

8000-312 Sandcastle Multifunction 15-in-1 Antenna

**5 YEARS
WARRANTY**



The '**Sandcastle**' is a low-profile, multifunction antenna designed for blue-light and amber-light vehicle fleets, combining up to 18 functions within a single panel-mounted unit. With optional fitting kits, the 'Sandcastle' can be installed using the existing OEM mounting hole, preventing the need to drill additional holes and maintaining OEM functions.

This variant supports **15 Functions** including **TETRA, 4x LTE, 4x WiFi and 6x GPS**

The Sandcastle portfolio includes variants that are **ESN-ready** and fully compatible with **current Airwave system**, making it ideal for future proofing your fleet for the upcoming transition to LTE.

Also Available in White: Part No. 8000-212



**Part No.
SK010038**

Cable Kit Options

Product Kit : Generic Sandcastle Cable Kit 5m : Terminated

Additional options available upon request.

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8000-312 Sandcastle Multifunction 15-in-1 Antenna

Technical Specifications

Part No.		8000-312		
Electrical Data		TETRA	LTE	Wi-Fi
Frequency Range (MHz)	380 - 430 MHz		698-6000 MHz	2.4 GHz & 5.8GHz
Band	TETRA		Wideband LTE 4x4 MiMo	Dual Band Wi-Fi 4x4 MiMo
VSWR	<2.1:1 TYPICALLY 1.5:1		<2.1:1 TYPICALLY 1.5:1	<2.1:1 TYPICALLY 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				
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	2x RG316 Terminated to SMA (m)			
Mechanical Data				
Dimensions (mm)	H76 x W197 x L227 **			
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			

Subject to change. *Ground plane dependent **Excluding optional whip.

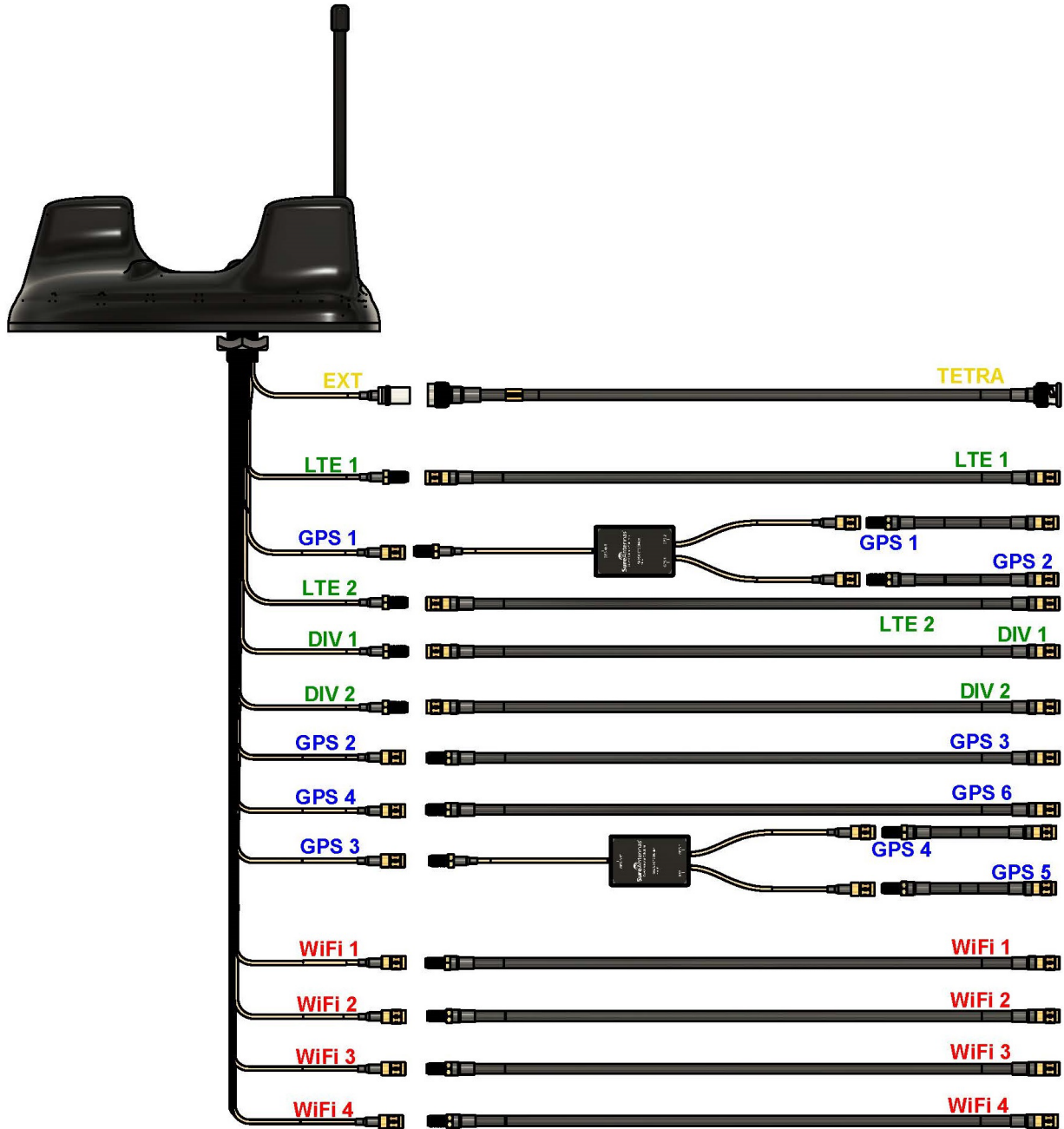
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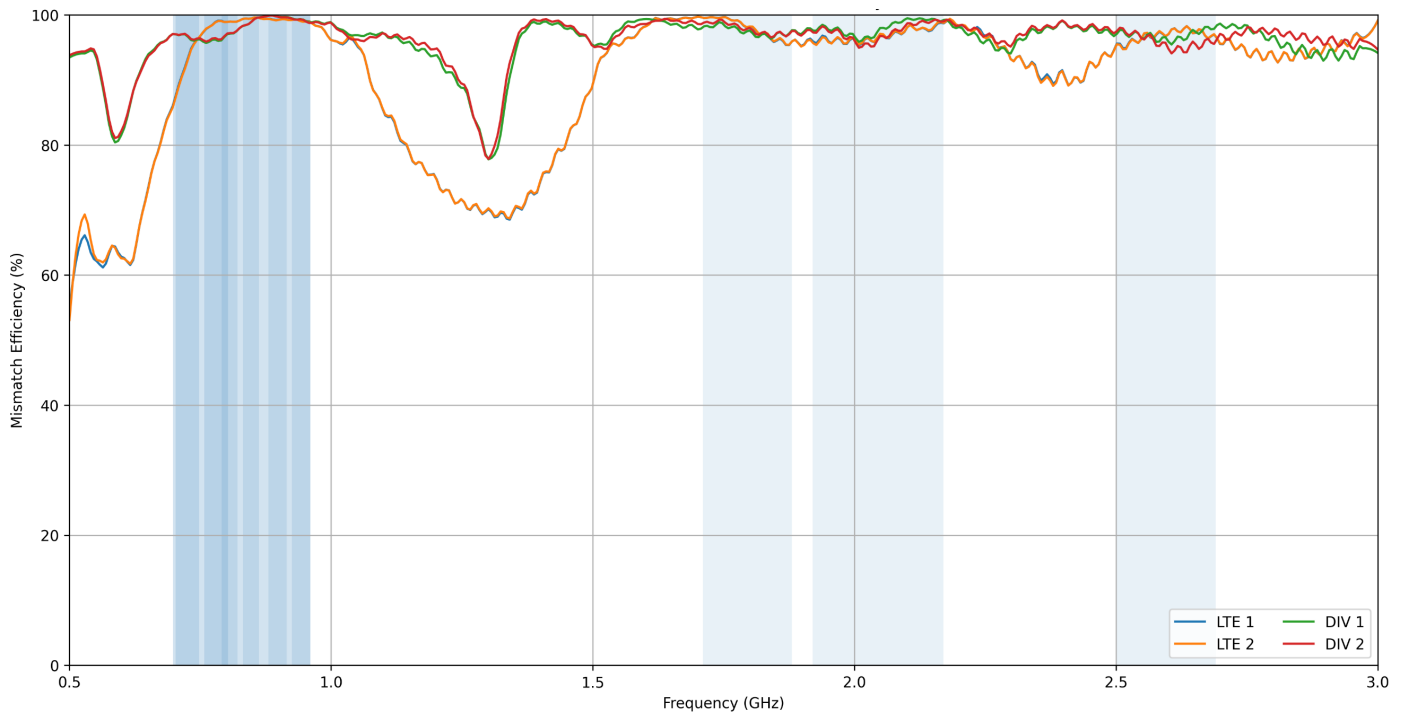
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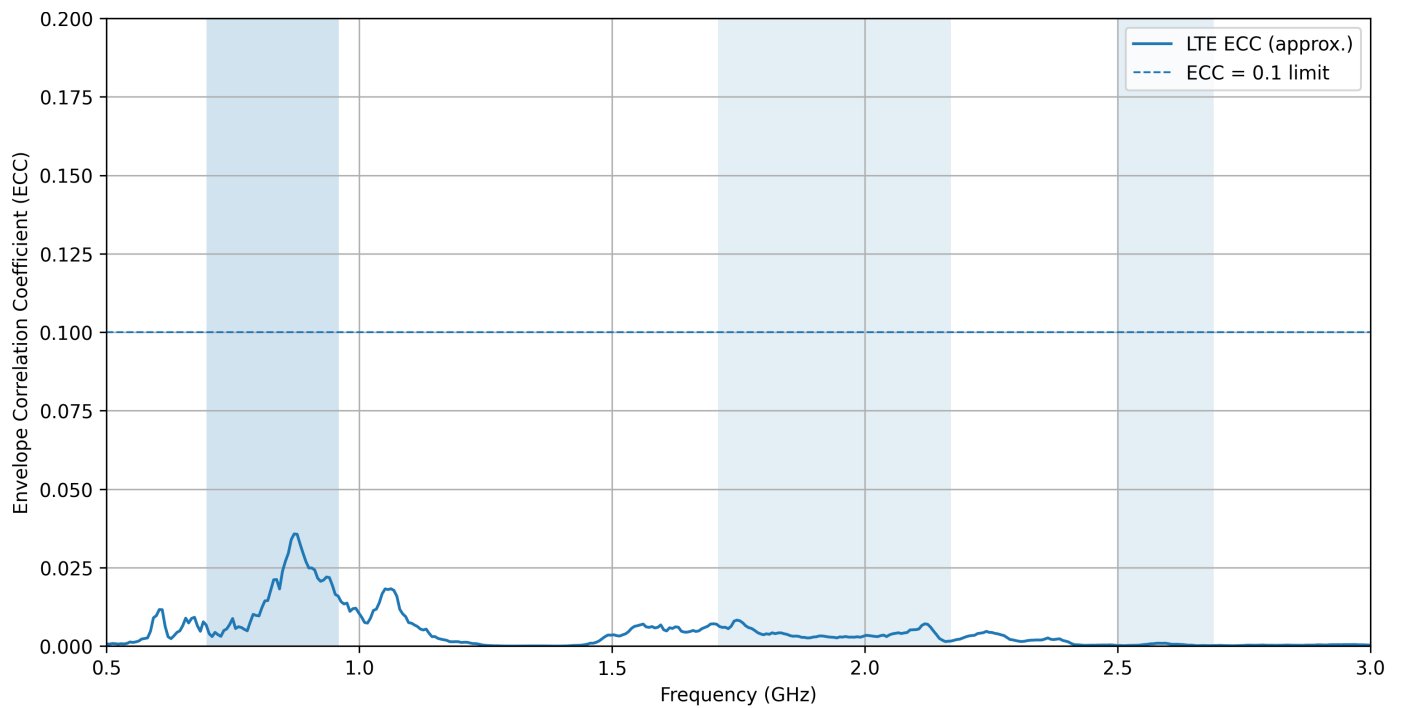
Cable Diagram



LTE / DIV Ports – Mismatch Efficiency

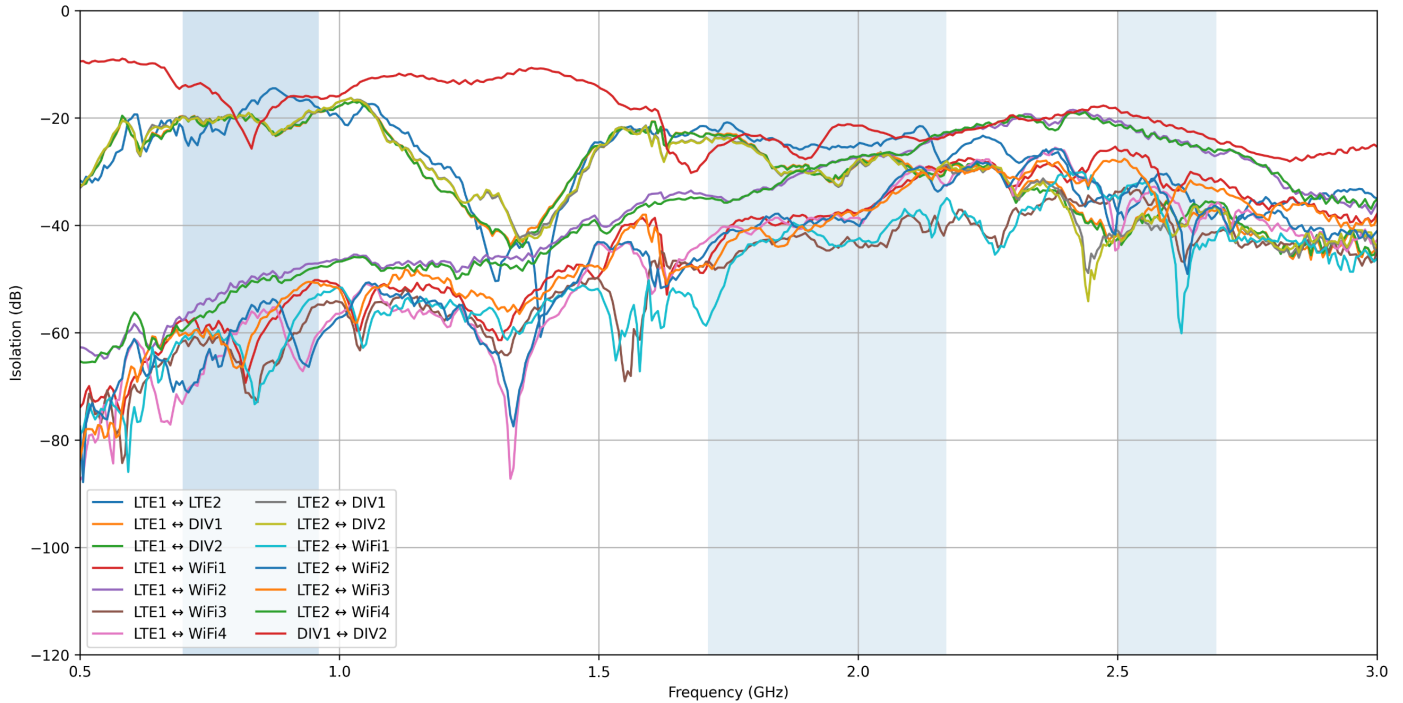


LTE ECC (Cut at 3 GHz)

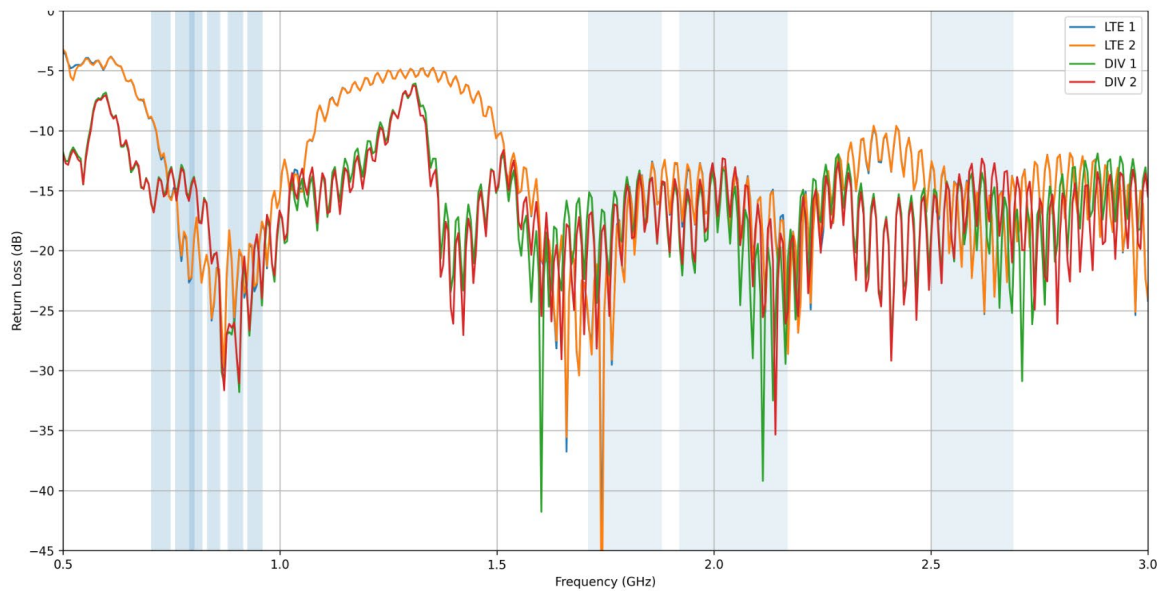


Subject to change without prior notice.

LTE Port Isolation (Cut at 3 GHz)

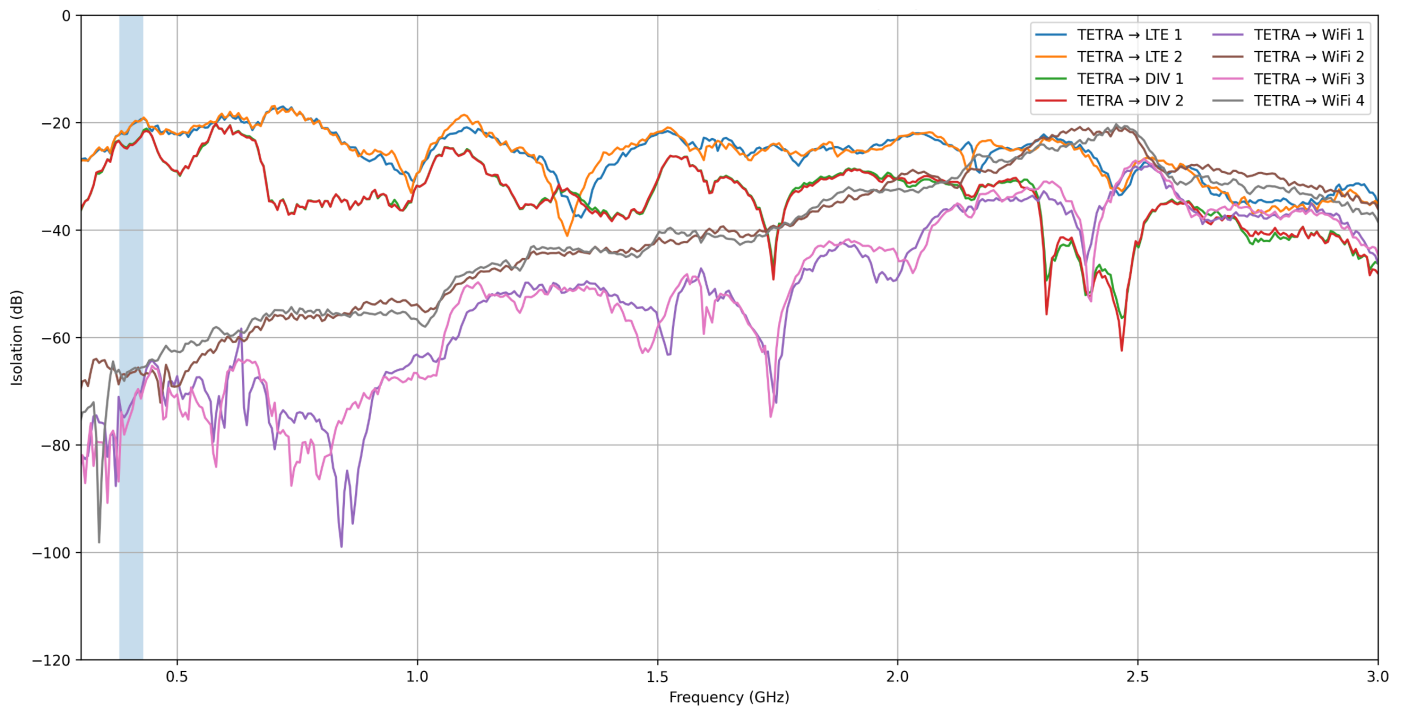


LTE Return Loss

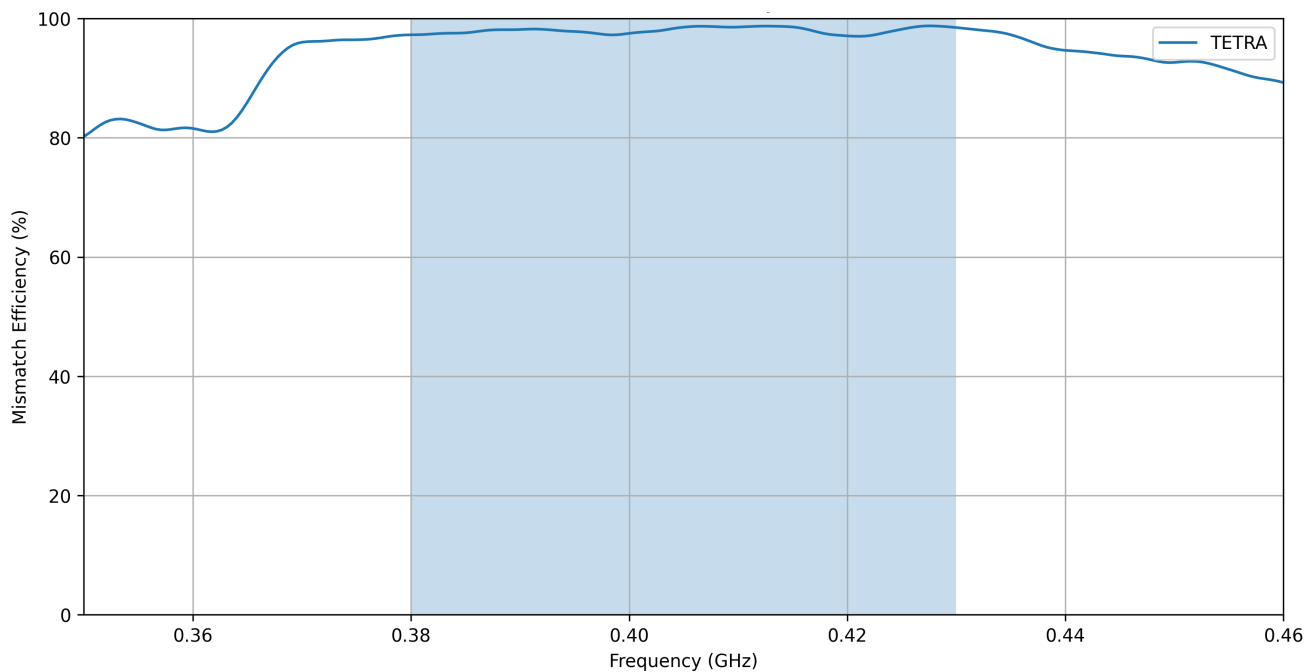


Subject to change without prior notice.

TETRA Port Isolation to All Other Parts (S21)

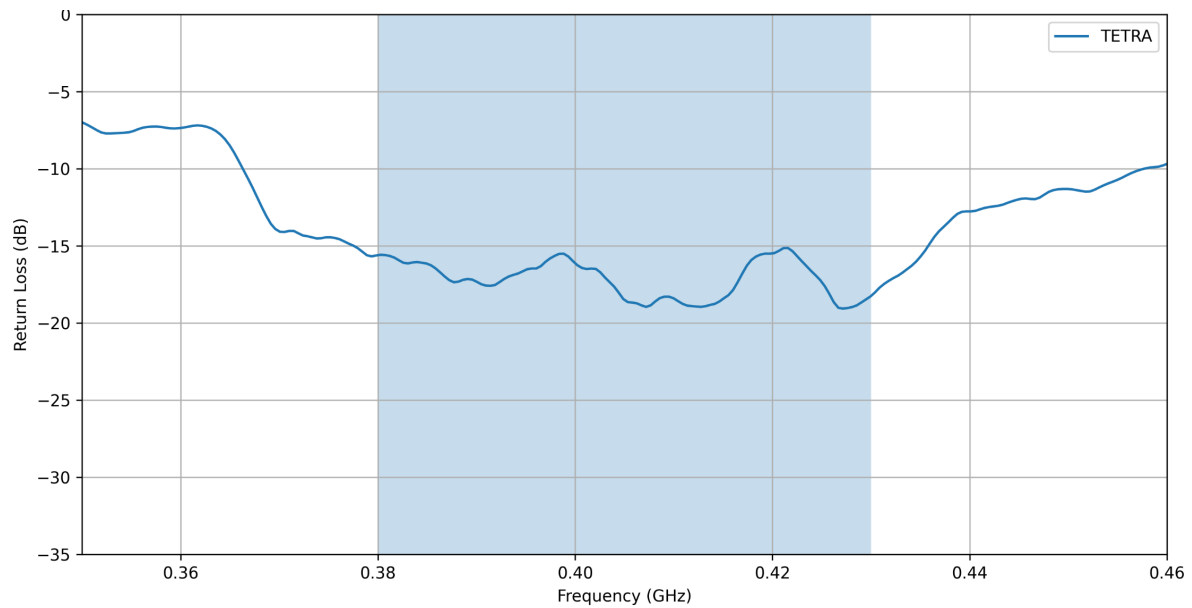


TETRA Port -Mismatch Efficiency (380-430 MHz)

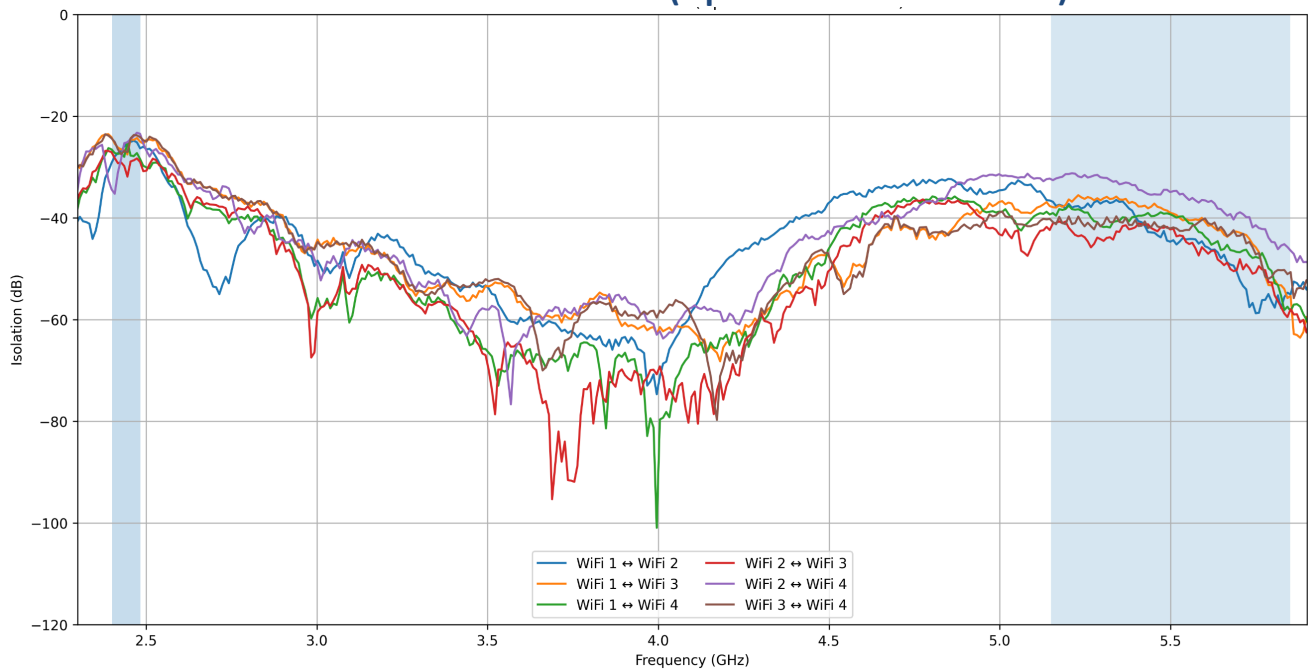


Subject to change without prior notice.

TETRA Antenna – Return Loss (380-430 MHz)

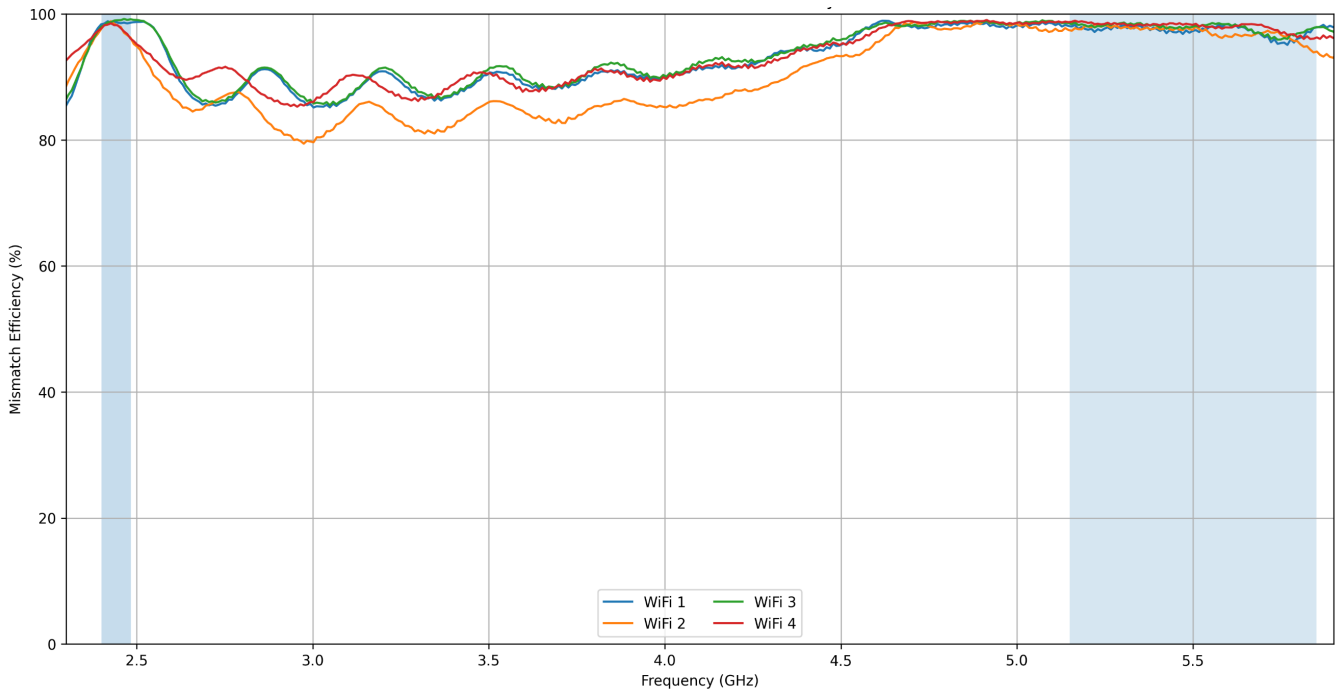


WiFi Port-to-Port Isolation (Updated Measurements)

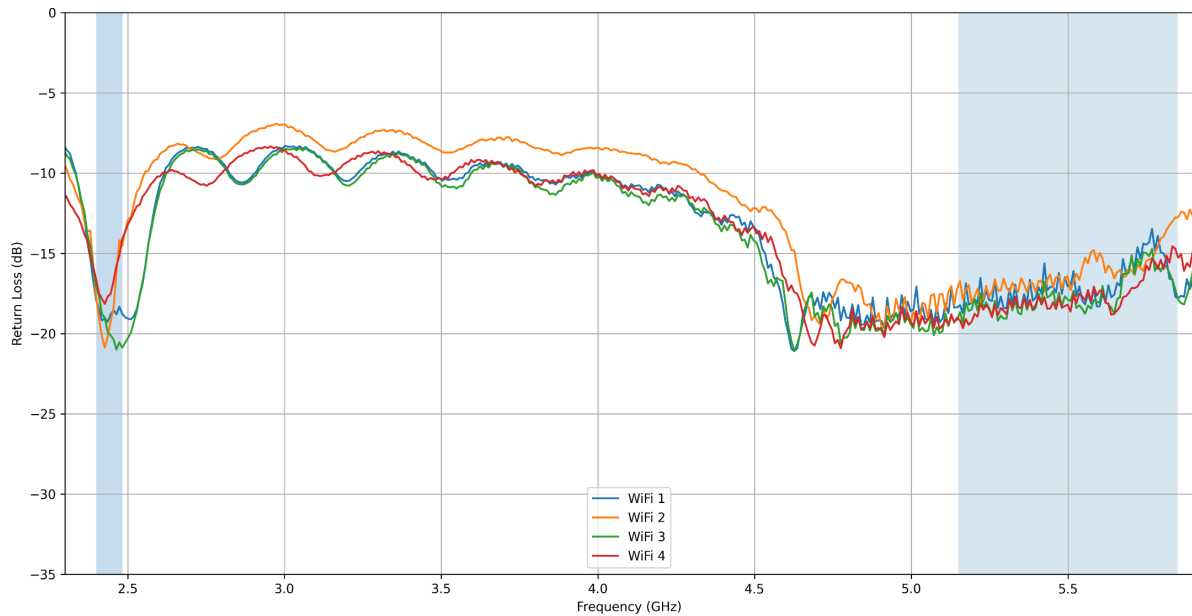


Subject to change without prior notice.

WiFi Ports -Mismatch Efficiency



WiFi Antenna – Dual-Band Return Loss

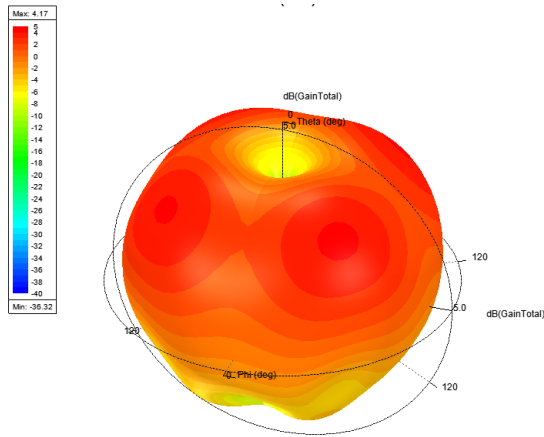


Subject to change without prior notice.

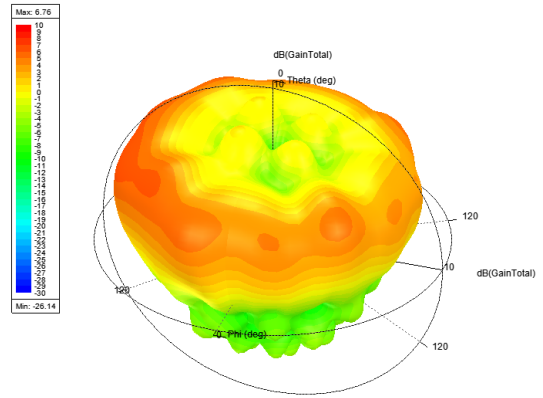
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3D Radiation Pattern

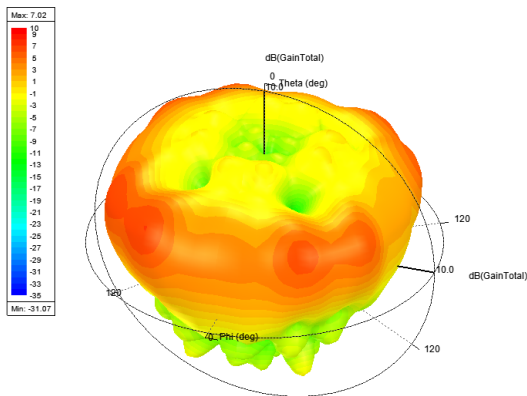
820MHz



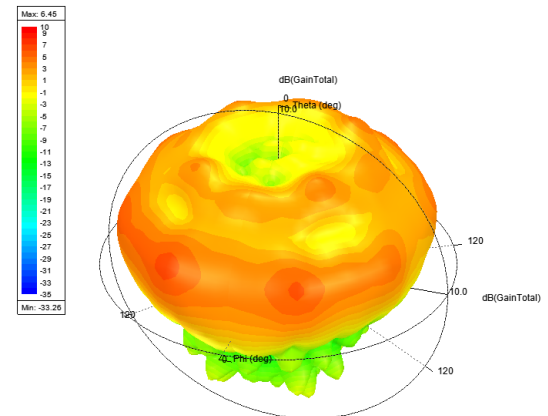
1820MHz



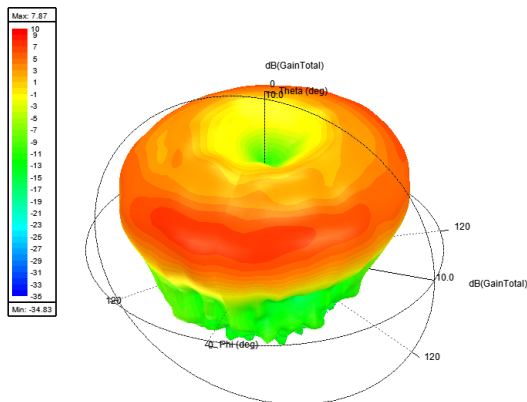
2140MHz



2600MHz



3600MHz



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