

IN2215

Low Profile MiMo Antenna

PANORAMA ANTENNAS

11/04/2017 v.1

Low Profile MiMo Antenna

Panel mount

2 x 2 Cellular /LTE MiMo

Robust and cost effective solution for M2M and IOT applications

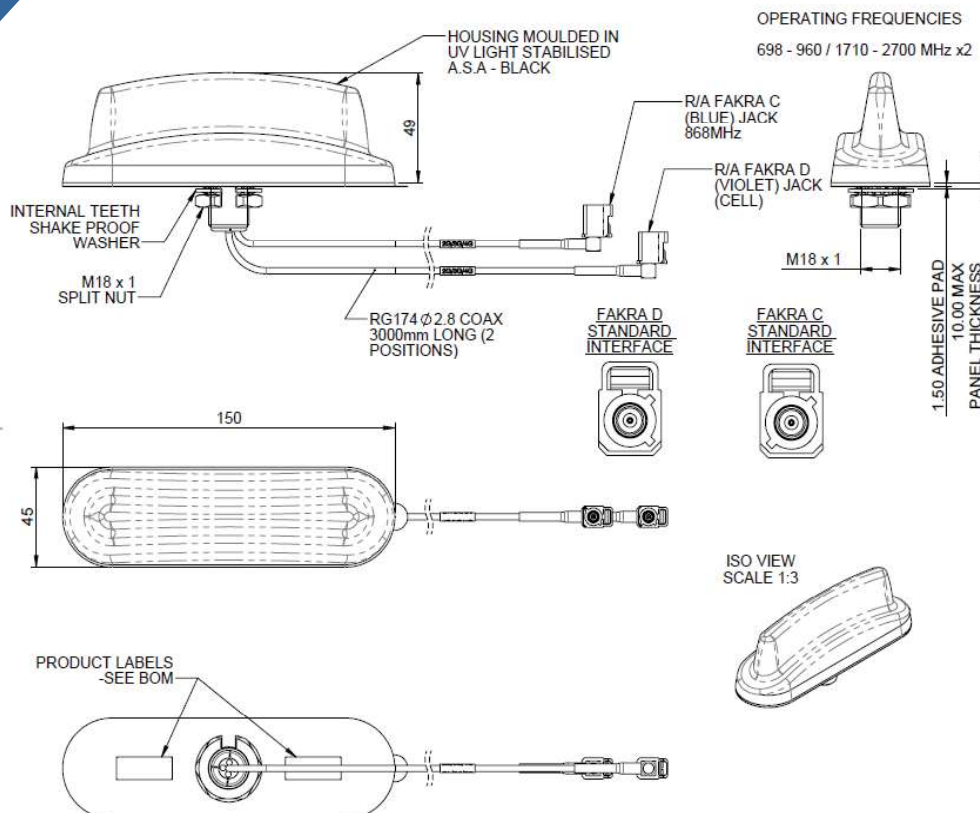


The IN2215 has been designed to provide MiMo Cellular /LTE antenna functionality for IOT and M2M applications. The compact, robust low-profile housing is weatherproof and contains two antenna elements with effective isolation and correlation covering all current global cellular and LTE bands in freq. range 698-960/1710-3800MHz. One of these elements can be used for Cellular and the other for 868MHz if desired.

The antenna can be fitted on a non- conductive panel if required* and offers easy, quick, secure and weatherproof installation with the single hole mounting bush and acrylic adhesive sealing pad. Supplied with integrated 3m (10') cables and 1x FAKRA D Jack (cellular) and 1x FAKRA C Jack (868MHz) the IN2215 is configured for applications requiring these connectors.

* Performance may change depending on mounting position/surface.

Technical Drawing



Part No.

IN2215

Electrical Data

Frequency Range	Elements 1 & 2	698-960 / 1710-3800
Peak Gain: Isotropic †	Element 1 & 2: 698-960MHz	1.5dBi
	Elements 1 & 2: 1710-2170MHz	4.5dBi
	Elements 1 & 2: 2500-3800MHz	5dBi
Pattern		Omni-directional
Nominal Impedance		50Ω
Max input power (W)		20

Mechanical Data

Dimensions (mm)	Height	49 (1.92")
	Length	150 (5.90")
	Width	45 (1.77")
Operating Temp (°C)		-30° / +70°C (-22° / 158°F)
Material		UV Stable ASA Plastic
Colour		Black
Typical Weight (g)		337

Mounting Data

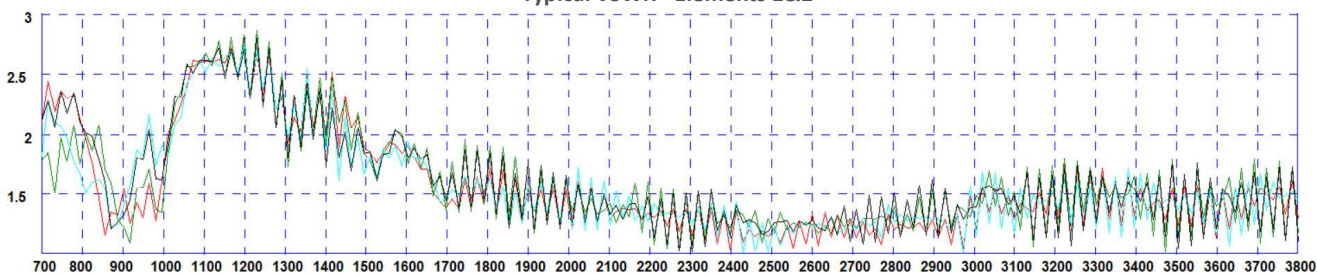
Fixing	18mm (3/4") mounting bush and acrylic adhesive pad
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Cable Data

Element 1:	Cable Type	RG174
	Diameter (mm)	2.8 (0.1")
	Length (m)	3 (9.8')
	Termination	FAKRA D Jack
Element 2:	Cable Type	RG174
	Diameter (mm)	2.8 (0.1")
	Length (m)	3 (9.8')
	Termination	FAKRA C Jack

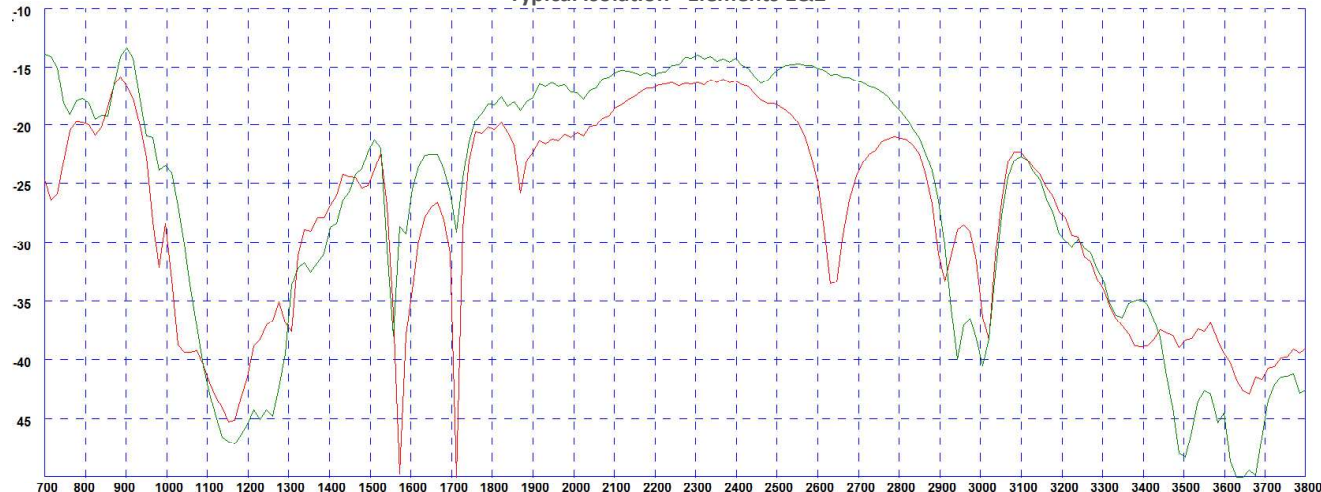
† Peak gain simulated off a groundplane and does not include cable attenuation

Typical VSWR - Elements 1&2*



* VSWR measured with 3m (10') of RG174 cable Green and Red Plots = Elements 1&2 in free space Black and Blue plots = Elements 1&2 on a 400x400mm ground plane

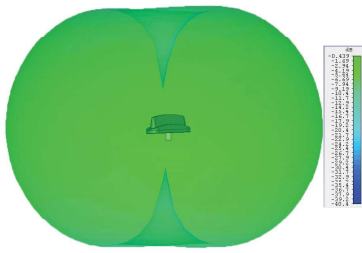
Typical Isolation - Elements 1&2*



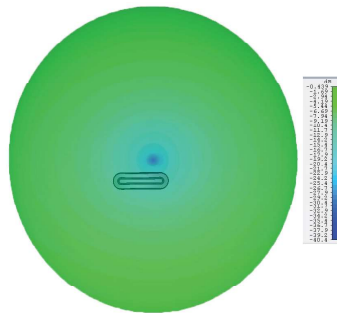
* Isolation measured with 3m (10') of RG174 cable Red Plot = mounted on a 400x400mm (1'4" x 1'4") ground plane Green Plot = free space

Typical 3D Radiation Patterns - Cell / LTE Elements 1&2

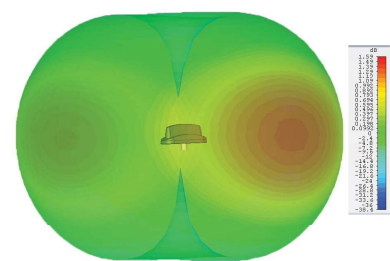
3D Gain Plot Side (700MHz)



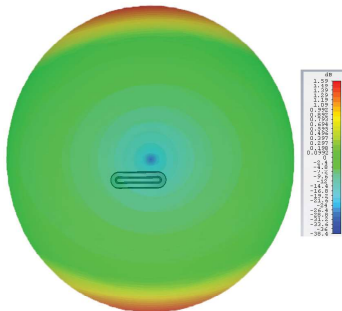
3D Gain Plot Top (700MHz)



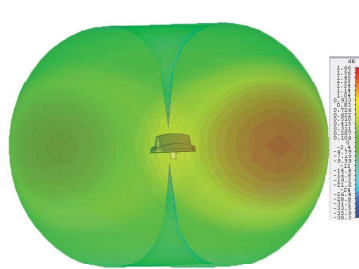
3D Gain Plot Side (800MHz)



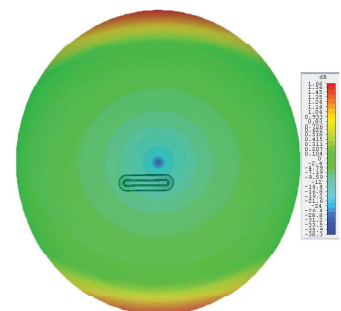
3D Gain Plot Top (800MHz)



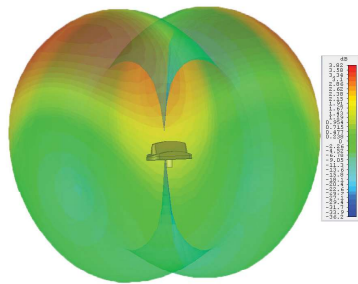
3D Gain Plot Side (900MHz)



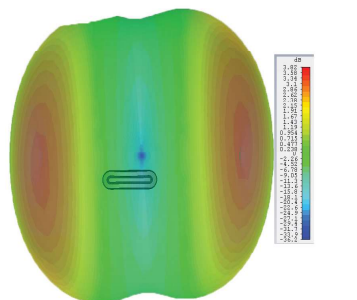
3D Gain Plot Top (900MHz)



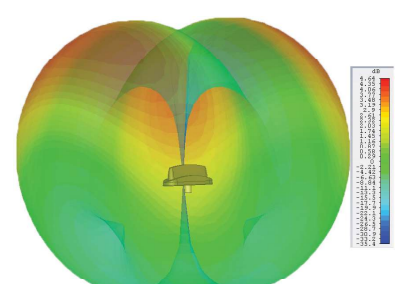
3D Gain Plot Side (1800MHz)



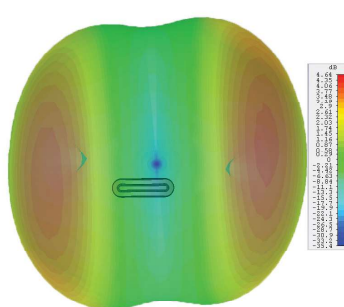
3D Gain Plot Top (1800MHz)



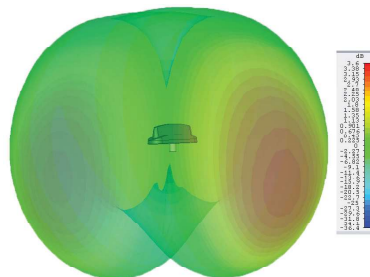
3D Gain Plot Side (2100MHz)



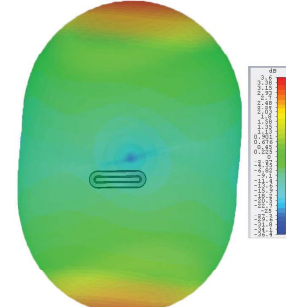
3D Gain Plot Top (2100MHz)



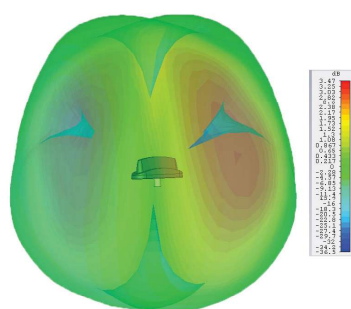
3D Gain Plot Side (2600MHz)



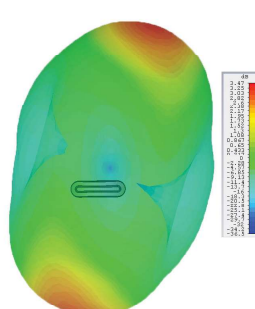
3D Gain Plot Top (2600MHz)



3D Gain Plot Side (3600MHz)



3D Gain Plot Top (3600MHz)



*3D radiation patterns simulated in CST Microwave Studio with both elements fed together.