

Description: LTE / WiFi / GNSS, Direct Mount
Series: DISC
PART NUMBER: DSC31111DM

Features:

- 1x LTE 4G antenna:
 - 698-960/1427-2700MHz
- 1x WiFi Antenna:
 - 2400-2500/4900-6000MHz
- 1x Active GNSS antenna:
 - 1555-1610MHz
 - LNA Gain 30dB
 - Pre and post LNA filtering
- Diameter 100mm
- 3m feed cables and SMA Male connectors as standard
- IP67

Applications:

- 3-in-1 Combo Antenna
- 4G LTE, Cat M1 and Nb-IoT Devices
- WiFi
- Vehicular use
- Utility boxes
- Smart metering
- Navigation, Fleet Management, Tracking

All dimensions are in mm / inches

Issue: 2026

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ELECTRICAL SPECIFICATIONS

Antenna Type	LTE and WiFi PIFA, GNSS ceramic patch
Frequency	LTE:698-960/1427-2700MHz WiFi: 2400-2500/4900-6000MHz GNSS: 1555-1610MHz
Nominal Impedance	50 Ω
Return Loss	-10dB
Radiation Pattern (LTE and WiFi) (GNSS)	Omni Directional
Gain	698-960 3.5dBi / 1427-2700 4.7dBi 2400-2500 4.7dBi / 4900-6000 6.5dBi
Gain (GNSS LNA)	30dB
Noise Figure (GNSS)	<2.4 dB
Input voltage (GNSS)	3.3-5 V DC
Current Draw (GNSS)	<6 mA
Efficiency(Min)	LTE 35% / WIFI 60%
Polarization (LTE and WiFi)	Linear Vertical
Polarization (GNSS)	RHCP

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Description: LTE / WiFi / GNSS, Direct Mount**Series: DISC****PART NUMBER: DSC31111DM****MECHANICAL SPECIFICATIONS**

Overall Length	Φ100*38mm
Weight	400g
Antenna Color / Material	Black/PC 943
Connector type	SMA Male
Cable type	RG174
Cable length	3048mm/10ft

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 ~ +85° C
Storage Temperature	-40 ~ +85° C
Ingress Protection	IP67
RoHS Compliant	Yes

Preliminary

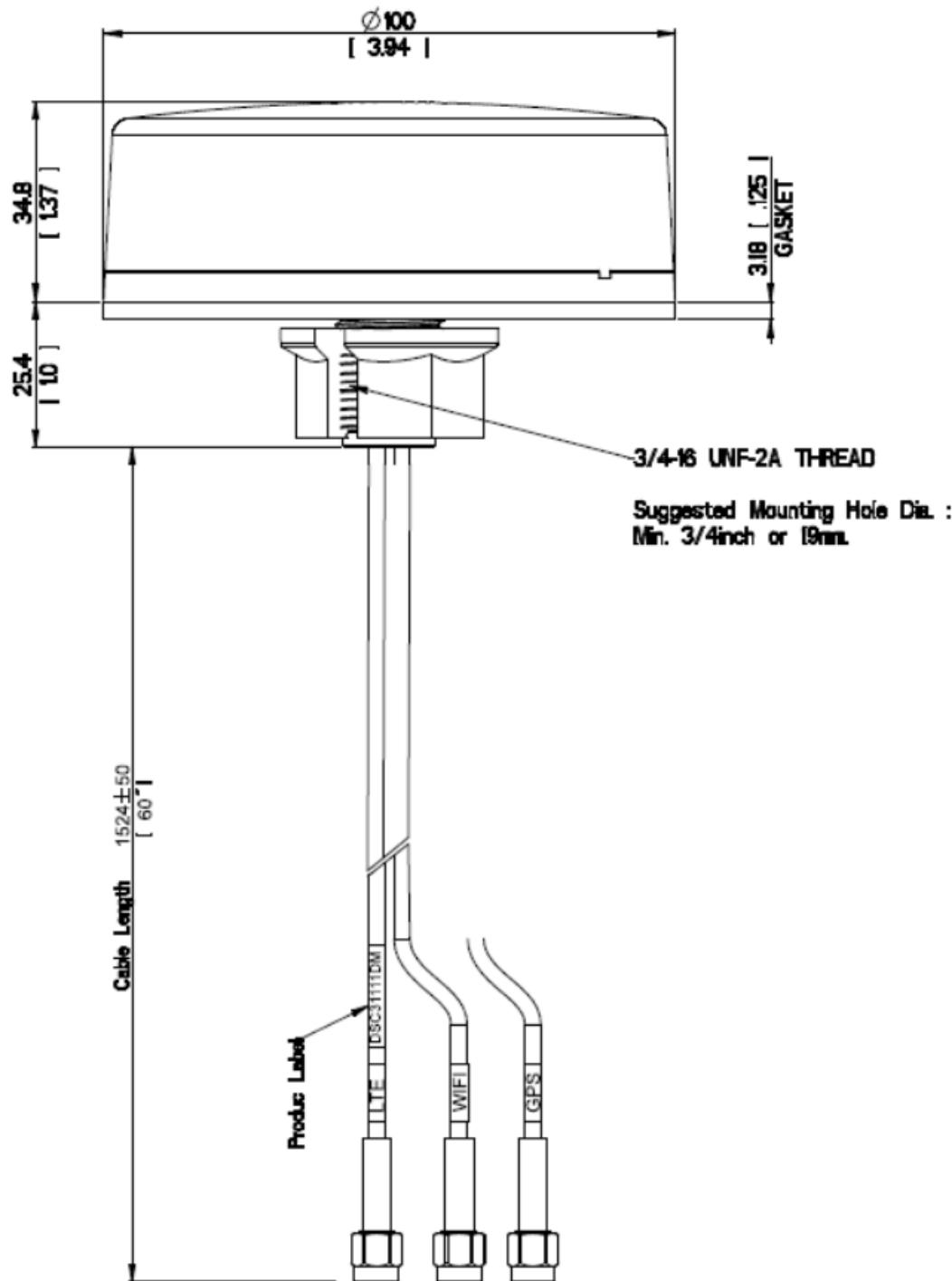


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MECHANICAL DRAWING



Unit: mm [inch]

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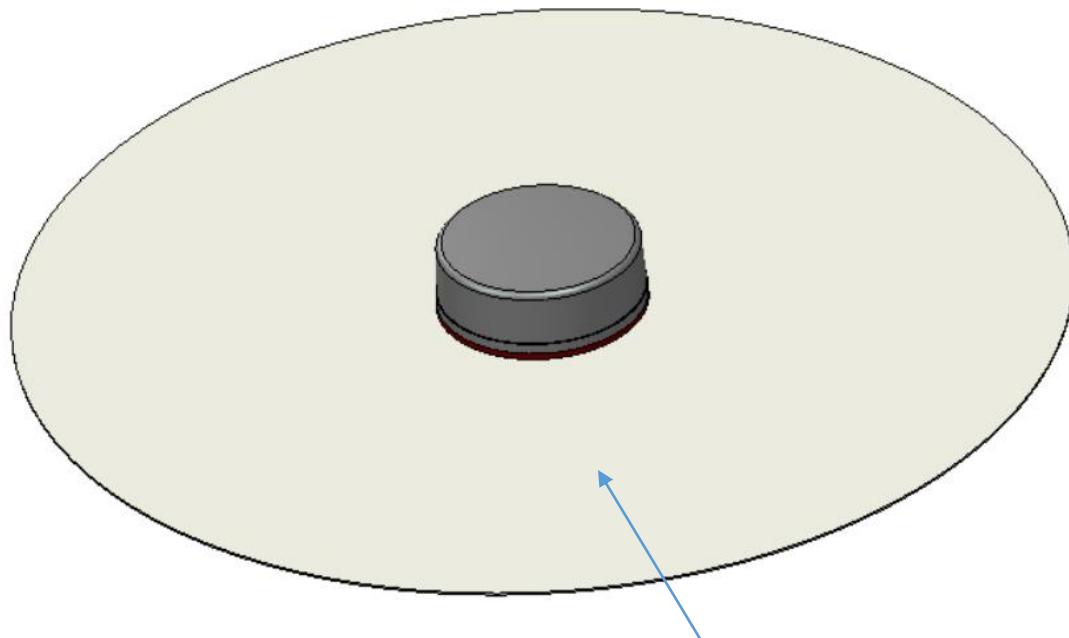


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TEST SETUP



Diameter: 500 mm ground pane

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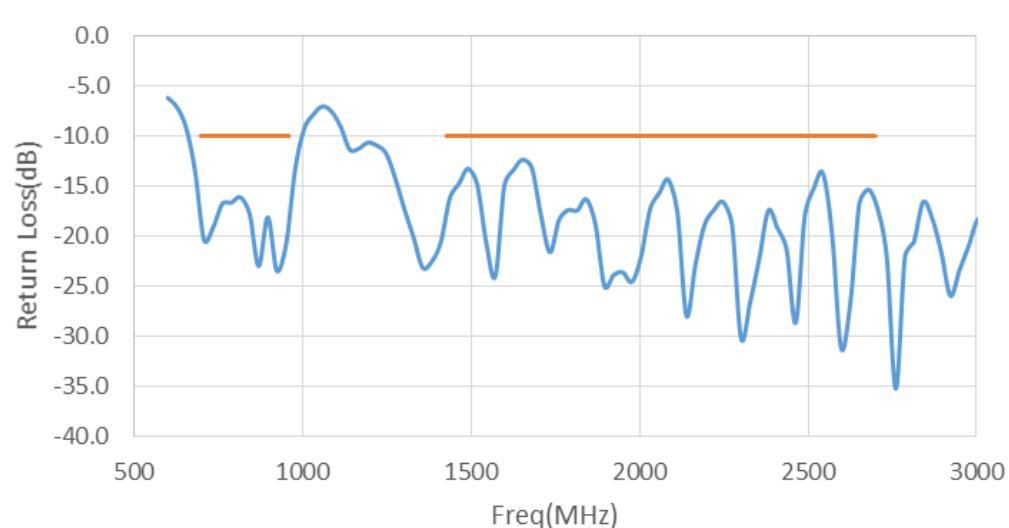
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Series: DISC

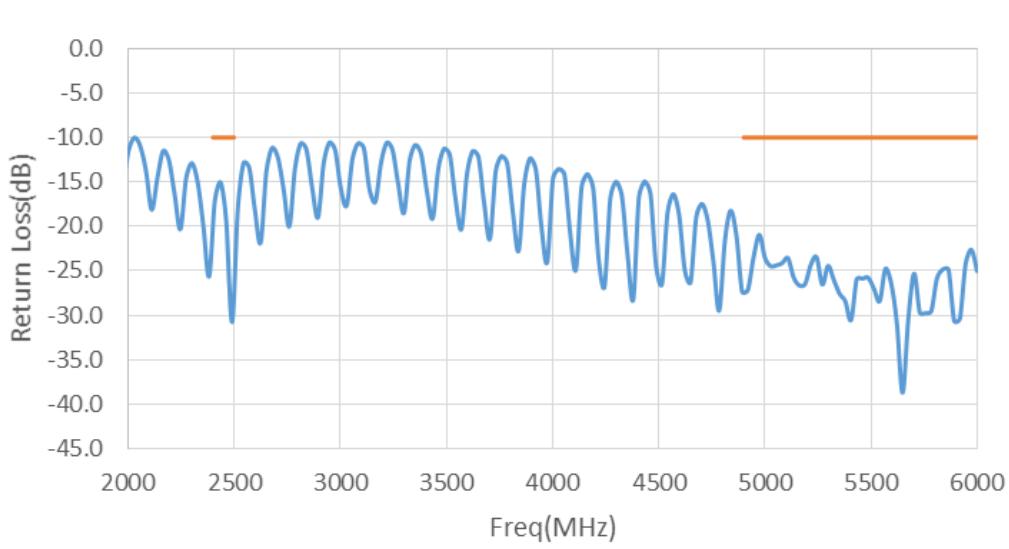
PART NUMBER: DSC31111DM

CHARTS

Return Loss



LTE



WIFI

All return loss data test with 3000mm length cable

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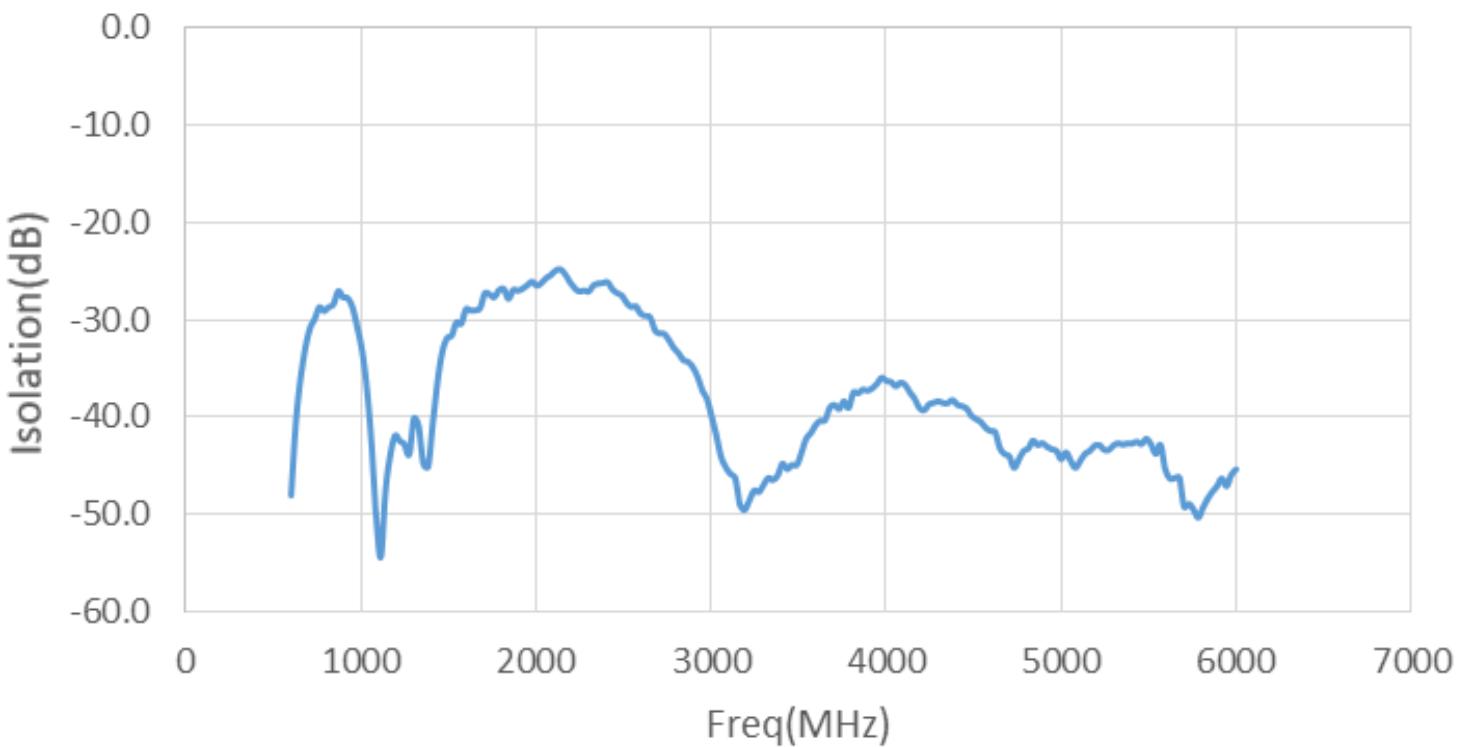
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CHARTS

Isolation



Isolation between LTE and WIFI

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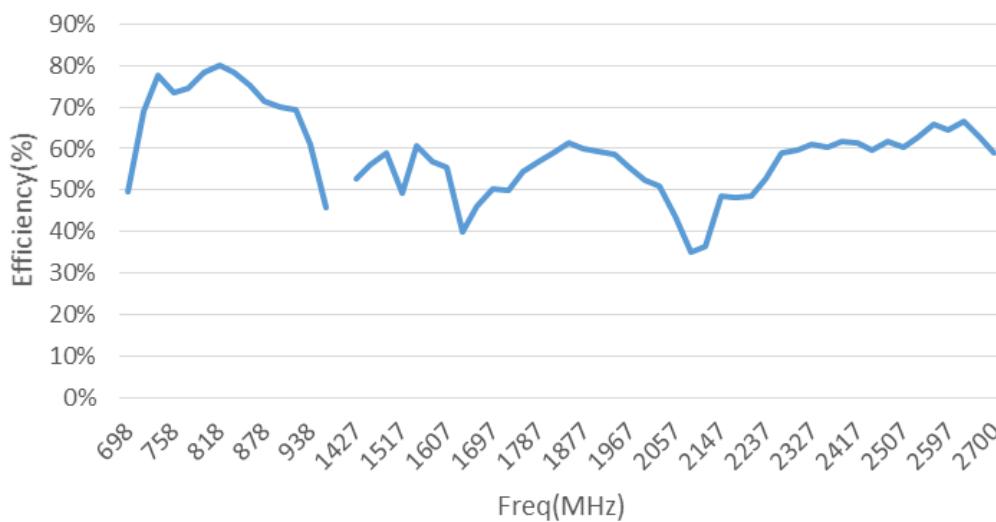
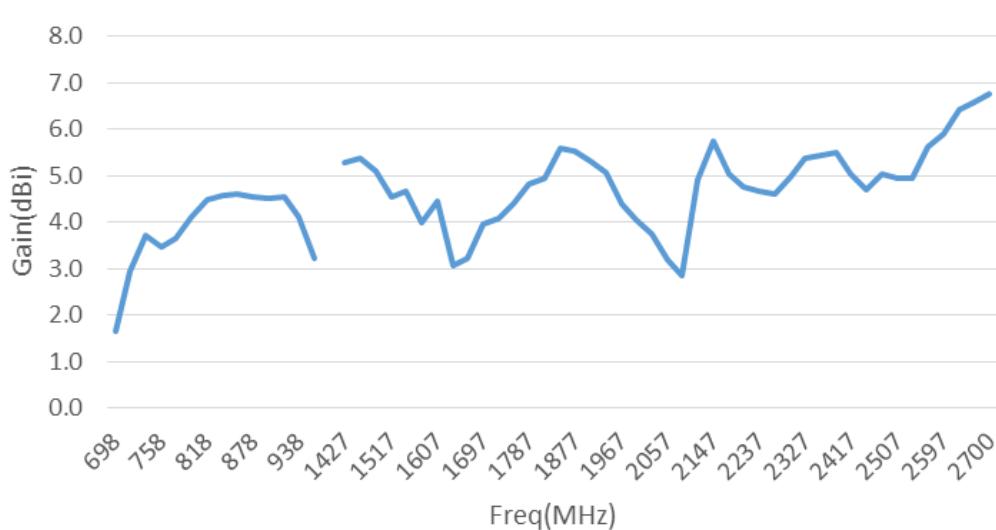
Description: LTE / WiFi / GNSS, Direct Mount

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CHARTS

Gain(dBi) and Efficiency(%) (LTE)



All gain and efficiency data test with 200mm length cable

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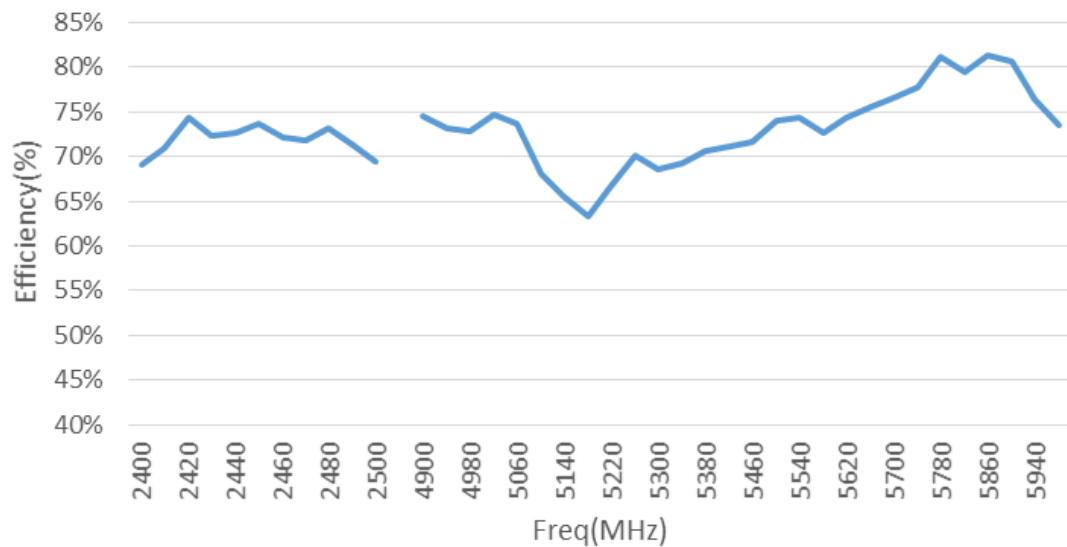
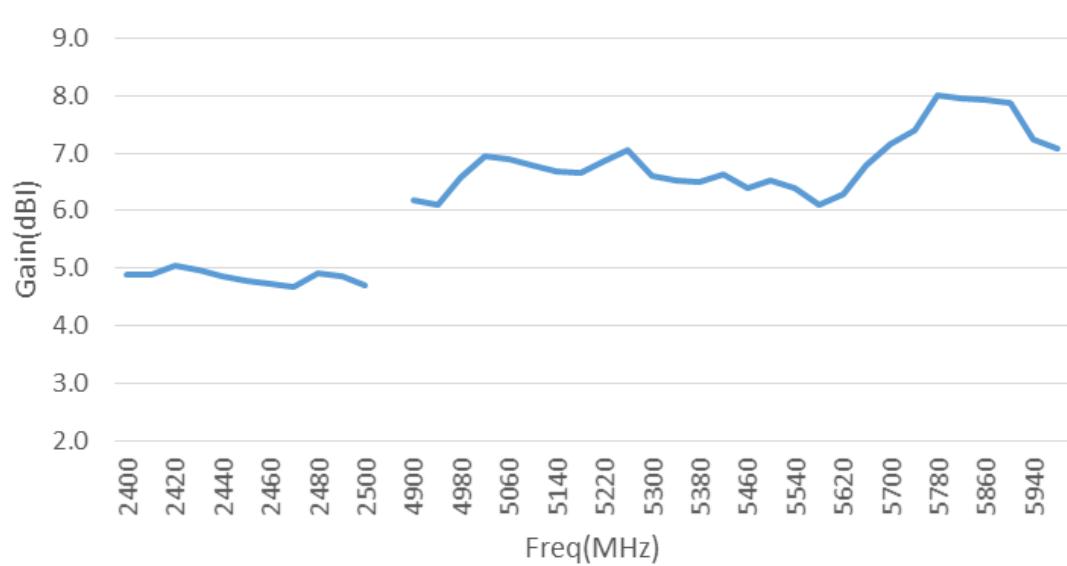
Description: LTE / WiFi / GNSS, Direct Mount

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CHARTS

Gain(dBi) and Efficiency(%) (WIFI)



All gain and efficiency data test with 200mm length cable

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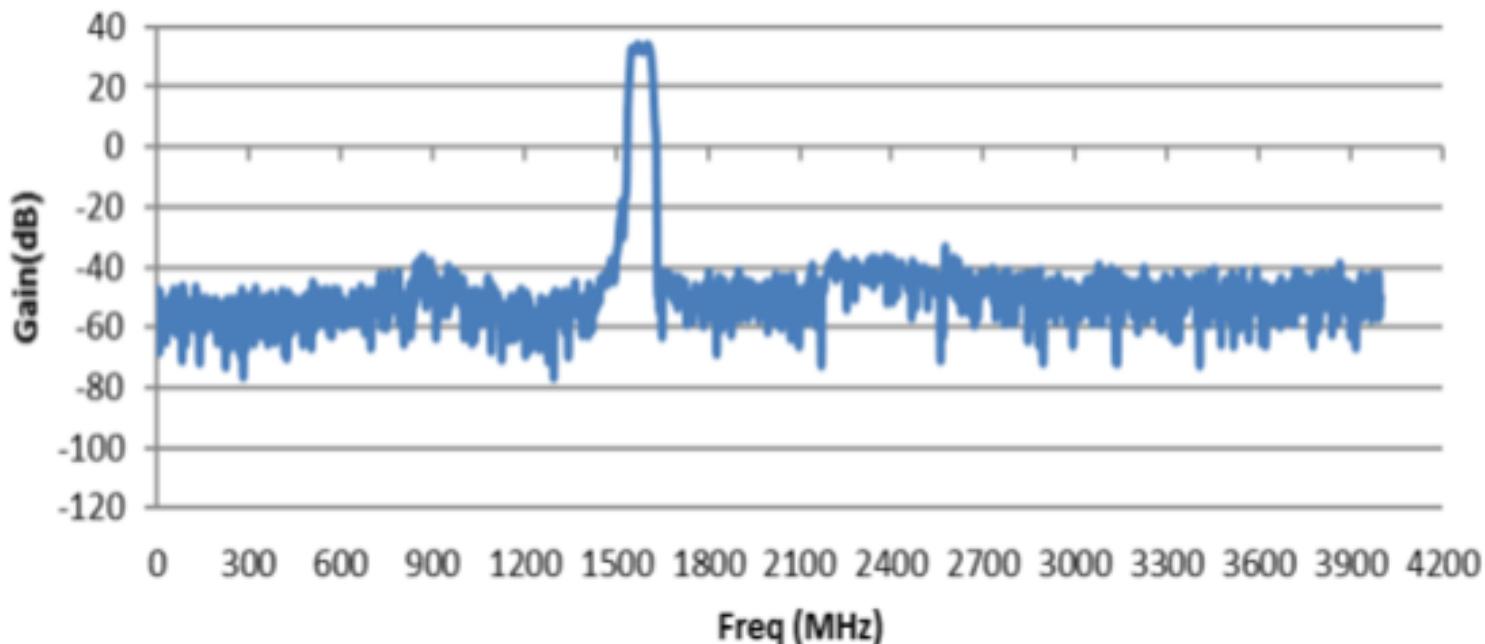
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CHARTS

GNSS LNA performance



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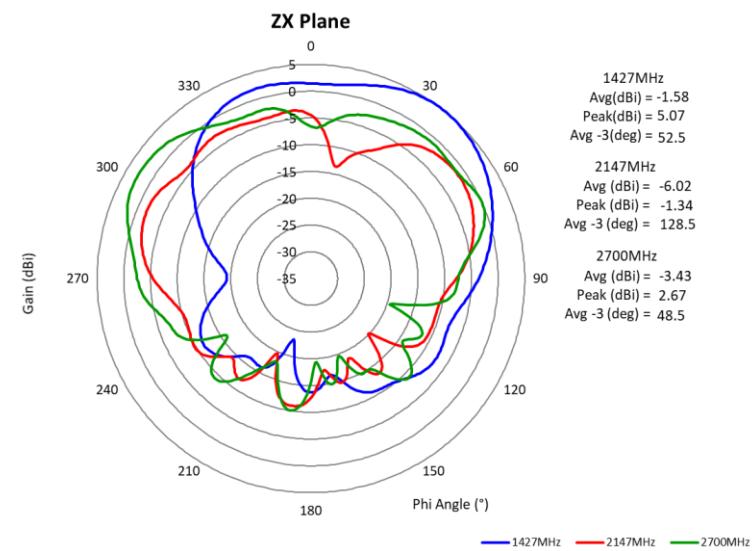
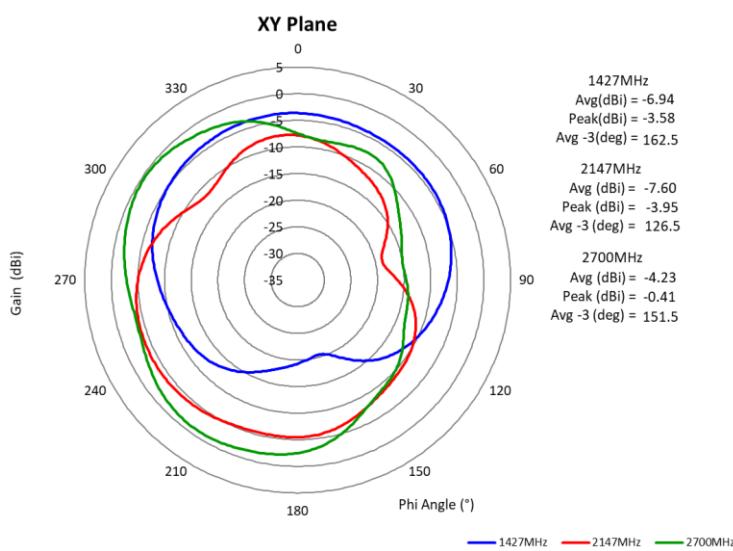
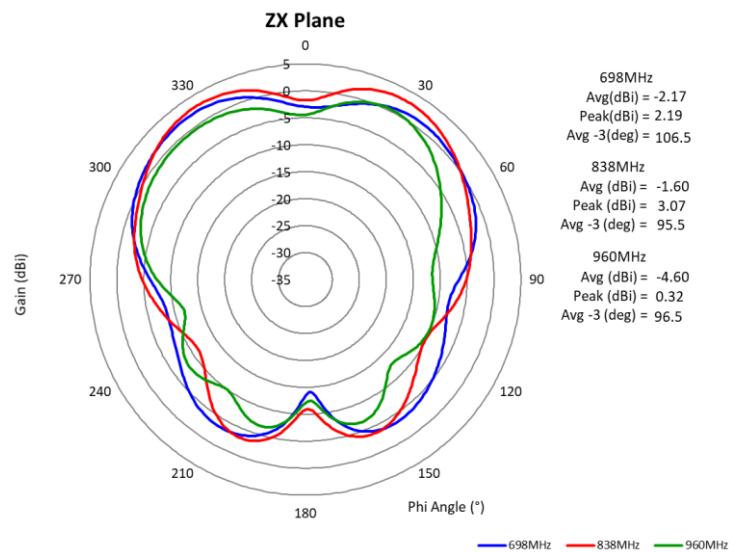
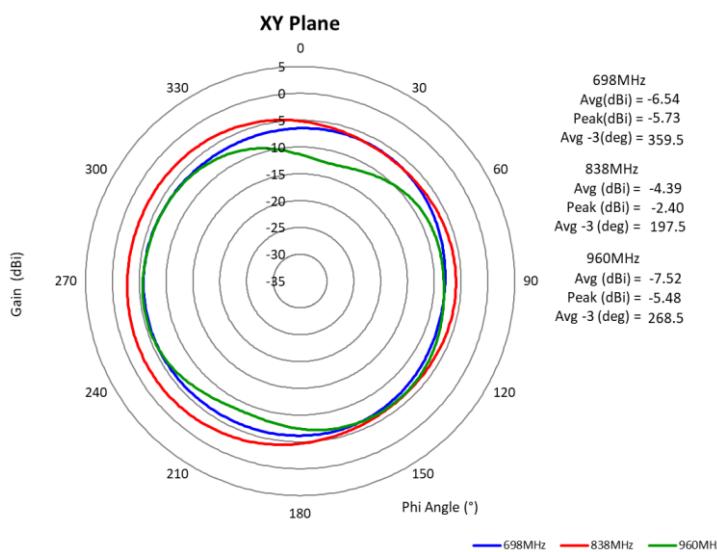
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CHARTS

Radiation Pattern (LTE)



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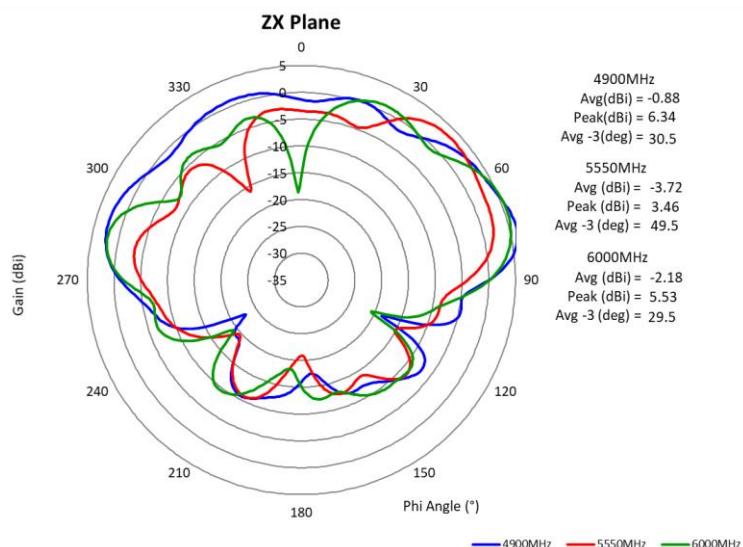
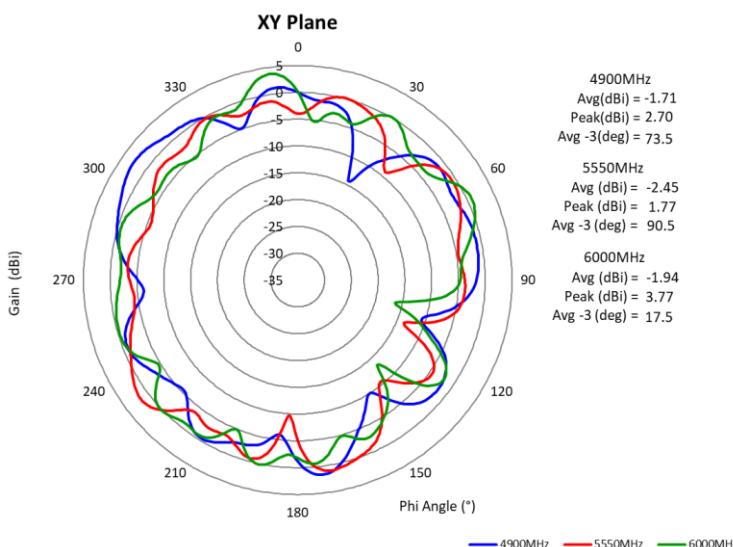
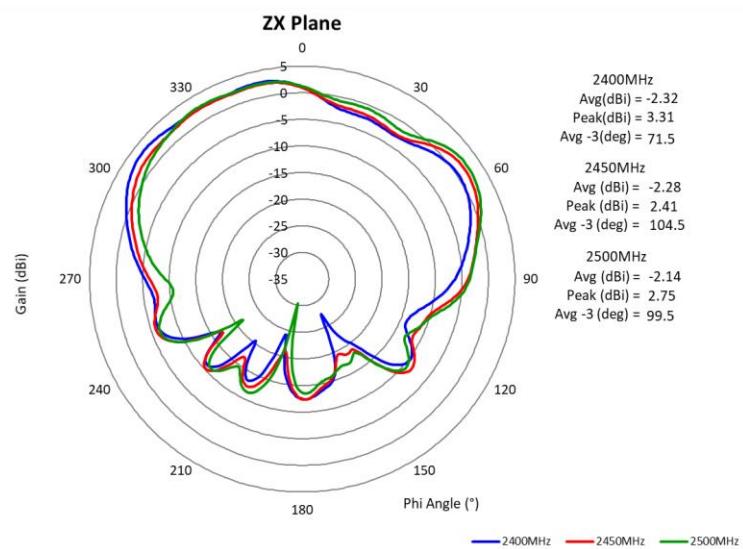
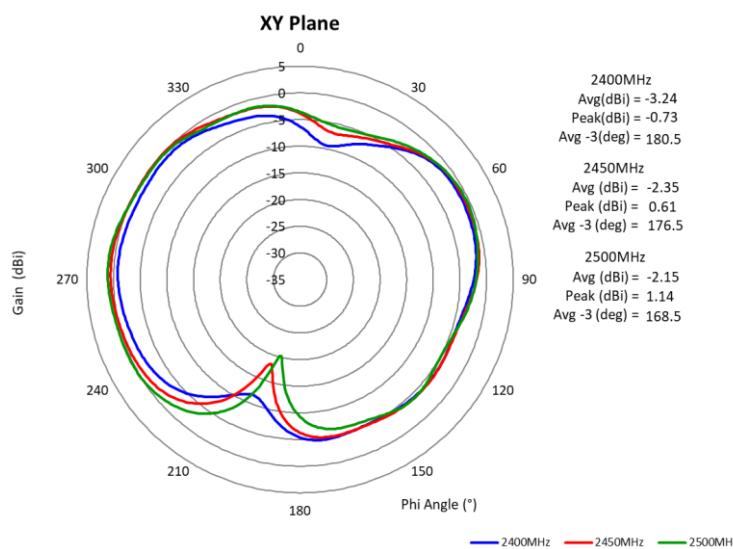
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CHARTS

Radiation Pattern (WIFI)



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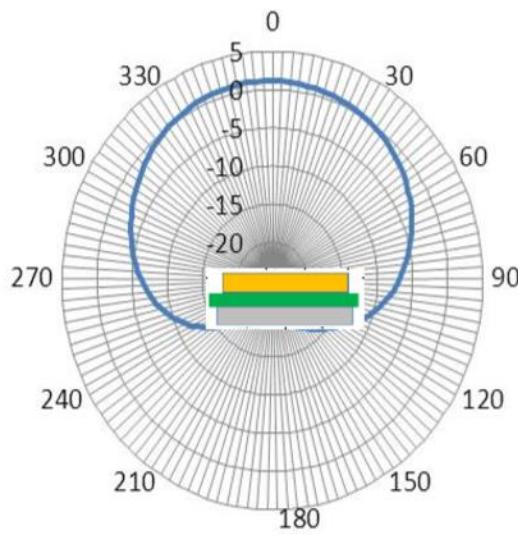
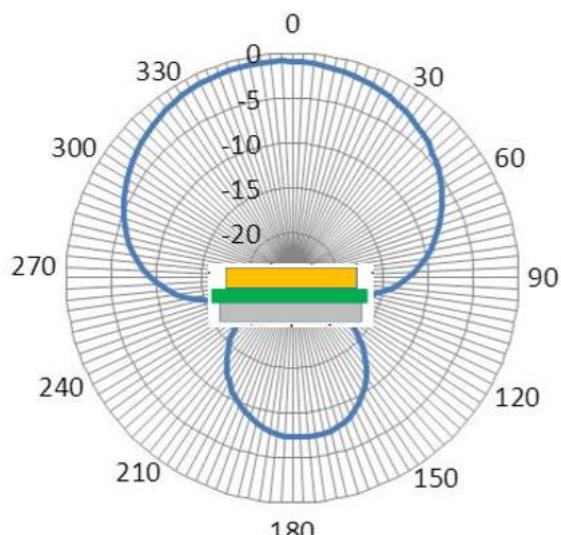
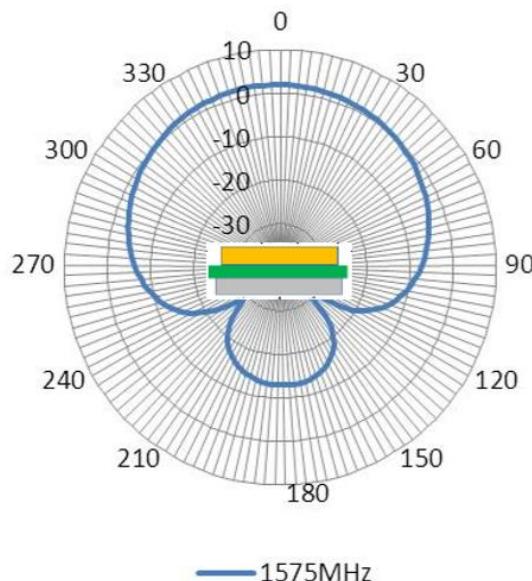
Description: LTE / WiFi / GNSS, Direct Mount

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CHARTS

Radiation Pattern (GNSS)



RHCP Radiation Pattern (70mm x 70mm ground plane)

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Description: LTE / WiFi / GNSS, Direct Mount**Series: DISC****PART NUMBER: DSC31111DM****PACKAGING**

1 PCS/ PE Bag

24 PCS/ Box

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