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

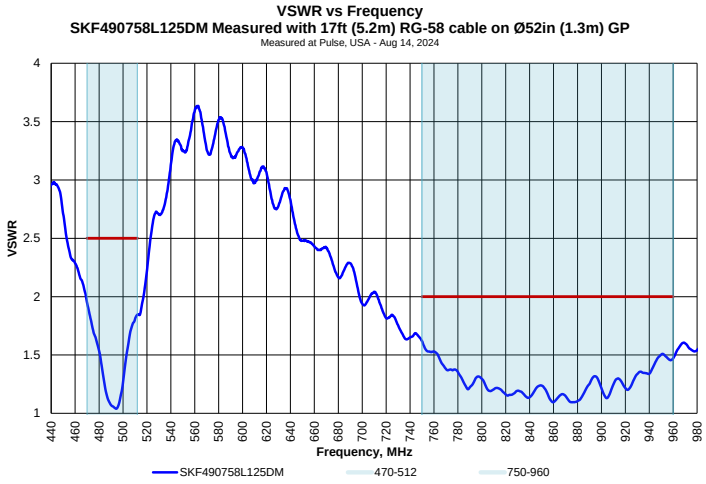
Notes:
1. Measured on Ø52in (1.3m) ground plane.
2. Requires Ø.875” (22.3mm) hole.

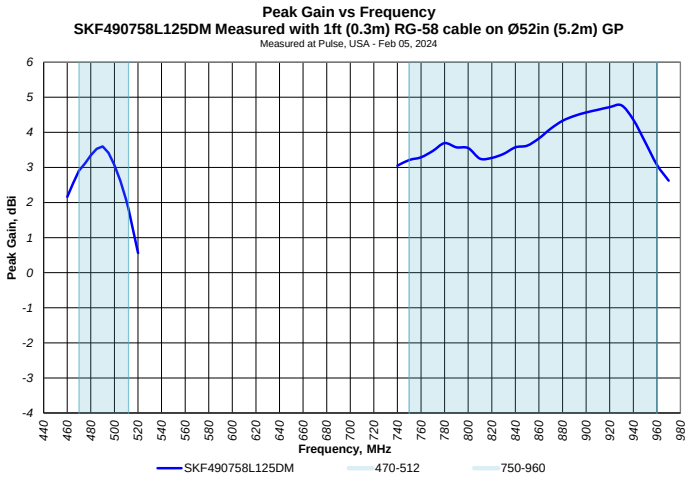
Test Setup / Charts

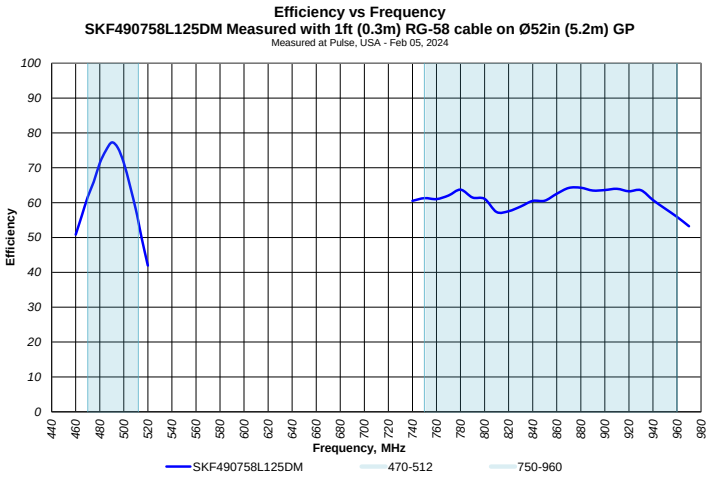
SKF490758L125DM

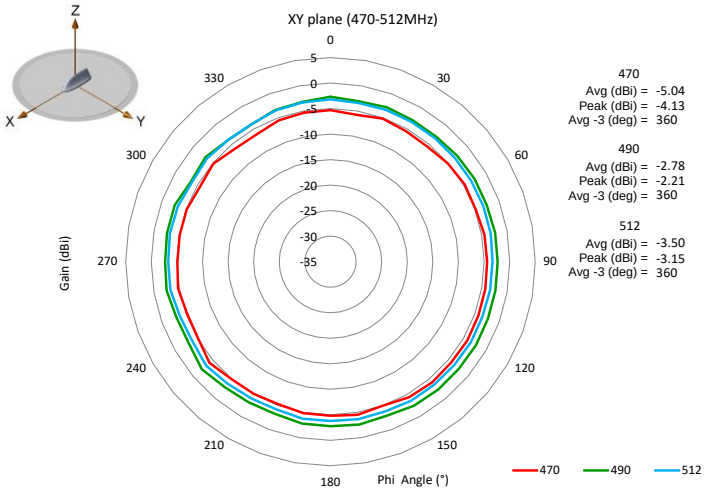


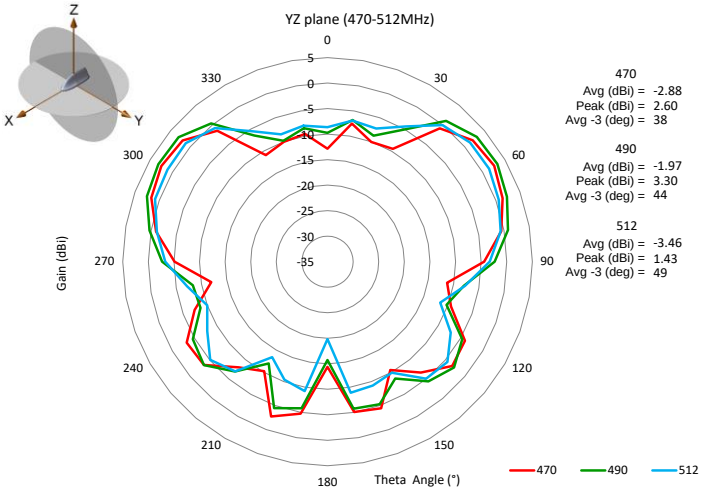
antenna sample measured on
Ø52in (1.3m) ground plane

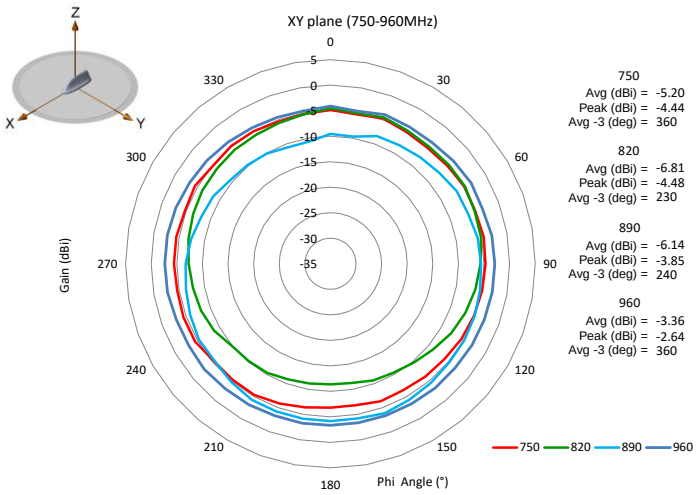






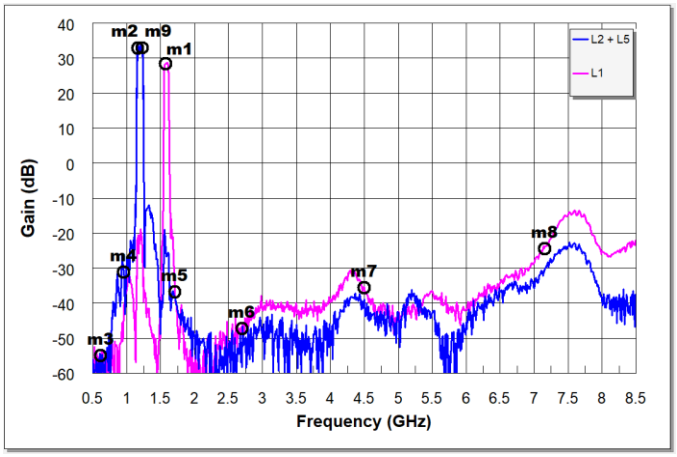




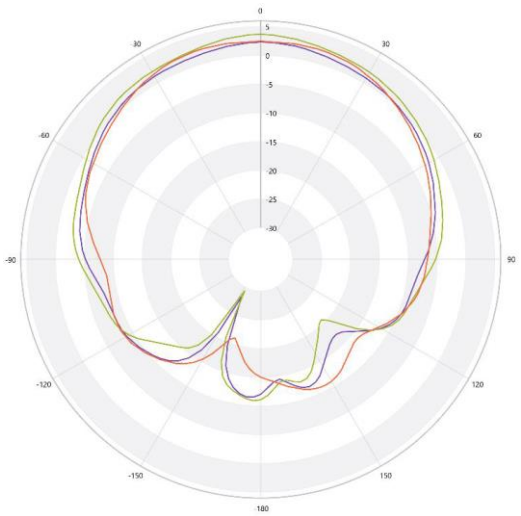




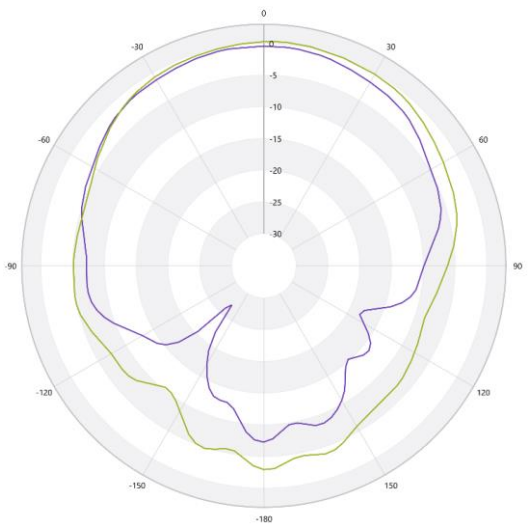
LNA Gain and out-of-band rejection.



L1 RHCP Pattern

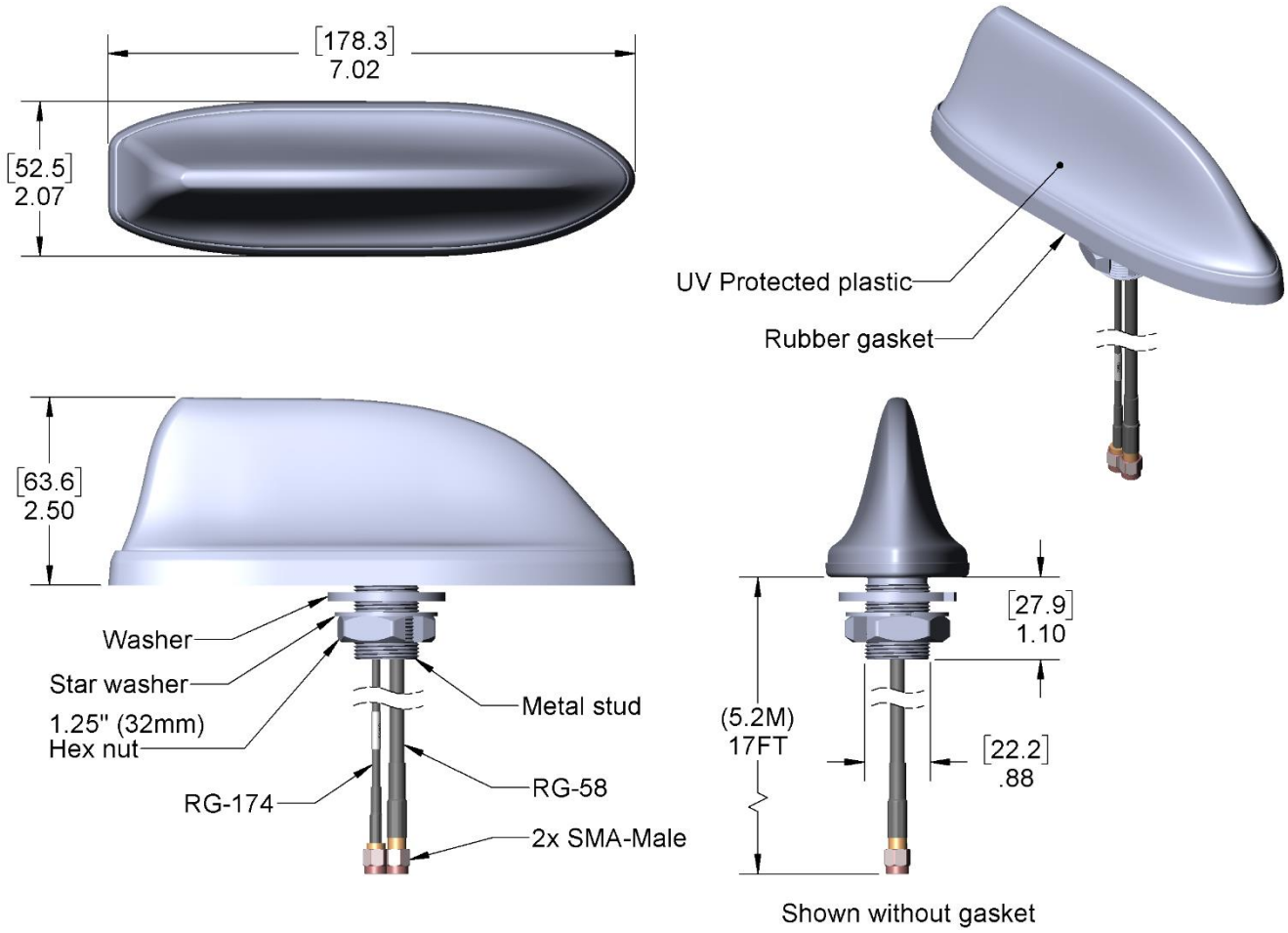


L2 + L5 RHCP Pattern



Mechanical Drawing

SKF490758L125DM



Dimensions: Inches (mm)
Unless otherwise specified, all tolerances are ±.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:

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

For More Information:
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