

Outdoor

# UHF/700/800+GNSS Direct Mount 2-in-1 Antenna

SKF490758L125DM(W) – 470-512 / 750-960 MHz GNSS L1, L2, L5



### Features & Applications:

- Vehicle roof mount, directly on metal plane
- Port 1; 470-512 / 750-960MHz
- Port 2; Active GNSS L1, L2 & L5 with low noise 30dB amplifier
- Cable / length; RG-58 / 17ft (5.2m)
- GNSS Cable / length; RG-174 / 17ft (5.2m)
- Connector; SMA-Male
- Available in Black (P/N SKF490758L125DM) or White (P/N SKF490758L125DMW)
- Heavy and light vehicles
- IoT, navigation, tracking

### Electrical specifications @ 25° C

#### Frequency Band – 470-512 / 750-960 MHz

Antenna type	Nominal Impedance	Polarization	Radiation pattern	Power withstanding	DC Ground
Dipole	50Ω	Vertical	Omni	45W	Yes

Frequency (MHz)	470-512	750-960
VSWR W/17FT (5.2M) Cable	2.5:1	2:1
Avg. Peak Gain (dBi)	3.0	3.5
Avg. Efficiency (%)	68	61
HPBW Vertical Plane (°)	44	32

#### GNSS Antenna: Frequency Bands – L1, L2 & L5

Frequency (MHz)	L1: 1561-1602	L2: 1215-1237	L5: 1164-1189
Return Loss (dB)	< -10	< -13	< -15
Gain – Radiating Element (dBic)	3.6	0.3	-0.4
Average Efficiency (%)	70	60	46
LNA Gain (dB) Typical	28	33	30
Noise Figure (dB)	1.7 @ 1575MHz	2.2 @ 1227MHz	2.2 @ 1164MHz
Polarization	RHCP		
Operating Voltage (V)	2.5 - 18		
Power Consumption	Max. 16mA		

### Mechanical Specifications

#### SKF490758L125DM

Size W/H/L	Color	Weight	Cable / Connector Type	Fixing System
52.5 (2.07") x 63.6 (2.50") x 178.3 (7.02") mm	Black	375grms (0.83lbs)	RG-58 / SMA-Male RG-174 / SMA-Male	Direct Mount
Housing Material	Operating Temperature	Storage Temperature	Ingress Protection	RoHS-6 Compliant
UV Protected Plastic	-40°C to +85°C	-40°C to +85°C	IP67	Yes

Notes:

1. Measured on Ø52in (1.3m) ground plane.
2. Requires Ø.875" (22.3mm) hole.

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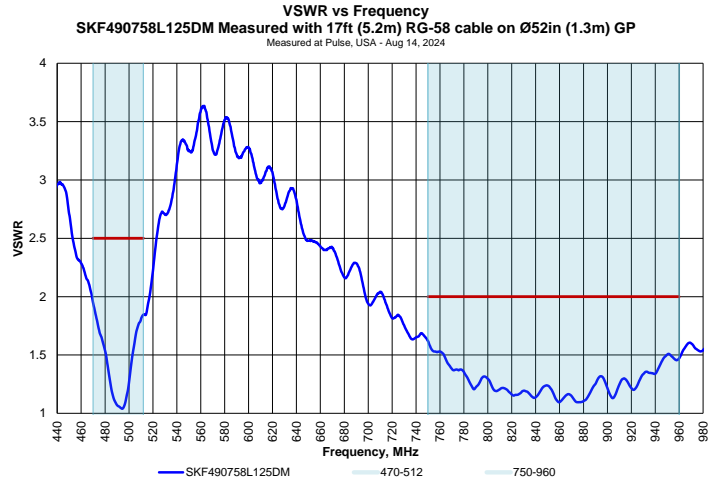


## Test Setup / Charts

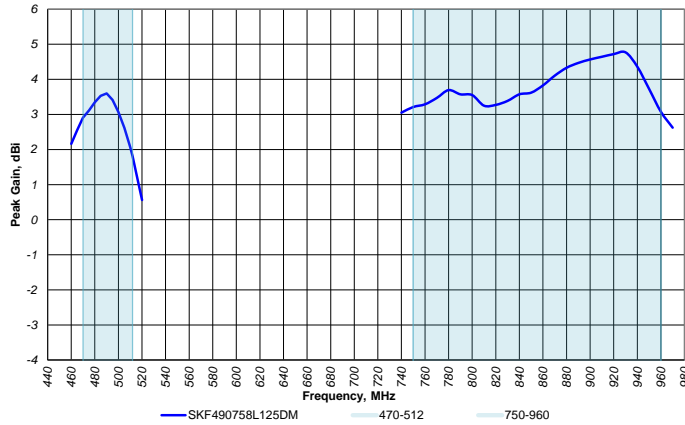
### SKF490758L125DM



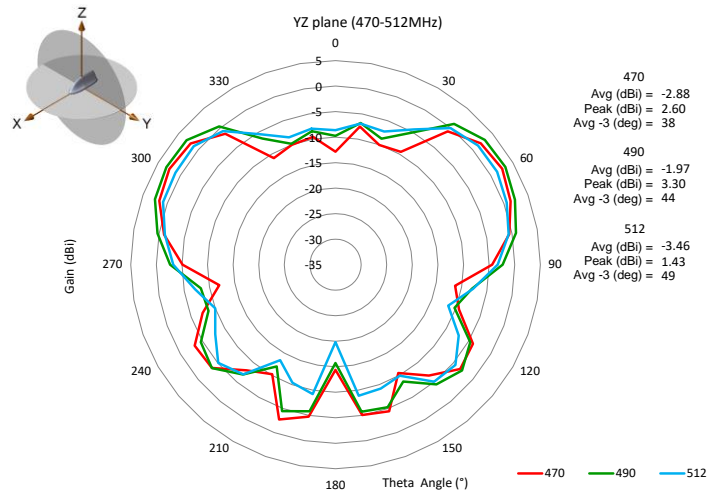
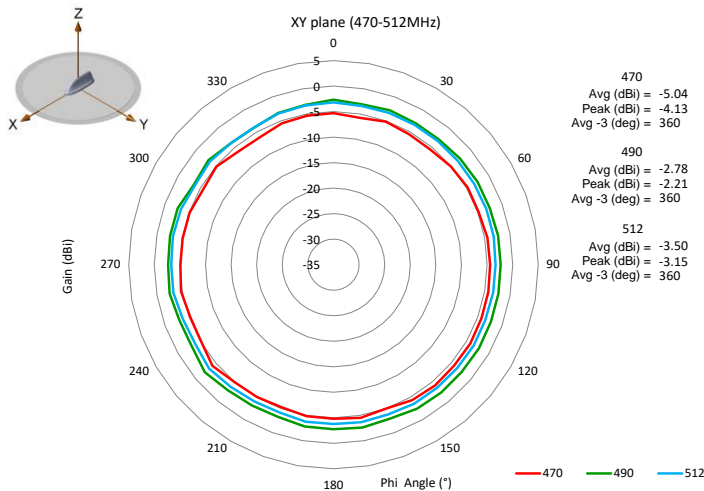
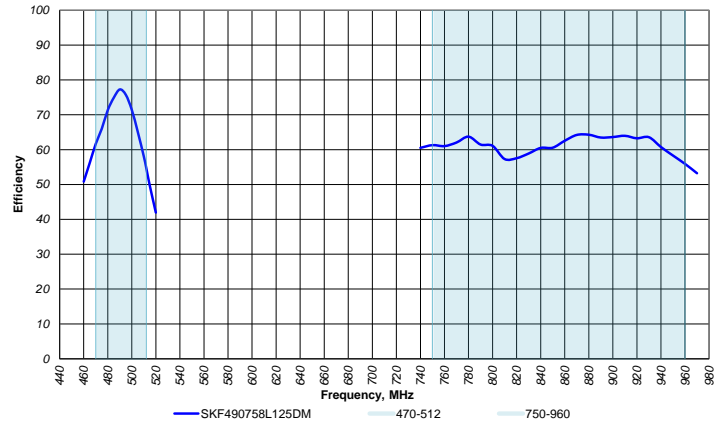
antenna sample measured on  $\varnothing 52\text{in}$  (1.3m) ground plane



**Peak Gain vs Frequency**  
SKF490758L125DM Measured with 1ft (0.3m) RG-58 cable on  $\varnothing 52\text{in}$  (5.2m) GP  
Measured at Pulse, USA - Feb 05, 2024

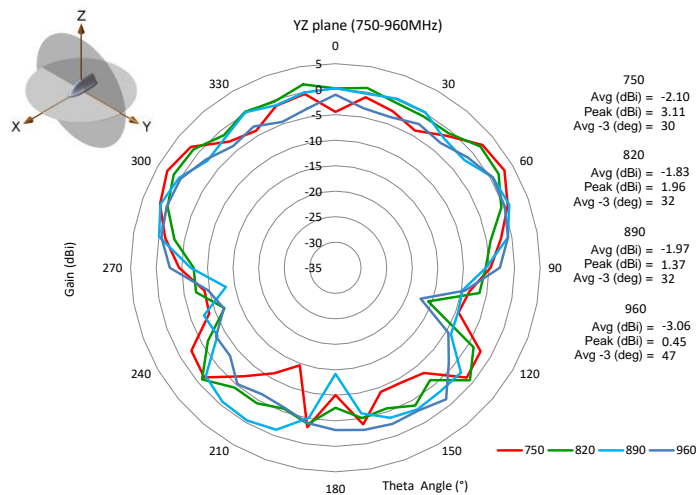
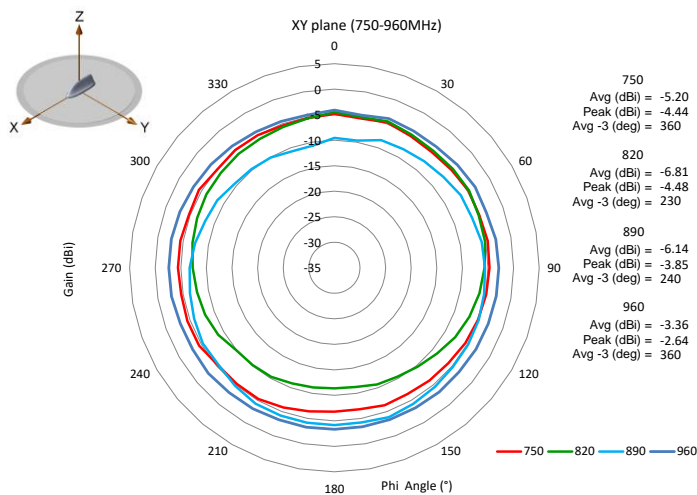


**Efficiency vs Frequency**  
SKF490758L125DM Measured with 1ft (0.3m) RG-58 cable on  $\varnothing 52\text{in}$  (5.2m) GP  
Measured at Pulse, USA - Feb 05, 2024

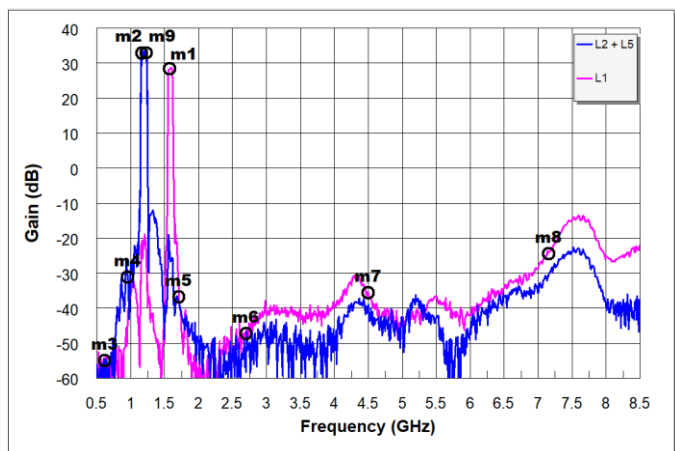


# Outdoor UHF/700/800+GNSS Direct Mount 2-in-1 Antenna

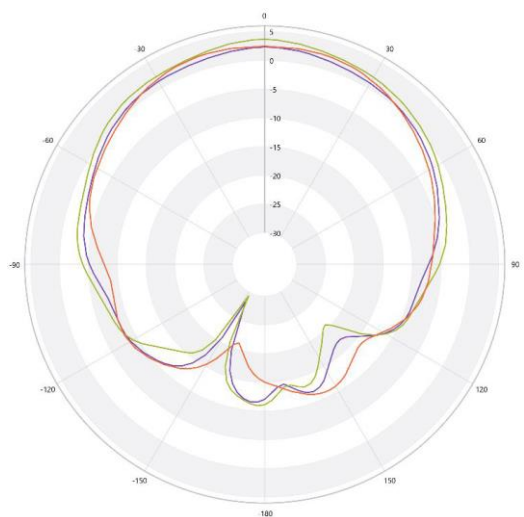
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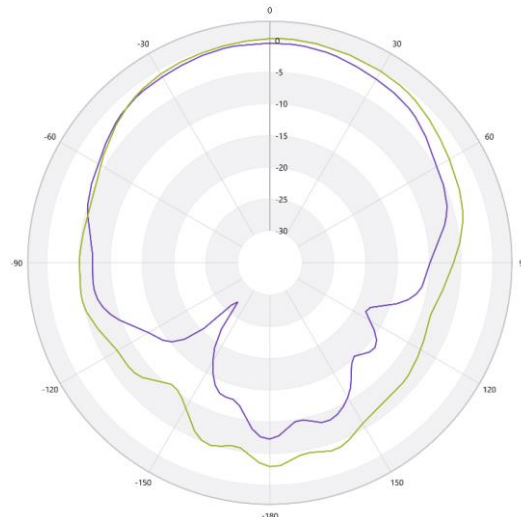
## LNA Gain and out-of-band rejection.



L1 RHCP Pattern



L2 + L5 RHCP Pattern



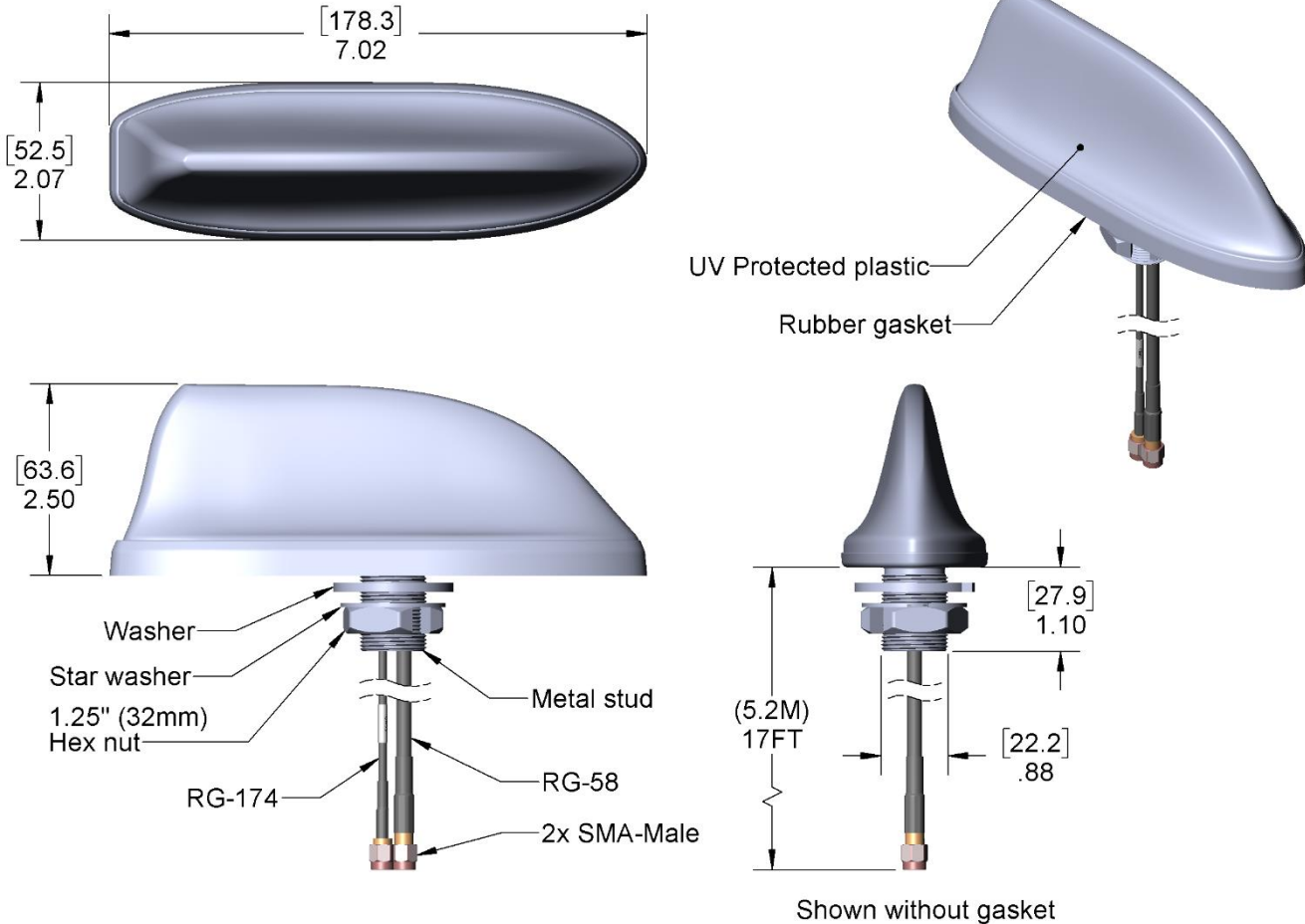
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## Mechanical Drawing

SKF490758L125DM



Dimensions: Inches (mm)  
Unless otherwise specified, all tolerances are  $\pm 0.020$  (0.5mm)

## Packaging

SKF490758L125DM

- 1 antenna packed in a plastic bag.
- 1 label on each plastic bag with part number, description, date code.

### Notes:

- Please contact sales for availability, lead time, and/or any special requests. Samples available upon request.
- Similar product: SKF450758L125DM (UHF band 440-470MHz).

### For More Information:

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