



## Sierra Wireless AirLink® Antenna: 3-in-1 SharkFin

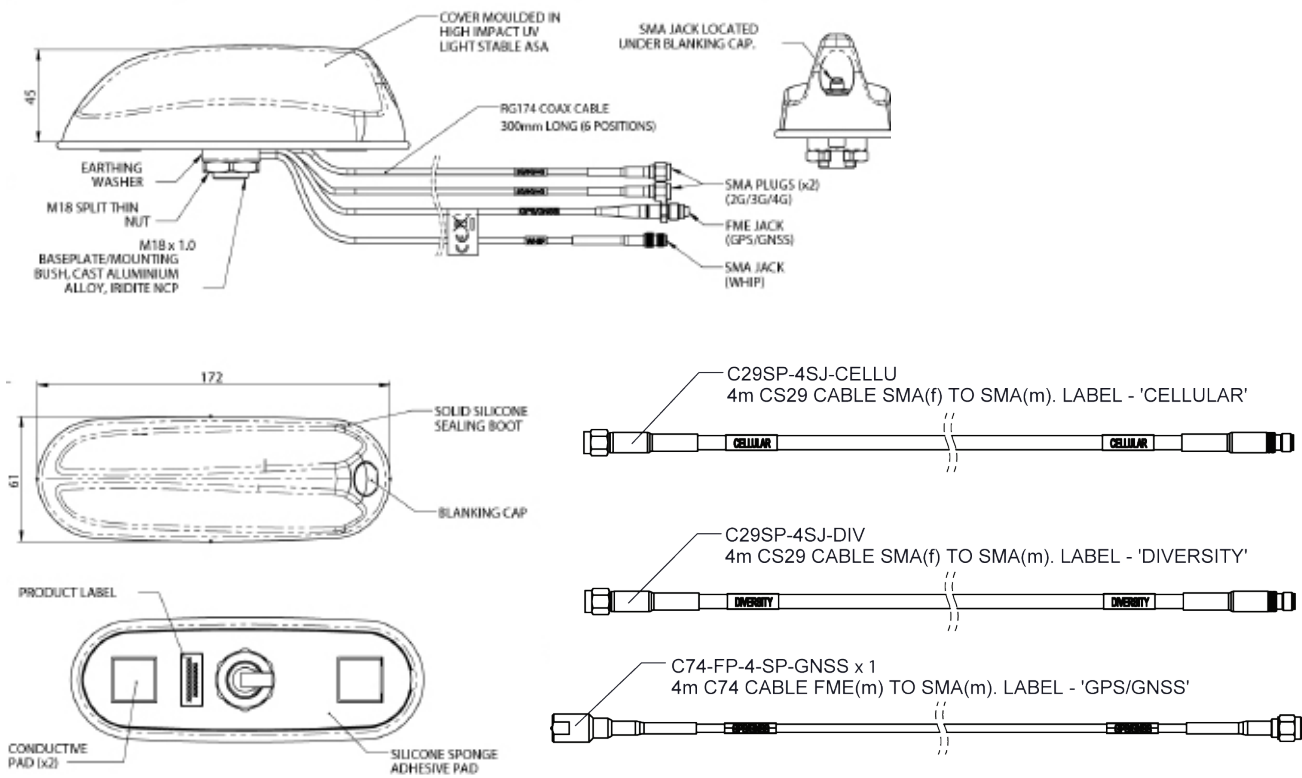
### AirLink® Antenna: 3-in-1 SharkFin

Tested and certified to operate with AirLink routers and gateways, the 3-In-1 SharkFin has a compact OEM style housing that contains 2x2 MiMo antenna elements for 2G, 3G, and 4G LTE frequencies and an active antenna for GNSS with 26dB gain LNA.

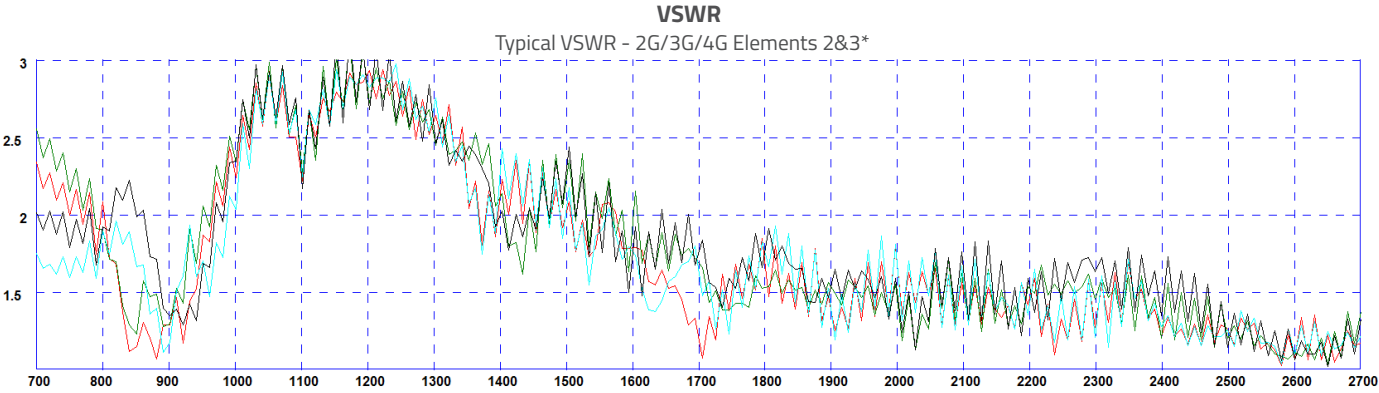
Specification	
PART NO.	6001119
ELECTRICAL DATA	
Frequency Range	Elements 2 & 3 698-960, 1710-2170, 2500-3800MHz
Operational Bands	Elements 2 & 3 2G/3G/4G LTE
Peak gain: Isotropic	Elements 2 & 3 2dBi (698-960MHz), 5dBi (1710-3800MHz)
Isolation with 4m/13' CS29	Cellular >11dB
Typical Efficiency w/o Cable Loss	Elements 2 & 3 > 50%
Correlation Co-efficient	Elements 2 & 3 < 0.2
Polarisation	Vertical
Pattern	Omni-directional
Impedance	50Ω
Max Input Power	25W
MECHANICAL DATA	
Dimensions	Total Height (excluding whip) 50mm (2.2")
	Length 170mm (6.77")
	Width 60mm (2.4")
Operating Temp	-40° / +80°C (-40° / 176°F)
Material	ASA, EPDM, Aluminium Alloy
Colour	Black
Weight	913g
Ingress Protection	IP 66

Specification		
GPS/GNSS DATA		
Frequency Range	Element 1	1562-1612MHz
VSWR		<2:1 ± 4MHz
Gain: LNA		26dB
Polarisation		Right Hand Circular
Operating Voltage		3-5V DC
Approval		E11
Current		<20mA
MOUNTING DATA		
Mounting Type		Bolt Mount
Mounting Hole		19mm (3/4")
CABLE DATA		
Cell / LTE Cables	Cable	CS29
	Length	4m (13ft)
	Termination	SMA Plug
GPS Cable	Cable	CS29
	Length	4m (13ft)
	Termination	SMA Plug

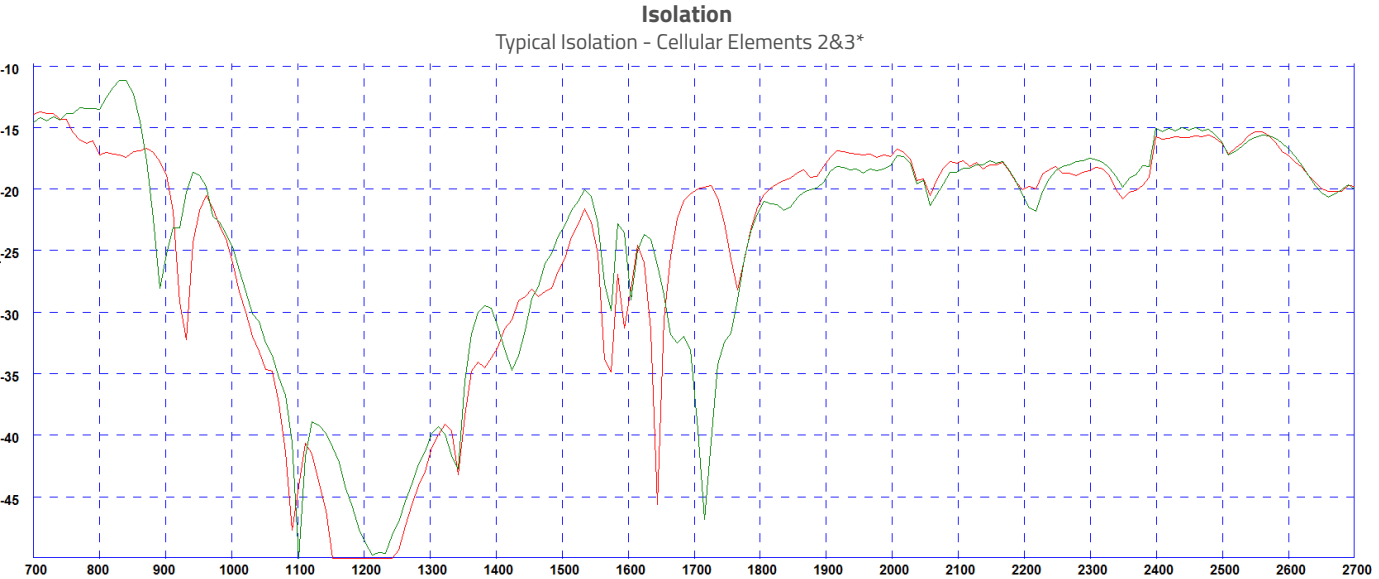
TECHNICAL DRAWING



VSWR



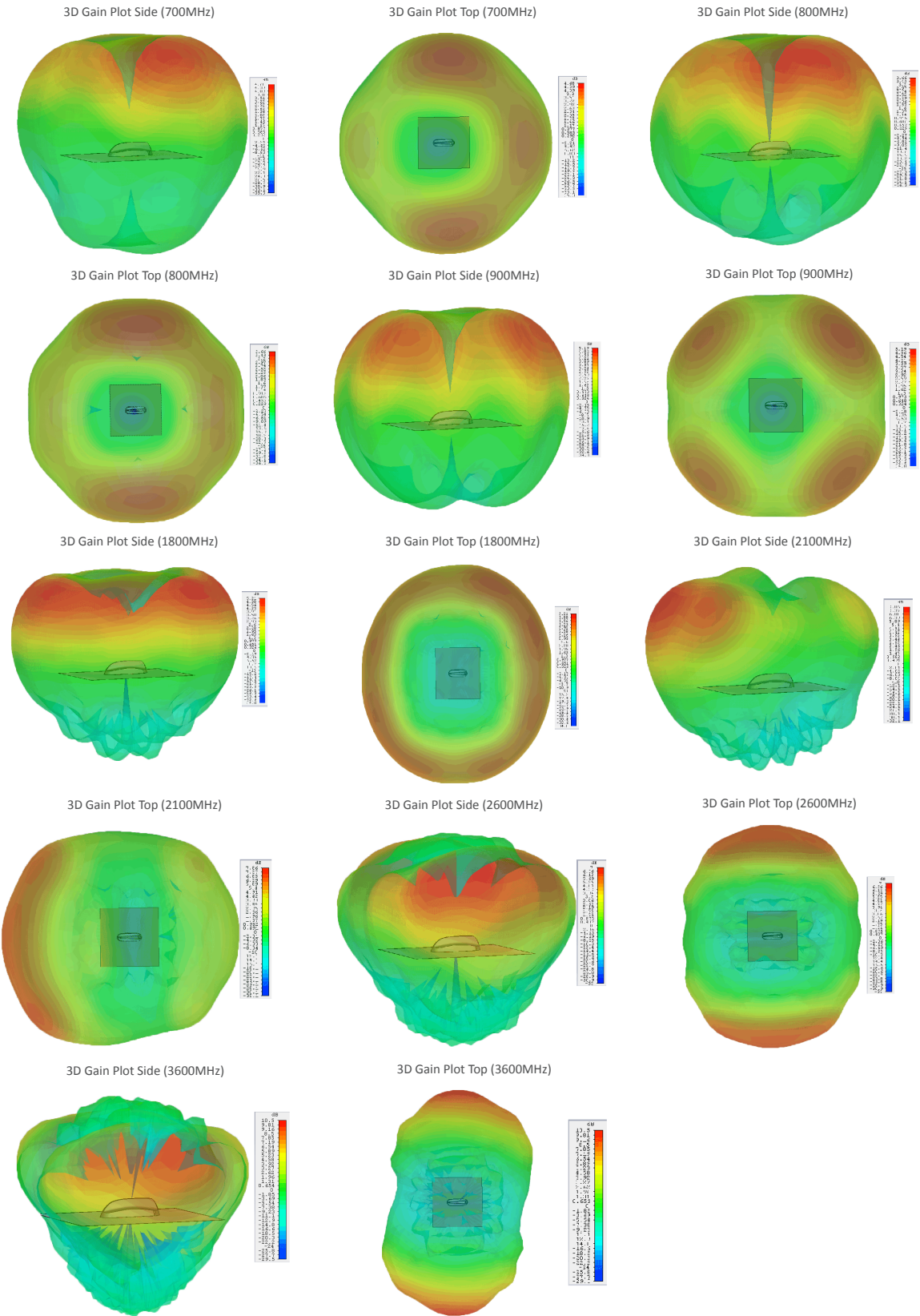
\*VSWR measured with no whip and 5m (16') of CS29 cable Black & Blue = no ground plane Green and Red = 600x600mm (2'x2') ground plane



\*Isolation measured with no whip and 5m (16') of CS29 cable Green Plot = 600x600mm (2' X2') ground plane Red Plot = no ground plane

ELECTRICAL DATA

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

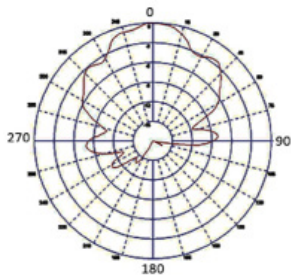


\*3D radiation patterns simulated in CST Microwave Studio on a 600x600mm (2' X2') ground plane with both elements fed together.

ELECTRICAL DATA

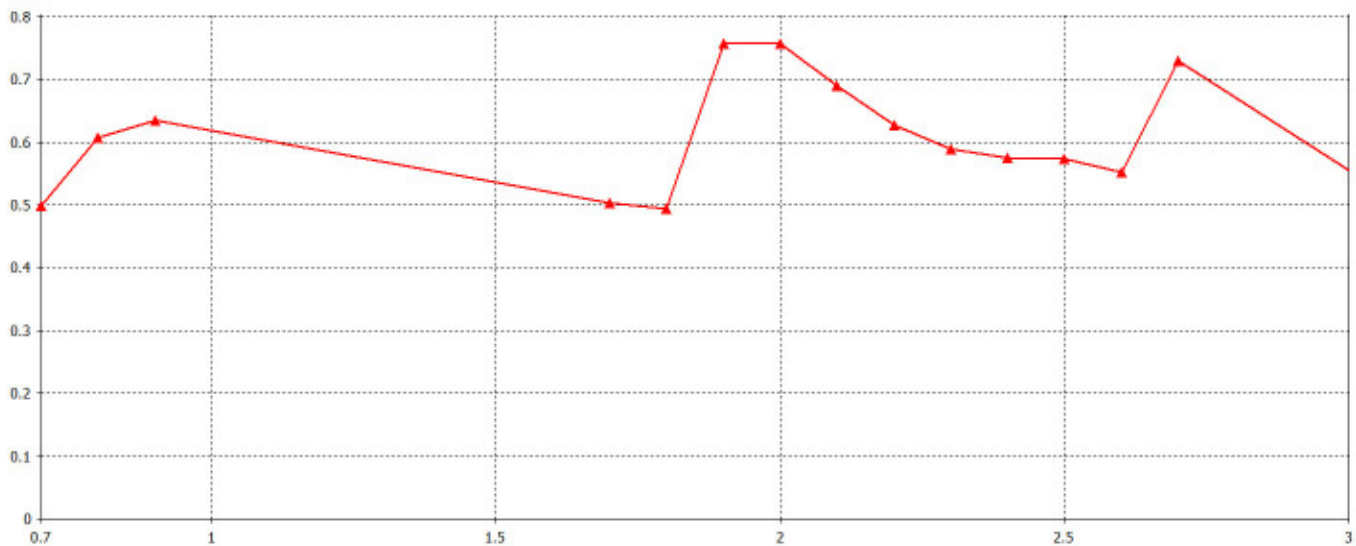
Typical Radiation Patterns - GPS/GNSS Element 1

Element 1: Typical E Plane Pattern



Typical Total Efficiency

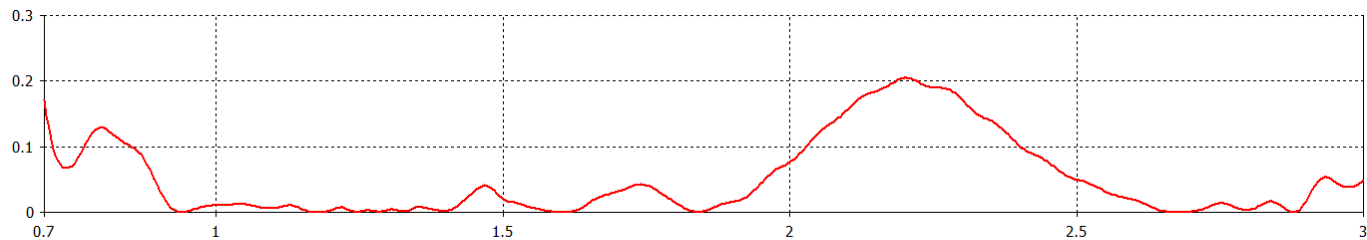
Typical Total Efficiency - Cellular Elements 2&3\*



\* Efficient simulated in free space with no whip and no ground plane and no cable.

Typical Correlation Co-efficient

Typical Correlation Co-efficient- Cellular Elements 2&3\*



\*Correlation co-efficient simulated in free space with no whip, no additional cable and no ground plane

About Sierra Wireless

Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry's most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster.

For more information, visit [www.sierrawireless.com](http://www.sierrawireless.com).