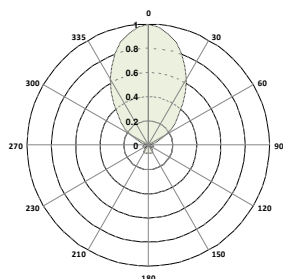
170 Mhz H plane



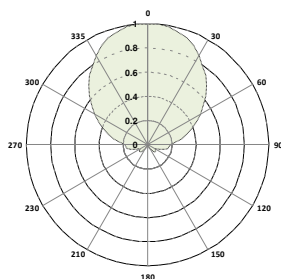
200 Mhz E plane



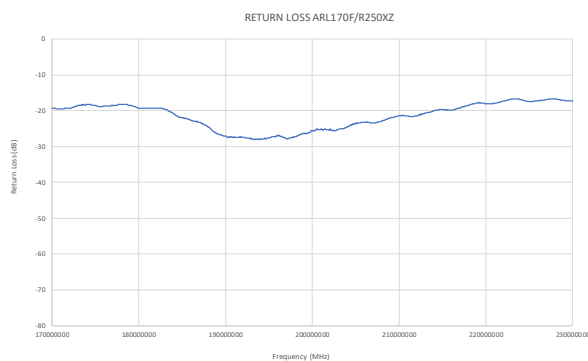
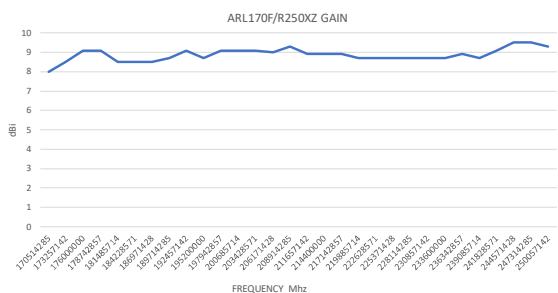
200 Mhz H plane



230 Mhz E plane



230 Mhz H plane



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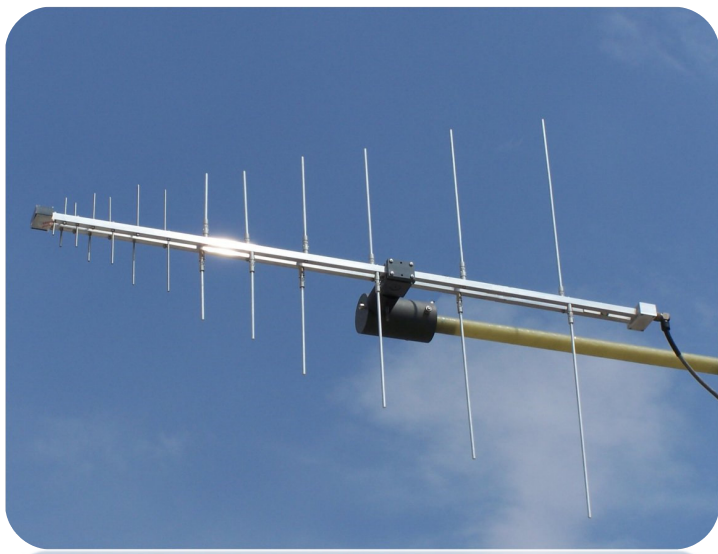




# Antenna type ARL170R/F1000XZ

DIRECTIONAL BROADBAND ANTENNA

170 ÷ 1000 MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	170 ÷ 1000
<b>Bandwidth</b>	MHz	830
<b>Gain max .</b>	dBi	9.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 170 Mhz</b>	-3 dB	130°
<b>H beamwidth 400 Mhz</b>	-3 dB	50°
<b>H beamwidth 700 Mhz</b>	-3 dB	70°
<b>E beamwidth 170 Mhz</b>	-3 dB	70°
<b>E beamwidth 400 Mhz</b>	-3 dB	50°
<b>E beamwidth 700 Mhz</b>	-3 dB	70°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	1070X1340x280
<b>Elements numbers</b>		14
<b>Weight without clamp</b>	kg	2.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.02 side 0.05
<b>Front wind load</b>	Kg	0.8 ( 25 m/s )
<b>Side wind load</b>	Kg	2.5 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

## MATERIALS

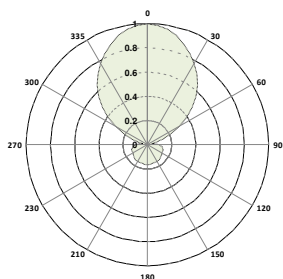
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

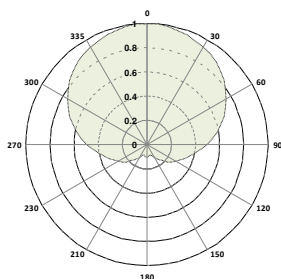
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG1701000</b>	Transport bag

## ORDERING AND PACKAGING INFORMATIONS

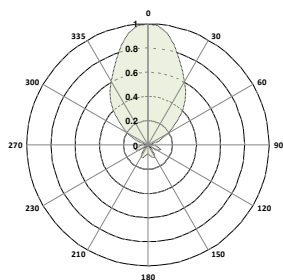
ARL170F1000XZ	With unscrewed elements
ARL170R1000XZ	With folding elements
<b>PACKAGING mm.</b>	1100x200x200 / weight 3.5 Kg



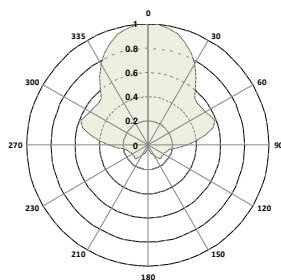
170 Mhz E plane



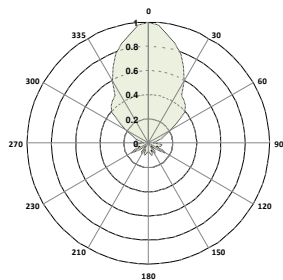
170 Mhz H plane



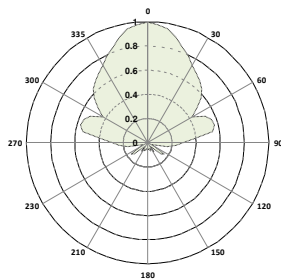
400 Mhz E plane



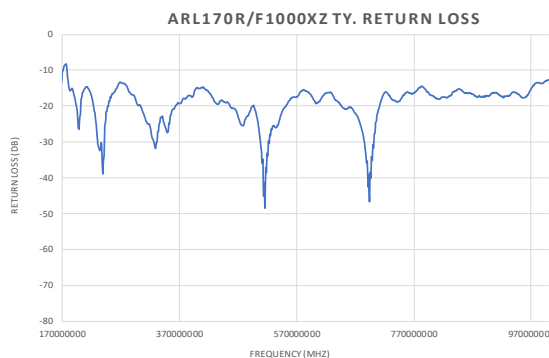
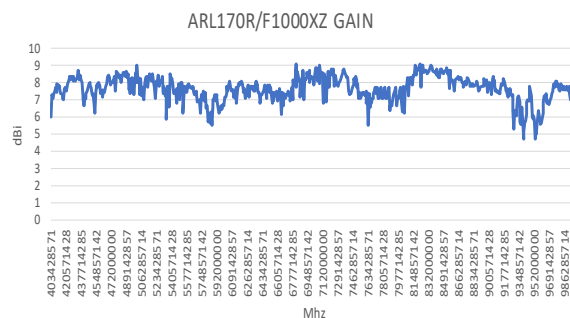
400 Mhz H plane



700 Mhz E plane



700 Mhz H plane



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Updating  
02/2017

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# Antenna type **ARL380F3000XZ**

DIRECTIONAL BROADBAND ANTENNA

**380 ÷ 3000** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	380 ÷ 3000
<b>Bandwidth</b>	MHz	2620
<b>Gain max .</b>	dBi	8.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 400 Mhz</b>	-3 dB	100°
<b>H beamwidth 1500 Mhz</b>	-3 dB	100°
<b>H beamwidth 3000 Mhz</b>	-3 dB	90°
<b>E beamwidth 400 Mhz</b>	-3 dB	80°
<b>E beamwidth 1500 Mhz</b>	-3 dB	60°
<b>E beamwidth 3000 Mhz</b>	-3 dB	60°
<b>Max Power</b>	W	100 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	700xh205x300
<b>Elements numbers</b>		24
<b>Weight</b>	kg	3.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.03 side 0.14
<b>Front wind load</b>	Kg	1.3 ( 25 m/s )
<b>Side wind load</b>	Kg	5.7 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	mechanical polarizer Ø30÷70

## MATERIALS

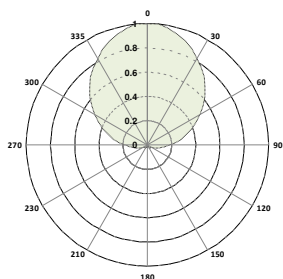
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance- fiberglass

## ACCESSORIES

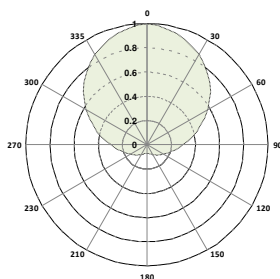
**BAG380F3000** Transport bag

## ORDERING AND PACKAGING INFORMATION

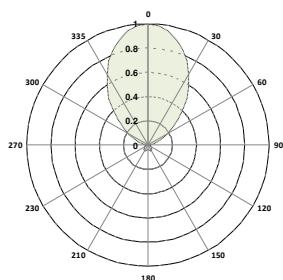
ARL380**F**3000XZ  
PACKAGING mm. 800x350x350 / weight 4.5 Kg



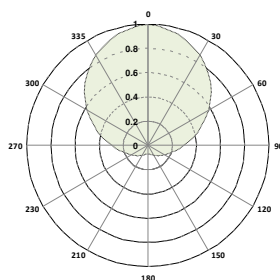
400 Mhz E plane



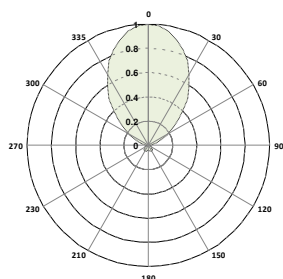
400 Mhz H plane



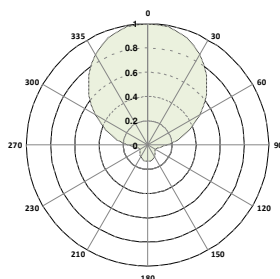
1500 Mhz E plane



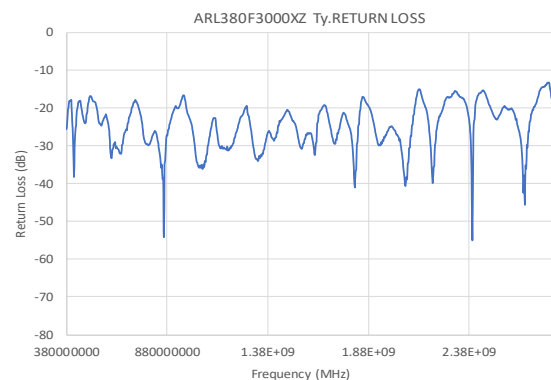
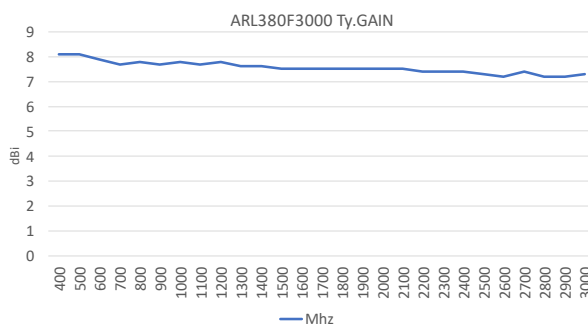
1500 Mhz H plane



3000 Mhz E plane



3000Mhz H plane



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# Antenna type ARL470F700XS

DIRECTIONAL BROADBAND ANTENNA

**470 ÷ 700** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	470 ÷ 700
<b>Bandwidth</b>	MHz	230
<b>Gain max .</b>	dBi	12
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 480 Mhz</b>	-3 dB	44°
<b>H beamwidth 600 Mhz</b>	-3 dB	48°
<b>H beamwidth 750 Mhz</b>	-3 dB	60°
<b>E beamwidth 480 Mhz</b>	-3 dB	40°
<b>E beamwidth 600 Mhz</b>	-3 dB	42°
<b>E beamwidth 750 Mhz</b>	-3 dB	42°
<b>Max Power</b>	W	300 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	1250X340x70
<b>Elements numbers</b>		17
<b>Weight without clamp</b>	kg	1.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.01 side 0.03
<b>Front wind load</b>	Kg	0.15 ( 25 m/s )
<b>Side wind load</b>	Kg	2.1 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

## MATERIALS

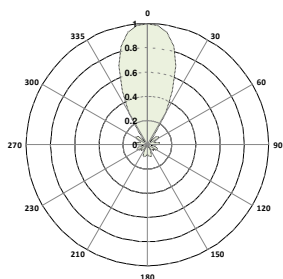
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

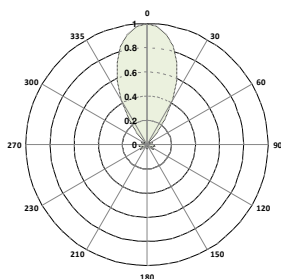
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG470F700</b>	Transport bag

## ORDERING AND PACKAGING INFORMATIONS

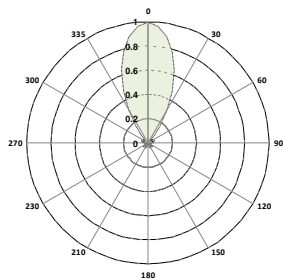
PACKAGING mm. | 1280x200x200 / weight 2.5 Kg



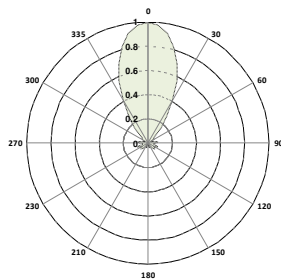
480 Mhz E plane



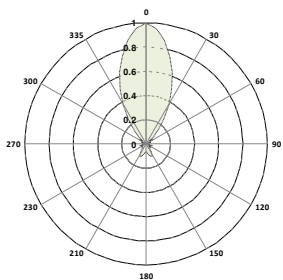
480 Mhz H plane



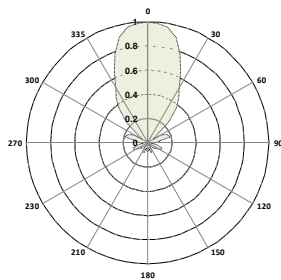
600 Mhz E plane



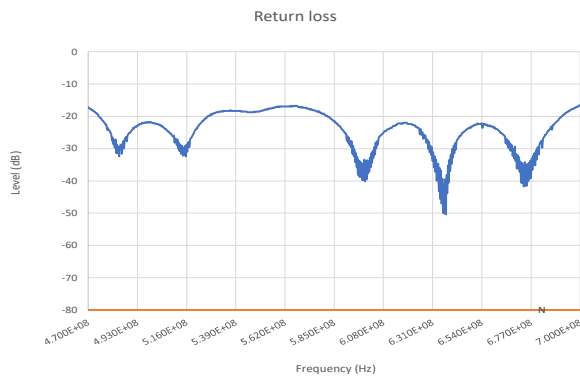
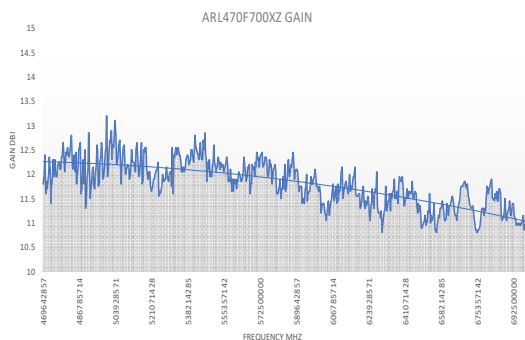
600 Mhz H plane



750 Mhz E plane



750 Mhz H plane



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Updating  
02/2023

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### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	470 ÷ 790
<b>Bandwidth</b>	MHz	320
<b>Gain max .</b>	dBi	12.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 480 Mhz</b>	-3 dB	40°
<b>H beamwidth 600 Mhz</b>	-3 dB	40°
<b>H beamwidth 750 Mhz</b>	-3 dB	45°
<b>E beamwidth 480 Mhz</b>	-3 dB	40°
<b>E beamwidth 600 Mhz</b>	-3 dB	36°
<b>E beamwidth 750 Mhz</b>	-3 dB	35°
<b>Max Power</b>	W	200 W
<b>Connector</b>		SMAf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension length</b>	mm	1940 (mast)X330x50
<b>Elements numbers</b>		23
<b>Weight without clamp</b>	kg	1.9
<b>Wind surface</b>	m <sup>2</sup>	Front 0.01 side 0.06
<b>Front wind load</b>	Kg	0.2 ( 25 m/s )
<b>Side wind load</b>	Kg	2.8 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

### MATERIALS

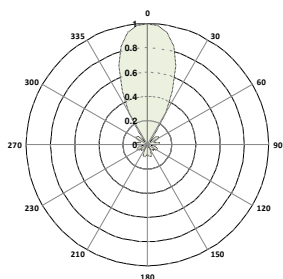
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

### ACCESSORIES

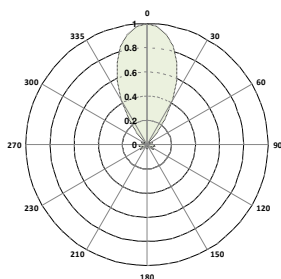
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG470F790</b>	Transport bag

### ORDERING AND PACKAGING INFORMATIONS

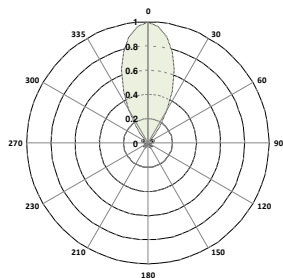
PACKAGING mm. | 1100x200x200 / weight 2.5 Kg



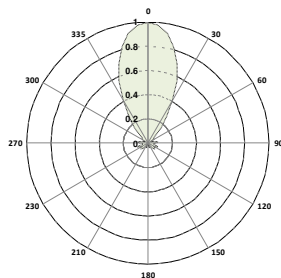
480 Mhz E plane



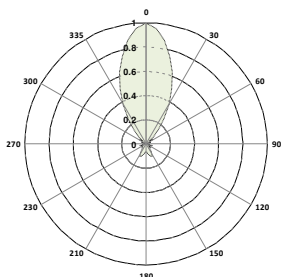
480 Mhz H plane



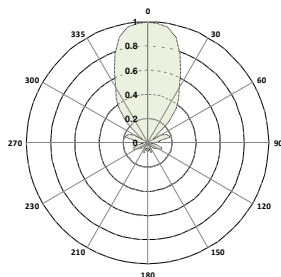
600 Mhz E plane



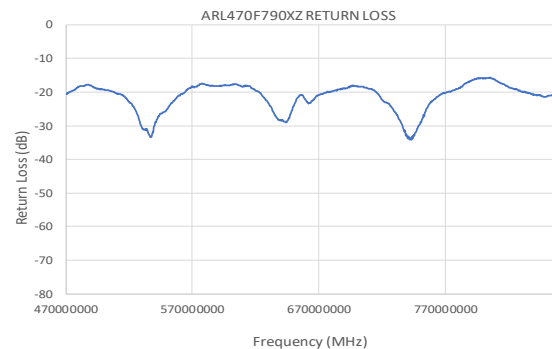
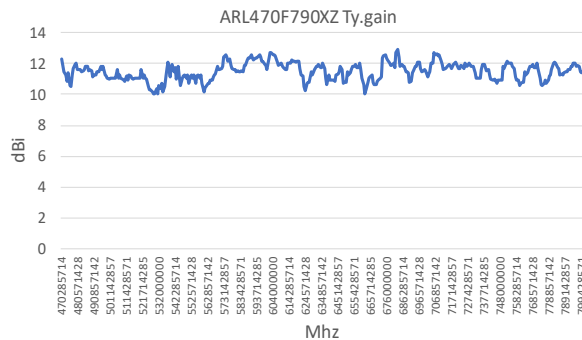
600 Mhz H plane



750 Mhz E plane



750 Mhz H plane



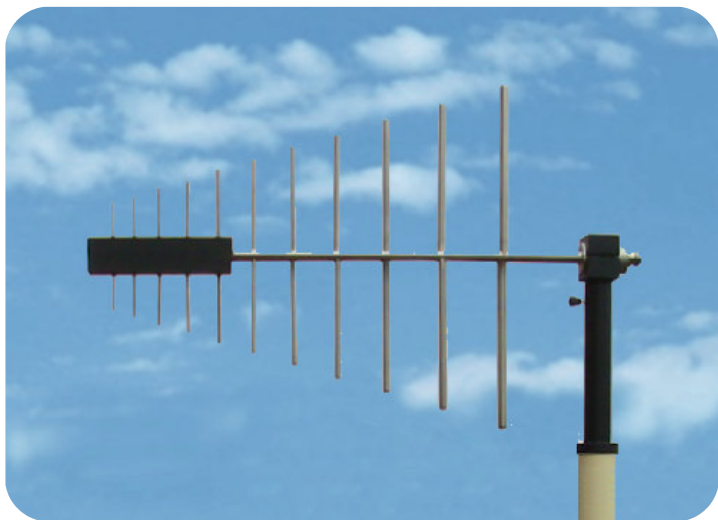
In relazione alle normative in materia di responsabilità sui prodotti, segnaliamo che nel caso di utilizzo delle nostre antenne in condizioni operative particolari, quali ad esempio forti sollecitazioni dinamiche dovute a vento, vibrazioni o deformazioni delle strutture di sostegno, si possono verificare rotture del prodotto stesso e/o la caduta a terra. L'installatore che deve essere altamente qualificato, deve conoscere le normative nazionali di sicurezza in vigore, deve seguire le informazioni contenute nelle nostre istruzioni, deve verificare sempre l'adeguatezza del prodotto stesso alle condizioni operative del sito di installazione e deve controllare l'installazione operando la manutenzione periodica dell'impianto. ---- In relation to the laws concerning product liability, we notify you that in case you use our antennas in severe operative conditions such as, for example, strong wind, vibrations or distortions of the support structure, the product can break and/or fall down. The person who install the product must be skilled, must know the national security law in force, must follow the product instructions, must check that the product is compatible with the installation site and must control the installation with periodical maintenance.



# Antenna type ARL470S/F790XZ

DIRECTIONAL BROADBAND ANTENNA

## 470 ÷ 790 MHz



### ELECTRICAL DATA

<b>Frequency range A</b>	MHz	470 ÷ 790
<b>Bandwidth</b>	MHz	320
<b>Gain max .</b>	dBi	6.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 470 Mhz</b>	-3 dB	120°
<b>H beamwidth 600 Mhz</b>	-3 dB	130°
<b>H beamwidth 770Mhz</b>	-3 dB	140°
<b>E beamwidth 470 Mhz</b>	-3 dB	110°
<b>E beamwidth 600 Mhz</b>	-3 dB	100°
<b>E beamwidth 770 Mhz</b>	-3 dB	120°
<b>Max Power</b>	W	200 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension length</b>	mm	580Xh350x40
<b>Elements numbers</b>		11
<b>Weight without clamp</b>	kg	1.4
<b>Wind surface</b>	m <sup>2</sup>	Front 0.01 side 0.05
<b>Front wind load</b>	Kg	0.15 ( 25 m/s )
<b>Side wind load</b>	Kg	1 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	standard polarizer Ø 30

### MATERIALS

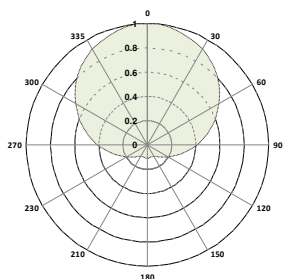
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance

### ACCESSORIES

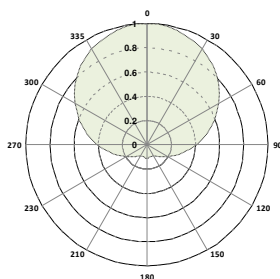
<b>SUPIS01</b>	Isolation fiberglass pole Ø 35 x 1000
<b>BAG470S790</b>	Transport bag

### ORDERING AND PACKAGING INFORMATION

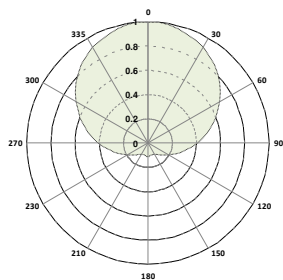
ARL470S790XZ	With unscrewed elements
ARL470F790XZ	With folding elements
<b>PACKAGING mm.</b>	600x350x200 / weight 3 Kg without clamps



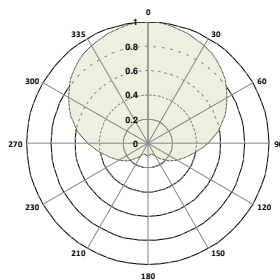
470 Mhz E plane



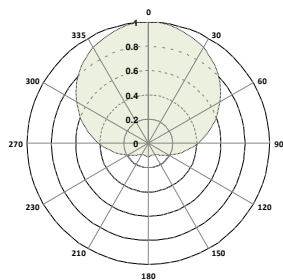
470 Mhz H plane



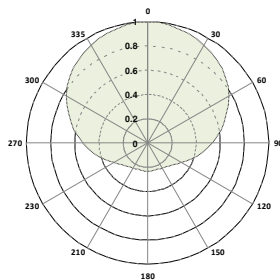
600 Mhz E plane



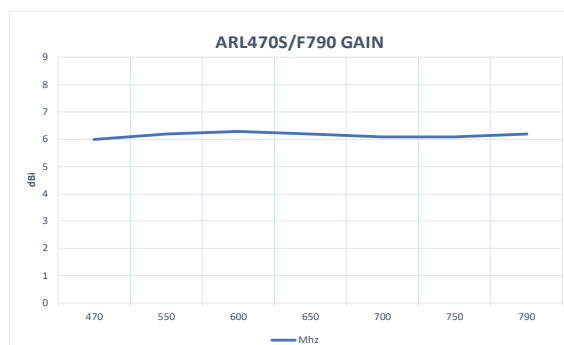
600 Mhz H plane



790 Mhz E plane



790Mhz H plane



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Updating  
02/2017

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# Antenna type ARL690F2700XZ

HANDHELD BROADBAND INTERFERENCE FINDER

**LTE ÷ GSM ÷ DCS ÷ UMTS** MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	690÷2700
<b>Bandwidth</b>	MHz	2010
<b>Gain max 690÷1000</b>	dBi	8
<b>Gain max 1700÷2700</b>		9.5
<b>Return loss</b>	dB	≥ -14
<b>VSWR</b>		≤ 1.5:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth 790 Mhz</b>	-3 dB	90°
<b>H beamwidth 950 Mhz</b>	-3 dB	90°
<b>H beamwidth 2200 Mhz</b>	-3 dB	70°
<b>E beamwidth 790 Mhz</b>	-3 dB	60°
<b>E beamwidth 950 Mhz</b>	-3 dB	60°
<b>E beamwidth 2200 Mhz</b>	-3 dB	50°
<b>Max Power</b>	W	100 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	350Xh215x70
<b>Elements numbers</b>		10
<b>Weight without clamp</b>	kg	0.95
<b>Wind surface</b>	m <sup>2</sup>	Front 0.01 side 0.08
<b>Front wind load</b>	Kg	0.4 ( 25 m/s )
<b>Side wind load</b>	Kg	2.9 ( 25 m/s )
<b>Mounting</b>	mm	handheld

## MATERIALS

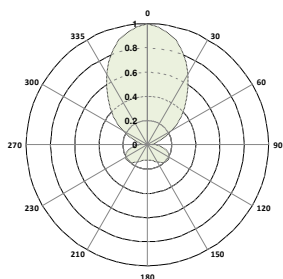
Anticorodal alluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance-fiberglass

## ACCESSORIES

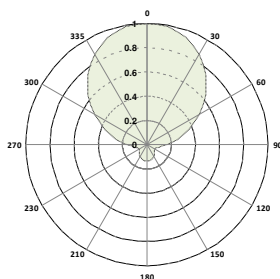
**BAG690F2700** Transport bag

## ORDERING AND PACKAGING INFORMATION

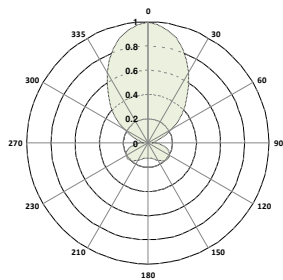
ARL690F2700XZ  
PACKAGING mm. 400x220x50 / weight 1.5 Kg without clamps



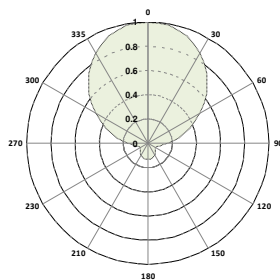
790 Mhz E plane



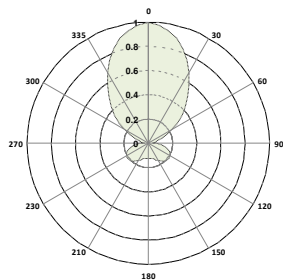
790 Mhz H plane



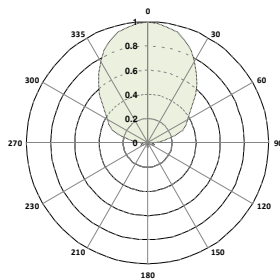
950 Mhz E plane



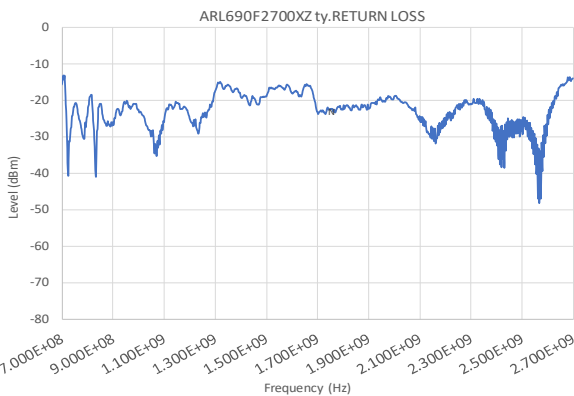
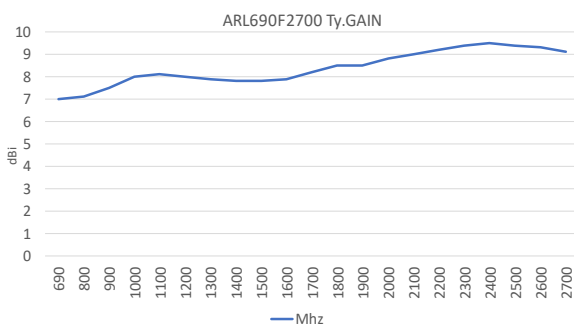
950 Mhz H plane



2200 Mhz E plane



2200Mhz H plane



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Updating  
02/2017

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# Portable set ARK101XZ

HANDHELD INTERFERENCE FINDER

## LTE ÷ GSM ÷ DCS ÷ UMTS MHz



### ELECTRICAL DATA

<b>Frequency range A-B</b>	MHz	790÷960/1710÷2170
<b>Frequency range C</b>	MHz	2500÷2700
<b>Gain max .</b>	dBi	(A)14 (B)16 (C)16
<b>VSWR</b>	dB	≤ 1.5:1
<b>Return loss</b>	dB	≥ -14
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V-H
<b>H beamwidth 900 Mhz</b>	-3 dB	34
<b>H beamwidth 1800 Mhz</b>	-3 dB	14
<b>H beamwidth 2100 Mhz</b>	-3 dB	14
<b>H beamwidth 2600 Mhz</b>	-3 dB	25
<b>E beamwidth 900 Mhz</b>	-3 dB	35
<b>E beamwidth 1800 Mhz</b>	-3 dB	14
<b>E beamwidth 2100 Mhz</b>	-3 dB	14
<b>E beamwidth 2600 Mhz</b>	-3 dB	24
<b>Connector cable</b>		N 2 mt.cable BWL195 Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

### MECHANICAL DATA

<b>Dimension box</b>	mm	1000X700x300
<b>Numbers of antennas</b>		3
<b>Weight</b>	kg	4.5
<b>Mounting</b>	Special hand H./tripode ø25÷50mm.	

### MATERIALS

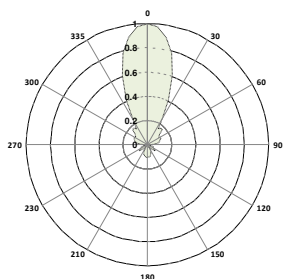
Anticorodal alluminium - Brass - Teflon - Polyvinyl chloride - RoHS compliance

### ACCESSORIES

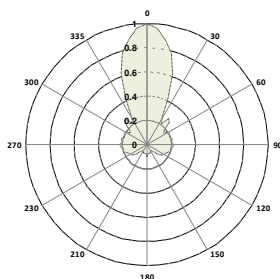
<b>TRIPODE01</b>	TRIPODE 1.8 mt.
<b>ARK101BOX</b>	suit cases

### ORDERING AND PACKAGING INFORMATIONS

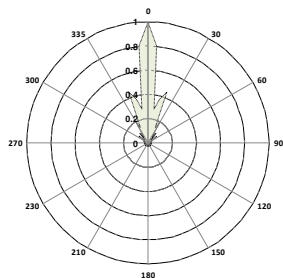
<b>ARK101XZ</b>	COMPLETE SET LTE-GSM-DCS-UMTS
<b>PACKAGING mm.</b>	1100x800x300 / weight 5 Kg



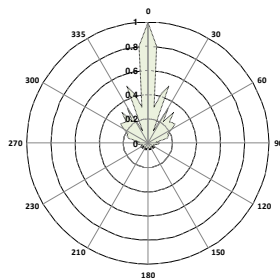
900 Mhz E plane



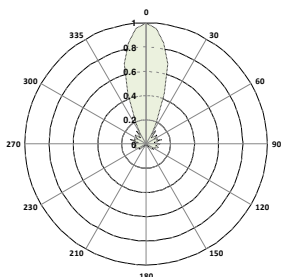
900 Mhz H plane



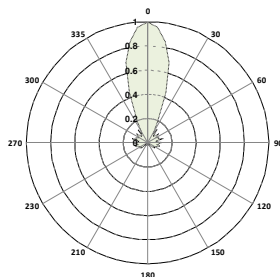
2100 Mhz E plane



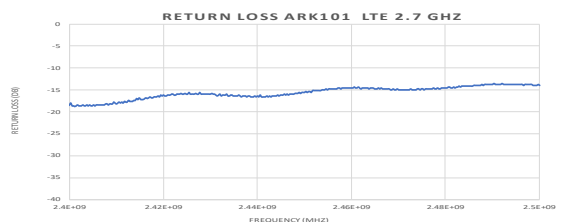
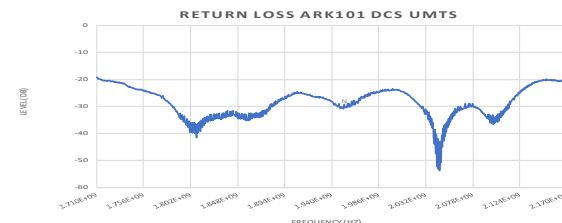
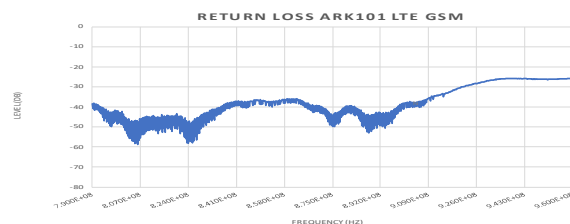
2100 Mhz H plane



2700 Mhz E plane



2700 Mhz H plane



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### ELECTRICAL DATA

<b>Frequency range</b>	MHz	790÷960
<b>Gain max .</b>	dBi	35
<b>VSWR</b>	dB	≤ 1.5:1
<b>Return loss</b>	dB	≥ -14
<b>Typ. noise figure</b>	dB	0.38
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V-H
<b>H beamwidth 815 Mhz</b>	-3 dB	40
<b>H beamwidth 915 Mhz</b>	-3 dB	30
<b>H beamwidth 950 Mhz</b>	-3 dB	28
<b>E beamwidth 815 Mhz</b>	-3 dB	50
<b>E beamwidth 915 Mhz</b>	-3 dB	30
<b>E beamwidth 950 Mhz</b>	-3 dB	26
<b>Connector cable</b>		2 mt.cable BWL195 Nf
<b>Power supply</b>		5 V inside rechargeable battery/8h
<b>Lightning protection</b>		All metal parts are D.C. grounded

### MECHANICAL DATA

<b>Dimension suitcase</b>	mm	900X305x100
<b>Weight suitcase +antenna</b>	kg	5.2
<b>Weight only antenna</b>	kg	1.9
<b>Mounting</b>		
Impugnatura a mano		Handheld
Sul palo del mezzo		on mast of mobile vehicles Ø 30mm
Mobile Ø 30 mm.		
sul cavalletto/tripode		on tripod Ø 30 mm.

### MATERIALS

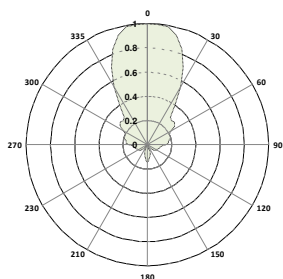
Anticorodal aluminium -Brass-Teflon-Polycarbonate  
- Polyvinyl chloride - RoHS compliance

### ACCESSORIES

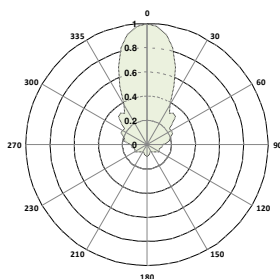
**TRIPODE01** | TRIPOD 1.8 mt.

### ORDERING AND PACKAGING INFORMATIONS

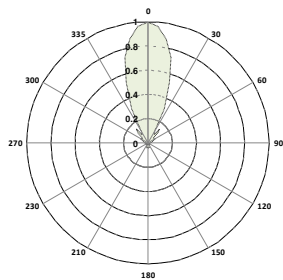
ARK102XZ | COMPLETE HANDHELD SET LTE-GSM  
PACKAGING mm. | 950x310x110 / weight 5.5 Kg



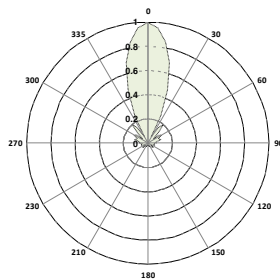
815 Mhz E plane



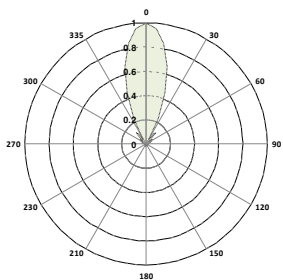
815 Mhz H plane



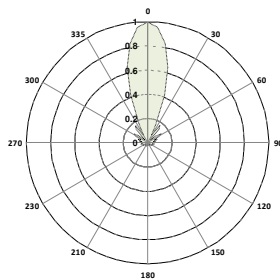
915 Mhz E plane



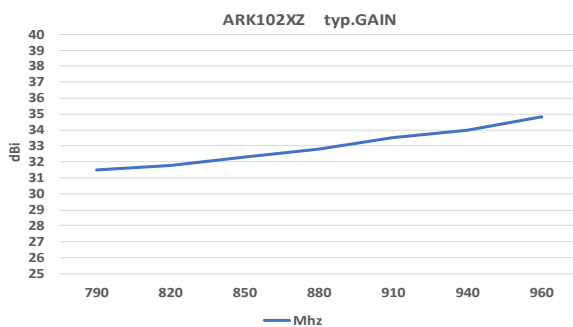
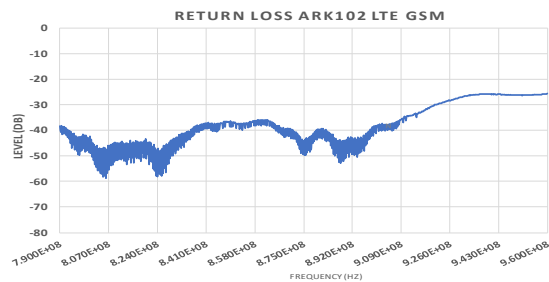
915Mhz H plane



950 Mhz E plane



950 Mhz H plane



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# Amplified portable antenna ARK103XZ

HANDHELD INTERFERENCE FINDER **GSM÷LTE÷DCS÷UMTS**



## ELECTRICAL DATA

<b>Frequency range</b>	MHz	1350÷2200
<b>beamwidth</b>	MHz	850
<b>Gain max.</b>	dBi	30
<b>VSWR</b>	dB	≤1.5:1
<b>Return loss</b>	dB	≥ -14
<b>Typ. noise figure</b>	dB	0.49
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>		V-H
<b>H beamwidth 1800 Mhz</b>	-3 dB	15
<b>H beamwidth 1900 Mhz</b>	-3 dB	14
<b>H beamwidth 2100 Mhz</b>	-3 dB	12
<b>E beamwidth 1800 Mhz</b>	-3 dB	18
<b>E beamwidth 1900 Mhz</b>	-3 dB	14
<b>E beamwidth 2100 Mhz</b>	-3 dB	13
<b>cable</b>		0.5 mt.cable BWL195 Nf
<b>P. supply/autonomy</b>		5 V inside rechargeable battery/24h
<b>Lightning protection</b>		All metal parts are D.C. grounded

## MECHANICAL DATA

<b>Dimension suitcase</b>	mm	900X305x100
<b>Weight suitcase +antenna</b>	kg	5.1
<b>Weight only antenna</b>	kg	1.8
<b>Mounting</b>		
Impugnatura a mano		Handheld
Sul palo del mezzo		on mast of mobile vehicles Ø 30mm.
Mobile Ø 30 mm.		
sul cavalletto/tripode		on tripod Ø 30 mm.

## MATERIALS

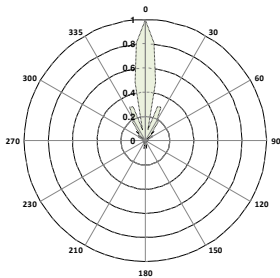
Anticorodal aluminium -Brass-Teflon-Polycarbonate  
- Polyvinyl chloride - RoHS compliance

## ACCESSORIES

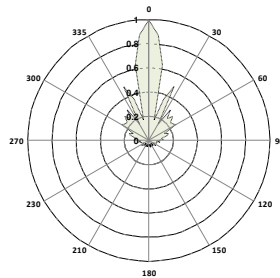
**TRIPODE01** TRIPODE 1.8 mt.

## ORDERING AND PACKAGING INFORMATIONS

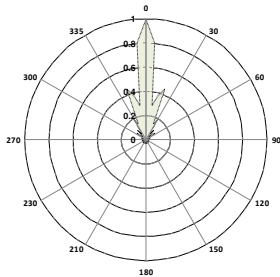
ARK103XZ	COMPLETE HANDHELD SET GSM÷LTE÷DCS÷UMTS
PACKAGING mm.	950x310x110 / weight 5.5 Kg



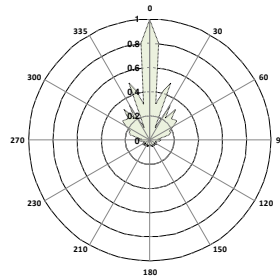
1850 Mhz E plane



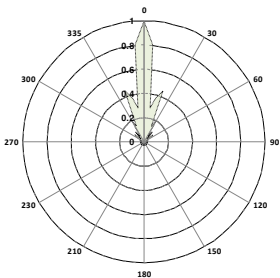
1850 Mhz H plane



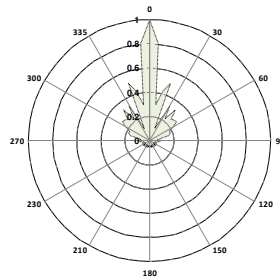
1900 Mhz E plane



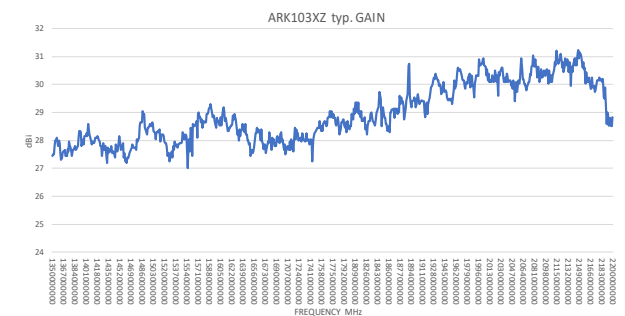
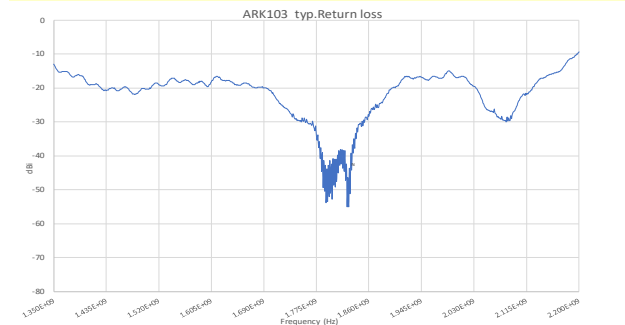
1900 Mhz H plane



2050 Mhz E plane



2050 Mhz H plane



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Updating  
12/2017

PROTEL reserves the right to amend or modify the products described in this brochure at any time without prior notification in order to improve the design and supply the best possible product.

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# Antenna type ARBF.XZ

HANDHELD BROADBAND INTERFERENCE FINDER

2400 ÷ 2700 \* 3400 ÷ 3700 \* 5150 ÷ 5850 MHz



## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	2400÷2700
<b>Frequency range B</b>	MHz	3400÷3700
<b>Frequency range C</b>	MHz	5100÷5850
<b>Gain max . A</b>	dBi	16
<b>Gain max . B</b>	dBi	18
<b>Gain max . C</b>	dBi	20
<b>Return loss</b>	dB	≥ -12
<b>VSWR</b>		≤ 1.7:1
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>	Ω	V/H
<b>H beamwidth2500Mhz</b>	-3 dB	25°
<b>H beamwidth3500Mhz</b>	-3 dB	20°
<b>H beamwidth5500Mhz</b>	-3 dB	15°
<b>E beamwidth2500Mhz</b>	-3 dB	24°
<b>E beamwidth3500Mhz</b>	-3 dB	18°
<b>E beamwidth5500Mhz</b>	-3 dB	14°
<b>Max Power</b>	W	50 W
<b>Connector</b>		Nf
<b>Lightning protection</b>	All metal parts are D.C. grounded	

## MECHANICAL DATA

<b>Dimension length</b>	mm	Ø260X170
<b>Elements numbers</b>		1
<b>Weight without clamp</b>	kg	1.3
<b>Wind surface</b>	m²	Front 0.1 side 0.04
<b>Front wind load</b>	Kg	4 ( 25 m/s )
<b>Side wind load</b>	Kg	1.4 ( 25 m/s )
<b>Mounting +/- 90°</b>	mm	Ø35÷55 / HAND HELD

## MATERIALS

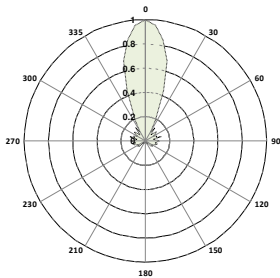
Anticorodal aluminium - Brass - Teflon  
- Polyvinyl chloride - RoHS compliance-

## ACCESSORIES

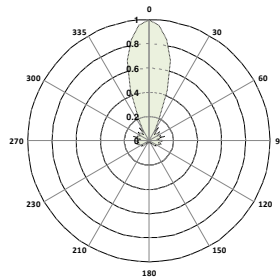
<b>BAGARBF</b>	Transport bag
<b>ARBFBH</b>	hand held clamp

## ORDERING AND PACKAGING INFORMATION

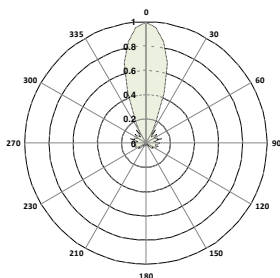
ARBFAXZ	2400÷2700 Mhz
ARBFBXZ	3400÷3700 Mhz
ARBFCXZ	5100÷5850 Mhz
<b>PACKAGING mm.</b>	600x400x250 / weight 2.5 Kg



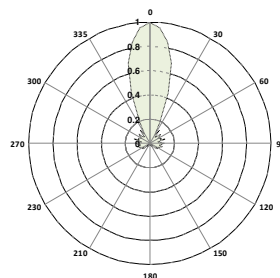
2500 Mhz E plane



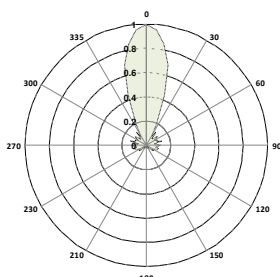
2500 Mhz H plane



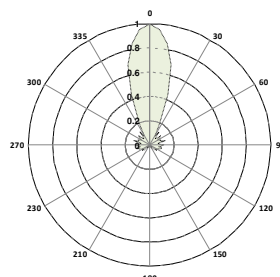
3500 Mhz E plane



3500 Mhz H plane



5500 Mhz E plane



5500 Mhz H plane



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# LNA07400

LOW NOISE AMPLIFIER **700 ÷ 4000** MHz



- HIGHT GAIN BROADBAND AMPLIFIER
- LTE GSM DCS UMTS APPLICATIONS
- HIGHT IP3
- ULTRA LOW NOISE FIGURE
- HIGHT MAX. INPUT POWER
- LOW DIMENSION

- Amplificatore ad alto guadagno con bassa figura di rumore nonostante la grande banda passante. Utilizzato tipicamente in sistemi di amplificazione sulle frequenze LTE GSM DCS UMTS. L'altissima protezione ai prodotti di intermodulazione, lo rende molto affidabile ed indispensabile in sistemi di ricezione per la ricerca interferenziale in ausilio ad antenne o strumentazione di misura
- *High gain amplifier with low noise figure despite large passband. The typical application is in amplification systems on LTE GSM DCS UMTS frequencies. Very high protection against intermodulation products, making it very reliable and indispensable in interference reception systems, in aid of antennas or measuring instruments*
- *Amplificador de alta ganancia con baja figura de ruido a pesar de la gran banda de paso. La aplicación típica es en sistemas de amplificación sobre frecuencias LTE GSM DCS UMTS. Protección muy alta contra los productos de intermodulación, por lo que es muy fiable e indispensable en los sistemas de recepción de interferencias, en ayuda de antenas o instrumentos de medida.*
- *Amplificateur à gain élevé, avec un faible facteur de bruit malgré la large bande passante. L'application typique est dans les systèmes d'amplification sur les fréquences LTE GSM DCS UMTS. Très haute protection contre les produits d'intermodulation, ce qui la rend très fiable et indispensable dans les systèmes de réception d'interférences, en aide d'antennes ou d'instruments de mesure*

## ELECTRICAL DATA

<b>Frequency range A</b>	MHz	700 ÷ 4000
<b>Bandwidth</b>	MHz	3300
<b>Gain max.</b>	dBi	24
<b>Noise Figure</b>	dB	0.4 ÷ 0.9
<b>Ip3 typ.</b>	dB	31
<b>Isolation In-Out typ.</b>	dB	30
<b>Power supply range</b>	Vcc	9 ÷ 18
<b>Vswr out max.</b>		≤ 1.5:1
<b>Vswr in max.</b>		≤ 1.6:1
<b>Nominal impedance</b>	Ω	50
<b>Current Operating</b>	mA	60
<b>Connector</b>	SMAf or Nf (LNA074000N)	

## MECHANICAL DATA

<b>Height</b>	mm	40
<b>Width</b>	mm	90
<b>Lengh</b>	mm	100
<b>Weight</b>	Kg	0.3

## MATERIALS

Alluminium -

## ACCESSORIES

<b>KIT/C100LNA</b>	CABLE MR195	1 MT CABLE SMAm-N female
	CABLE LMR195	1 MT CABLE SMAm-N male

## ORDERING AND PACKAGING INFORMATIONS

LNA074000	200x200x100 mm. 0.5 Kg
KIT/C100LNA	200x200x100 mm. 0.5 Kg
LNA074000N	200x200x100 mm. 0.5 Kg

GUADAGNO - GAIN

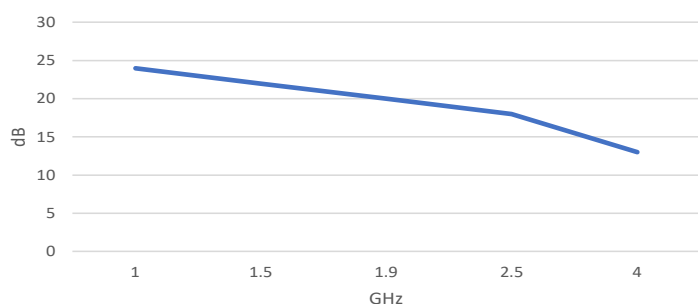
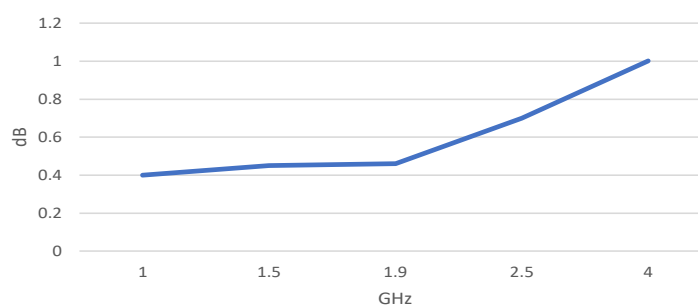


FIGURA DI RUMORE - NOISE FIGURE



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