



- 11 functions in 1 antenna
- Optional support for Tetra whip
- 4x4 MiMo Wideband 2G 3G 4G 5G
- Ultra-Wide Bandwidth 698MHz – 6000Mhz
- 4x4 MiMo Dual Band Wi-Fi/WiMAX
- Low Profile
- Simple single hole installation
- 2x GPS/GNSS Ports DC isolated
- CE Directive 2014/53/EU Compliant

Part number SK0200770, affectionately named by us as the ‘Sand Castle’ is a multifunction antenna specifically designed to help future proof blue, and amber light vehicle fleets allowing 11 functions in single panel mounted antenna.

Boasting 4x Ultra-Wideband cellular antenna elements covering 698MHz to 6GHz, this antenna could future proof your vehicle installation for years to come. With a minimum 4dBi gain across the band, this antenna is an efficient option for all public safety applications. If the whip option is not being used the ‘Sand Castle’ can be mounted as a ground plane independent antenna allowing for an easier installation.

With the addition of GPS, 4x4 MiMo Dual Band Wi-Fi, and Tetra whip, the need for drilling multiple holes in your vehicles roof is long gone, as this only needs a single 19mm hole. Other variants are available including low loss coax cable fitting kits. Please contact us for more details.

Alternative Part Number Options

SK0200720	Sandcastle 11 in 1 Black. Inc 5m Coax Cables - Tetra
SK0200722	Sandcastle 11 in 1 Black Inc 3m Coax Cables - Tetra
SK0200772	Sandcastle 11 in 1 White Inc 3m Coax Cables - Tetra



Technical Specifications

Part No	8000-311		
Electrical Data			
Frequency Range (MHz)	380 - 430 MHz	698-6000 MHz	2.4 GHz & 5.8GHz
Band	OPTIONAL TETRA WHIP	4x Wideband LTE 4x4 MiMo	4x Dual Band Wi-Fi 4x4 MiMo
VSWR	<2.1:1 TYPICALY 1.5:1	<2.1:1 TYPICALY 1.5:1	<2.1:1 TYPICALY 1.5:1
Gain	5dBi	Minimum 4dBi	Minimum 4dBi
Isolation	-	<-25dB	<-25dB
Polarisation	Vertical	Vertical	Vertical
Pattern	Omni-directional	Omni-directional	Omni-directional
Impedance	50Ω	50Ω	50Ω
Max Power Input (W)	25W	10W	10W
GPS/GLONASS Data			
Frequency Range (MHz)	1562-1612		
VSWR	<2:1		
Gain	26dB		
Polarisation	Right Hand Circular		
Operating Voltage	3-5v DC (fed via coax, each port is DC isolated)		
Cable	4x RG316 Terminated to SMA (m)		
Mechanical Data			
Dimensions (mm)	H76xW197xL227 *		
Operating Temp (°C)	-40 / +80°C (-40° / 176°F)		
Material	ABS		
Colour	Black		
Weight (g)	600		
Cable Data			
Cable Type	RG316	RG316	RG316
length (mm)	300	300	300
Diameter	2.8	2.8	2.8
Termination	TNC (f)	SMA (f)	SMA (m) Reverse Polarity
Mounting Data			
Mounting Type	Panel mount with adhesive pad		
Mounting Hole (mm)	19mm		

All data is subject to change without prior notice.

*Excluding optional whip



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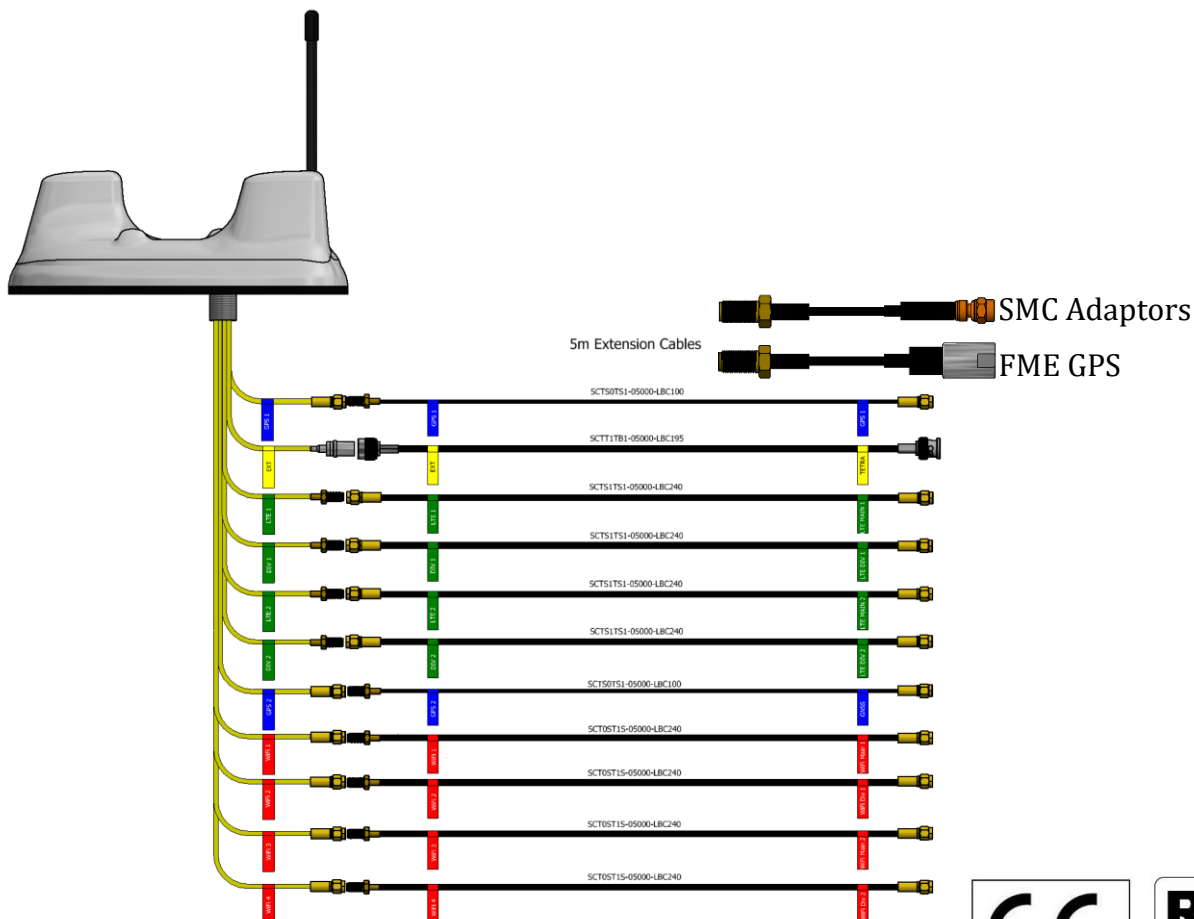
'Sandcastle' Antenna 11 in 1 White incl 5m Coax Cables



Supplied Coax Extension Cables

Coax Cables	4x LTE	4x WiFi	1x GPS	1x Tetra	1x GPS
Cable Type	SBC240	SBC195	SBC100	SBC195	SBC100
length	5m or 3m	5m or 3m	5m or 3m	5m or 3m	5m or 3m
Diameter (mm)	6.1	6.1	2.8	4.95	2.8
Min. Bend Radius (mm)	30	30	14	25	14
Operating Temp. °C	-40-80	-40-80	-40-80	-40-80	-40-80
Termination	SMA (m)	SMA Reverse Polarity (m)	SMA (m)	BNC (m)	SMA (m) – Motorola and Sepura adaptors supplied.
Labeling	LTE M & LTE A	WiFi M & WiFi A	GPS	TETRA	GPS TETRA

Technical Drawing

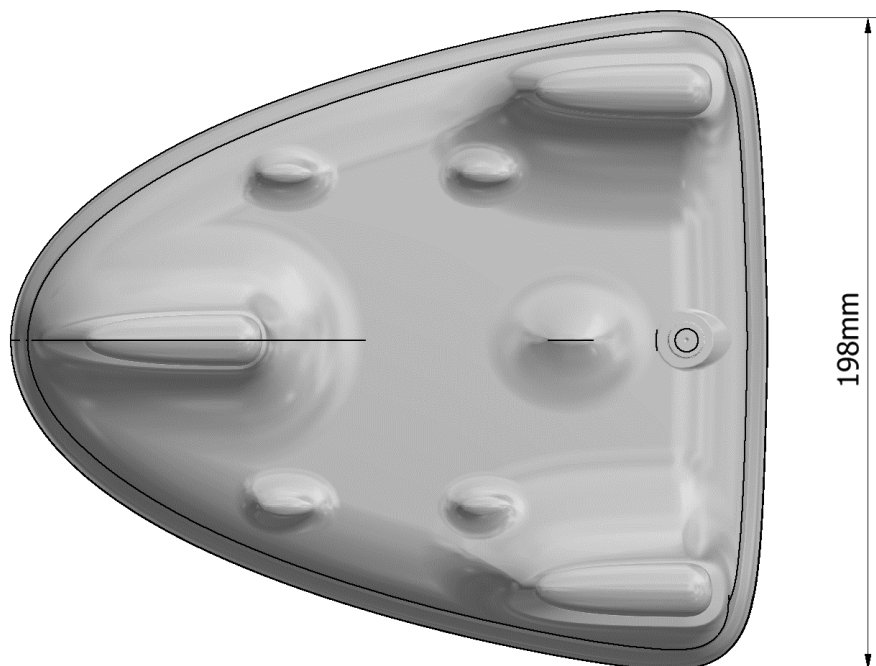
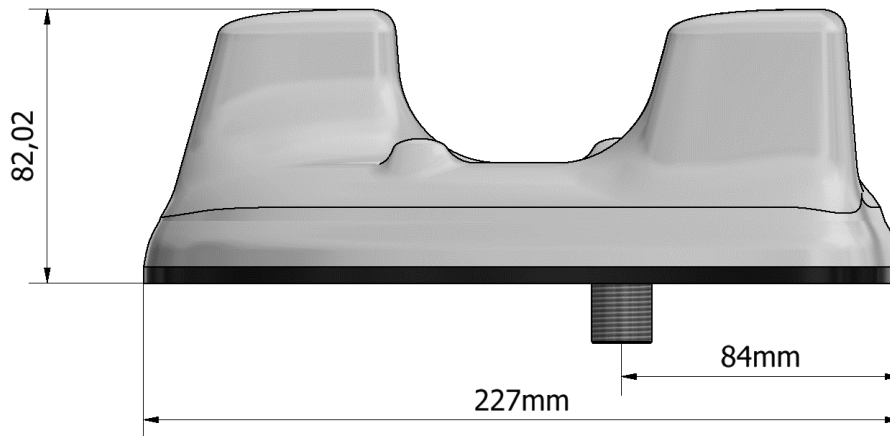

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'Sandcastle' Antenna 11 in 1 White
incl 5m Coax Cables

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Technical Drawing

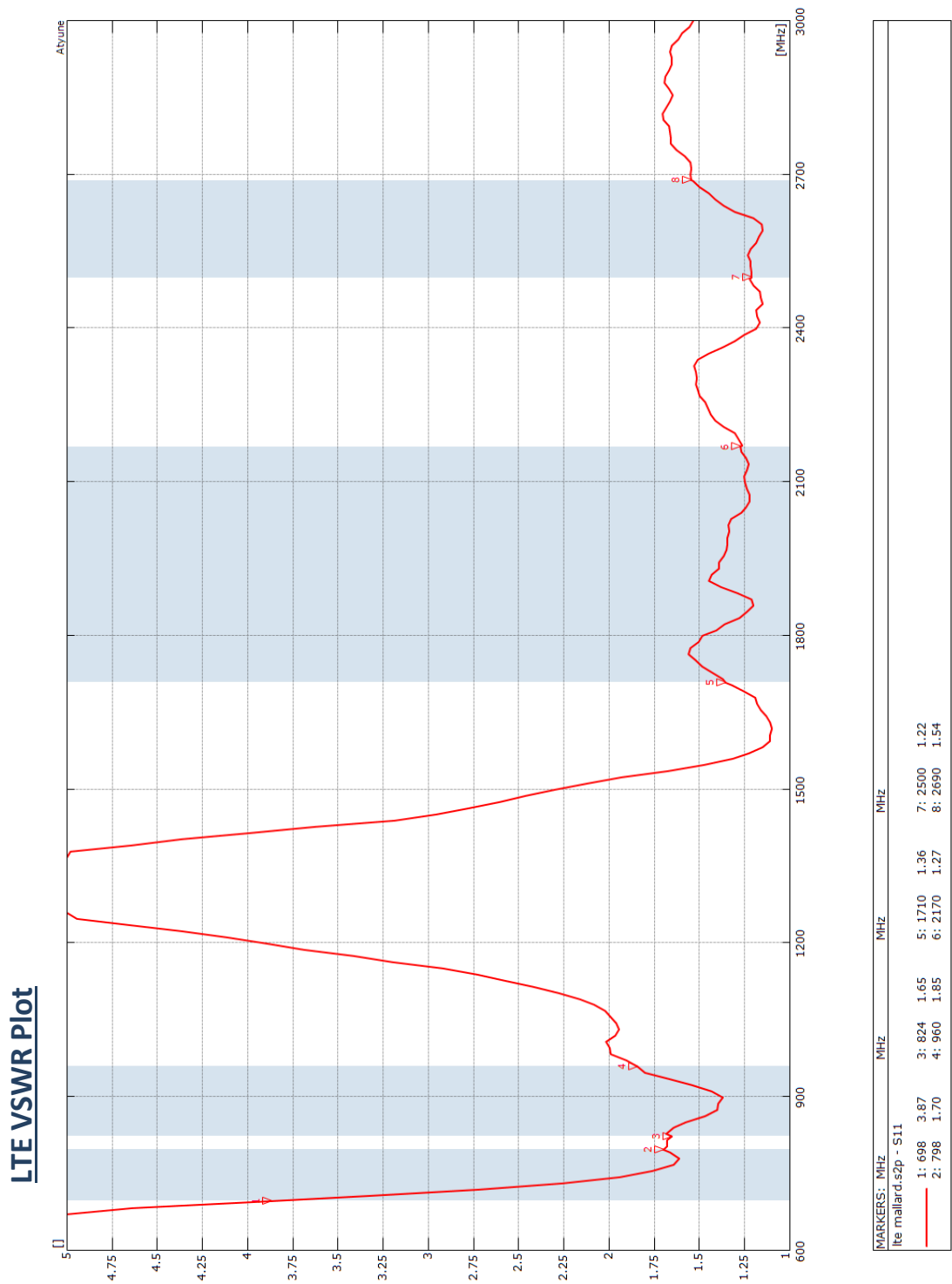


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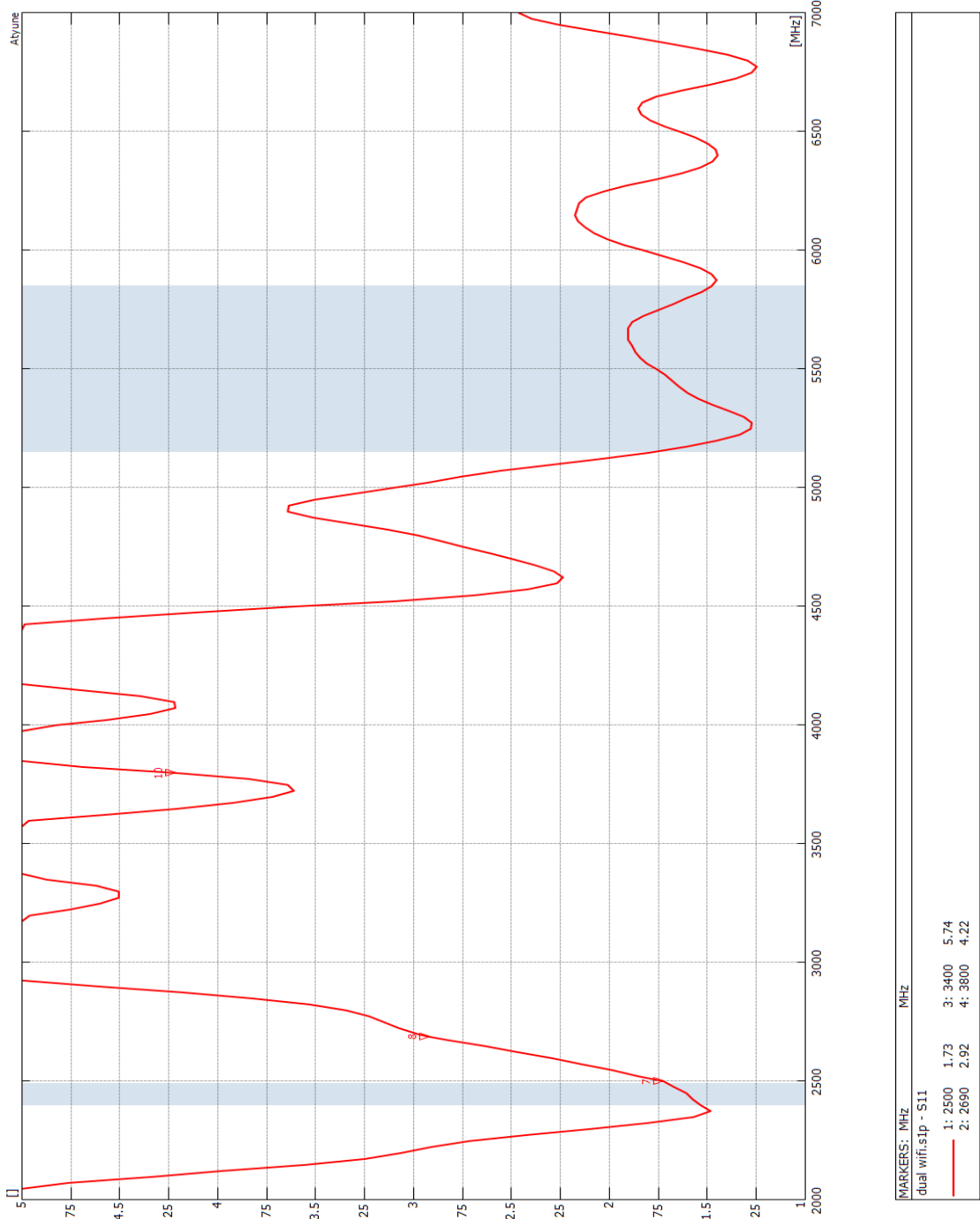
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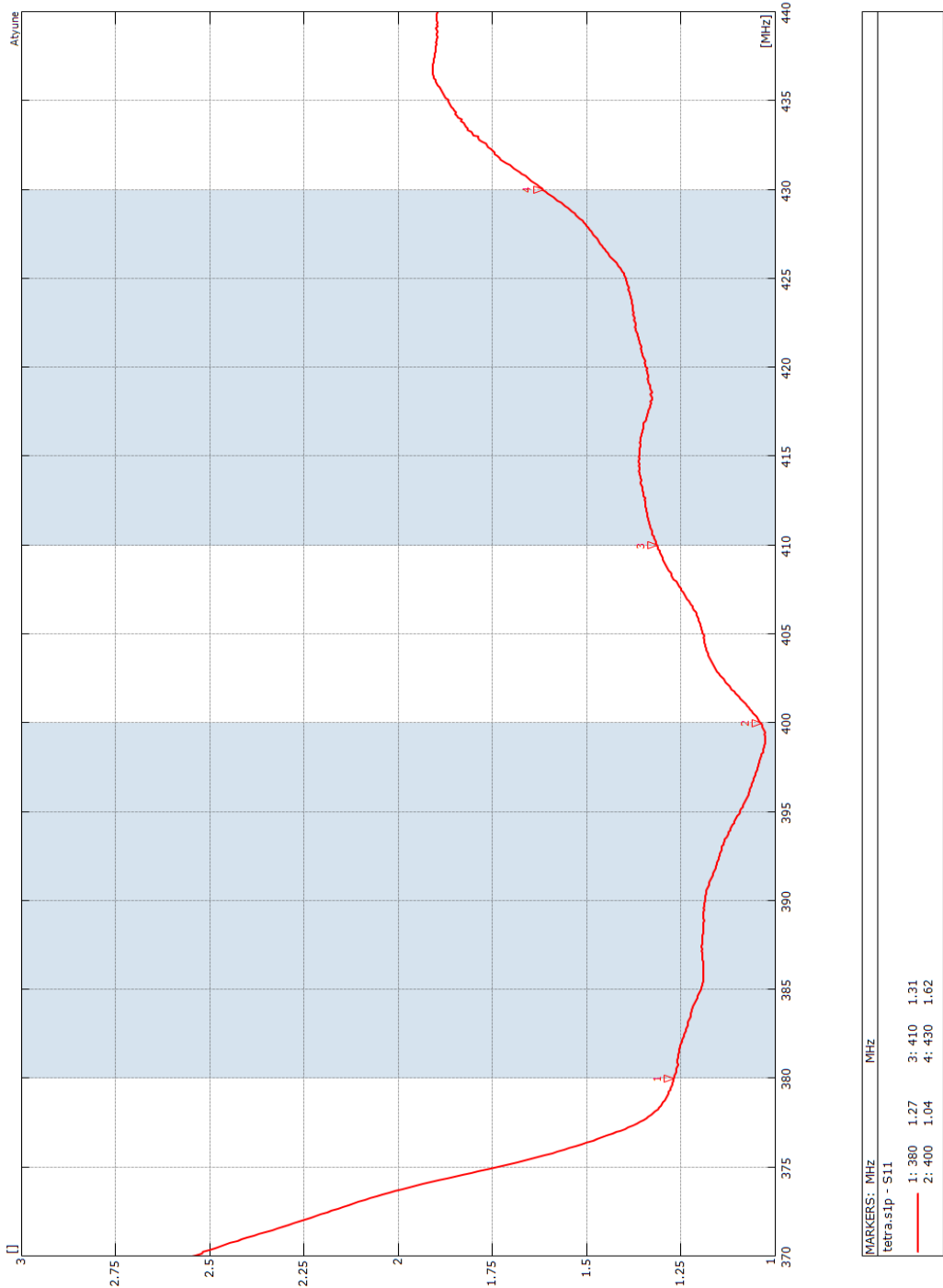
WiFi VSWR Plot



Subject to change without prior notice.



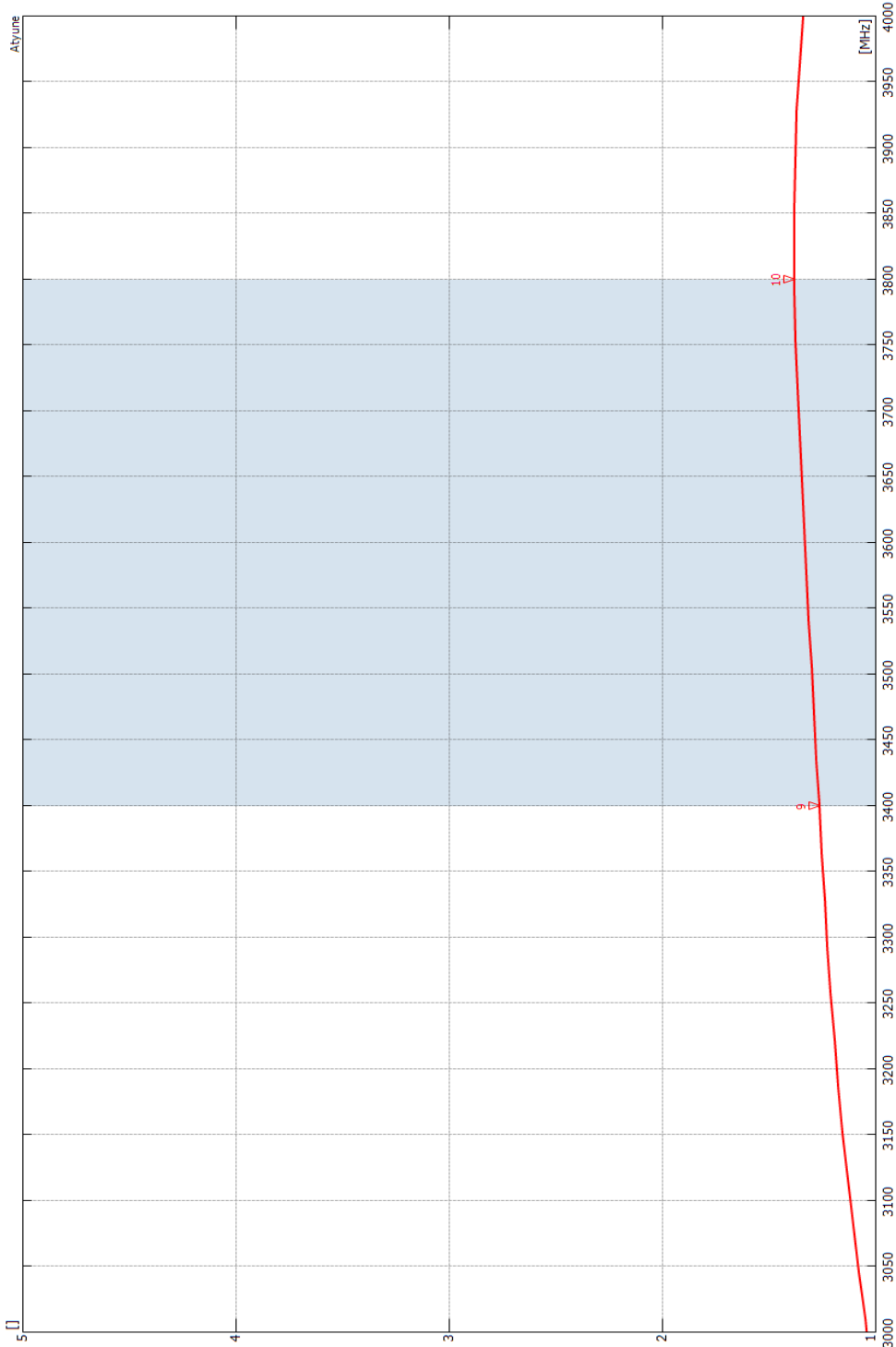
TETRA VSWR Plot



Subject to change without prior notice.



5G VSWR Plot

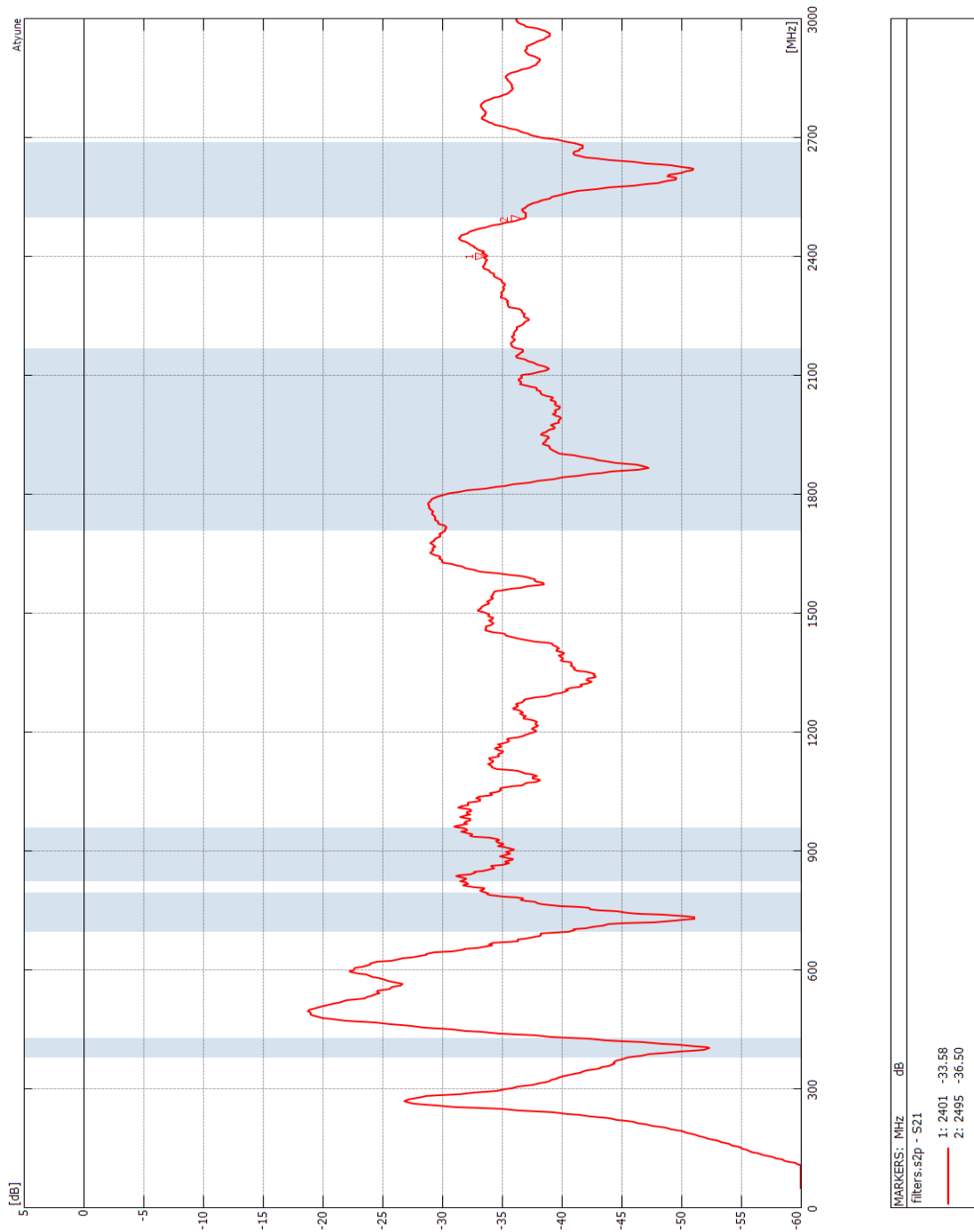


MARKERS: MHz	MHz	MHz	MHz	MHz					
LTE DATA HFSS.s1p - S11									
1: 698	2.91	3: 824	1.46	5: 1710	1.14	7: 2500	1.47	9: 3400	1.27
2: 798	1.59	4: 960	2.02	6: 2170	1.60	8: 2690	1.28	10: 3800	1.38

Subject to change without prior notice.

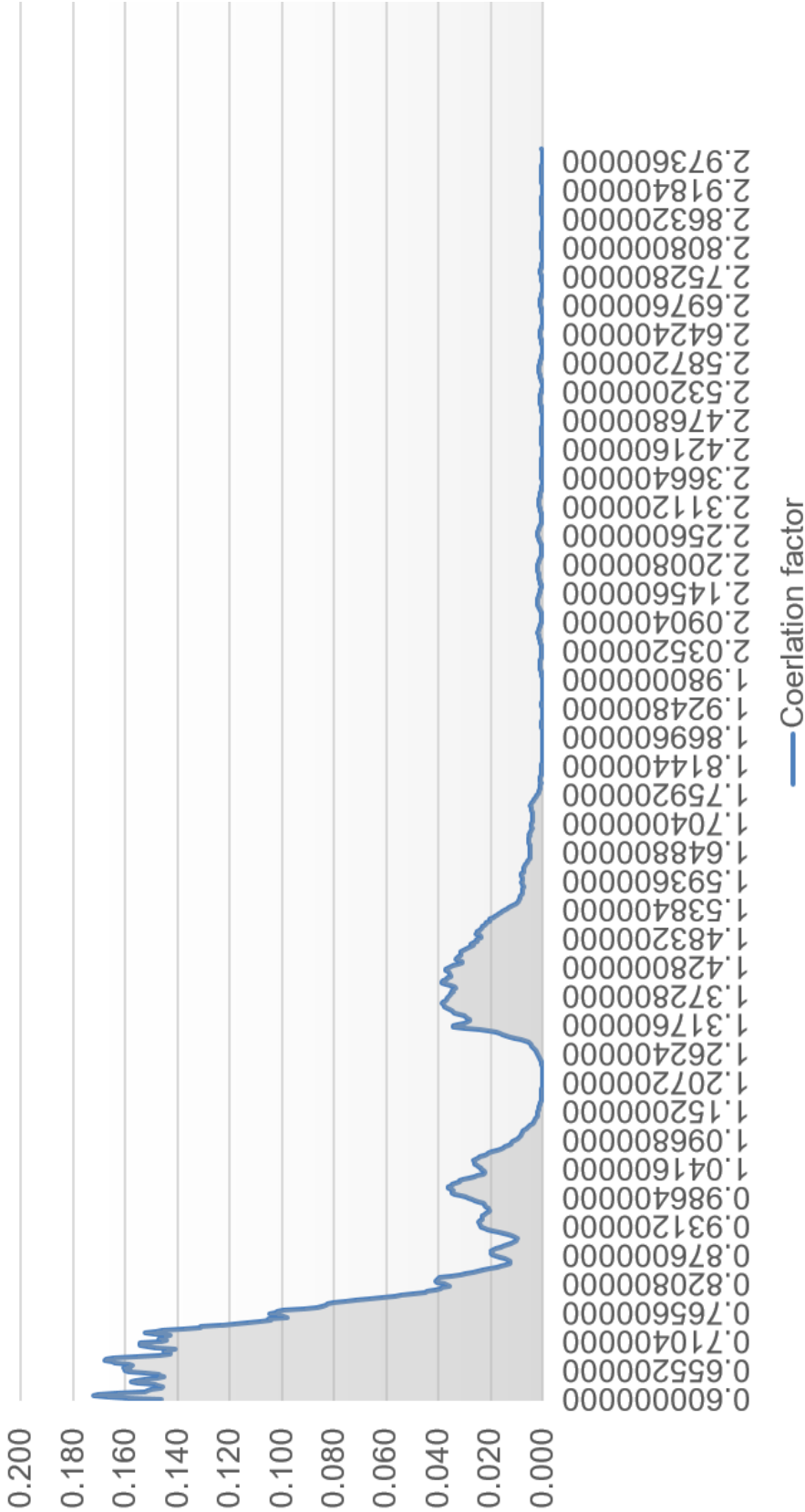


TETRA & LTE Isolation



Subject to change without prior notice.

LTE Correlation Coefficient



Subject to change without prior notice.

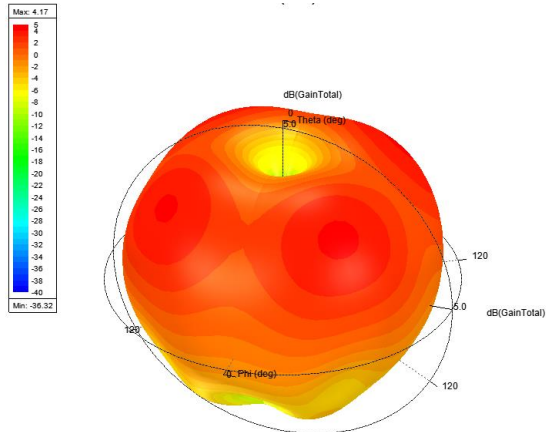


'Sandcastle' Antenna 11 in 1 White incl 5m Coax Cables

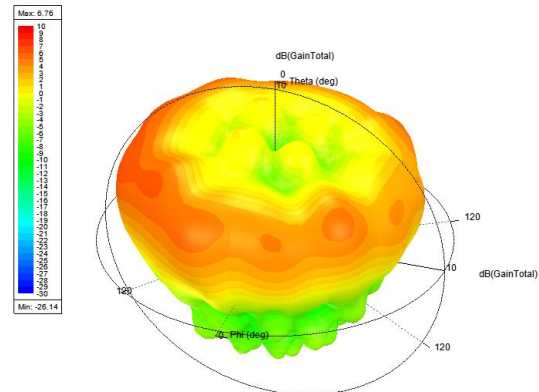


3D Radiation Pattern

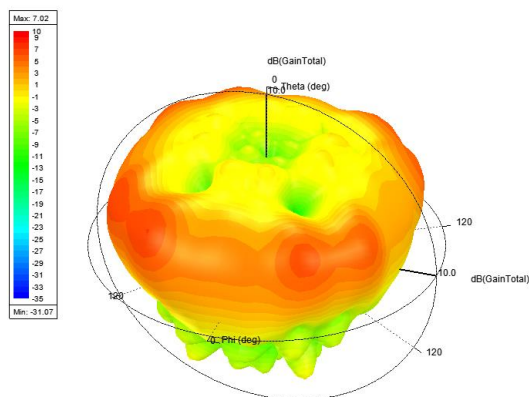
820Mhz



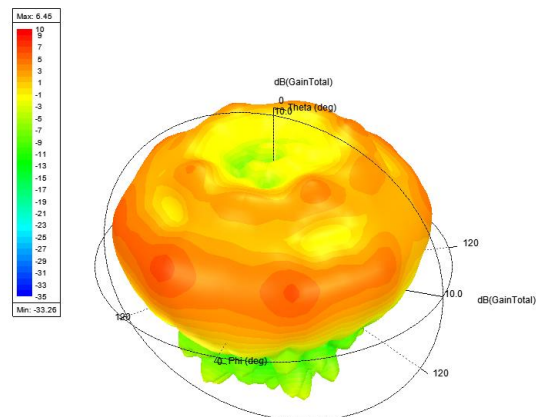
1820MHz



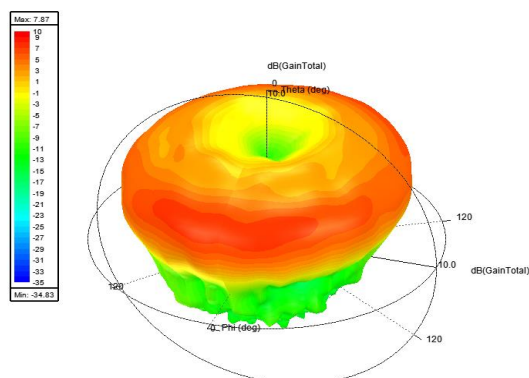
2140Mhz



2600Mhz



3600Mhz



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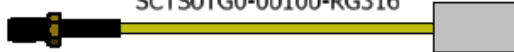


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'Sandcastle' Antenna 11 in 1 White incl 5m Coax Cables



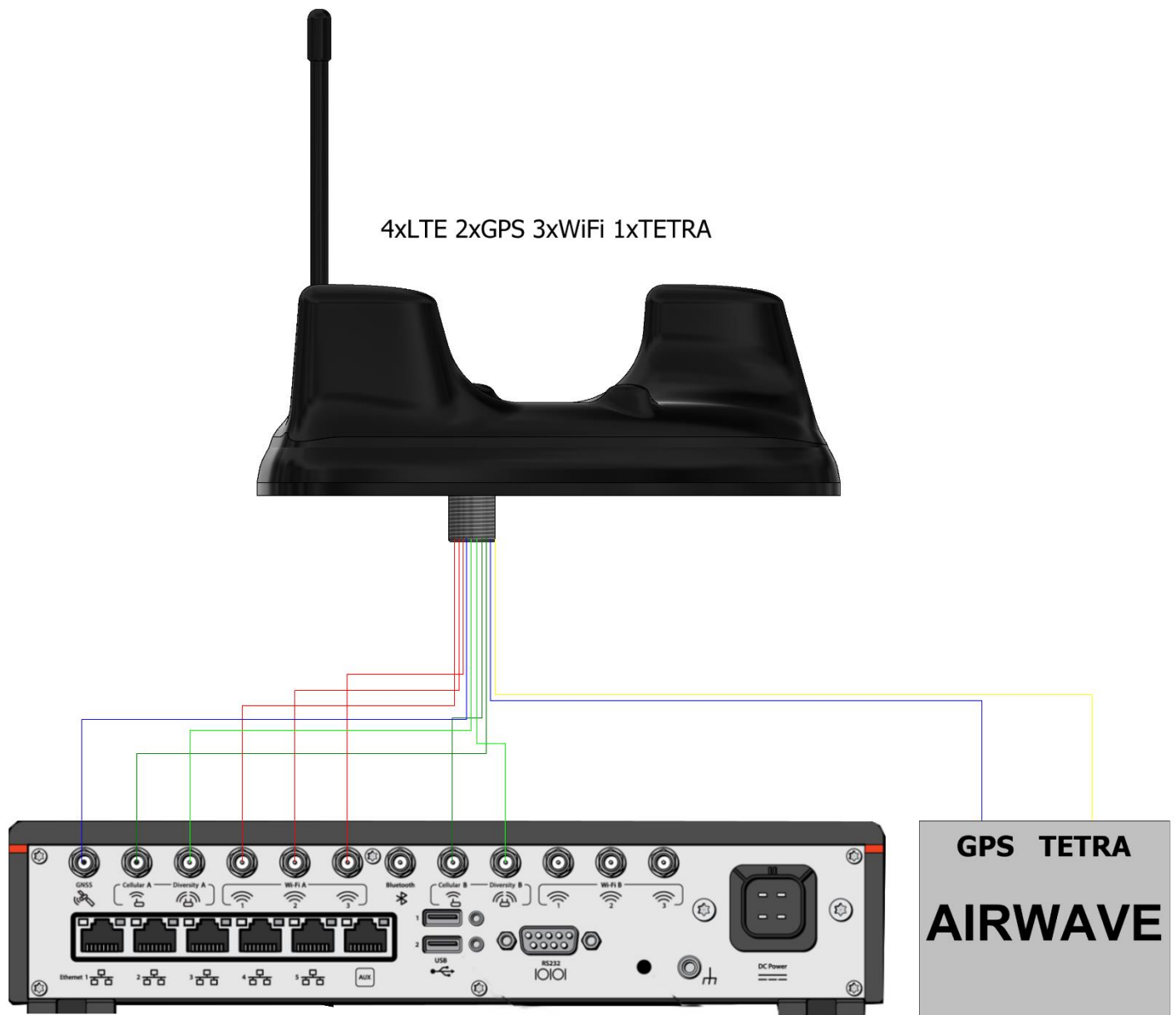
Optional Installation Accessories

0250-MP074.02	Sandcastle Thread Extender M20 x 1.5	
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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Example Vehicle Modem and Airwave Radio Installation



Subject to change without prior notice. Image
shows custom coax cable fitting kit

