Antenna Specification

Product No :

SH-IN2568 (Body Color: Black)

SH-IN2568-W (Body Color: White)

Antenna type : Sharkfin Antenna

4 elements for WLAN 2.4/5.0GHz

1 elements for BLE

1 elements (patch antenna) for GPS/GNSS

Frequency (Operational bands)

WLAN 2.4GHz : 2412 to 2462 MHz

WLAN 5.0GHz : 5280 to 5825 MHz

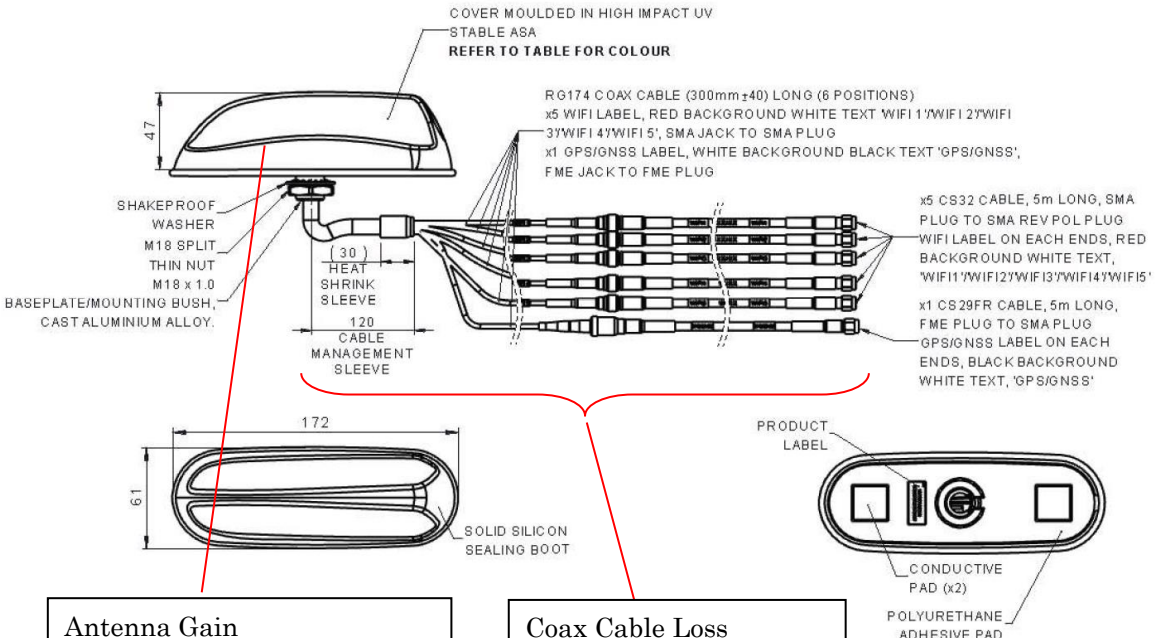
BLE 2.4GHz : 2402 to 2480

Total Gain (Antenna+Coax Cable)

WLAN 2.4GHz : 2.5 dBi (AntennaGain 6dBi – Coax Cable Loss 3.5dB)

WLAN 5.0GHz : 2.5 dBi (Antenna Gain 8dBi – Coax Cable Loss 5.5dB)

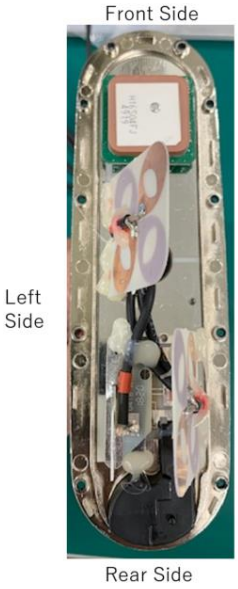
BLE 2.4GHz : 0.5 dBi (Antenna Gain 4dBi – Coax Cable Loss 3.5dB)



Antenna Gain	Coax Cable Loss
WLAN 2.4GHz : 6 dBi	2.4GHz : 3.5dB
WLAN 5.5GHz : 8 dBi	5.5GHz : 5.5dB
BLE 2.4GHz : 4 dBi	

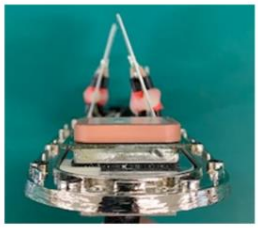
Internal structure

Top View

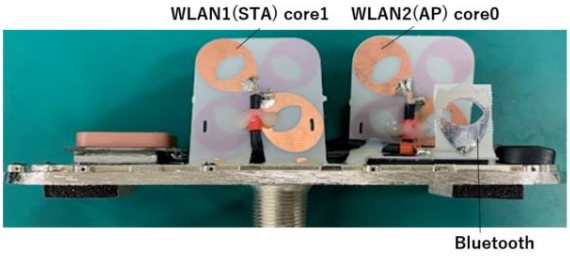


Right View

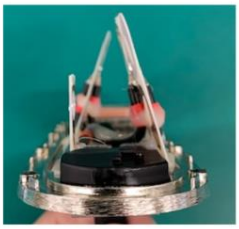
Front View



Left View



Rear View



4x4MiMo + 1 2.4/5.0GHz Sharkfin Antenna with GNSS

SH-IN2568

- 5x 2.4/5.0GHz elements
- GPS/GNSS element with 26dB gain
- Sleek sharkfin housing
- Supplied with fitted 5m cables

The SH-IN2568 range combines 5x 2.4/5.0GHz elements with an active GPS/GNSS element with 26dB gain in a sleek sharkfin housing.

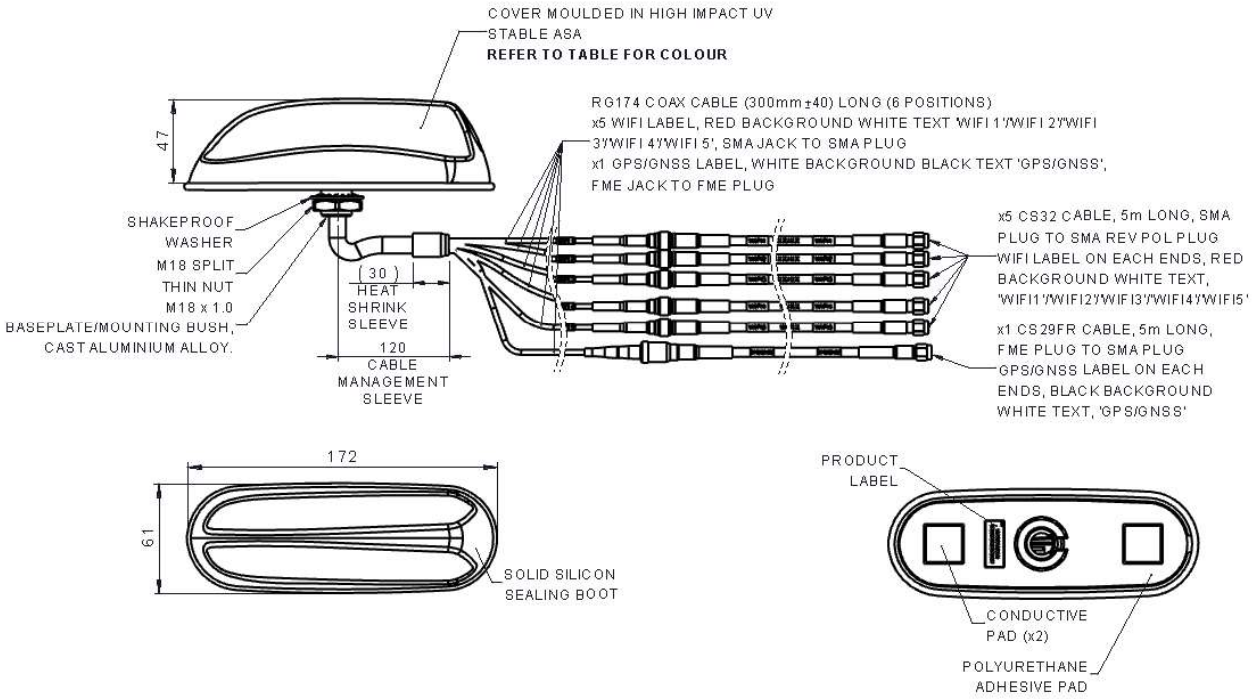
The antenna features 4x 2.4/5.0GHz elements configured polarised at +/-45 degrees for 4x4 MiMo applications and a single 5th 2.4/5.0GHz element which is vertically polarised for sensor, Bluetooth or similar applications.

The sharkfin antenna styling is both discreet and robust featuring a low profile UV resistant fin housing and IP66 ingress protection rating.

The antenna is supplied with 5m (16') low loss extension cables for easy installation.

Technical Drawing

SH-IN2568 Shown



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4x4MiMo + 1 2.4/5.0GHz Sharkfin Antenna with GNSS

SH-IN2568

PANORAMA ANTENNAS

Product Data

Part No.			
		SH-IN2568	SH-IN2568-W
Electrical Data			
Frequency range (MHz)	Elements 1-4	4x 2396-2485 / 4900-6000MHz	
	Element 5	1x 2396-2485 / 4900-6000MHz	
	Element 6	1562-1612MHz	
Operational bands	Element 1-4	4x 2.4/5.0GHz	
	Element 5	1x 2.4/5.0GHz	
	Element 6	GPS/GNSS	
Nominal Impedance	Elements 1-5	50 Ohms	
Typical VSWR*	Elements 1-5	<2:1	
Radiation pattern	Elements 1-5	Omni-Directional	
Nominal polarisation	Elements 1-4	+/- 45deg	
	Element 5	Vertical	
Peak gain (excl cable loss)+	2.4GHz	6dBi (Elements 1-4) | 4dBi (Element 5)	
	5.0GHz	8dBi (Elements 1-4) | 5dBi (Element 5)	
Isolation Elements 1-4 (worst case)**	2.4GHz	>15dB	
	5.0GHz	>17dB	
Efficiency - excluding cable loss (elements 1-4)		>70%	
Correlation co-efficient (all bands)		<0.1	
Max input power (W)		20 Watts	
GPS/GNSS Data			
Frequency range (MHz)		1562-1612	
Typical LNA gain (dB)		26 +/- 3	
Typical Current (mA)		15	
Nominal Operating Voltage		3-5 V DC	
Mechanical Data			
Dimensions (mm)	Height	50 (1.96")	
	Width	61 (2.4")	
	Length	172 (6.77")	
Operating temp (°C)		-40° / +80°C (-40° / 176°F)	
Material		ASA	
Colour		Black	White
IP Rating		IP66	
Weight (g)		1500	
Mounting Data			
Fixing		Panel Mount	
Hole diameter (mm)		18 (3/4")	
Cable & Connector Data			
Cable Type		WiFi Cables: CS32 FRZH | GNSS Cable: CS29 FRZH (Both meet EN6722 / EN45545-2)	
Diameter (mm)		5 (0.2")	
Length (m)		5 (16.4')	
Connector		SMA Rev Pol x5 WiFi | SMA (m) GNSS	

ǂ Peak gain derived from CST Microwave Studio on a 600x600mm (2'x2') ground plane and excludes cable loss.
* Typical VSWR measured on a 600x600mm (2'x2') ground plane excluding cable loss.
**Typical isolation measured on a 600x600mm (2'x2') ground plane excluding cable loss.

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SH-IN2568

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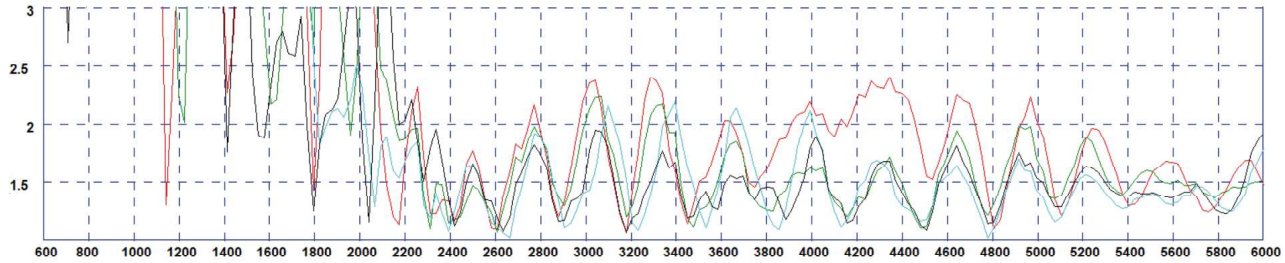
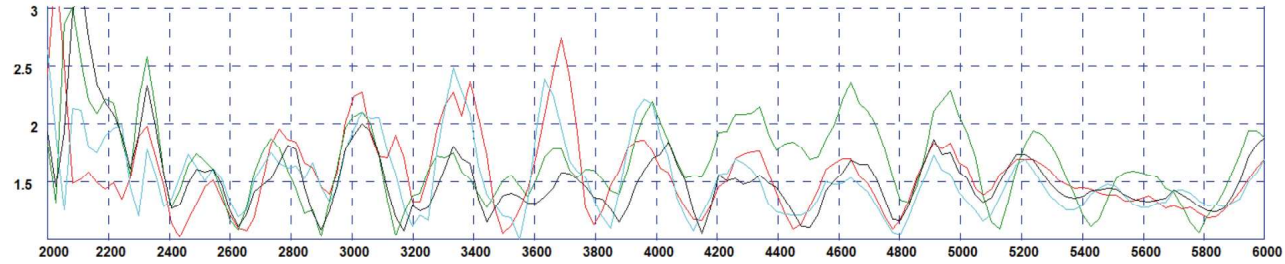
Electrical Data

Typical VSWR Elements 1-4 No Groundplane*



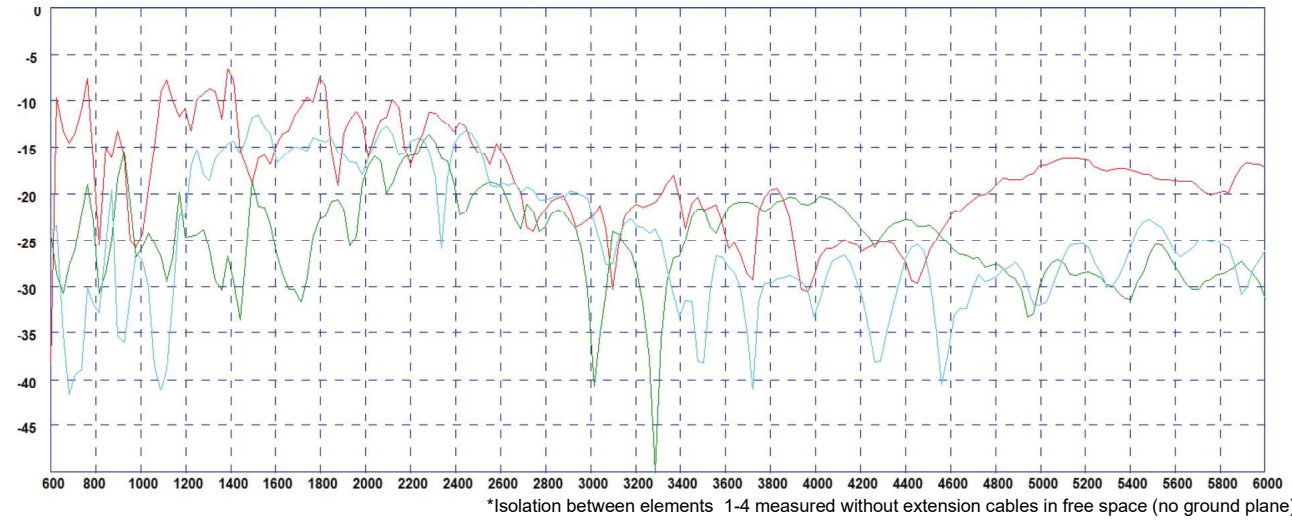
*VSWR for elements 1-4 measured without extension cables in free space (no ground plane)

Typical VSWR Elements 1-4 600x600mm (2'x2') Groundplane*



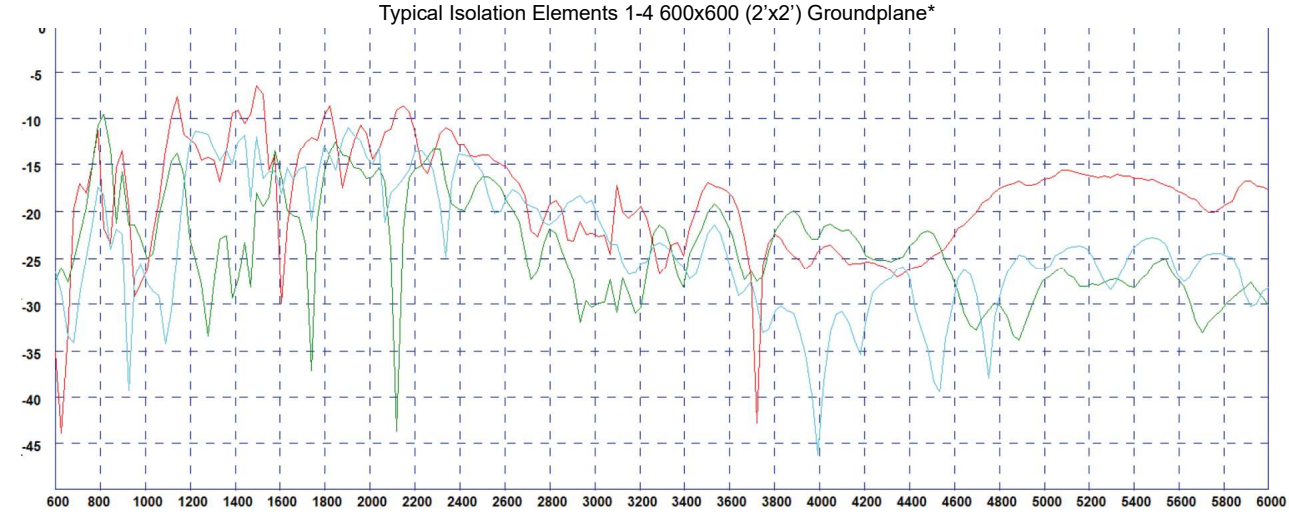
*VSWR for elements 1-4 measured without extension cables on a 600x600mm (2'x2' (no ground plane)

Typical Isolation Elements 1-4 No Groundplane*



*Isolation between elements 1-4 measured without extension cables in free space (no ground plane)

Typical Isolation Elements 1-4 600x600 (2'x2') Groundplane*



*Isolation between elements 1-4 measured without extension cables on a 600 x600mm (2'x2') ground plane)

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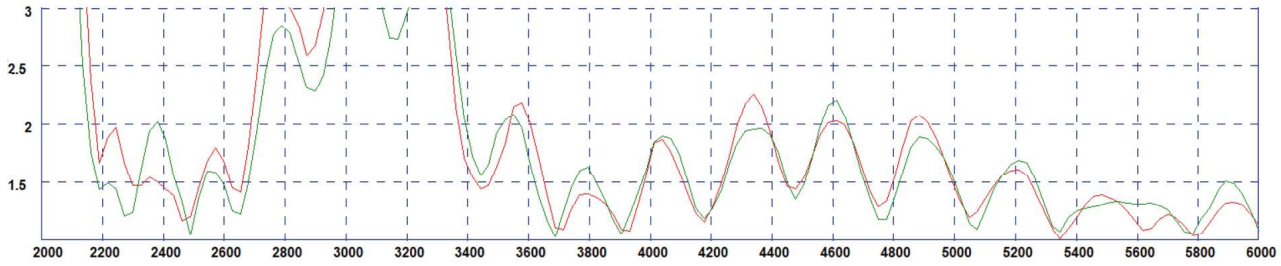
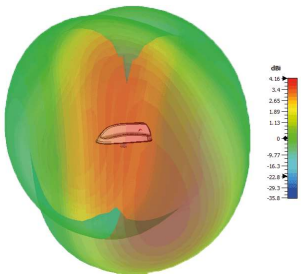
Typical VSWR Element 5*



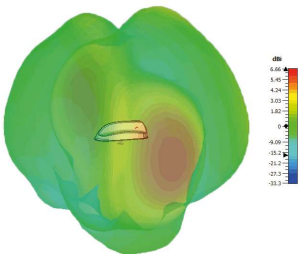
*VSWR for element 5 measured without extension cables in free space (Green Trace) and on a 600x600mm (2'x2') ground plane (red trace)

Radiation Patterns

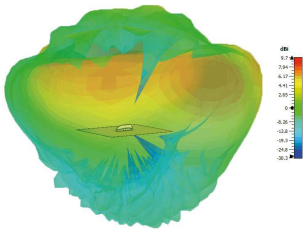
Typical 3D Pattern Elements 1-4 No GP 2.45GHz*



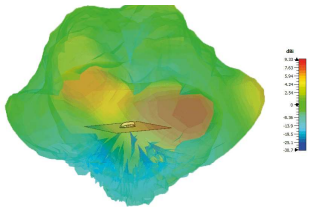
Typical 3D Pattern Elements 1-4 No GP 5.4GHz*



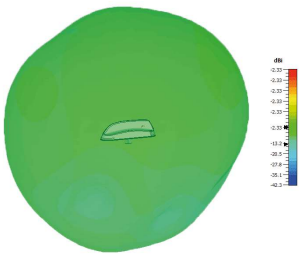
Typical 3D Pattern Elements 1-4 600x600mm 2.45GHz*



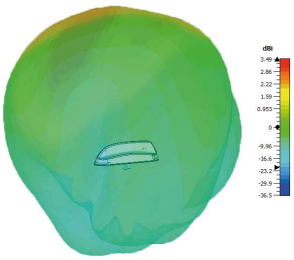
Typical 3D Pattern Elements 1-4 600x600mm 5.4GHz*



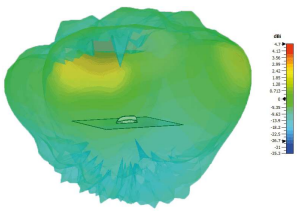
Typical 3D Pattern Elements 5 No GP 2.45GHz*



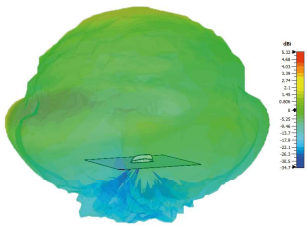
Typical 3D Pattern Element 5 No GP 5.4GHz*



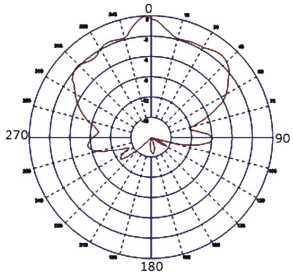
Typical 3D Pattern Element 5 600x600mm 2.45GHz*



Typical 3D Pattern Elements 5 600x600mm 5.4GHz*



Typical E Plane Pattern GPS 1575MHz*



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