



- 5 Functions In 1 Antenna
- ESN Transition Antenna
- 2x2 MiMo Wideband 2G 3G 4G 5G
- Ultra-Wide Bandwidth 698MHz – 6000Mhz
- 2x2 MiMo Dual Band WiFi
- Low Profile OEM Styled Sharkfin
- Simple Single Hole Installation
- GPS/GNSS Port DC Isolated
- 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 the additional functionality of 2x2 MiMo 2.4/5.8GHz WiFi function, GPS/GNSS Port, this antenna would be an ideal solution for future proofing your new vehicle installations for ESN.

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	
SK0200200	Mallard Antenna 5 in 1 White incl 5m Coax Cables
SK0200142	Mallard Antenna 5 in 1 Black incl 3m Coax Cables
SK0200202	Mallard Antenna 5 in 1 White incl 3m Coax Cables



SK0200140

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



Technical Specifications

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	1x 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	

Subject to change without prior notice.

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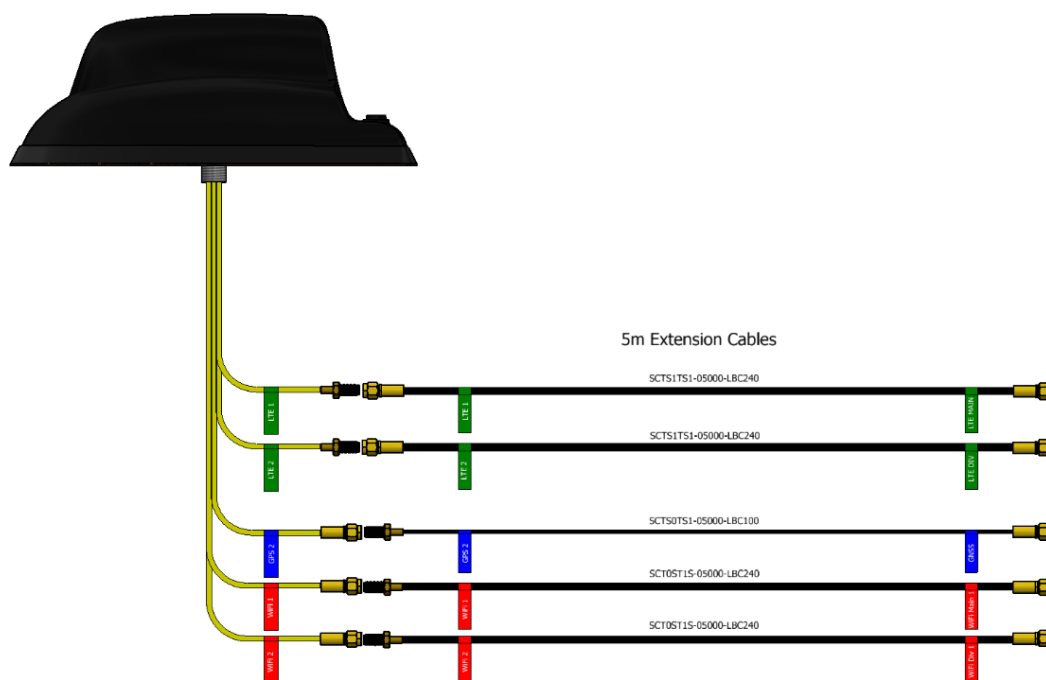
'Mallard' Antenna 5 in 1 Black incl 5m Coax Cables



Supplied Coax Extension Cables

Coax Cables	2x LTE	2x WiFi	1x GPS
Cable Type	SBC240	SBC240	SBC100
length	5m or 3m	5m or 3m	5m or 3m
Diameter (mm)	6.1	6.1	2.8
Min. Bend Radius (mm)	30	30	14
Operating Temp. °C	-40-80	-40-80	-40-80
Termination	SMA (m)	SMA Reverse Polarity (m)	SMA (m)
Labeling	LTE M & LTE A	WiFi M & WiFi A	GPS

Technical Drawing


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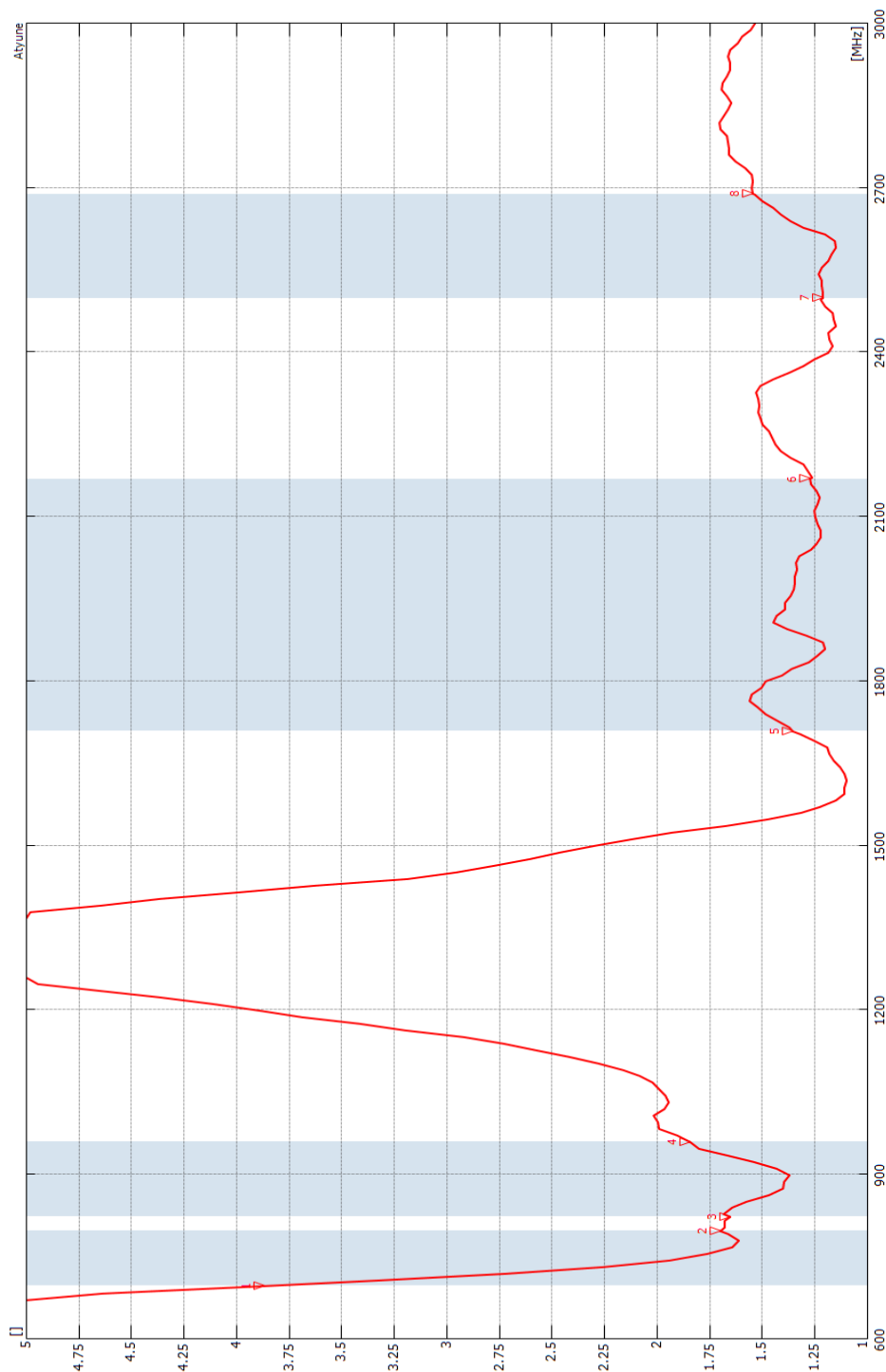



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LTE VSWR Plot



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

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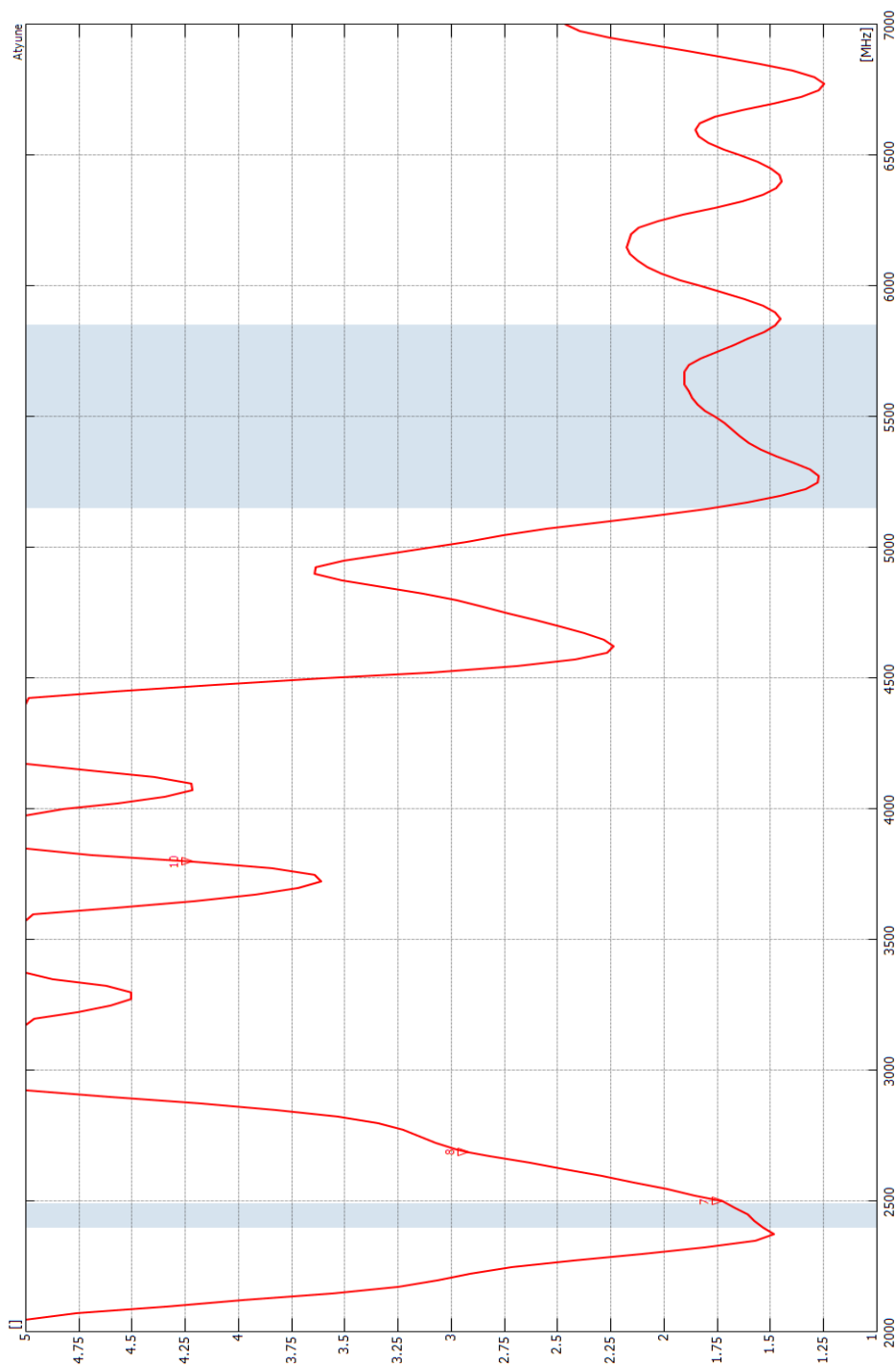



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'Mallard' Antenna 5 in 1 Black incl 5m Coax Cables



WiFi VSWR Plot



MARKERS: MHz	MHz
dual wifi.s1p - S11	
1: 2500	1.73
2: 2690	2.92
3: 3400	5.74
4: 3800	4.22

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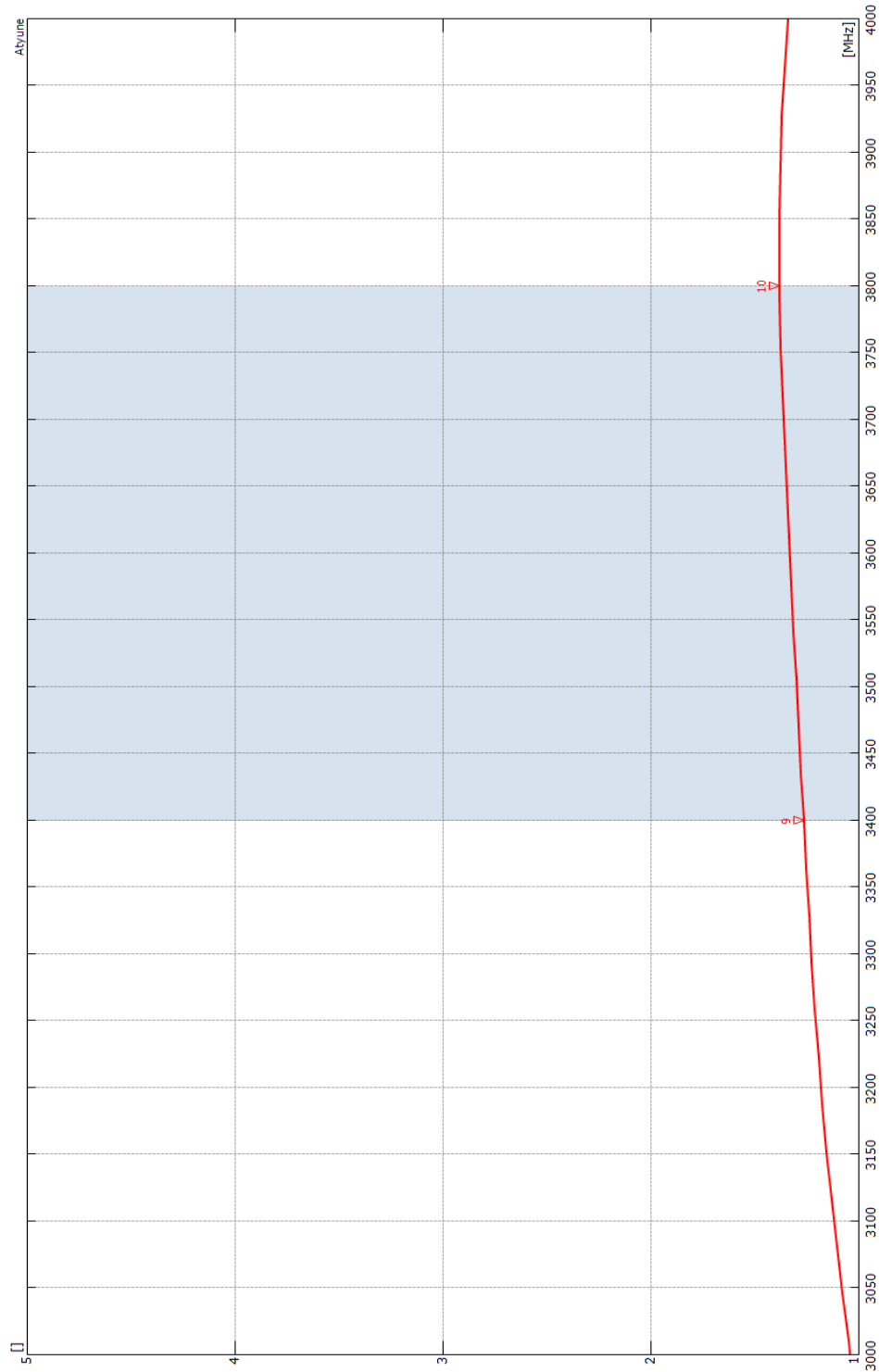



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‘Mallard’ Antenna 5 in 1 Black
incl 5m Coax Cables



5G VSWR Plot



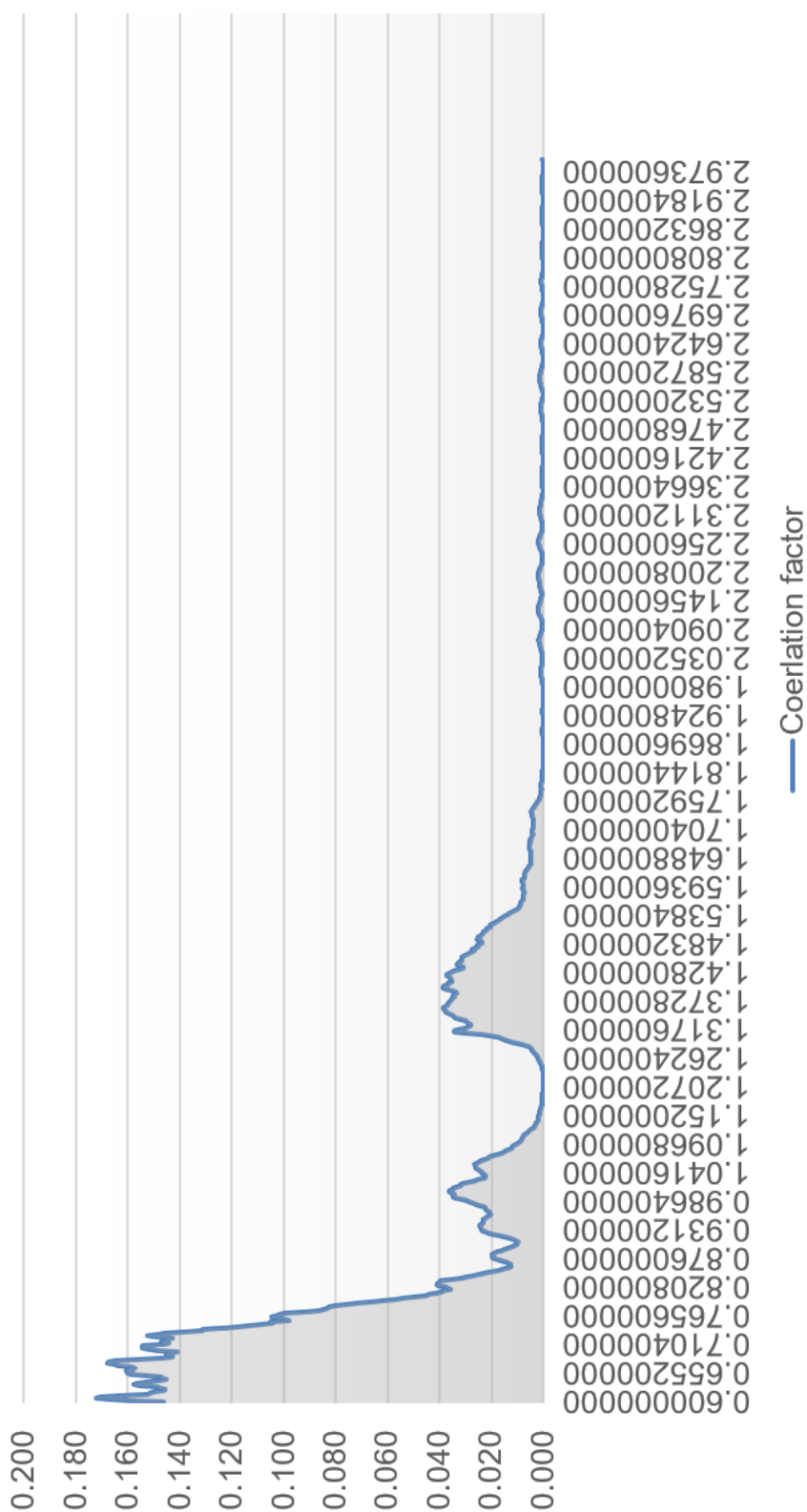
MARKERS: MHz	MHz	MHz	MHz	MHz					
LTE DATA HFSS.s1p - S11									
1: 698	2.91	3: 824	1.46	5: 1710	1.14	7: 2500	1.47	9: 3400	1.27
2: 798	1.59	4: 960	2.02	6: 2170	1.60	8: 2690	1.28	10: 3800	1.38

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LTE Correlation Coefficient

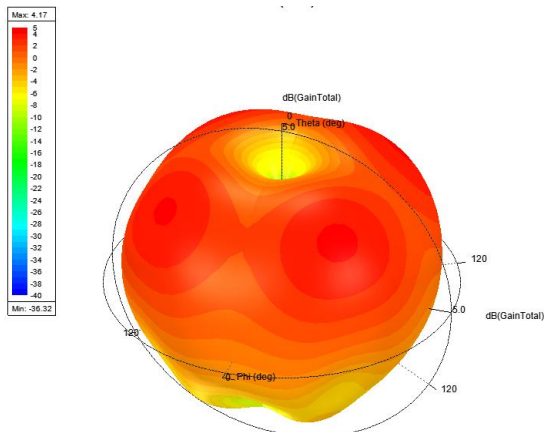


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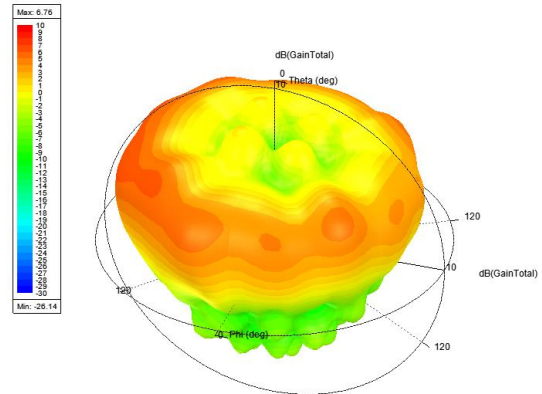


Antenna 3D Gain Plots

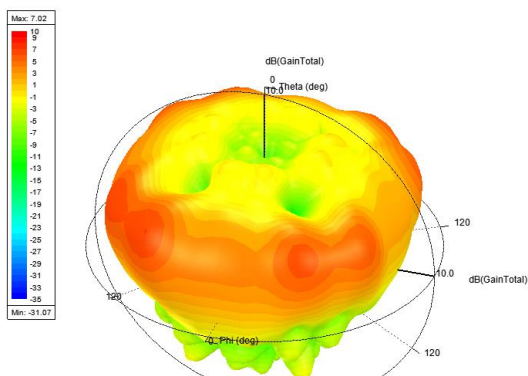
0.82 GHz



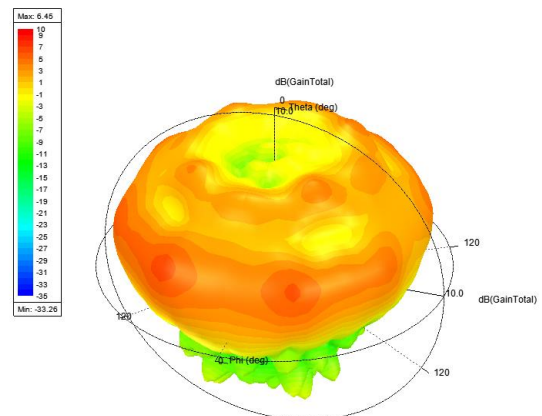
1.82 GHz



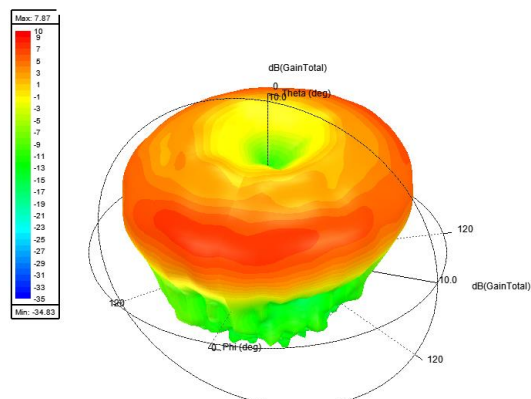
2.14 GHz



2.6 GHz



3.6 GHz



Subject to change without prior notice.



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.		