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

Part Numbers: 2108784-1, 2108784-2

FEATURES & BENEFITS

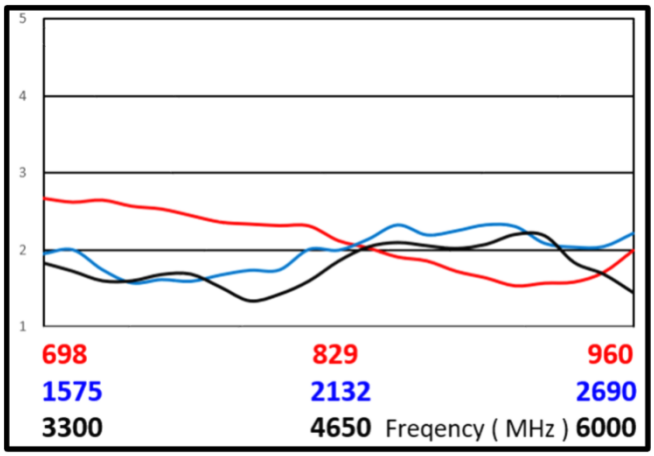
- Omnidirectional coverage
- On board SMD PCB antenna
- Wide Band coverage for 3G, 4G and 5G with GNSS
- Bandwidth and performance dependent on ground plane size/ design suggested minimum ground plane length from antenna feed is 120mm
- Available in Tape & Reel packaging for automatic mounting

SPECIFICATIONS

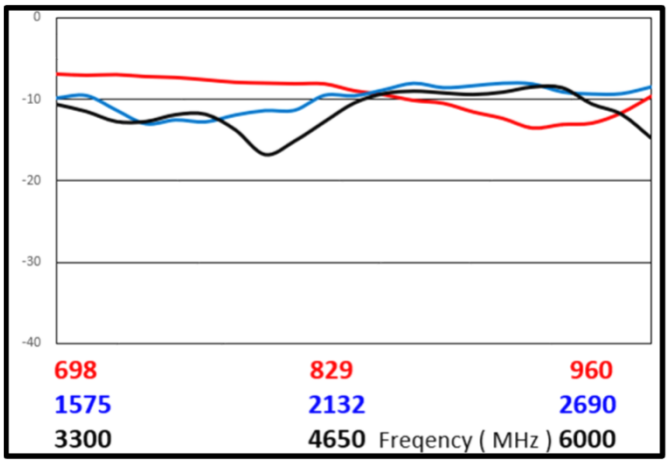
Frequency Range (MHz)	698-960	1575-1608	1710-2690	3300-4000	4000-5000	5000-6000
VSWR	< 2.8:1	< 2.0:1	< 2.5:1	< 1.8:1	< 2.1:1	< 2.3:1
Average Efficiency	57.1%	53.9%	53.4%	59.1%	47.7%	46.6%
Peak Gain	0.4dBi	2.3dBi	3.1dBi	4.0dBi	3.6dBi	1.9dBi
Average Gain	-2.4dBi	-2.6dBi	-2.7dBi	-2.3dBi	-3.2dBi	-3.3dBi
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 120 mm length and 45.0 mm width, application data might vary						

RF DATA

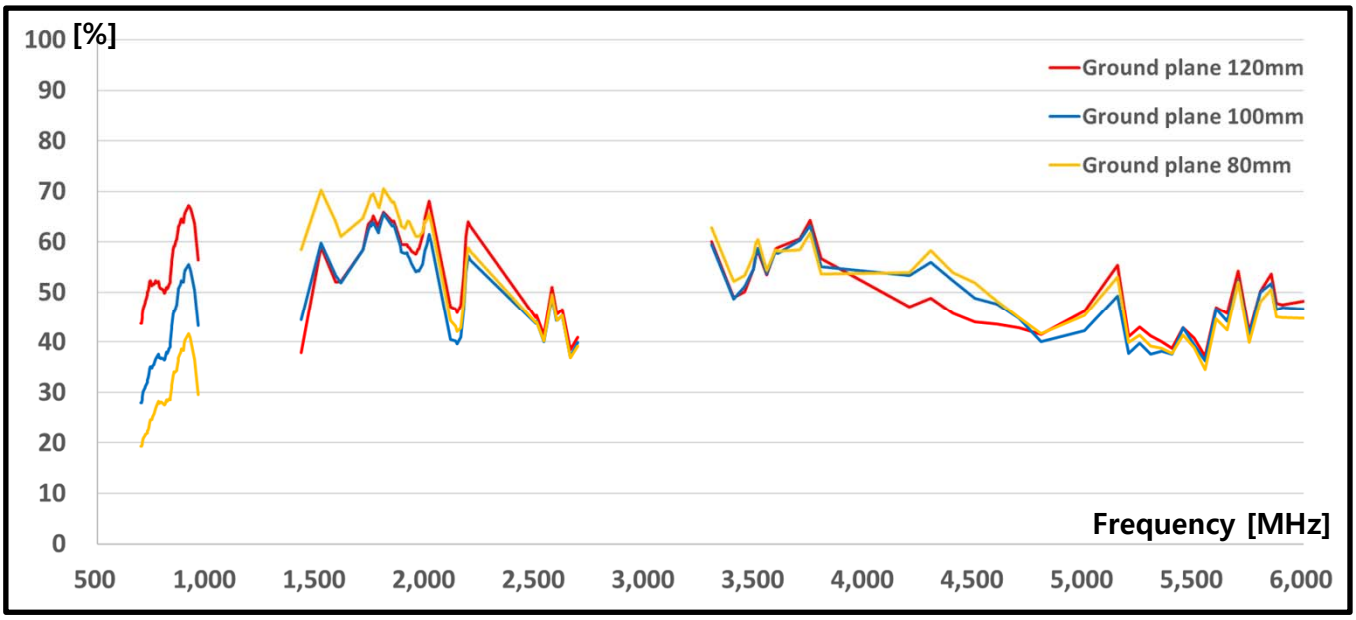
VSWR



Return Loss



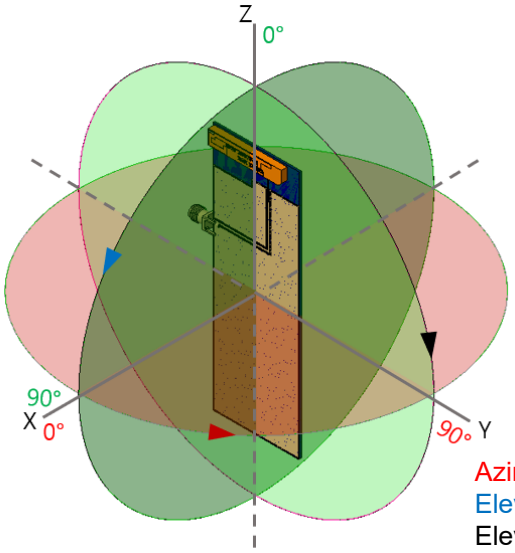
Efficiency vs. Ground plane size



Data measured in free space and on reference ground plane of 120mm length and 45mm width, application data might vary

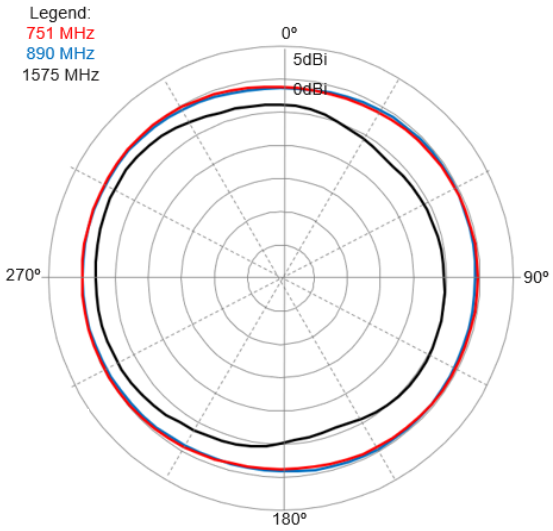
RADIATION PATTERN

Test setup

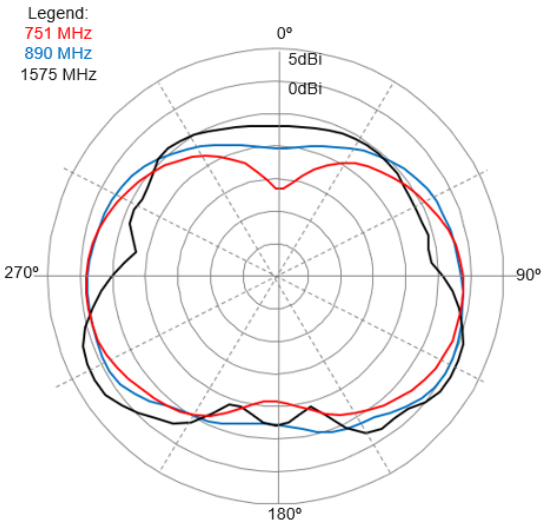


Azimuth Plane
Elevation 1 Plane
Elevation 2 Plane

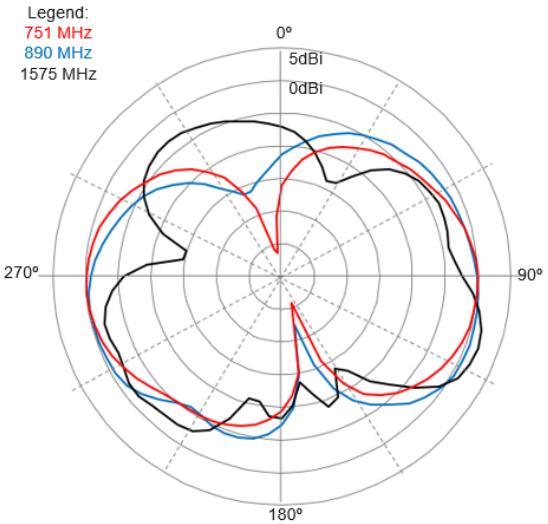
Azimuth



Elevation 1



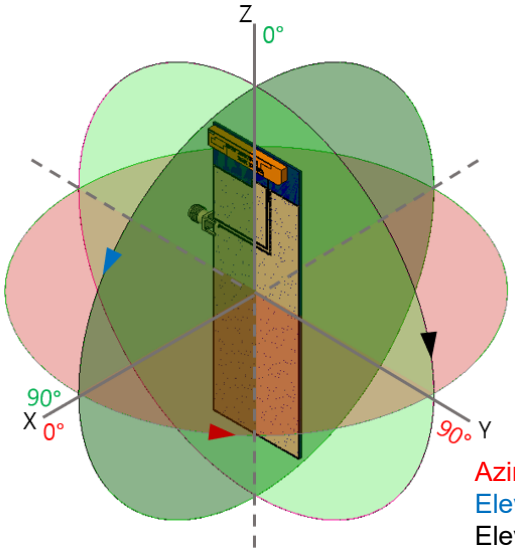
Elevation 2



Data measured in free space and on reference ground plane of 120mm length and 45mm width, application data might vary

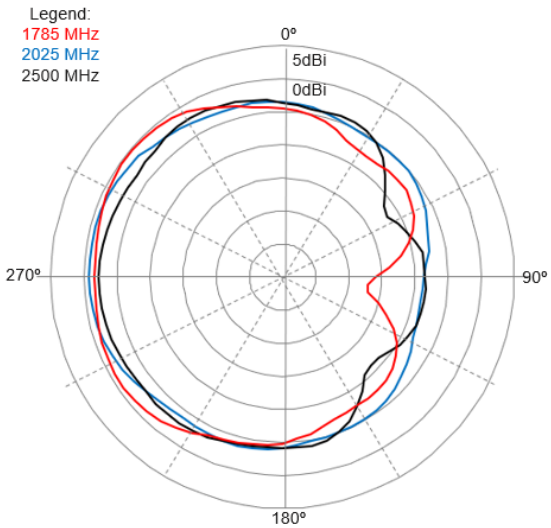
RADIATION PATTERN

Test setup

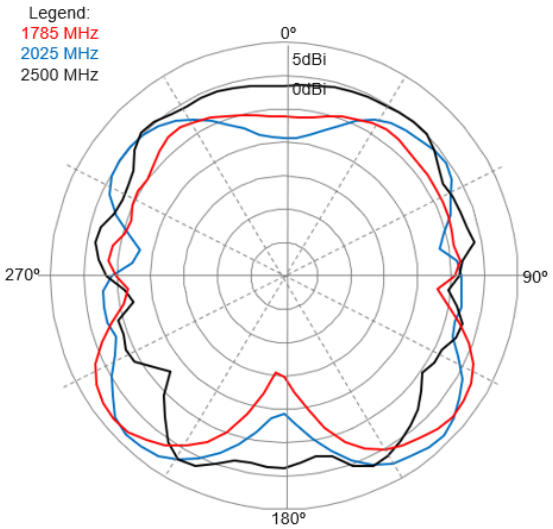


Azimuth Plane
Elevation 1 Plane
Elevation 2 Plane

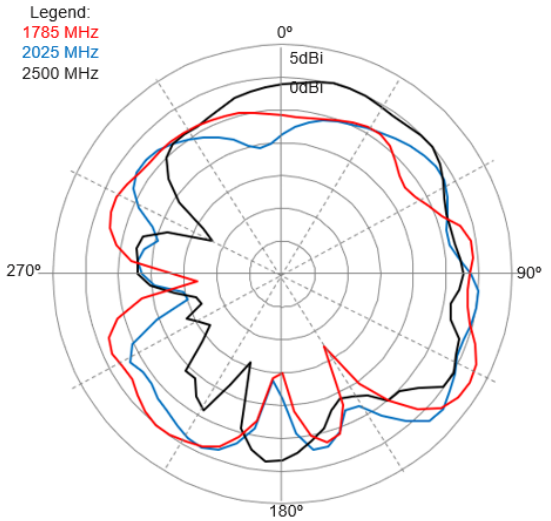
Azimuth



Elevation 1



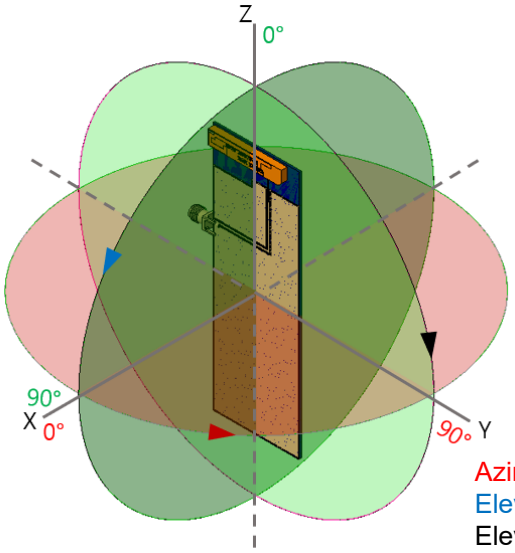
Elevation 2



Data measured in free space and on reference ground plane of 120mm length and 45mm width, application data might vary

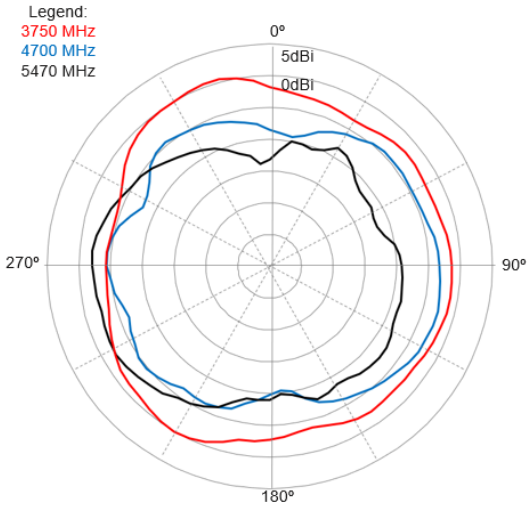
RADIATION PATTERN

Test setup

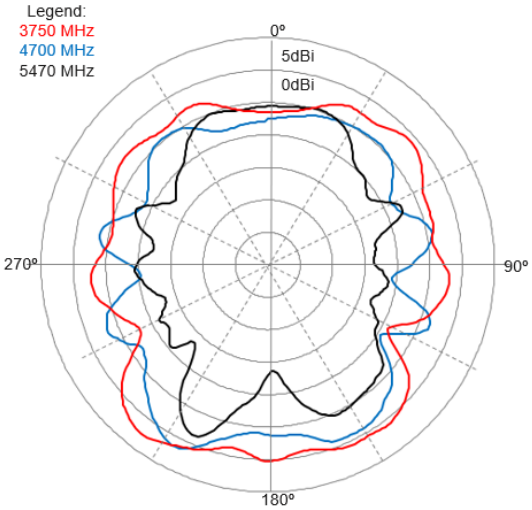


Azimuth Plane
Elevation 1 Plane
Elevation 2 Plane

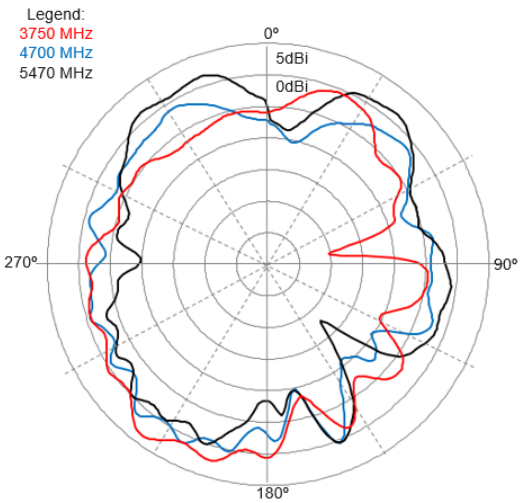
Azimuth



Elevation 1



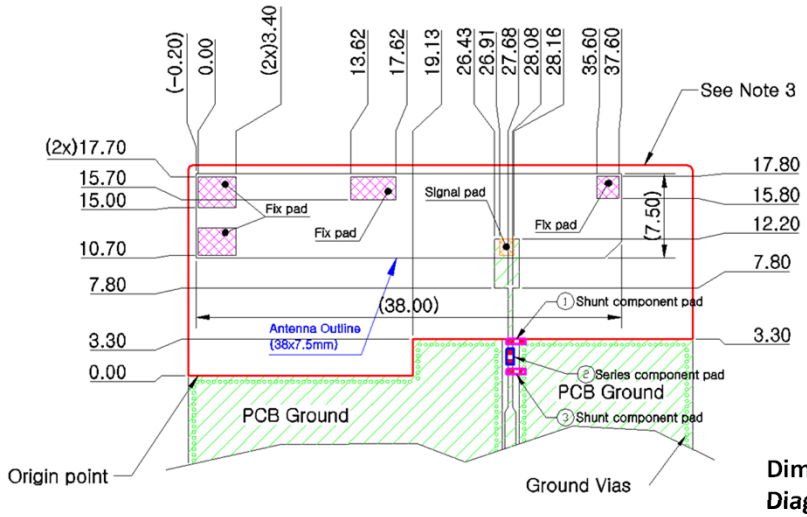
Elevation 2



Data measured in free space and on reference ground plane of 120mm length and 45mm width, application data might vary

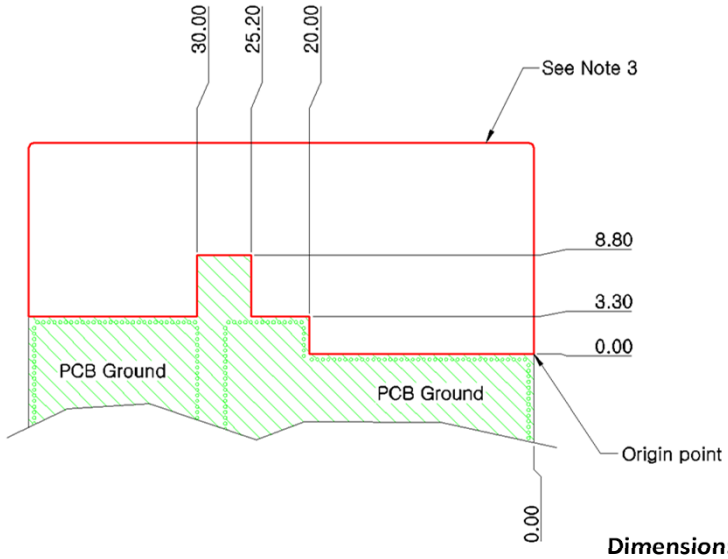
MOUNTING GUIDE

Top side



Dimension: mm
Diagrams is not to scale

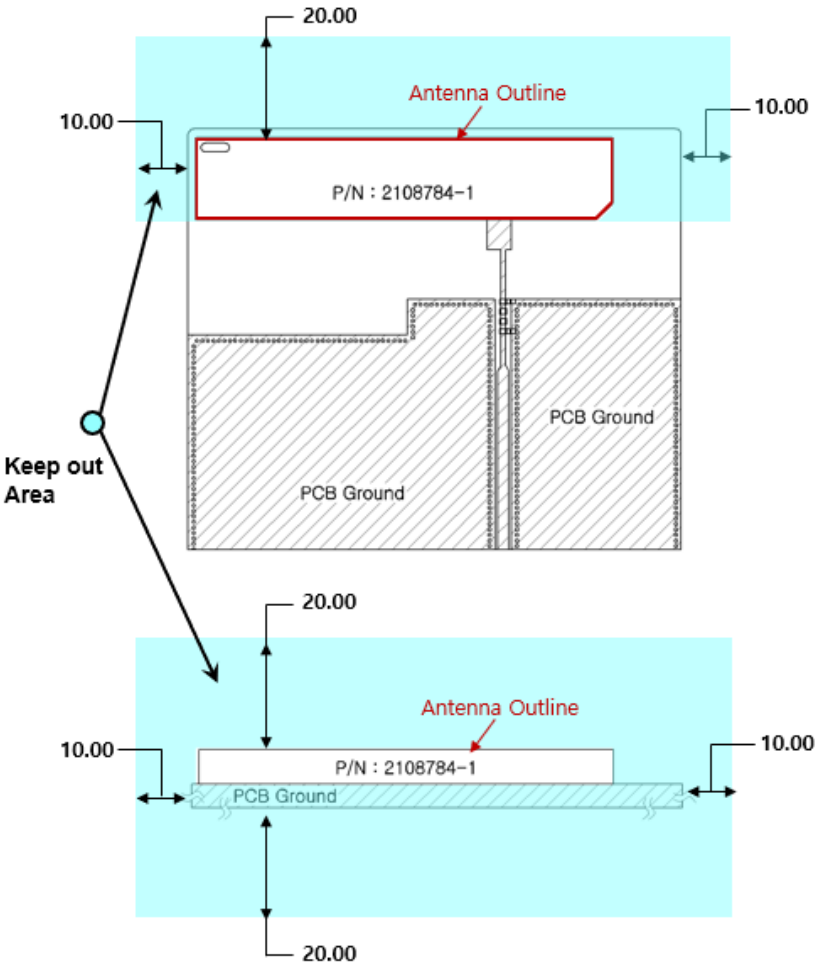
Bottom side



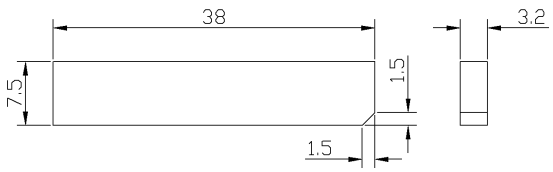
Dimension: mm
Diagrams is not to scale

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.(Top side only)
① 10nH, ②3.3pF, ③NC
6. Reference PCB Dimension(mm) - 45.0 x 130.0 x 1.0

KEEP OUT AREA



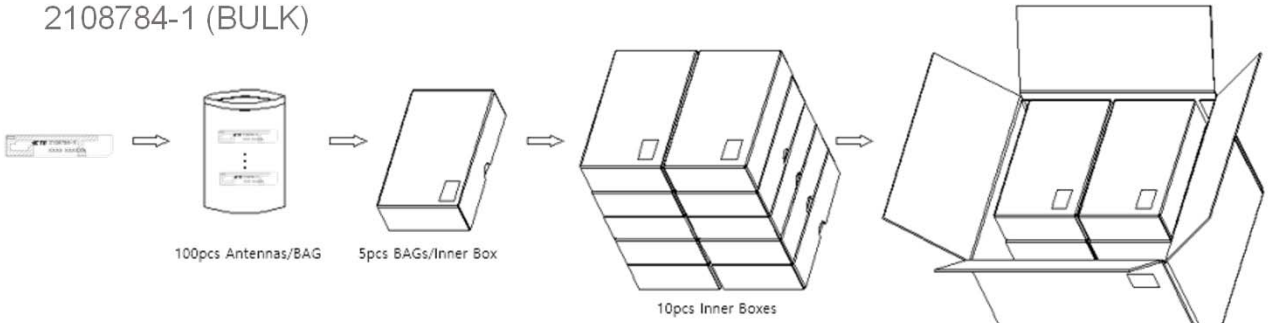
DIMENSIONS



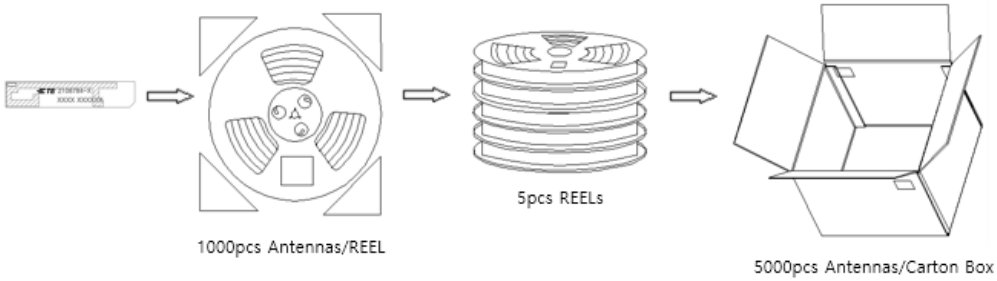
Dimension: mm
Diagrams is not to scale

PACKAGING

2108784-1 (BULK)



2108784-2 (TAPE & REEL)



TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

For phone numbers in other countries, go to te.com/support-center

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