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**RADIOMONITORING**

**ANTENNAS**

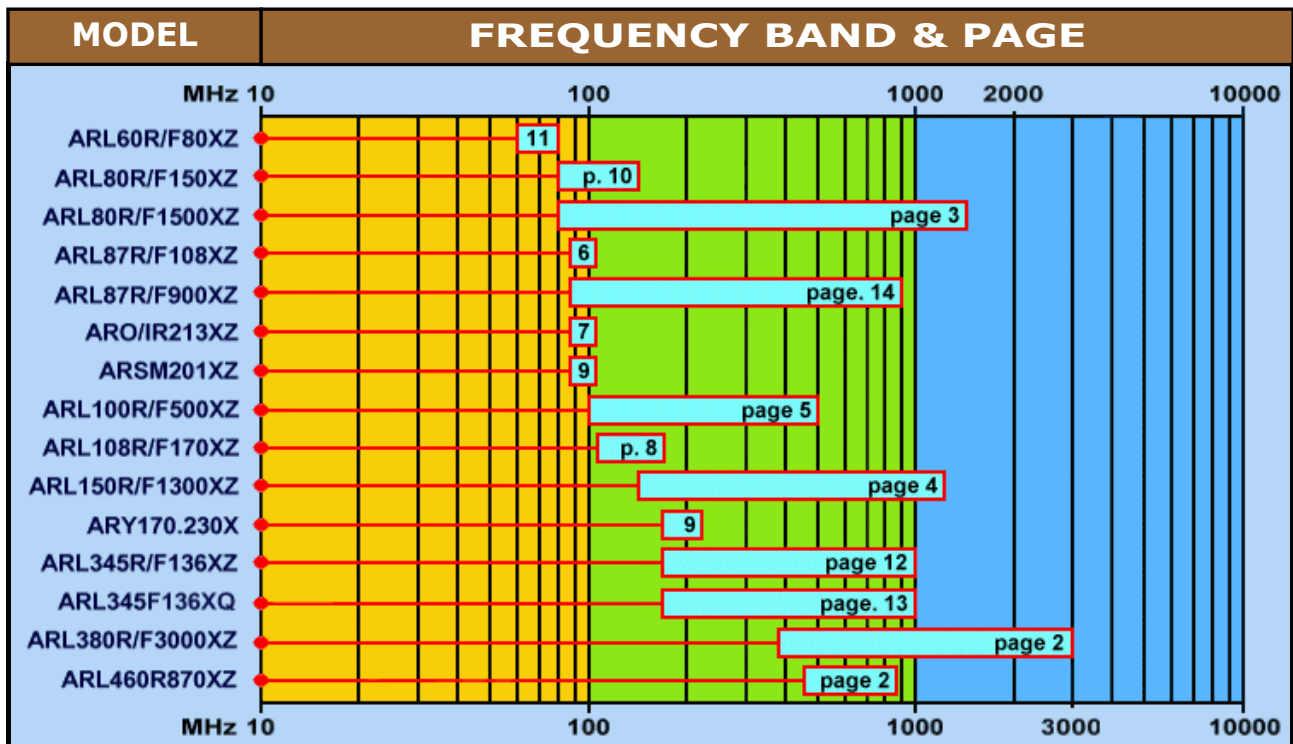
Updating 28/09/09

**2012 CATALOGUE**

## **ANTENNE A LARGA BANDA PER SISTEMI DI CONTROLLO E MISURA** **BROADBAND ANTENNAS FOR CONTROL AND MONITORING SYSTEMS**

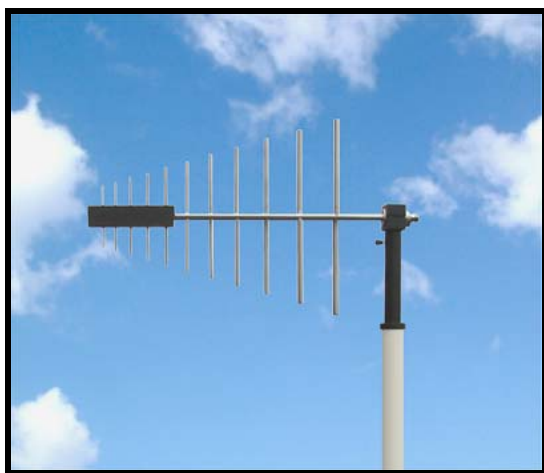
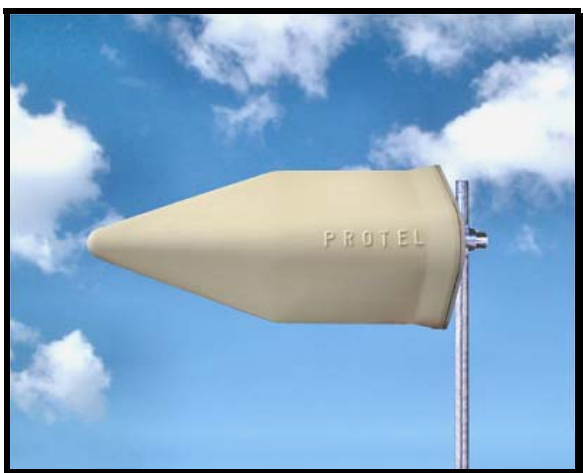
Antenne a larga banda per misure di campo. Caratteristica principale di queste antenne, oltre che l'estrema pulizia del diagramma d'irradiazione, è l'alta soppressione dei lobi laterali e la rapidità di montaggio e smontaggio. Antenne studiate appositamente per mezzi mobili e centri fissi di monitoraggio radio/TV. Fornite con certificato individuale di taratura e collaudo.

*Wide-band antennas for field strength measurement. The principal feature of this type of antenna is the high suppression of the side lobes besides the utmost cleanliness of the irradiation diagram. Easy transport and quick mounting. These antennas are especially recommended for radiomonitoring. Each antenna is calibrated and certificated with test results.*



**MOD. ARL380F3000XZ – COD. ARL380F3000XZ**

**MOD. ARL460R870XZ – COD. ARL460R870XZ**



Antenna direzionale logaritmica a larga banda per sistemi di controllo e misura. Completa di sistema brevettato per il rapido cambio della polarizzazione.

*Broad band Directional logarithmic antenna for control and monitoring systems. The antenna include kit for the quick changing of polarization (patent pending).*

Antenna direzionale logaritmica di misura per la banda televisiva, **con elementi svitabili**. Completa di sistema brevettato per il rapido cambio della polarizzazione.

*Directional logarithmic antenna for TV monitoring systems, **with unscrewable elements**. The antenna include the kit for the quick changing of polarization (patent pending).*

ELECTRICAL DATA		
Frequency range	MHz	380÷3000
Bandwidth	MHz	2620
Gain Typ.	dBi	7
VSWR	Typ.	≤2,5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

ELECTRICAL DATA		
Frequency range	MHz	470÷860
Bandwidth	MHz	410
Gain Typ.	dBi	7,5
VSWR	Typ.	≤1,8
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	700 x 205 x 300
Weight	Kg	4,1
Mounting clamp	mm	∅ 30÷60
Ice protection		yes

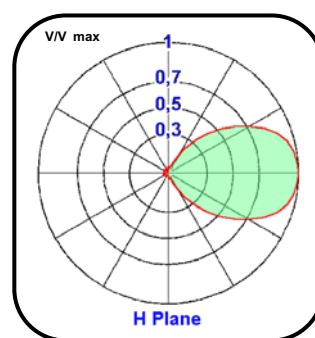
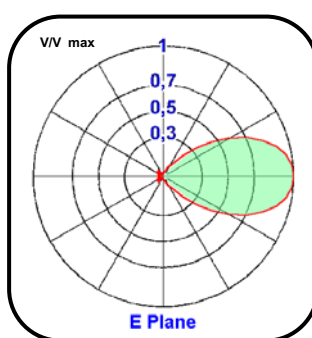
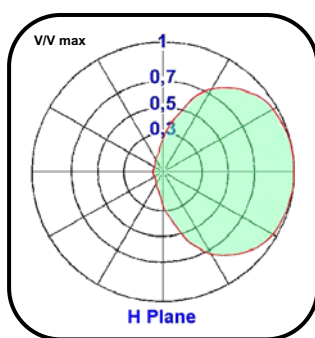
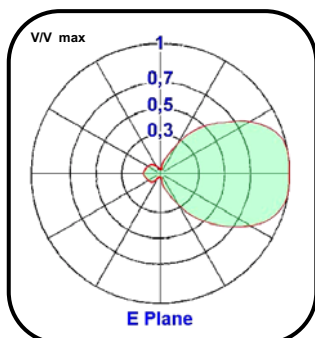
MECHANICAL DATA		
Dimension length	mm	570 x 359
Weight	Kg	1,5
Mounting	mm	∅ 30
Ice protection		no

MATERIALS	
Aluminium – Teflon – Brass – Stainless steel	

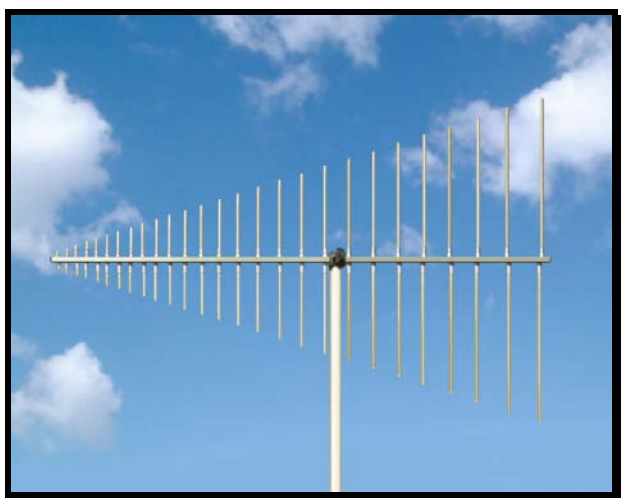
MATERIALS	
Aluminium – Teflon – Brass – Stainless steel	

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG3803000	Transport Bag

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG460870	Transport Bag



**MOD. ARL80R1500XZ – COD. ARL80R1500XZ**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi pieghevoli.**

*Directional logarithmic antenna for monitoring and control systems, **with bending elements.***

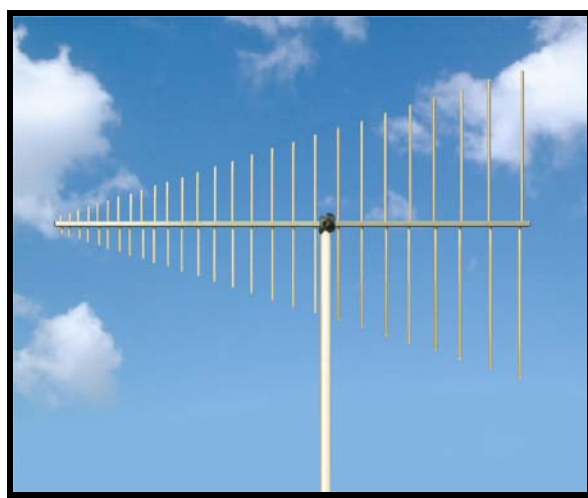
ELECTRICAL DATA		
Frequency range	MHz	80÷1500
Bandwidth	MHz	1420
Gain Typ.	dBi	6
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1800 x 2100
Weight	Kg	3.5
Mounting	mm	∅ 30
Ice protection		no

MATERIALS	
Aluminium – Teflon – Brass – Stainless steel	

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG801500	Transport Bag

**MOD. ARL80F1500XZ – COD. ARL80F1500XZ**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi fissi.**

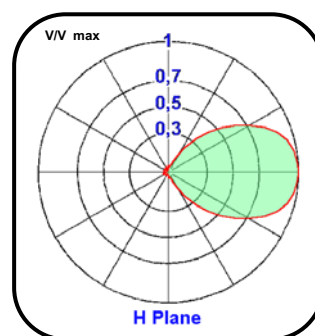
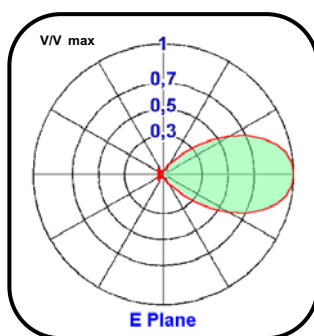
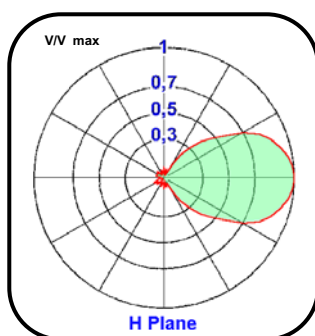
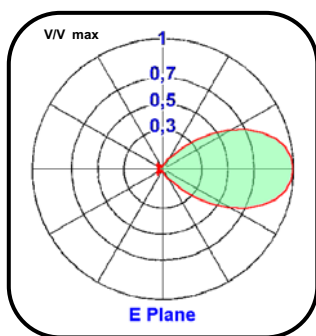
*Directional logarithmic antenna for monitoring and control systems, **with fixed elements.***

ELECTRICAL DATA		
Frequency range	MHz	80÷1500
Bandwidth	MHz	1420
Gain Typ.	dBi	6
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1800 x 2100
Weight	Kg	3.5
Mounting	mm	∅ 30
Ice protection		no

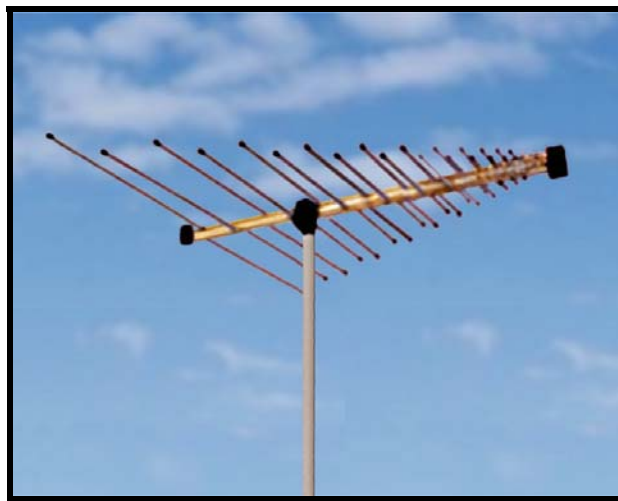
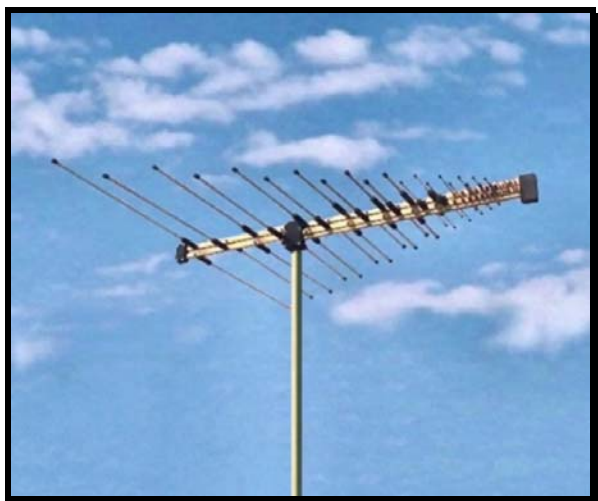
MATERIALS	
Aluminium – Teflon – Brass – Stainless steel	

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG801500	Transport Bag



**MOD. ARL150R1300XZ – COD. ARL150R1300XZ**

**MOD. ARL150F1300XZ – COD. ARL150F1300XZ**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi pieghevoli.**

*Directional logarithmic antenna for monitoring and control systems, **with bending elements.***

Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi fissi.**

*Directional logarithmic antenna for monitoring and control systems, **with fixed elements.***

ELECTRICAL DATA		
Frequency range	MHz	150÷1300
Bandwidth	MHz	1150
Gain Typ.	dBi	6
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

ELECTRICAL DATA		
Frequency range	MHz	150÷1300
Bandwidth	MHz	1150
Gain Typ.	dBi	6
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1000 x 1600
Weight	Kg	3.3
Mounting	mm	∅ 30
Ice protection		no

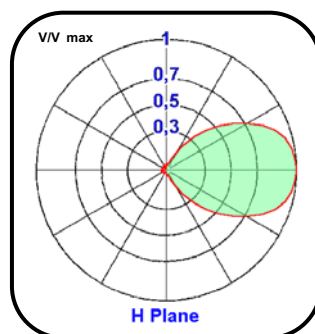
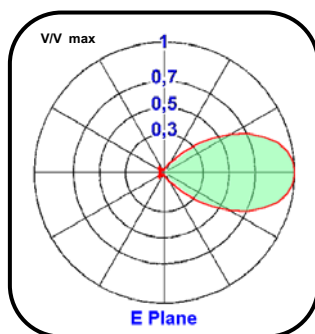
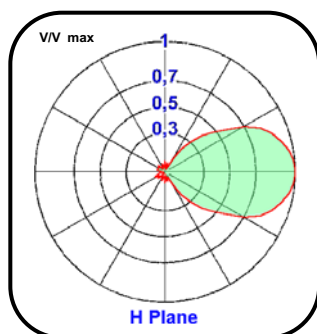
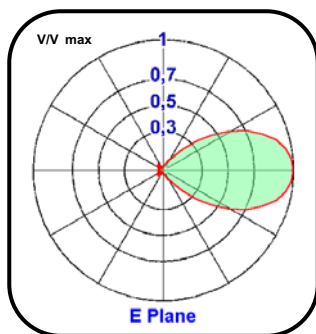
MECHANICAL DATA		
Dimension length	mm	1000 x 1600
Weight	Kg	3.3
Mounting	mm	∅ 30
Ice protection		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG1501300	Transport Bag

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG1501300	Transport Bag



**MOD. ARL100R500XZ – COD. ARL100R500XZ**



**MOD. ARL100F500XZ – COD. ARL100F500XZ**



Antenna logaritmica a larga banda studiata per misure e rilevamenti radioelettrici nello spettro delle frequenze aeronautiche e civili (VHF-UHF). Nella versione pieghevole, 14 elementi possono essere velocemente ripiegati sulla culla di supporto mediante il sistema esclusivo e brevettato Protel, consentendo un facile alloggiamenti all'interno di mezzi mobili. Estrema pulizia del diagramma di radiazione e guadagno lineare su tutta la banda operativa.

Broadband logarithmic antenna projected for measurement and radioelectric surveys in aeronautic and civil frequencies of the spectrum (VHF-UHF). Made of 18 elements, in the bending version 14 elements can be quickly bent along the support body using the unique and patented Protel system and allowing an easy storage in mobile vans. Radiation diagram extremely clean and linear gain on all the working band .

ELECTRICAL DATA		
<b>Frequency range</b>	MHz	100÷500
<b>Bandwidth</b>	MHz	400
<b>Gain Typ.</b>	dBi	6
<b>VSWR</b>	Typ.	≤2.5
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>		V-H
<b>Max Power</b>	W	50
<b>Connector</b>		N
<b>Lightning protection</b>	All metal parts are D.C. grounded	

ELECTRICAL DATA		
<b>Frequency range</b>	MHz	100÷500
<b>Bandwidth</b>	MHz	400
<b>Gain Typ.</b>	dBi	6
<b>VSWR</b>	Typ.	≤2.5
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>		V-H
<b>Max Power</b>	W	50
<b>Connector</b>		N
<b>Lightning protection</b>	All metal parts are D.C. grounded	

MECHANICAL DATA		
<b>Dimension length</b>	mm	1600 x 1590
<b>Weight</b>	Kg	4.5
<b>Mounting</b>	mm	∅ 30
<b>Ice protection</b>		no

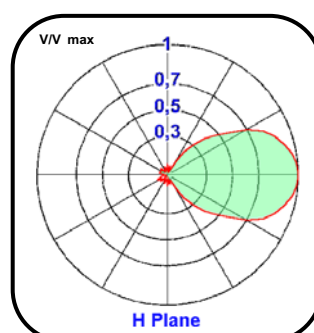
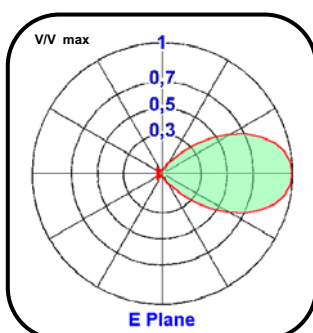
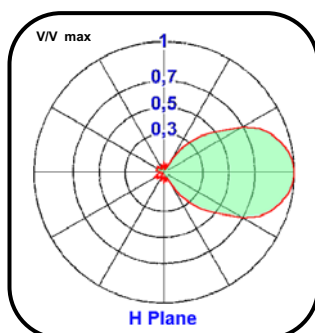
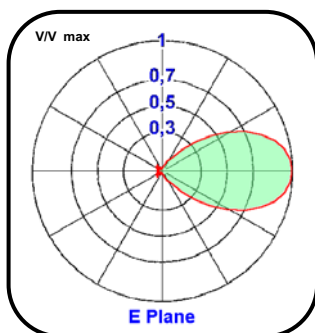
MECHANICAL DATA		
<b>Dimension length</b>	mm	1600 x 1590
<b>Weight</b>	Kg	4.5
<b>Mounting</b>	mm	∅ 30
<b>Ice protection</b>		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

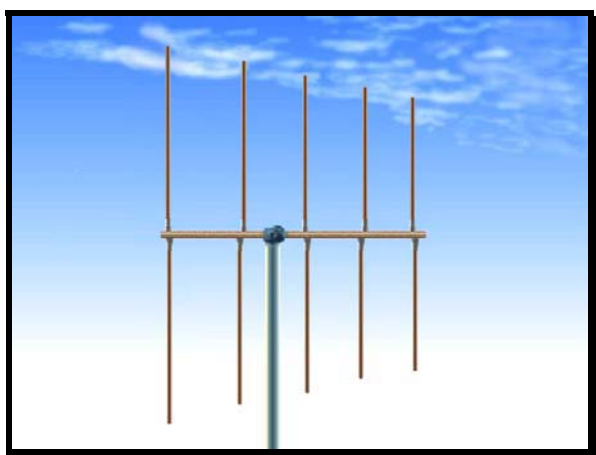
MATERIALS
Aluminium – Teflon – Brass – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG100500	Transport Bag

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG100500	Transport Bag



**MOD. ARL87R108XZ – COD. ARL87R108XZ**



Antenna direzionale logaritmica per la banda FM, **con elementi pieghevoli.**

*Directional logarithmic antenna for FM band, with bending elements.*

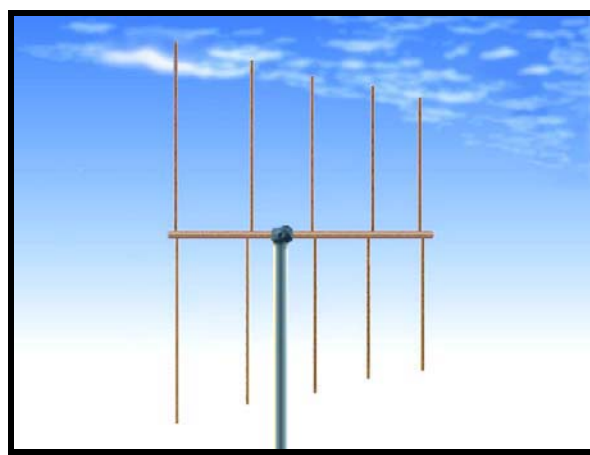
ELECTRICAL DATA		
Frequency range	MHz	87.5÷108
Bandwidth	MHz	20.5
Gain Typ.	dBi	7
VSWR	Typ.	≤1.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1572 x 1500
Weight	Kg	2.2
Mounting	mm	∅ 30
Ice protection		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG87108	Transport Bag

**MOD. ARL87F108XZ – COD. ARL87F108XZ**



Antenna direzionale logaritmica per la banda FM, **con elementi fissi.**

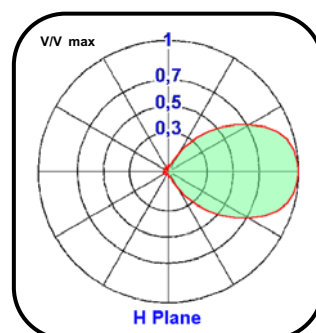
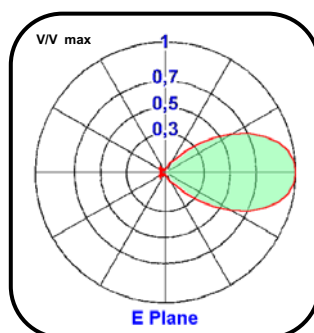
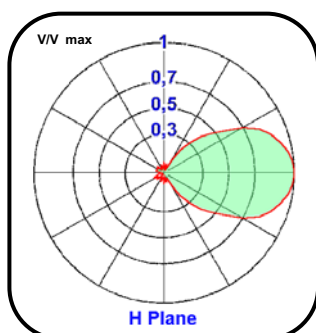
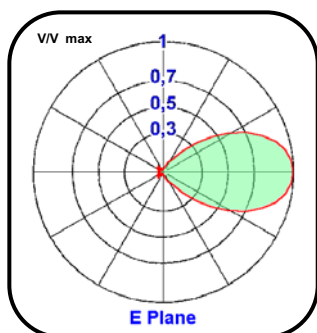
*Directional logarithmic antenna for FM band, with fixed elements.*

ELECTRICAL DATA		
Frequency range	MHz	87.5÷108
Bandwidth	MHz	20.5
Gain Typ.	dBi	7
VSWR	Typ.	≤1.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1572 x 1500
Weight	Kg	2.2
Mounting	mm	∅ 30
Ice protection		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG87108	Transport Bag



### MOD. AR0213XZ – COD.AR0213XZ



Antenna omnidirezionale par la banda FM, **con elementi svitabili.**

*Omnidirectional antenna for FM band, **with unscrewable elements.***

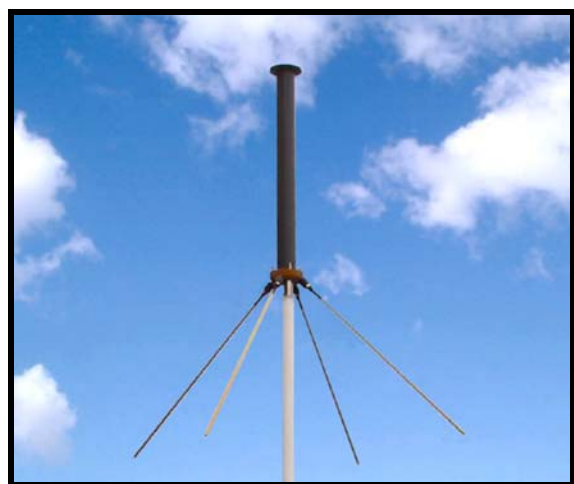
ELECTRICAL DATA			
<b>Frequency range</b>	MHz	87.5÷108	
<b>Bandwidth</b>	MHz	20.5	
<b>Gain Typ.</b>	dBi	2.2	
<b>VSWR</b>	87.5÷108	Typ.	≤2.1
	87.5÷104		≤1.7
<b>Nominal impedance</b>	Ω	50	
<b>Polarization</b>		V	
<b>Max Power</b>	W	500	
<b>Connector</b>		N	
<b>Lightning protection</b>	All metal parts are D.C. grounded		

MECHANICAL DATA			
<b>Dimension length</b>	mm	720 x Ø 60	
<b>Weight</b>	Kg	1.9	
<b>Mounting</b>	mm	Ø 30	
<b>Ice protection</b>		YES	

MATERIALS	
Aluminium – Teflon – Brass – Stainless steel	

ACCESSORIES	
CODE	TYPE
SUPIS01	Isolation fiberglass pole Ø 35 x 1000
ADIP01	Mechanical square pole adaptor
BAG213	Transport Bag

### MOD. AR0IR213XZ – COD.ARIR0213XZ



Antenna omnidirezionale par la banda FM, **con elementi ad innesto rapido.**

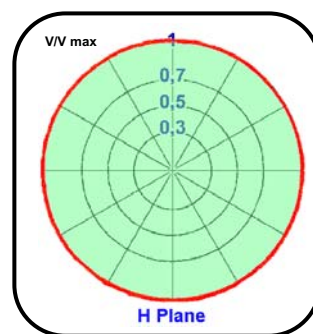
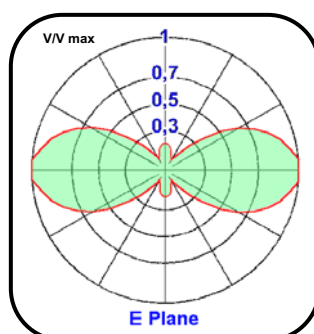
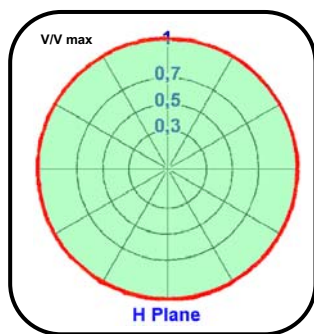
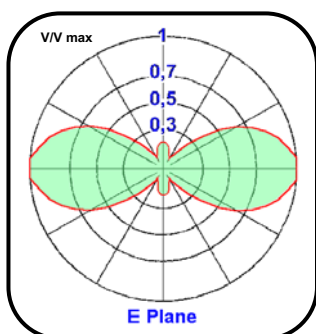
*Omnidirectional antenna for FM band, **fast clutch elements.***

ELECTRICAL DATA			
<b>Frequency range</b>	MHz	87.5÷108	
<b>Bandwidth</b>	MHz	20.5	
<b>Gain Typ.</b>	dBi	2.2	
<b>VSWR</b>	87.5÷108	Typ.	≤2.1
	87.5÷104		≤1.7
<b>Nominal impedance</b>	Ω	50	
<b>Polarization</b>		V	
<b>Max Power</b>	W	500	
<b>Connector</b>		N	
<b>Lightning protection</b>	All metal parts are D.C. grounded		

MECHANICAL DATA			
<b>Dimension length</b>	mm	720 x Ø 60	
<b>Weight</b>	Kg	2	
<b>Mounting</b>	mm	Ø 30	
<b>Ice protection</b>		YES	

MATERIALS	
Aluminium – Teflon – Brass – Stainless steel	

ACCESSORIES	
CODE	TYPE
SUPIS01	Isolation fiberglass pole Ø 35 x 1000
ADIP01	Mechanical square pole adaptor
BAG213	Transport Bag



**MOD. ARL108R170XZ – COD. ARL108R170XZ**

**MOD. ARL108F170XZ – COD. ARL108F170XZ**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi pieghevoli.**

*Directional logarithmic antenna for monitoring and control systems, **with bending elements.***

Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi fissi.**

*Directional logarithmic antenna for monitoring and control systems, **with fixed elements.***

ELECTRICAL DATA		
<b>Frequency range</b>	MHz	108÷170
<b>Bandwidth</b>	MHz	62
<b>Gain Typ.</b>	dBi	6
<b>VSWR</b>	Typ.	≤2
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>		V-H
<b>Max Power</b>	W	50
<b>Connector</b>		N
<b>Lightning protection</b>	All metal parts are D.C. grounded	

ELECTRICAL DATA		
<b>Frequency range</b>	MHz	108÷170
<b>Bandwidth</b>	MHz	62
<b>Gain Typ.</b>	dBi	6
<b>VSWR</b>	Typ.	≤2
<b>Nominal impedance</b>	Ω	50
<b>Polarization</b>		V-H
<b>Max Power</b>	W	50
<b>Connector</b>		N
<b>Lightning protection</b>	All metal parts are D.C. grounded	

MECHANICAL DATA		
<b>Dimension length</b>	mm	1300 x 1400
<b>Weight</b>	Kg	2.5
<b>Mounting</b>	mm	∅ 30
<b>Ice protection</b>		no

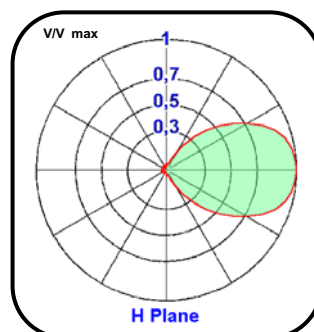
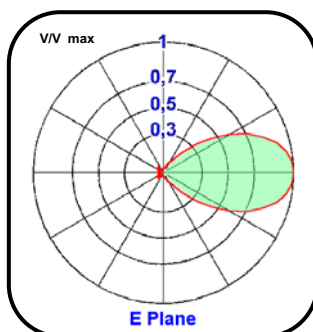
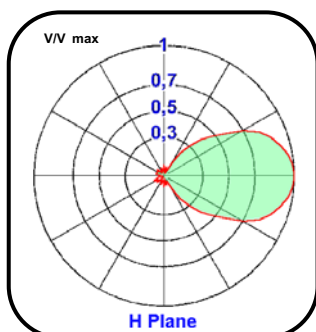
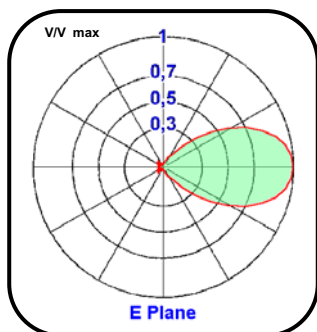
MECHANICAL DATA		
<b>Dimension length</b>	mm	1300 x 1400
<b>Weight</b>	Kg	2.5
<b>Mounting</b>	mm	∅ 30
<b>Ice protection</b>		no

MATERIALS	
<b>Aluminium – Teflon – Brass – Stainless steel</b>	

MATERIALS	
<b>Aluminium – Teflon – Brass – Stainless steel</b>	

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG108170	Transport Bag

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG108170	Transport Bag



### MOD. ARY170.230X – COD. ARY170.230X



Antenna direzionale di misura per la **banda VHF televisiva e DAB**.

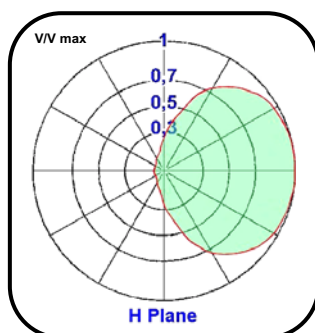
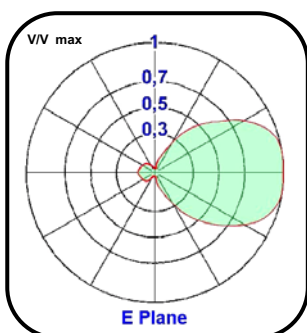
*Directional antenna for **VHF television band and DAB** measurement.*

ELECTRICAL DATA		
Frequency range	MHz	170÷230
Bandwidth	MHz	60
Gain Typ.	dBi	5
VSWR	Typ.	≤1.5
Nominal impedance	Ω	50
Polarization		V
Max Power	W	100
Connector		N

MECHANICAL DATA		
Dimension length	mm	860 x 960
Weight	Kg	1.9
Mounting clamps	mm	∅ 30
Ice protection	No full radome	

MATERIALS
Aluminium – Teflon – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG170230	Transport Bag



### MOD. ARSM201XZ – COD. ARSM201XZ



Antenna veicolare di misura.

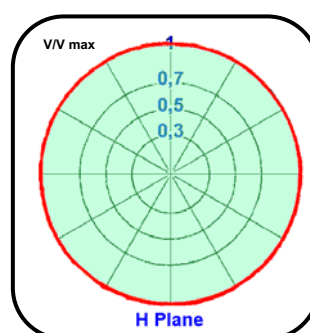
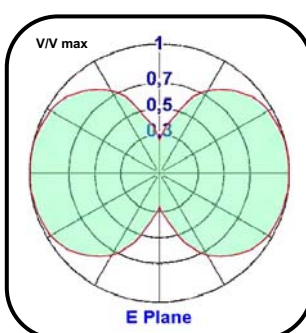
*Antenna for mobile measurement.*

ELECTRICAL DATA		
Frequency range	MHz	87.5÷108
Bandwidth	MHz	20.5
Gain Typ.	dBi	2.2
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V
Max Power	W	100
Connector		N

MECHANICAL DATA		
Dimension length	mm	750
Weight	Kg	0.9
Ice protection	No full radome	

MATERIALS
Stainless steel

ACCESSORIES	
CODE	TYPE
BAG87108	Transport Bag



**MOD. ARL80R150XZ – COD.ARL80R150XZ**

**MOD. ARL80F150XZ – COD. ARL80F150XZ**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi pieghevoli.**

Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi fissi.**

*Directional logarithmic antenna for monitoring systems, **with bending elements.***

*Directional logarithmic antenna for monitoring systems, **with fixed elements.***

ELECTRICAL DATA		
Frequency range	MHz	80÷150
Bandwidth	MHz	70
Gain Typ.	dBi	6
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

ELECTRICAL DATA		
Frequency range	MHz	80÷150
Bandwidth	MHz	70
Gain Typ.	dBi	6
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1600 x 1900
Weight	Kg	2.5
Mounting	mm	∅ 30
Ice protection		no

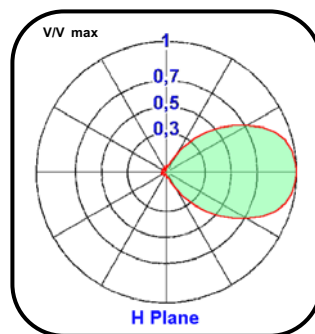
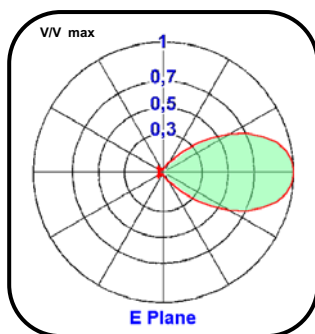
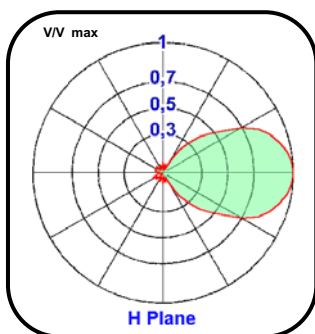
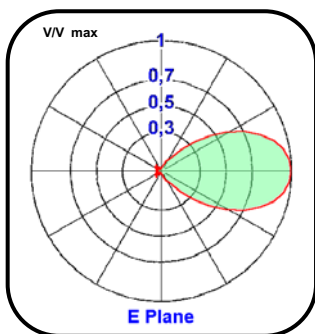
MECHANICAL DATA		
Dimension length	mm	1600 x 1900
Weight	Kg	2.5
Mounting	mm	∅ 30
Ice protection		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

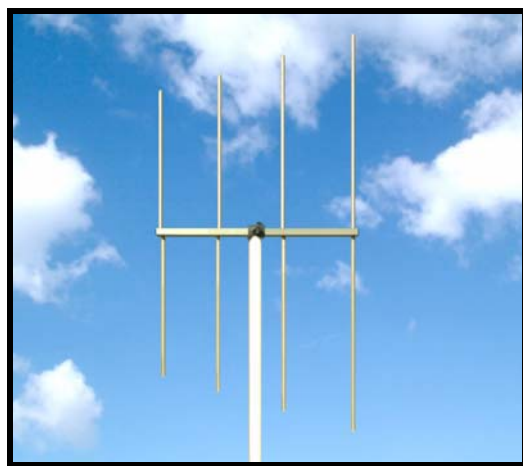
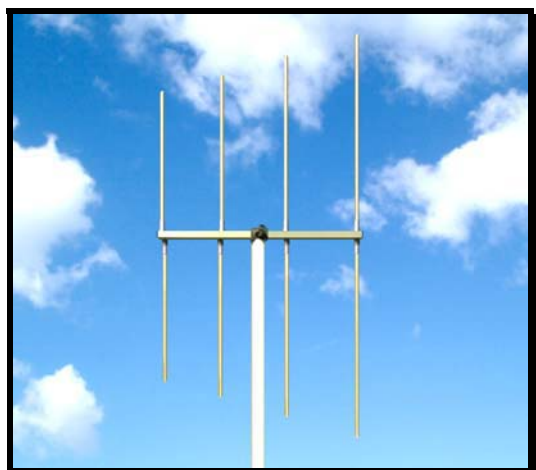
MATERIALS
Aluminium – Teflon – Brass – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG80150	Transport Bag

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG80150	Transport Bag



**MOD. ARL60R80XZ – COD. ARL60R80XZ    MOD. ARL60F80XZ – COD. ARL60F80XZ**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi pieghevoli.**

*Directional logarithmic antenna for monitoring and control systems, **with bending elements.***

Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi fissi.**

*Directional logarithmic antenna for monitoring and control systems, **with fixed elements.***

ELECTRICAL DATA		
Frequency range	MHz	60÷80
Bandwidth	MHz	20
Gain Typ.	dBi	6
VSWR	Typ.	≤2
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

ELECTRICAL DATA		
Frequency range	MHz	60÷80
Bandwidth	MHz	20
Gain Typ.	dBi	6
VSWR	Typ.	≤2
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1800 x 2490
Weight	Kg	3.9
Mounting	mm	∅ 30
Ice protection		no

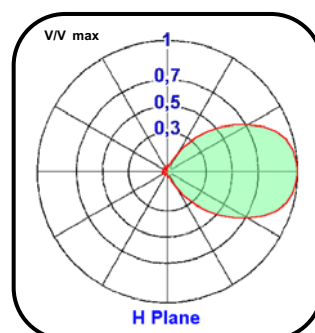
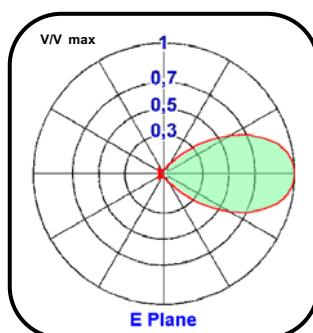
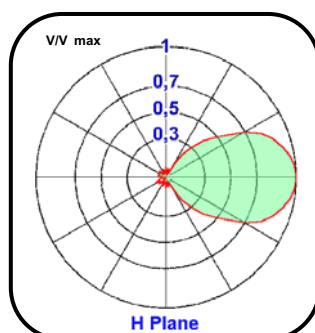
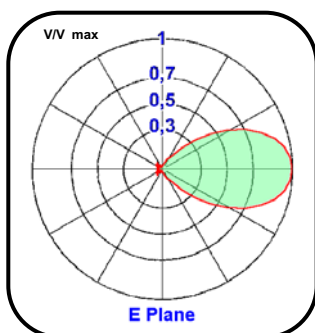
MECHANICAL DATA		
Dimension length	mm	1800 x 2490
Weight	Kg	3.9
Mounting	mm	∅ 30
Ice protection		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

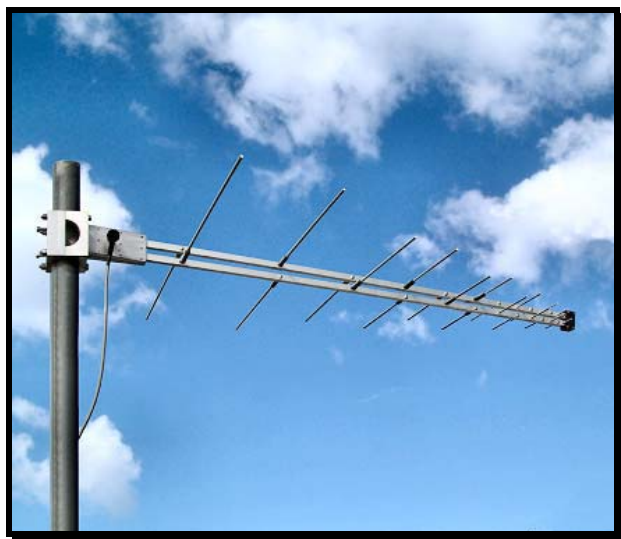
MATERIALS
Aluminium – Teflon – Brass – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG6080	Transport Bag

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG6080	Transport Bag



**MOD. ARL345R136X – COD. ARL345R136XZ**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi pieghevoli**.

*Directional logarithmic antenna for monitoring and control systems, **with bending elements**.*

**MOD. ARL345F136X – COD. ARL345F136X**



Antenna direzionale logaritmica per sistemi di controllo e misura, **con elementi fissi**.

*Directional logarithmic antenna for monitoring and control systems, **with fixed elements**.*

ELECTRICAL DATA		
Frequency range	MHz	170÷1000
Bandwidth	MHz	830
Gain Typ.	dBi	7
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

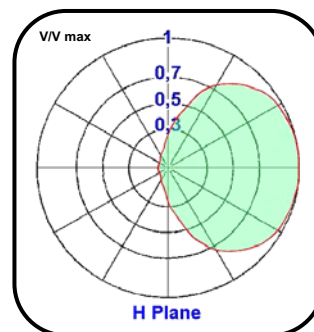
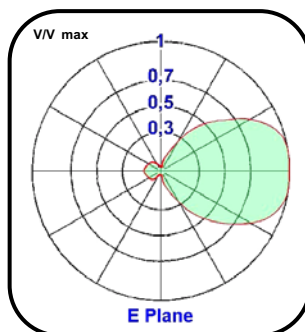
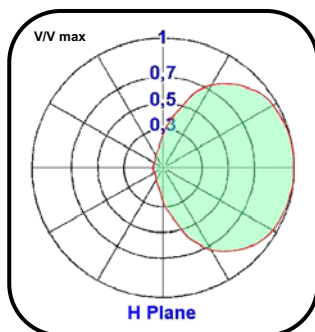
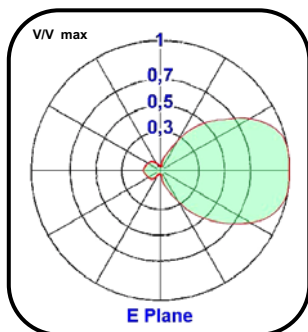
ELECTRICAL DATA		
Frequency range	MHz	170÷1000
Bandwidth	MHz	830
Gain Typ.	dBi	7
VSWR	Typ.	≤2.5
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1445 x 1060
Weight	Kg	3.5
Mounting	mm	∅ 60
Ice protection		no

MECHANICAL DATA		
Dimension length	mm	1445 x 1060
Weight	Kg	3.5
Mounting	mm	∅ 60
Ice protection		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

MATERIALS
Aluminium – Teflon – Brass – Stainless steel



## MOD. ARL345F136XQ



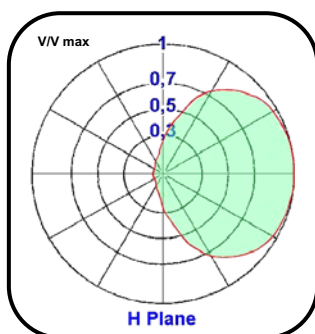
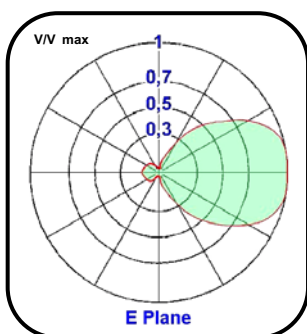
Antenna direzionale logaritmica a **polarizzazione incrociata** con alimentazione separata ed indipendente, adatta per sistemi di monitoraggio e misura.

*Directional logarithmic antenna with **double feeder** for monitoring and control systems.*

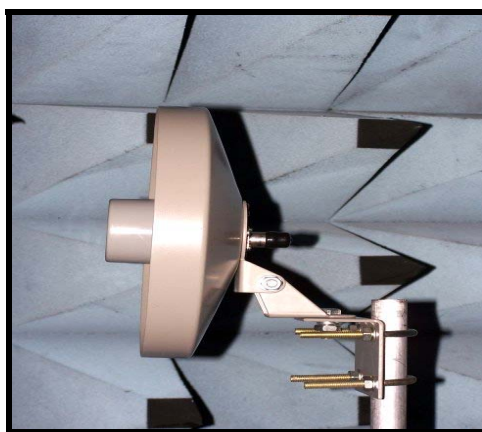
ELECTRICAL DATA		
Frequency range	MHz	170÷1000
Bandwidth	MHz	830
Gain typ.	dBi	7
VSWR typ.		≤2
Nominal impedance	Ω	50
Polarization		<b>Double</b>
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1445x1060
Weight	Kg	5
Mounting	mm	∅ 60
Ice protection	Yes optional	

MATERIALS
Aluminium – Teflon – Brass – Stainless steel



## MOD. ARBF... XZ



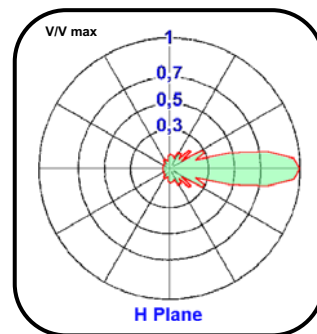
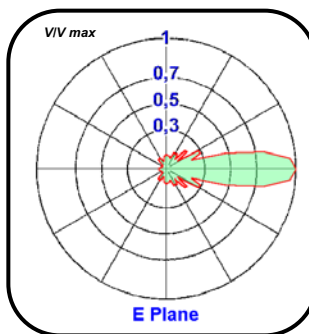
Antenne direzionali per la banda **WIMAX**. Stretto angolo di irradiazione buon guadagno e radome fornito di serie sono le caratteristiche principali di questi prodotti.

*Directional antennas for WIMAX band. Narrow irradiation pattern. High gain and standard radome are the main features of these products.*

ELECTRICAL DATA		
Frequency range 9116	MHz	2300÷2550
Frequency range 10118		3435÷3600
Frequency range 11120		5150÷5850
Bandwidth	MHz	250 / 165 / 700
Gain	dBi	16 / 18 / 20
VSWR		≤1.5
Nominal impedance	Ω	50
Polarization		V-H
Front back ratio	dB	≥20
Max Power	W	10
Connector		N female
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	∅ 260 x 170
Weight	Kg	1.3
Mounting	mm	∅ 30÷50
Ice protection	ABS full radome	

MATERIALS
Aluminium – Teflon



**MOD. ARL87R900XZ – COD.ARL87R900XZ**



**MOD. ARL87F900XZ – COD.ARL87F900XZ**



Eccellente antenna per l'individuazione della direzione e la misura di segnali radioelettrici nelle bande broadcasting da 87.5 ÷ 860 MHz. Nel montaggio su autoveicoli, gli ultimi 6 elementi possono essere ripiegati velocemente sulla culla di sostegno, mediante il sistema esclusivo **Protel**, permettendo di evitare attriti ed eventuali rotture durante i lunghi trasferimenti o il passaggio in luoghi angusti.

*It is particularly useful to indicate the direction and the and for the measurement of radioelectrical signals in the broadcasting bands 87.5 ÷ 860 MHz. If the antenna it is used in mobile vans the longer six elements can be bent along the antenna thanks to the unique **Protel** bending system. This prevent from the risk of damaging the antenna above all when it is necessary to drive long distances or when driving in narrow places or tunnels.*

ELECTRICAL DATA		
Frequency range	MHz	87÷900
Bandwidth	MHz	813
Gain Typ.	dBi	6
VSWR	Typ.	≤2
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

ELECTRICAL DATA		
Frequency range	MHz	87÷900
Bandwidth	MHz	813
Gain Typ.	dBi	6
VSWR	Typ.	≤2
Nominal impedance	Ω	50
Polarization		V-H
Max Power	W	50
Connector		N
Lightning protection	All metal parts are D.C. grounded	

MECHANICAL DATA		
Dimension length	mm	1725 x 1480
Weight	Kg	3
Mounting	mm	∅ 30
Ice protection		no

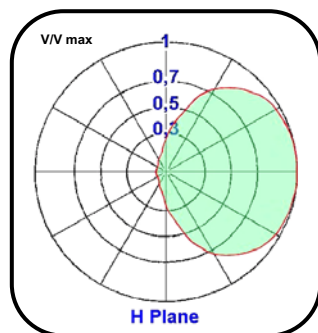
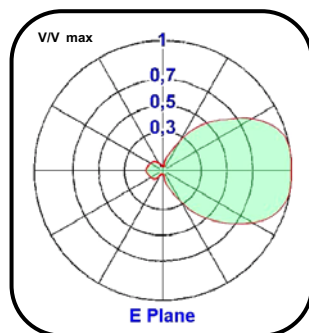
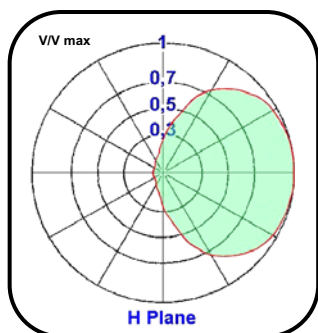
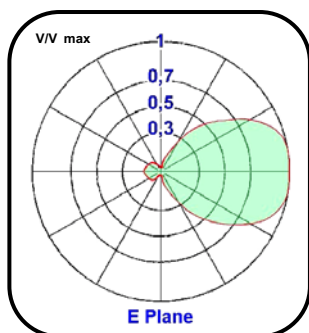
MECHANICAL DATA		
Dimension length	mm	1725 x 1480
Weight	Kg	3
Mounting	mm	∅ 30
Ice protection		no

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

MATERIALS
Aluminium – Teflon – Brass – Stainless steel

ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG87900	Transport Bag

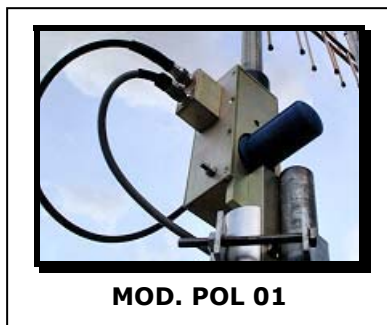
ACCESSORIES	
CODE	TYPE
POL01	Polarizer
SUPIS01	Isolation fiberglass pole ∅ 35 x 1000
BAG87900	Transport Bag



## ACCESSORI E MATERIALI A CORREDO ACCESSORIES AND OPTIONS

Oltre all'ampia gamma d'antenne costruite in varie tipologie e modelli per coprire gran parte dello spettro radioelettrico, **Protel** produce anche una serie di accessori atti a semplificare e a rendere operativi al meglio tutti i sistemi di misura e controllo. Con l'utilizzo di questi articoli, sarà possibile da parte dell'operatore montare, utilizzare e trasportare tutte le nostre antenne nella maniera più corretta.

*Among the products available **Protel** produce accessories and options to help the user to install, transport or use the antennas.*



**MOD. POL 01**

**Polarizzatore** da montare sul palo di supporto per ottenere il cambio automatico di polarizzazione. Realizzato in alluminio anodizzato altamente resistente agli agenti atmosferici. Permette l'innesto di supporti aventi un diametro di 29.7 mm. L'attacco ai pali di sostegno si ottiene per mezzo di una flangia con diametro di 66 mm. Con quattro fori passanti filettati da 5 MA ad interasse 38 mm. Alimentazione 24 Vcc.

*It allows to select the **polarization plane**. To be mounted on the mast; it changes automatically the polarization. Made of weather resistant anodized aluminum. Usable with mast  $\varnothing$  29.7 mm. coupling flange  $\varnothing$  66 mm. With 4 holes 5 MA screw wheelbase 38 mm. Power supply 24 Vcc.*

**Supporto di sostegno** isolante adatto a tutte le antenne della serie ARL e ARY. Permette di montare l'antenna verticalmente senza avere l'influenza del palo metallico di sostegno. E' assolutamente indispensabile per le misure in polarizzazione verticale. Costruito con materiali isolanti, quali VTR e PVC, è altamente resistente alle sollecitazioni meccaniche. Il diametro per l'innesto del palo di sostegno è di 29.9 mm. e viene fornito di serie con una lunghezza di 1000 mm. Peso 900 g.

**Isolation fiberglass pole** suitable with all **Protel** antennas type ARL and ARY. Absolutely necessary for vertical polarization measurements, it allows to avoid metallic pole interference. Strong to mechanical stress,  $\varnothing$  29.9 mm. Length 1000 mm. Weight 900 g.



**MOD. SUPIS 01**



**MOD. ADIP 01**

**Adattatore meccanico** che permette di utilizzare le antenne serie AR0213 su pali aventi un attacco quadrato. L'innesto misura 15.98 x 15.98, è costruito in ottone nichelato e pesa 660 g.

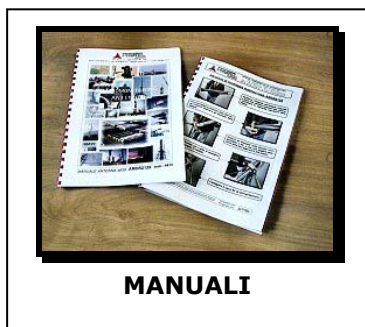
**Mechanical square pole adaptor** for **Protel** antennas type AR0213. Square clutch mm 15.98 x 15.98, made of nickel-plated brass. Weight 660 g.

**Borsa di trasporto** in resistente nylon idrorepellente, versioni diverse per tutti i modelli **ARL**, **ARY**, **AR**. Completa di tasche interne per l'alloggiamento di tutti gli accessori e dei manuali. L'apertura principale è situata nella parte superiore, richiudibile mediante una robusta cerniera.

**Strong nylon water-resistant hand bag** for **Protel** antennas type **ARL**, **ARY**, **AR** with big pockets for accessories and manual.



**MOD. BAG . . .**



**MANUALI**

Ogni antenna viene fornita con il relativo **manuale**, unico ed esclusivo, riportante la matricola dell'articolo acquistato e contenente tutte le caratteristiche tecniche e le prove eseguite sull'esemplare. Ogni antenna **Protel** viene singolarmente testata, collaudata ed immatricolata. All'interno viene fornita anche la dichiarazione di conformità alle relative norme di riferimento.

*Each **Protel** antenna is singularly tested and the reports are included in the **manual** with serial number and approval test.*



**PROTEL**  
**ANTENNE**

**UFFICI COMMERCIALI E LABORATORI:**

Via Magellano, 3 A/B int. 6 - 20090 CESANO BOSCONI (MI)

Tel.: + 39.02.4860.0265 - Fax: + 39.02.4860.0871

WEB: [www.protel.it](http://www.protel.it) - E-mail: [sales@protel.it](mailto:sales@protel.it)

## **NOVITÀ**

### **SISTEMA **PROTEL** ARAPC01 PER IL CAMBIO AUTOMATICO POLARIZZAZIONE ANTENNE**



- ☑ In pochi secondi potete cambiare la polarizzazione delle vs. antenne.
- ☑ Adattabile su qualsiasi tipo di palo, traliccio o mezzo mobile.

- ☑ Telealimentazione diretta 12 Vcc su cavo coassiale.
- ☑ Protezione contro cortocircuiti e sovraccarichi momentanei sull'antenna.
- ☑ Utilizzabile sino a 2.5 GHz



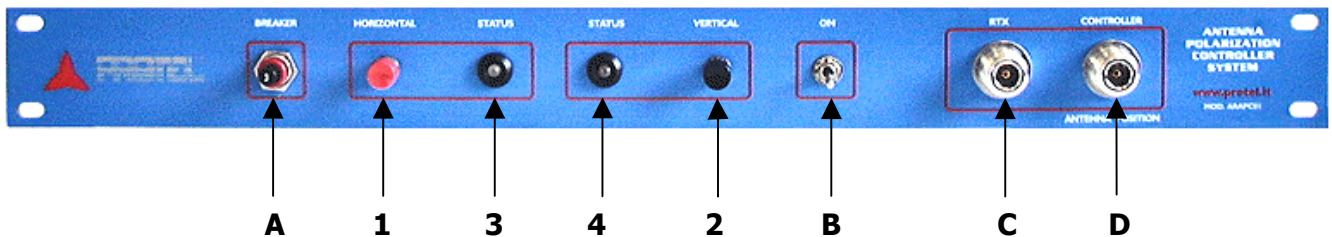
**Esempio  
polarizzazione  
verticale**

**Esempio  
polarizzazione  
orizzontale**



## Istruzioni Polarizzatore Automatico ARAPC01

L'apparato PROTEL mod. ARAPC01 è composto da due unità distinte e separate. La prima, visibile nella foto qui sotto, rappresenta il modulo a rack 19" contenete il sistema di controllo, mentre nella foto a destra è visibile l'attuatore meccanico che consente all'antenna la rotazione di 90°.



A – Protezione termica

B – Interruttore di accensione

C – Ingresso coassiale apparecchiature RTX

D – Uscita coassiale verso l'attuatore

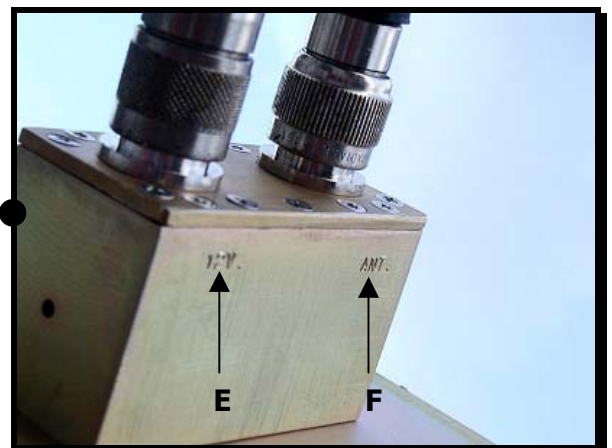
1 – Pulsante di comando polarizzazione orizzontale

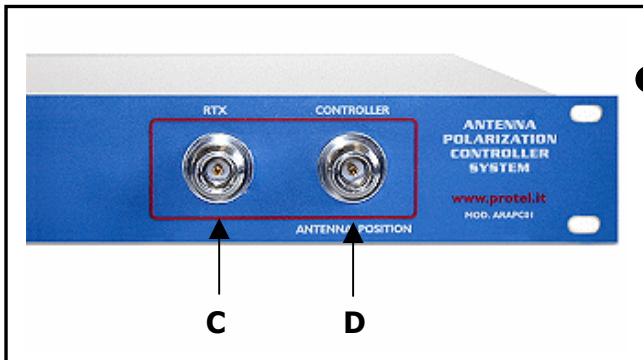
2 – Pulsante di comando polarizzazione verticale

3 – Led di segnalazione polarizzazione orizzontale

4 – Led di segnalazione polarizzazione verticale

Collegare il cavo proveniente dal controllore al rack sul connettore "E" e quello verso l'antenna sul connettore "F".





**Collegare il cavo proveniente dal RTX sul connettore "C" ed il cavo proveniente dall'antenna al connettore "D".**

**Fissare l'antenna sul giunto rotante tramite le apposite viti in dotazione, come indicato in fotografia.**



## **ISTRUZIONE PER LA MESSA IN FUNZIONE**

**Collegare l'alimentatore fornito di serie nella presa posta sul retro dell'apparato a rack "19".**

**Mettere su "ON" l'interruttore sul pannello frontale.**

**Per posizionare l'antenna premere a scelta i pulsanti 1 > ORIZZONTALE oppure 2 > VERTICALE.**

**Il posizionamento iniziale dell'antenna è segnalato dal corrispondente led su verde fisso.**

**Operata una scelta, il led relativo lampeggia in rosso per segnalare l'inizio della rotazione dell'antenna. Raggiunta la posizione, il lampeggio passa in verde per poi restare fisso.**

**In questo istante l'apparato ha completato il posizionamento dell'antenna segnalando l'assetto raggiunto: led 1 verde acceso > posizione orizzontale, oppure: led 2 verde acceso > posizione verticale.**

### **Attenzione:**

**Il sistema di controllo del polarizzatore automatico è protetto contro i cortocircuiti e sovraccarichi, pertanto se non viene eseguita correttamente la sequenza luminosa dei led: lampeggio rosso - lampeggio verde - fisso verde, significa che vi sono in atto delle possibili problematiche (tipo: temperatura esterna inferiore a - 30 gradi, grossi ostacoli momentanei sull'antenna, ecc.) che molto probabilmente indurranno a far intervenire la protezione termica (A), che dovrà successivamente essere ripristinata premendo il relativo pulsante.**