



- 2 Functions In 1 Antenna
- ESN Transition Antenna
- Ultra-Wide Bandwidth 698MHz – 6000Mhz
- 2x2 MiMo Dual Band WiFi
- Low Profile OEM Styled Sharkfin
- Simple Single Hole Installation
- CE Directive 2014/53/EU Compliant

This 'Mallard' is supplied as a kit with all coax cables with market leading isolation to support ESN, there is no need to fit two antennas to your vehicle. With many fitting kit options available there is no reason to drill unwanted holes to the roof of your car. Contact Sure Antennas for many optional fitting accessories.

Designed as a multi-function antenna the Mallard supports 2x2 MiMo from 698MHz to 6GHz with a minimum 4dBi gain across the whole band.

With a single hole installation, and so many potential frequency functions on offer, this antenna would help reduce installation costs and protect your vehicles resale value. Available with an option of 3m or 5m low loss coax extension cables all terminated and labeled for ease of installation.

Additional Part Number Options	
SK0200160	Mallard Antenna 2 in 1 Black incl 5m Coax Cables – 2x2 LTE
SK0200162	Mallard Antenna 2 in 1 Black incl 3m Coax Cables – 2x2 LTE
SK0200172	Mallard Antenna 2 in 1 Black incl 3m Coax Cables – 2x2 WiFi
SK0200220	Mallard Antenna 2 in 1 White incl 5m Coax Cables - 2x2 LTE
SK0200222	Mallard Antenna 2 in 1 White incl 3m Coax Cables – 2x2 LTE
SK0200230	Mallard Antenna 2 in 1 White incl 5m Coax Cables - 2x2 WiFi
SK0200232	Mallard Antenna 2 in 1 White incl 3m Coax Cables - 2x2 WiFi



SK0200170

'Mallard' Antenna 2 in 1 Black incl 5m Coax Cables



Technical Specifications

Subject to change without prior notice. *excluding external antenna

Electrical Data	2G 3G 4G 5G	WiFi
Frequency Range (MHz)	698-6000 MHz	2.4 GHz & 5.8GHz
Band	2x2 MiMo 2G 3G 4G 5G	2x2 MiMo Dual Band WiFi
VSWR	<2.1:1 TYPICALY 1.5:1	<2.1:1 TYPICALY 1.5:1
Gain	Minimum 4dBi	Minimum 4dBi
Isolation	<-25dB	<-25dB
Polarisation	Vertical	Vertical
Pattern	Omni-directional	Omni-directional
Impedance	50Ω	50Ω
Max Power Input (W)	10W	10W
GPS/GLONASS		
Frequency Range (MHz)	1562-1612	
VSWR	<2:1	
Gain	26dB	
Polarisation	Right Hand Circular	
Operating Voltage	3-5v DC (fed via coax)	
Cable	2x 230mm RG316 Terminated to SMA (m)	
Mechanical Data		
Dimensions (mm)	H80xW70xL230 *	
Operating Temp (°C)	-40 / +80°C (-40° / 176°F)	
Material	ABS	
Colour	Black	
Weight (g)	310	
Ingress Protection	IP66	
Cable Data		
Cable Type	RG316	RG316
length	160mm	200mm
Diameter	2.8	2.8
Termination	SMA (f)	SMA (m) Reverse Polarity
Mounting Data		
Mounting Type	Panel mount	
Mounting Hole (mm)	15mm	
Max Panel Thickness (mm)	10mm	

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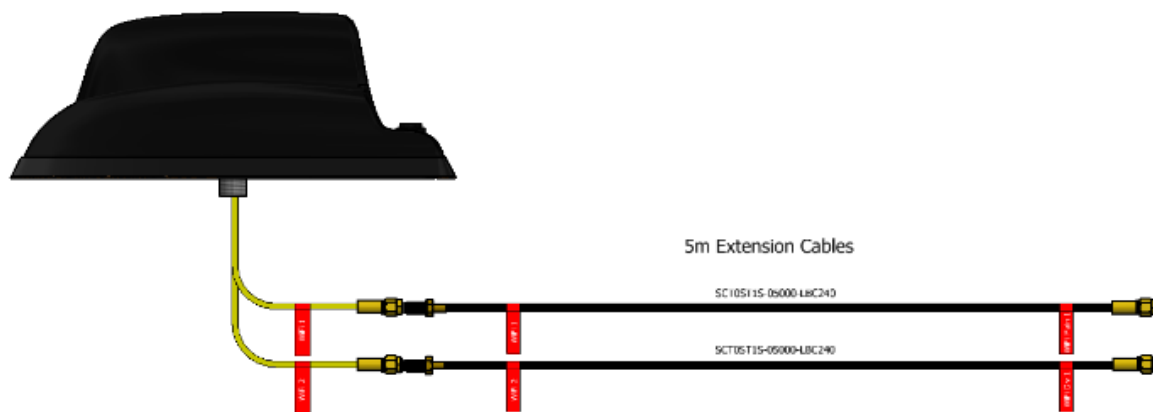
'Mallard' Antenna 2 in 1 Black incl 5m Coax Cables



Supplied Coax Extension Cables

Coax Cables	2x WiFi
Cable Type	SBC240
length	5m or 3m
Diameter (mm)	6.1
Min. Bend Radius (mm)	30
Operating Temp. °C	-40-80
Termination	Water Blue Fakra Z (f)
Labeling	WiFi M & WiFi A

Technical Drawing


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'Mallard' Antenna 2 in 1 Black
incl 5m Coax Cables

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Mallard Antenna Dimensions



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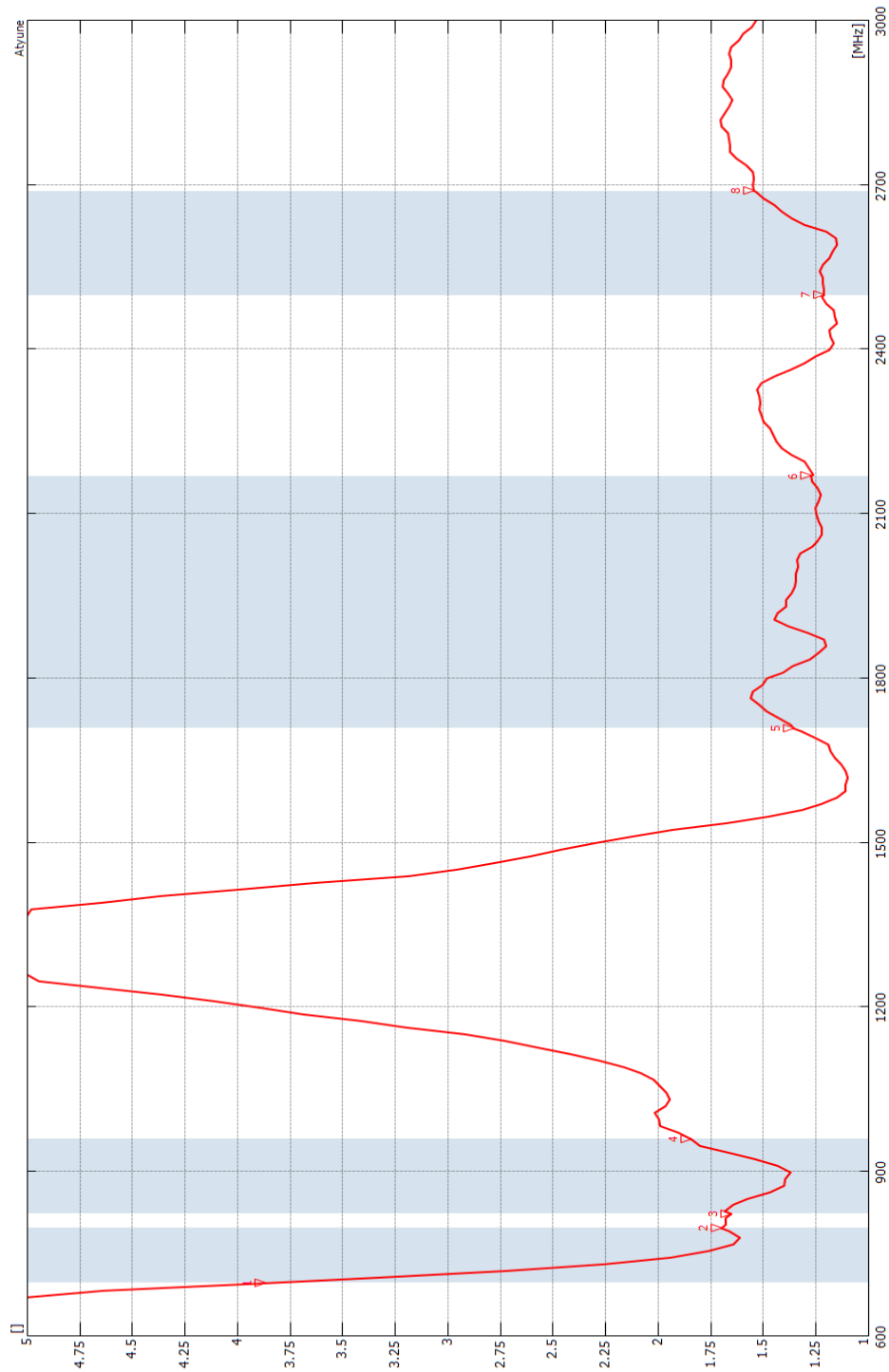


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'Mallard' Antenna 2 in 1 Black
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LTE VSWR Plot



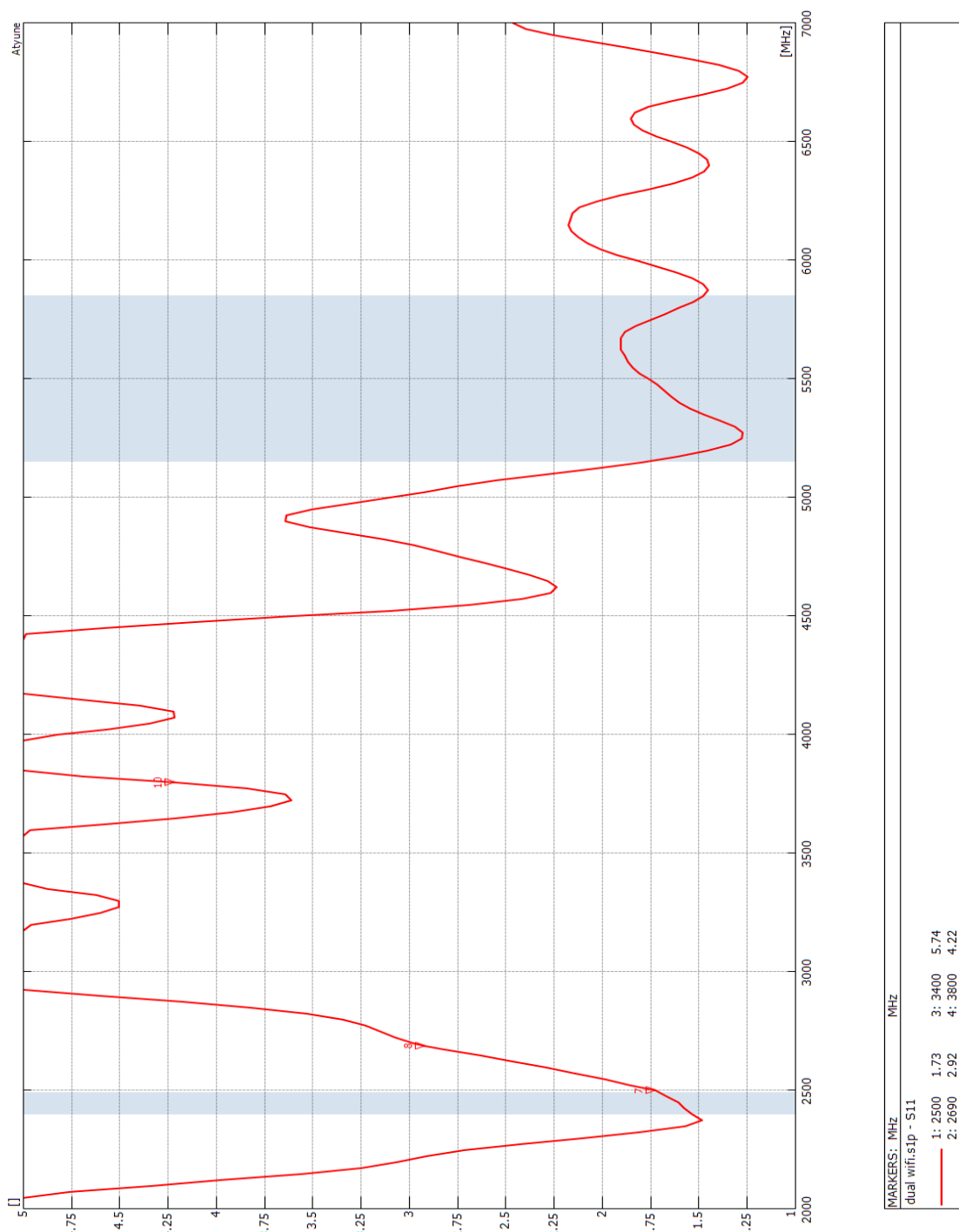
MARKERS:	MHz	MHz	MHz
lte_mallard.s2p - S11			
1:	698	3.87	3.824
2:	798	1.70	4.960
3:	824	1.65	3.824
4:	960	1.85	4.960
5:	1710	1.36	5.170
6:	2170	1.27	6.2170
7:	2500	1.22	7.2500
8:	2690	1.54	8.2690

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WiFi VSWR Plot



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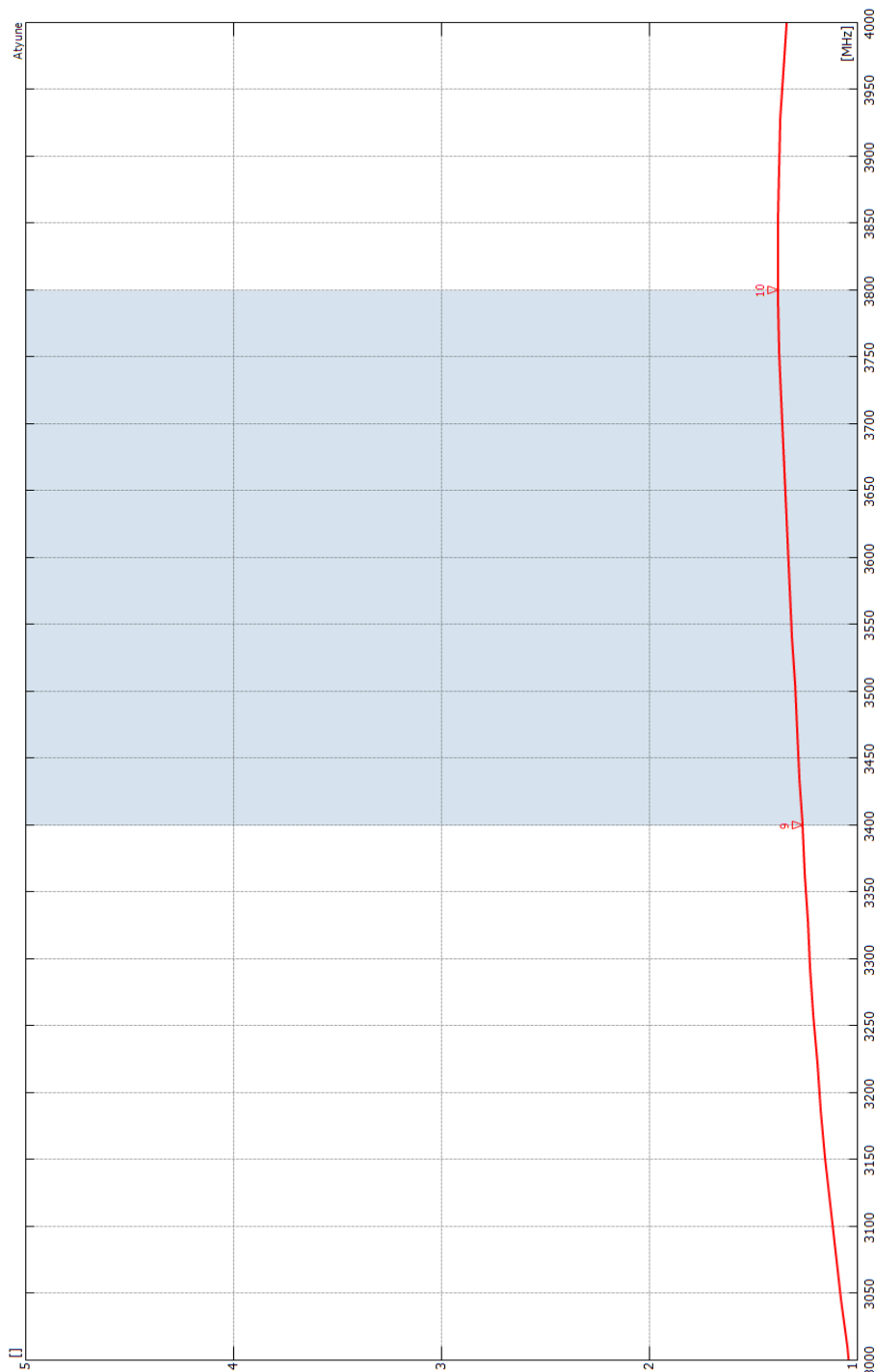


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'Mallard' Antenna 2 in 1 Black incl 5m Coax Cables



5G VSWR Plot



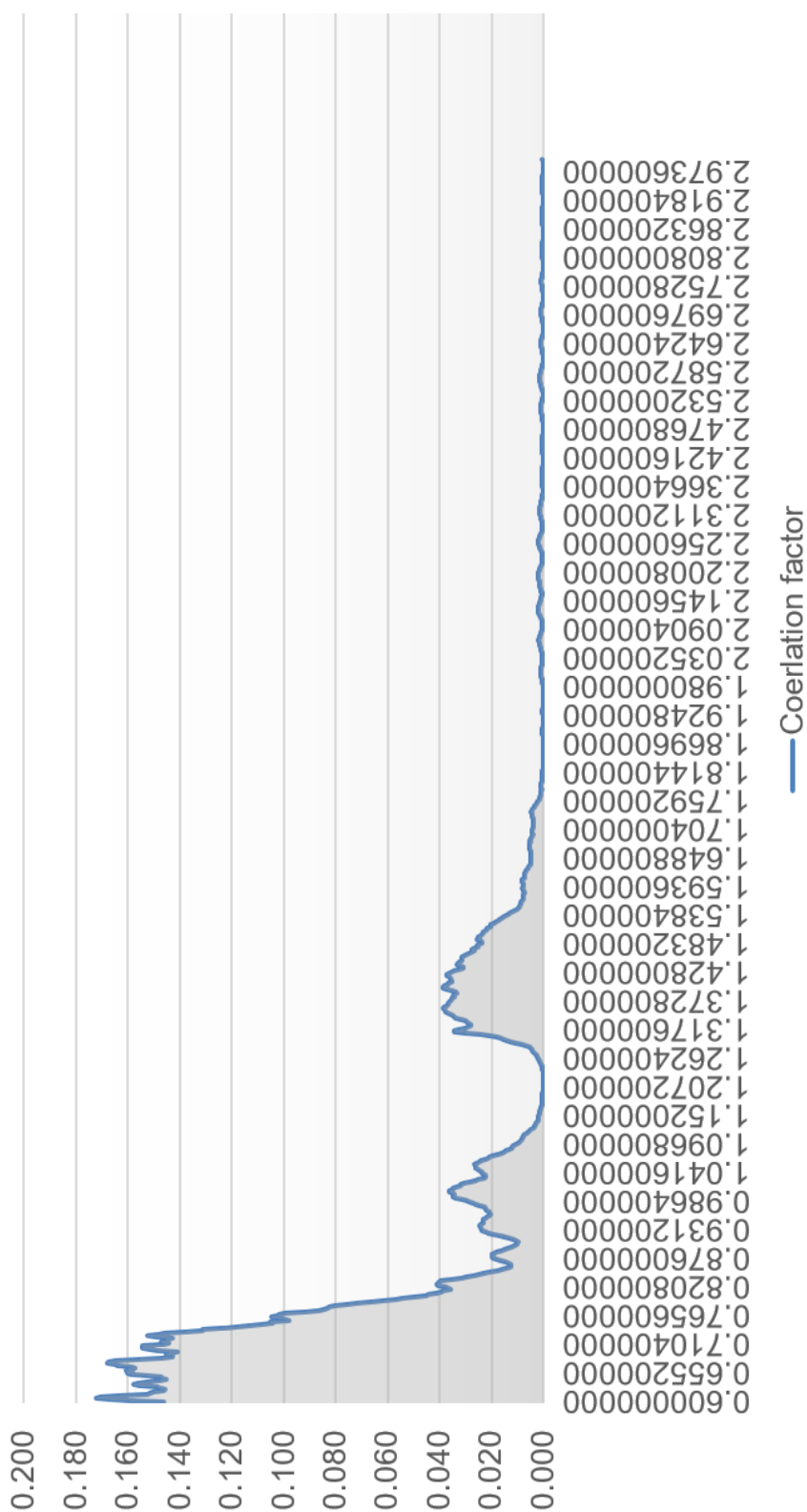
MARKERS: MHz		MHz	MHz	MHz	MHz					
LTE DATA HFSS.s1p - S11										
1:	698	2.91	3: 824	1.46	5: 1710	1.14	7: 2500	1.47	9: 3400	1.27
2:	798	1.59	4: 960	2.02	6: 2170	1.60	8: 2690	1.28	10: 3800	1.38

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LTE Correlation Coefficient

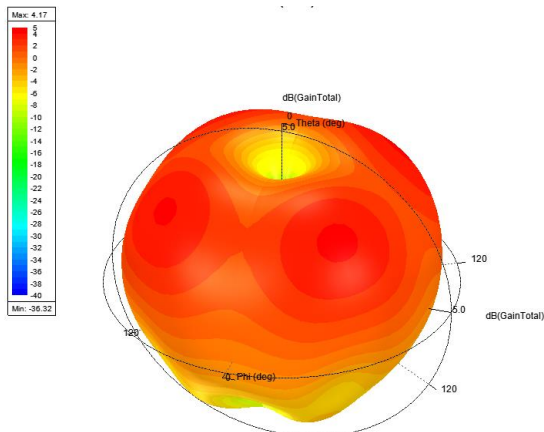


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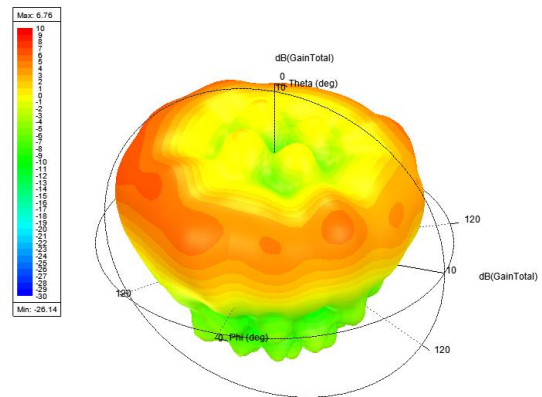


Antenna 3D Gain Plots

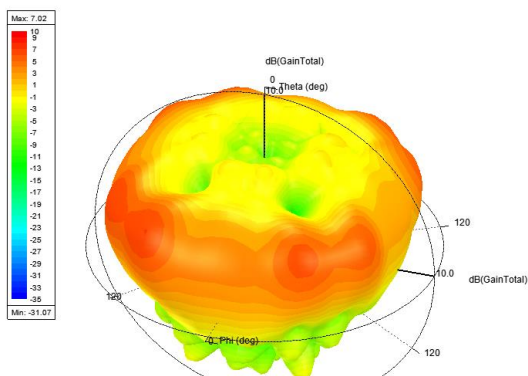
0.82 GHz



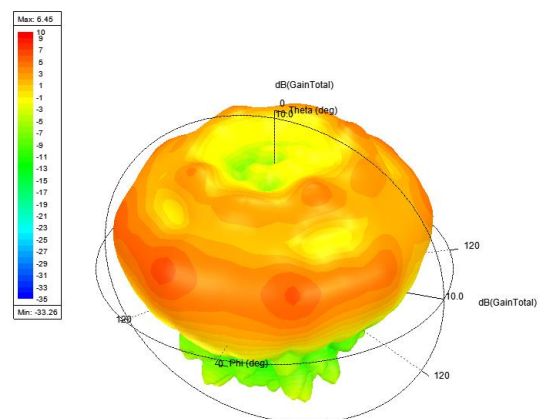
1.82 GHz



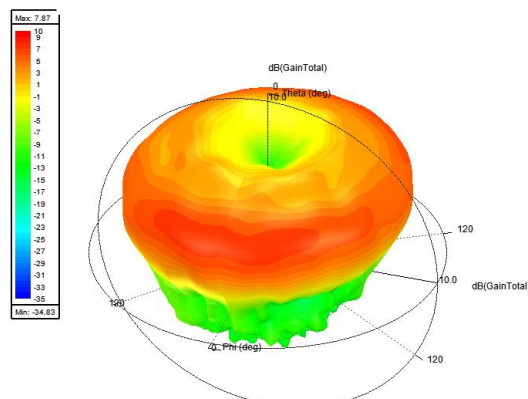
2.14 GHz



2.6 GHz



3.6 GHz



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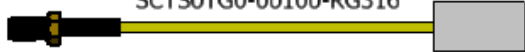


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Optional Installation Accessories

0250-MP074.01	Mallard Thread Extender M14x1.5	
SK0229200	WiFi Adaptor Cable 500mm Panasonic CF33 Havis Dock RP SMA - TNC	
SK0229201	LTE Adaptor Cable 500mm Panasonic CF33 Havis Dock SMA - TNC	
SK0229202	GPS Adaptor Cable 500mm Panasonic CF33 Havis Dock SMA - TNC	
SK0125500	GPS Adaptor Cable 10mm Handsfree R5 SMA - Blue Fakra	
SK0125501	WiFi/Bluetooth Adaptor Cable 10mm Handsfree R5 RP SMA - Water Blue Fakra	
SCTS0TG0-00100-RG316	GPS Adaptor Cable 10mm Cleartone SMA – GT5	
ST50S0	GPS or LTE 50 ohm Terminations : SMA Female	
ST500S	WiFi 50 ohm Terminations : SMA Female RP	
Other optional custom coax cables are available, please contact us for more information.		

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