


<b>ANT S.r.l.</b> Via della Concordia, 4 – 37036 S. Martino B/A (VR) - Italia Tel. +39 045 8781380 Fax +39 045 8795335 e-mail: <a href="mailto:commerciale@antsrl.eu">commerciale@antsrl.eu</a> <a href="http://www.antsrl.eu">www.antsrl.eu</a>	<b>DESCRIPTION</b>	
	<b>Multiband antenna with con radiating element  specific for each frequency band</b> Suitable for applications 433-868/915MHz LoRa, LoRaWAN, Sigfox, ISM	

**Vardar**

**P/N: F04-000**

**ELECTRICAL DATA:**

Frequency range:	410-460 / 860-950 MHz
Impedance:	50 Ω
V.S.W.R. at 433 MHz:	< 2 : 1
V.S.W.R. at 868/915 MHz:	< 2 : 1
Max Power:	15 W
Polarisation:	Linear
Radiation:	Omnidirectional
Gain 433 MHz:	2.1 dBi
Gain 868/915 MHz:	2.1 dBi

**MECHANICAL DATA:**

Dimensions (about):	Ø15x190 mm
Connection:	SMA plug (other on request)
Cable:	On request
Operating Temperature:	-40° / +80°C
Weight:	0.040 kg
Radome material:	Thermoplastic elastomer (over moulded antenna)
Radiating element material:	Stainless steel, brass
Accessories:	Gasket to cover SMA socket nut.
Mounting thickness on SMA-F connector thread L=11.4mm antenna with gasket:	thickness 1 to 2.5mm
antenna without gasket:	thickness 3 to 4.5mm



**Protection against oxidation:** the antenna is designed to be able to withstand the worst climatic conditions, and so that the oxidation of its parts is prevented with the plastic parts being made of raw materials resistant to external environmental agents.

**Protection against accidental hits:** the antenna is designed so that persons are protected from accidental hits against its projecting parts.

**RoHS directive:** The antenna complies with the RoHS Directive and its subsequent.

**MOUNTING INSTRUCTIONS**

Please connect the antenna on a SMA socket connector (6.5mm hole), if it is positioned on box, the provided gasket is to be used depending on the thickness of the box.

**WARNING:**

For correct installation, please place the antenna so that it is at least 5 cm apart from any metallic object and so that it is in vertical position and possibly in the centre of the ground plane.  
(The antenna requires a suitable ground plane to achieve the stated performances).

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## DESCRIPTION

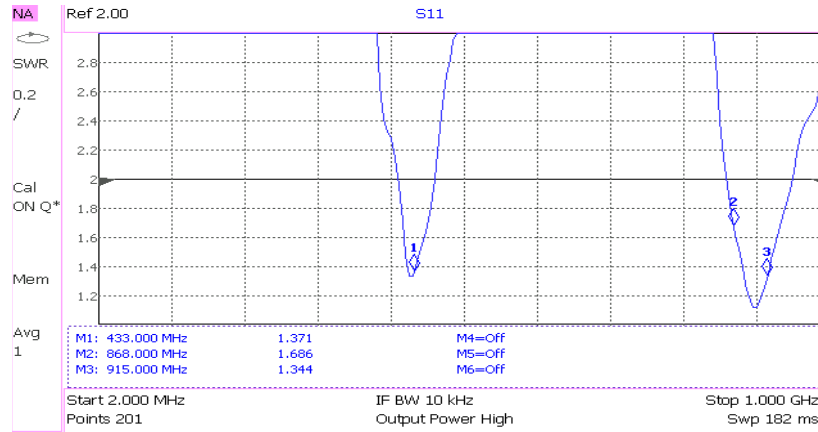
**433 MHz and 868/915 MHz multiband antenna**  
Omnidirectional antenna with SMA plug connection,  
with specific radiating element for each frequency  
band (ensuring the best performance achievable with  
 $\lambda/4$  geometry -  $\lambda/4$  wave)



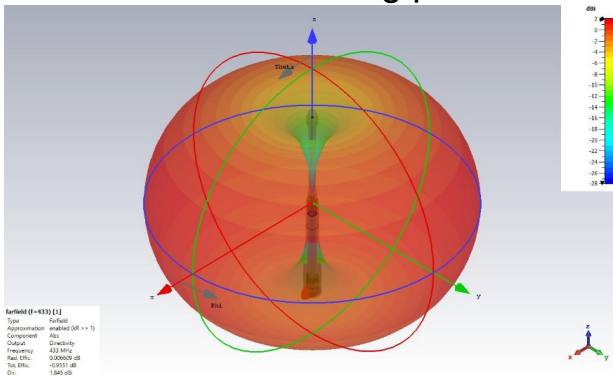
**Vardar 433-868-915**

**P/N: F04-000**

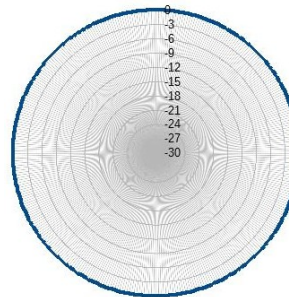
**V.S.W.R.** (tested with antenna onto device)



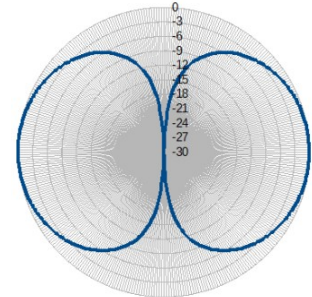
**433MHz Radiating pattern**



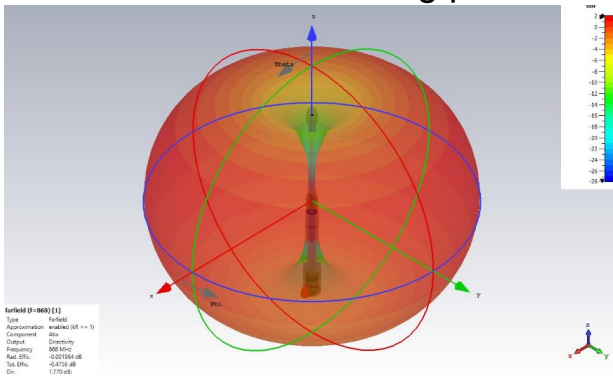
**H Plane**



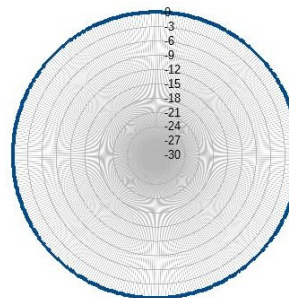
**E Plane**



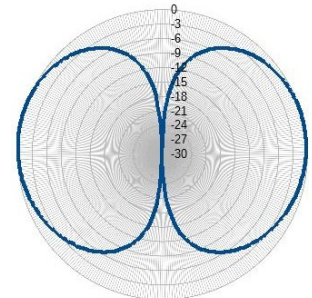
**868/915MHz Radiating pattern**



**H Plane**



**E Plane**



### **ITS NAME:**

The **Vardar** is a cold spring wind blowing from the northwest through the Vardar valley down to the Gulf of Thessaloniki in Greece. It forms when the atmospheric pressure over Eastern Europe is higher than over the Aegean Sea, mainly in winter. It is also called **Vardarac**.