

5G/4G/3G/2G, NB-IoT, Cat-M, GNSS WORLD BAND COMBINATION ANTENNA

Part Numbers: 2108783-1, 2108783-2

FEATURES & BENEFITS

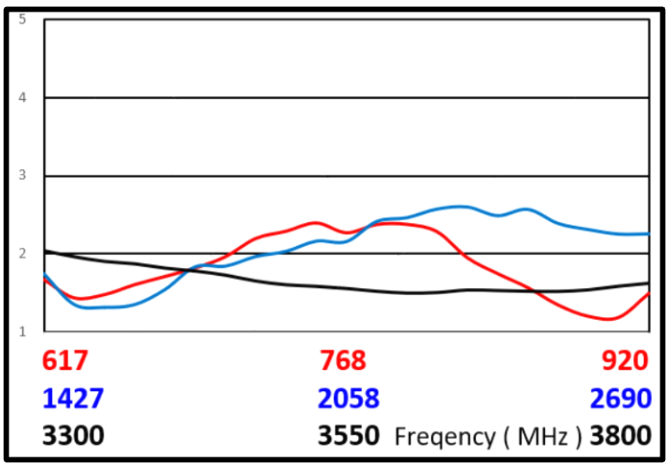
- Omnidirectional coverage
- On board SMD PCB antenna
- Wide Band coverage for 3G, 4G and 5G with GNSS
- Bandwidth and performance dependent on ground plane size/ design suggested minimum ground plane length from antenna feed is 150mm
- Available in Tape & Reel packaging for automatic mounting

SPECIFICATIONS

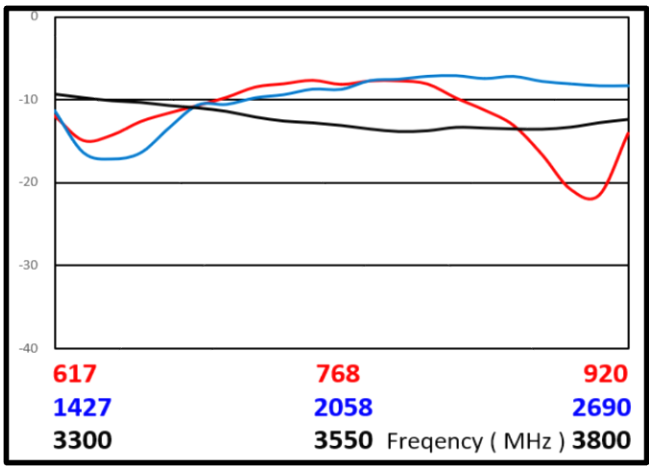
Frequency Range (MHz)	617-920	1427-1608	1710-2900	3300-3800
VSWR	< 2.5:1	< 2.0:1	< 2.7:1	< 2.1:1
Average Efficiency	61.2%	70.0%	53.0%	53.8%
Peak Gain	2.0dBi	3.3dBi	2.7dBi	4.9dBi
Average Gain	-2.1dBi	-1.5dBi	-2.8dBi	-2.7dBi
Power Handling	5 Watt cw			
Feed Point Impedance	50 ohms unbalanced			
Polarization	Linear			
Size	38.0 mm x 7.5 mm x 3.2 mm			
Weight	< 1.5 g			
Mounting	Surface mount			
Operating Temperature	-40 to +85°C			
Storage Temperature	-40 to +85°C			
Packaging Specification	Bag & Box / Tape & Reel			
Hazardous Materials	A certificate of conformance is available from the product page on TE website.			
Data measured in free space and on reference ground plane of 150 mm length and 45.0 mm width, application data might vary				

RF DATA

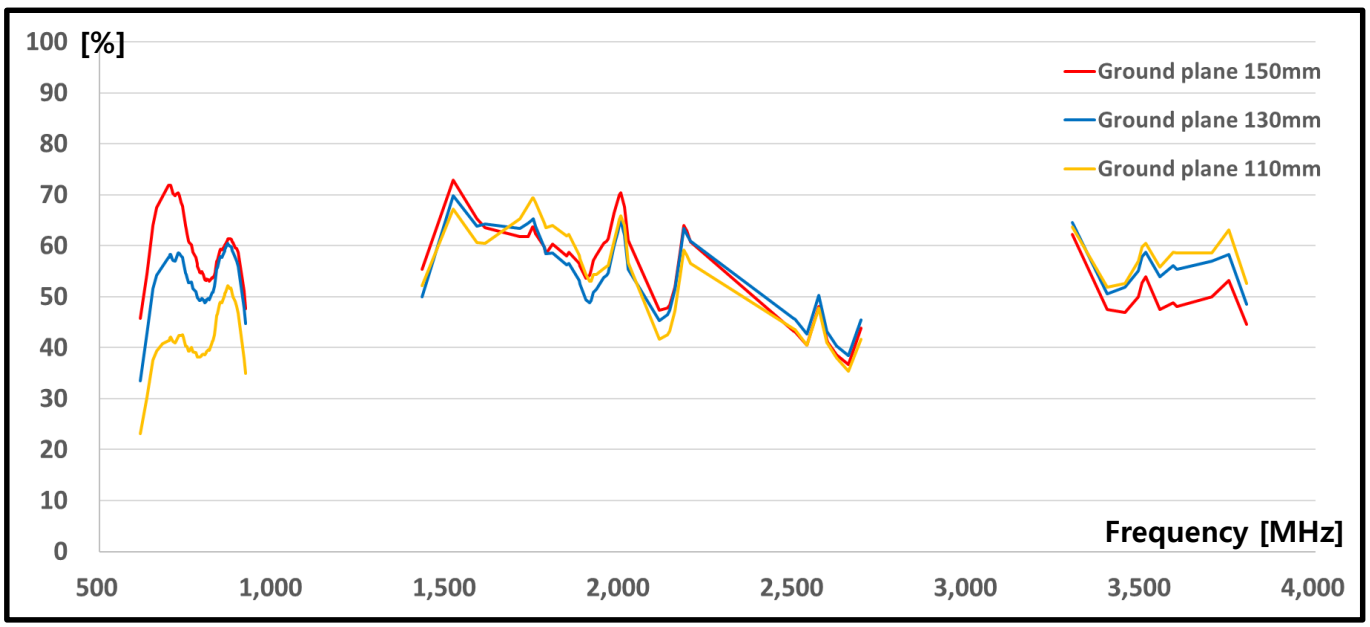
VSWR



Return Loss



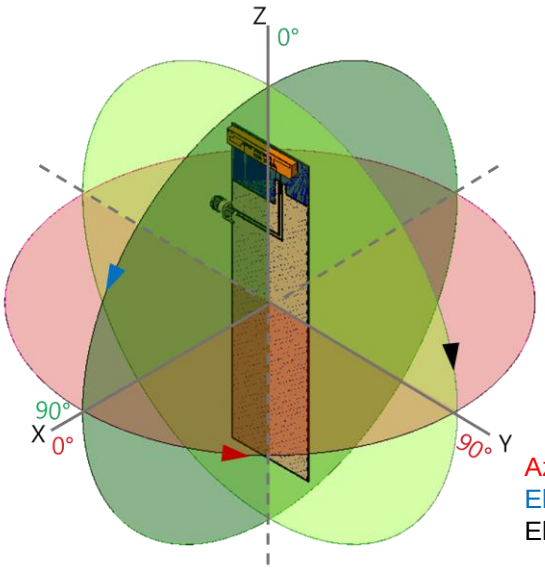
Efficiency vs. Ground plane size



Data measured in free space and on reference ground plane of 150mm length and 45mm width, application data might vary

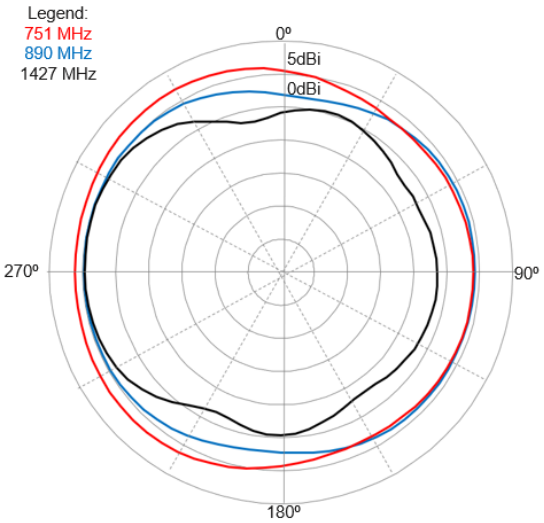
RADIATION PATTERN

Test setup

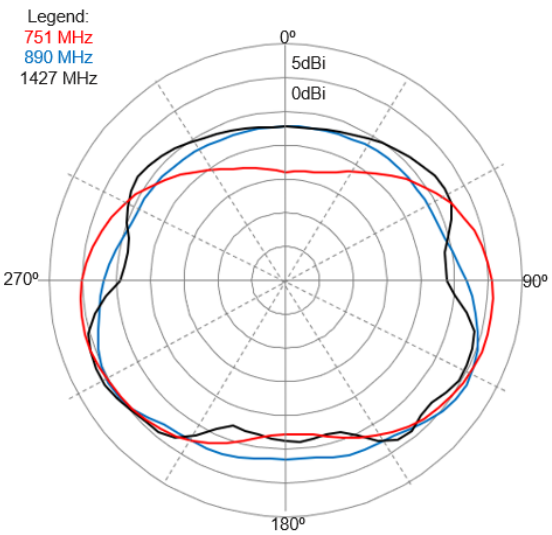


Azimuth Plane
Elevation 1 Plane
Elevation 2 Plane

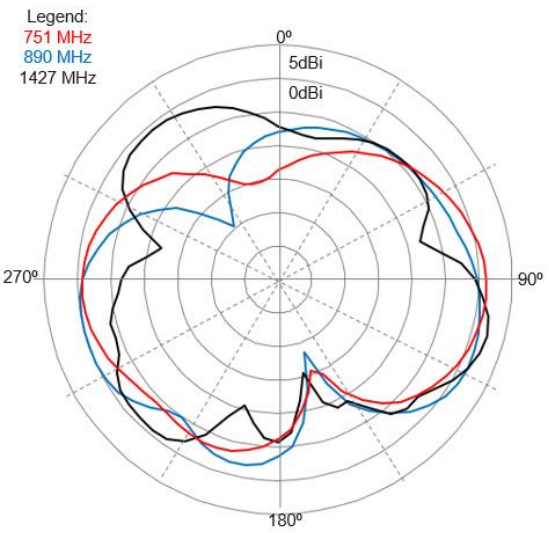
Azimuth



Elevation 1



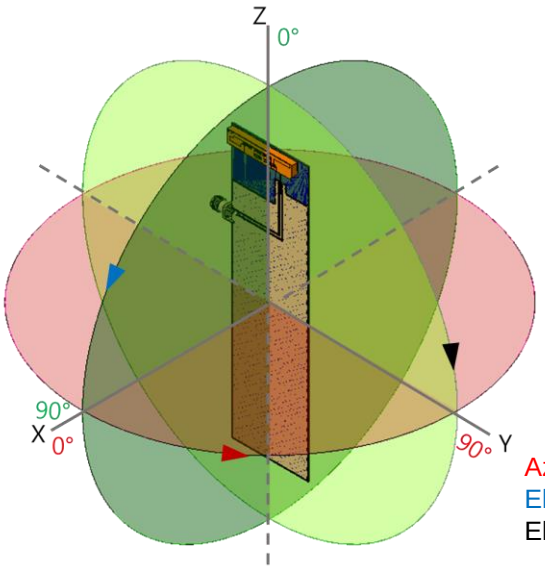
Elevation 2



Data measured in free space and on reference ground plane of 150mm length and 45mm width, application data might vary

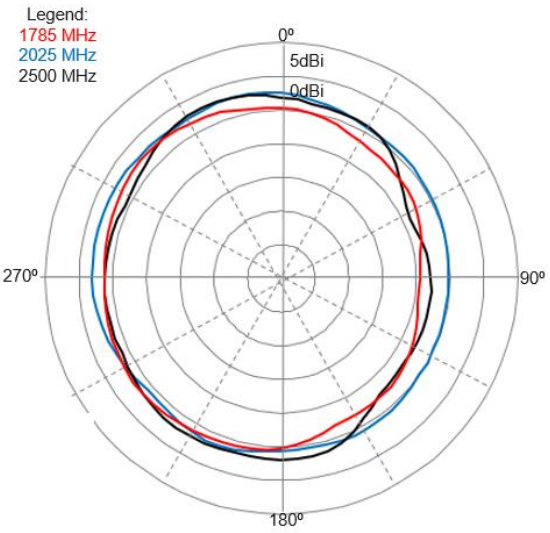
RADIATION PATTERN

Test setup

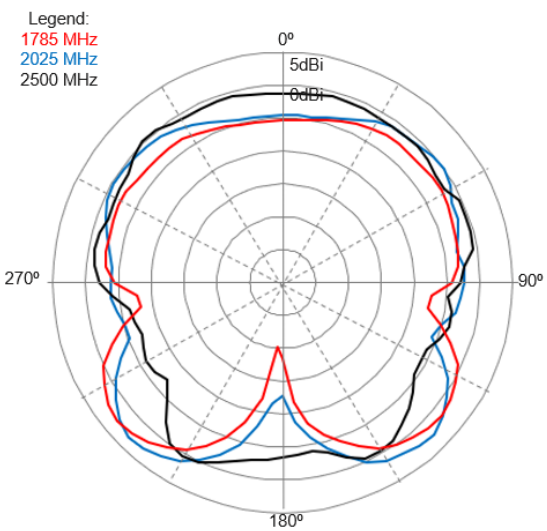


Azimuth Plane
Elevation 1 Plane
Elevation 2 Plane

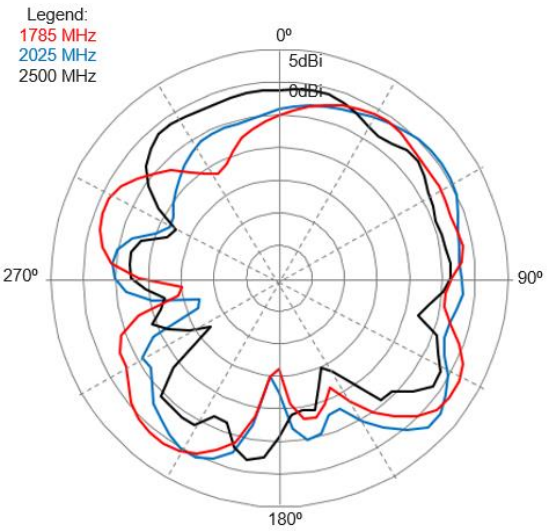
Azimuth



Elevation 1



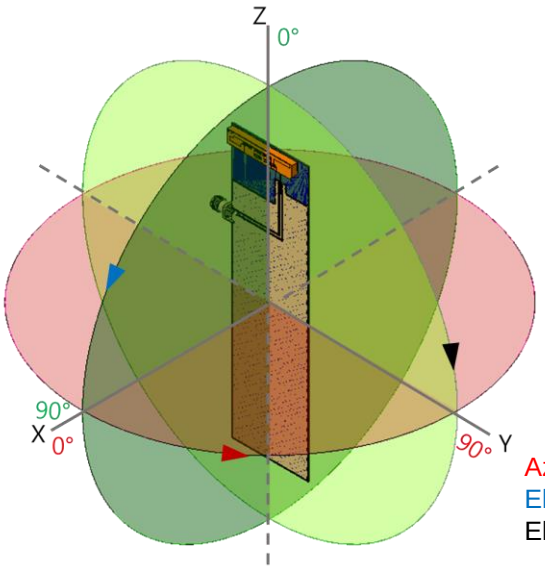
Elevation 2



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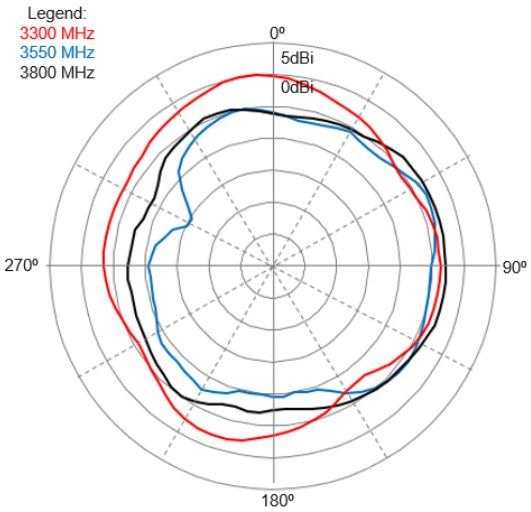
RADIATION PATTERN

Test setup

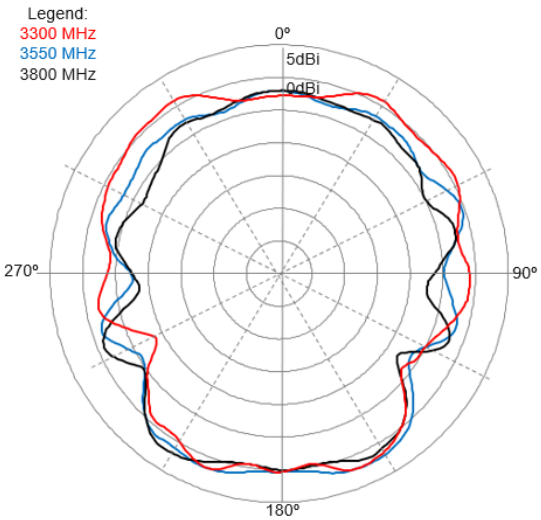


Azimuth Plane
Elevation 1 Plane
Elevation 2 Plane

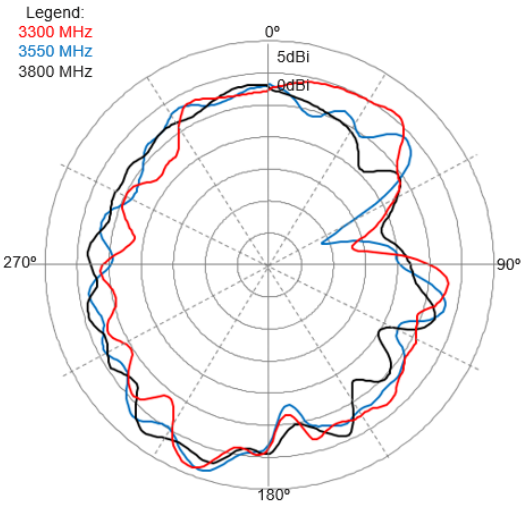
Azimuth



Elevation 1



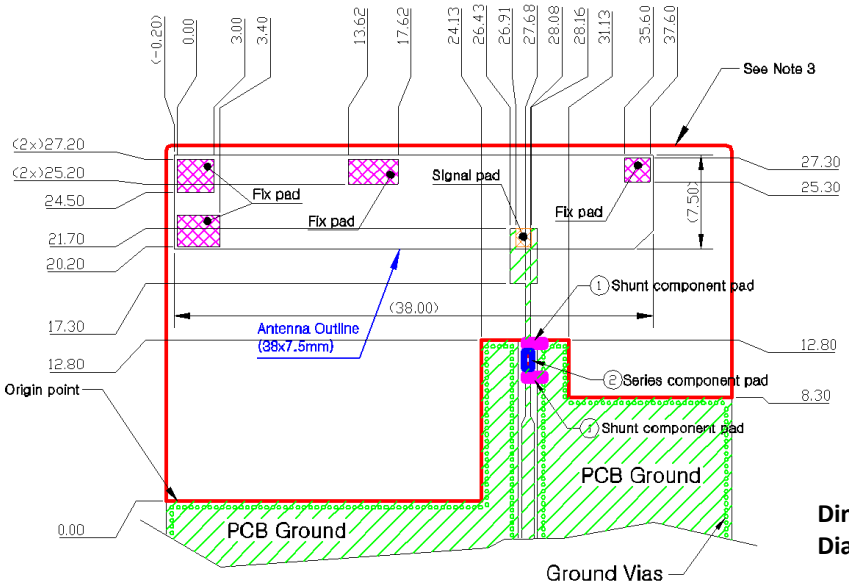
Elevation 2



Data measured in free space and on reference ground plane of 150mm length and 45mm width, application data might vary

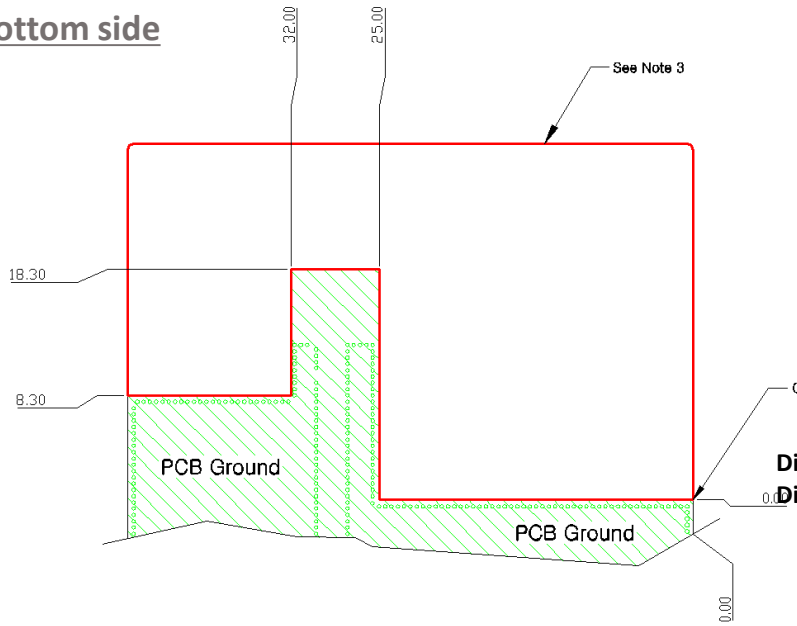
MOUNTING GUIDE

Top side



Dimension: mm
Diagrams is not to scale

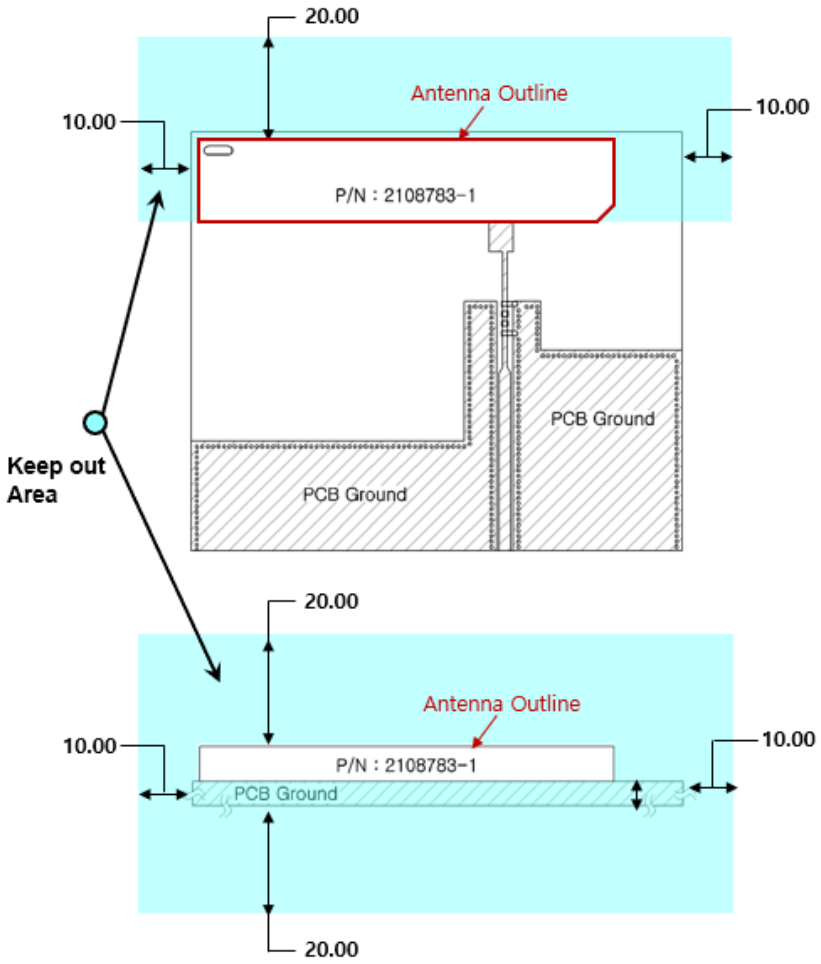
Bottom side



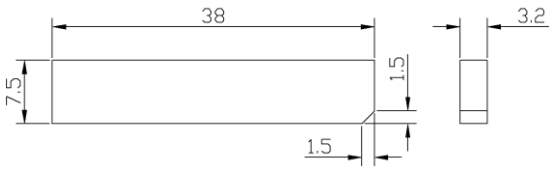
Dimension: mm
Diagrams is not to scale

NOTES: 1. Antenna must be mounted on the edge of PCB.
2. NC = Non connection (mechanical mounting pads).
3. No copper allowed in designated area on all PCB layers –
4. For more information please call TE.
5. Measured with below matching circuit condition.
① 12nH, ②4.7pF
6. Reference PCB Dimension(mm) - 45.0 x 160.0 x 1.0

KEEP OUT AREA



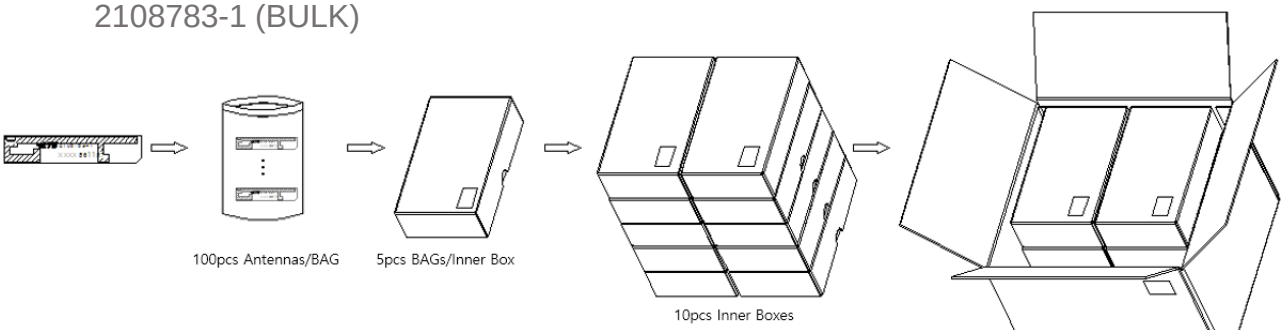
DIMENSIONS



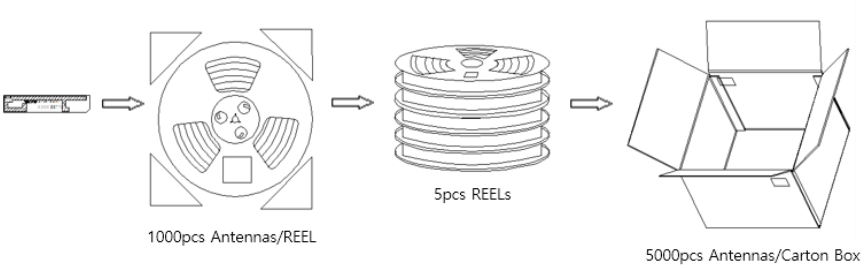
Dimension: mm
Diagrams is not to scale

PACKAGING

2108783-1 (BULK)



2108783-2 (TAPE & REEL)



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07/2020