


SPEC NO.	SP030315750-C10	ISSUED DATE	92.10.20	PUBLISHED BY
PRODUCT NAME	GPS Active Ant.	VERSION	01	
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SPECIFICATION FOR GPS ANTENNA

1.0 APPLICATION:

This specification applies for the electrical and mechanical conditions of GPS antenna.

2.0 SYSTEM:

This antenna system consists of two function blocks listed below.

3.0 GENERAL

3.1 ENVIRONMENTAL CONDITIONS

3.1.1 OPERATION TEMPERATURE	-30°C TO +80°C
3.1.2 STORAGE TEMPERATURE	-40°C TO +100°C
3.1.3 RELATIVE HUMIDITY	40% TO 95%

3.2 ELECTRICAL SPECIFICATIONS


3.2.1 INPUT VOLTAGE	2.5V~5.5V
3.2.2 POWER CONSUMPTION	at 3.0V<15mA, at 5.0V<22mA
3.2.3 OUTPUT CONNECTOR	MCX (M)
3.2.3 CABLE	DS-RG174 /5m/BLACK

3.3 MECHANICAL SPECIFICATIONS

3.3.1 MOUNTING	MAGNET MOUNT
3.3.2 HORIZONTAL PULLING FORCE OF MAGNET.	1.5 Kg MIN.
3.3.3 WATER PROOF	WATERPROOF(TEST CONDITION JIS D0203 S1)
3.3.4 SHOCK	10G 10msec. HALF SINE
3.3.5 VIBRATION	10~200Hz LOG. SWEEP 3.0G (SWEEP TIME: 15 Minutes), 3 AXES
3.3.6 MAGNET OUT WITHSTAND	THE ANTENNA MUST NOT BE BLOWN OFF WHEN THE VEHICLE MOVES AT A SPEED OF 180 km/h
3.3.7 CABLE PULLING OFF FORCE	7Kg /10sec MIN. (ROOM TEMPERATURE) APPLY 7Kg /10sec PULLING FORCE BETWEEN CABLE AND ANTENNA UNIT, CABLE AND CONNECTOR. VISIBLE OR ELECTRICAL DAMAGE MUST NOT APPEAR.
3.3.8 BENDING TEST	AFTER BENDING TEST 90°C DEGREES RIGHT AND LEFT*1,000 CYCLES, NO PERMANENT DAMAGE FOUND.
3.3.9 CONFIGURE AND DIMENSION	SEE ATTACHED FIGURE
3.3.10 WEIGHT	85g MAX.

4.0 ANTENNA

4.1 FREQUENCY RANGE	1575.42±1.023MHz
4.2 GAIN	90° : 2.0 dBi MIN 20° : -5.0 dBi MIN (MOUNTED ON THE 60mm*60mm SQUARE GROUND PLANE.)
4.3 POLARIZATION	RHCP
4.4 AXIAL RATIO	90° : 4.0 dB MAX (MOUNTED ON THE 60mm*60mm SQUARE GROUND PLANE.)

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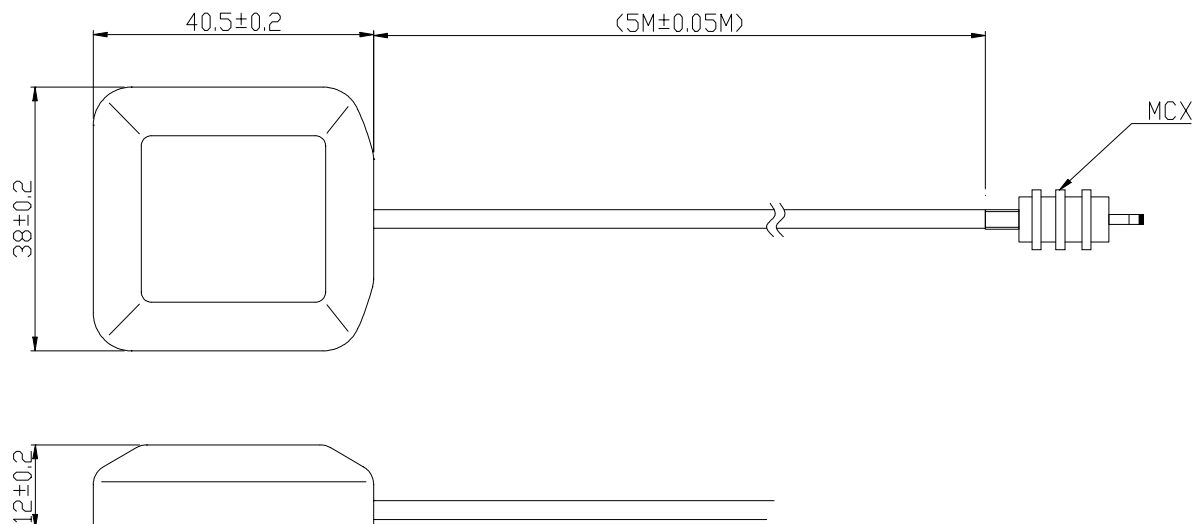
5.0 LNA

5.1 FREQUENCY RANGE	1575.42±1.023MHz
5.2 GAIN	28±4.5dB (+25°C±5°C)
5.3 NOISE FIGURE	1.5dB MAX. (+25°C±5°C) 2.2dB MAX. (+85°C)
5.4 OUT BAND REJECTION	fo=1575.42MHz fo± 20MHz 7dB MIN fo± 30MHz 12dB MIN fo± 50MHz 20dB MIN fo± 100MHz 30dB MIN
5.5 OUTPUT IMPEDANCE	50Ω
5.6 OUTPUT VSWR	2.0 MAX

6.0 TOTAL SPECIFICATIONS (THROUGH ANTENNA, LNA, CABLE AND CONNECTOR)

6.1 FREQUENCY RANGE	1575.42±1.023MHz
6.2 GAIN	26±4.5dBi (+25°C±5°C) (MOUNTED ON THE 60mm*60mm SQUAREGROUND PLANE.)
6.3 OUTPUT IMPEDANCE	50Ω
6.4 VSWR	2.0MAX

7.0 OUTLINE



UNIT : mm