

Product Specification

Product Name: ANTENNA LDS MC9230

Drawing Number: MC9230

<u>Approval</u>	
<u>R&D approval</u>	<u>Quality approval</u>

Contents

I .Product Specification

II . Structural drawing

1. LDS Antenna

2. NFC

III. Antenna Specification

1.VSWR

2. Radiation

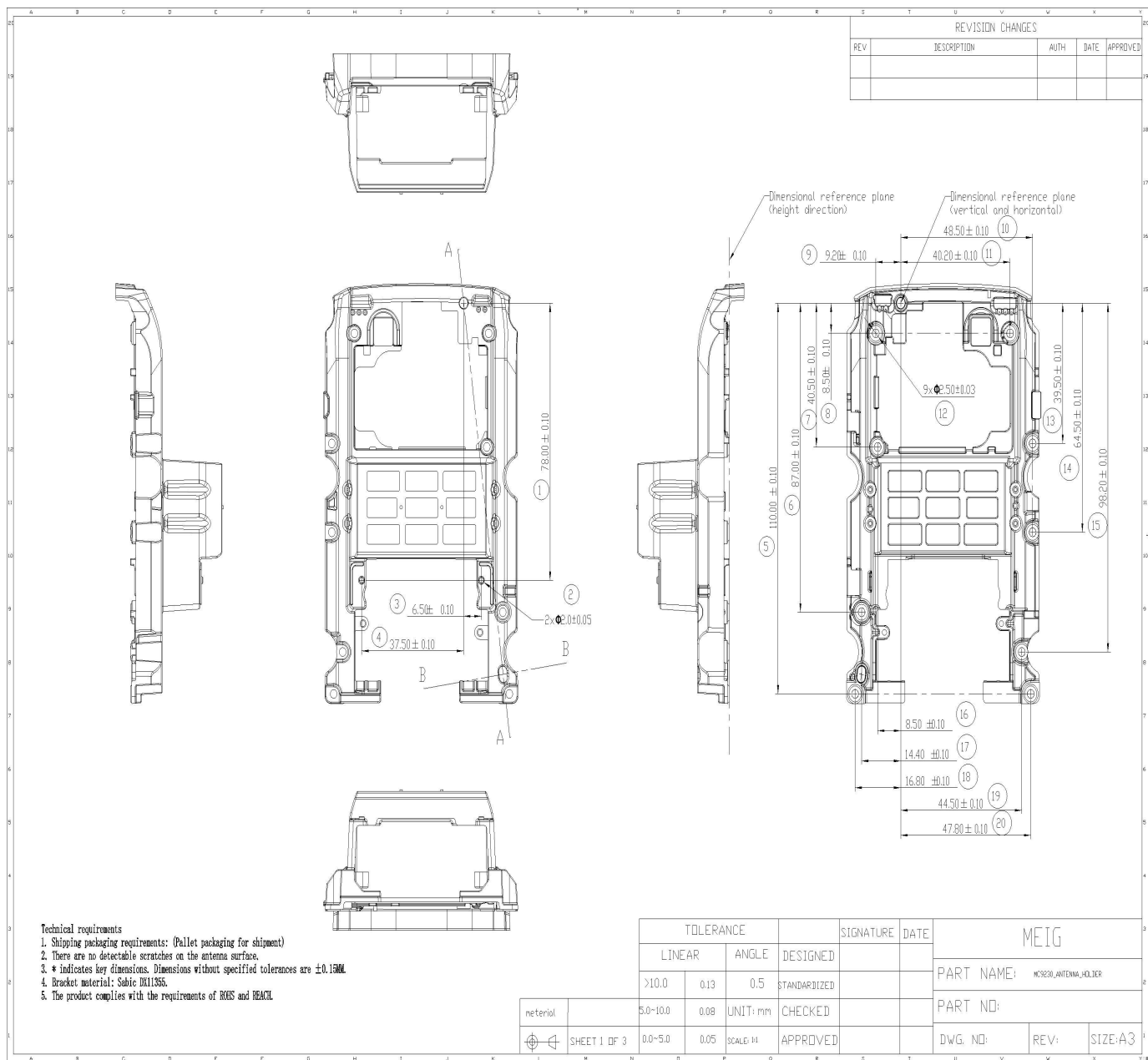
3. OTA (TRP/TIS)

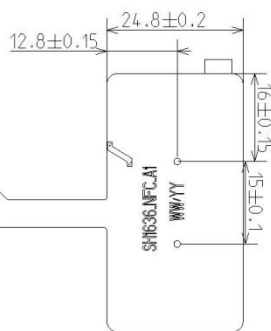
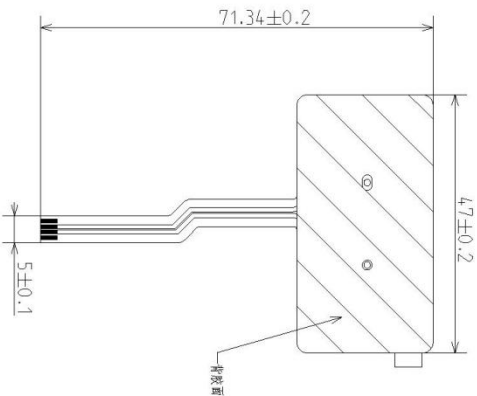
Change History

Version	Change Date	Reason	Change Detail
V1.0	2026/2/4	Create	Create file for the first time

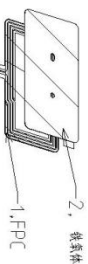
I . Product Specification

Version				LDS : MC9230 A2 NFC: A0			
Holder	Outline size		118.07*70.69*39.6				
	Material		Mitsubishi 3720				
LDS Antenna	Frequency	ATN0					
		ATN1					
		ATN2					
		ATN3					
		ATN4					
		ATN5		1520-1620MHz ; 2400-2500MHz; 5150-5850MHz; 5925-7000MHz			
		ATN6		1176-1180MHz ; 2400-2500MHz; 5150-5850MHz; 5925-7000MHz			
		ANT7					
	Coating material 1		Cu, plating thickness:18um;				
	Coating material2		Ni,plating thickness:2-8um;				
NFC Antenna	Outline size		71.34*47*0.3				
	Antenna type		FPC				
	LDSmaterial		Flexible copper-clad laminates				
	Ferrite		Nizn				
	Adhesive		3M9471				
Holder Mold	Mold Date Mark		represents the year and month of each production.				
			year mark month mark				





Screen-printed dashed lines
Screen-printed solid line
Screen printing alignment lines



Note:
1. Components should comply with all 3D data;
2. Components Refer to the exploded view;
3. No obvious appearance defects after assembly;
4. Must pass all tests required by the HAITONG Quality Department;
5. Part marking, Mark at the designated position;
6. Dimension requirements;

6.1. ST dimension: Select the dimensions of any 35 products from the minimum quantity of 500 for CPK analysis;
6.2. * Dimensions are key controlled dimensions;
7. First batch samples. Randomly select 5 pieces for full-size measurement. The report and samples need to be transferred to the HAITONG Quality Department;
8. Any material changes must be approved in writing by the HT Engineering Department;
9. Products must comply with (RoHS/HF/REACH) requirements;

TO Character color	颜色	
9. Coating film color	Black I / 2mil	27.5um
8. ED Copper	0.5 OZ	24um
7. PI	1/2 MIL	36.5um(有胶)
6. EDCopper	0.5 OZ	24um
Ink color		NO
5. Adhesive	TESA68905	50um
4. PET film		10um
3. Ferrite	Black FS150	120um
2. Adhesive	TESA68594	100um
1. Paper		110um
LEVEL	DESCRIPTION	

NO TOLERANCE NOTED
ONE PLCE X.X ±0.15
TWO PLCE X.XX ±0.10
ANGULAR DIM X.X° ±1.0°
HOLE DIA X.X ±0.10
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		I	
2	SH1636N_LNFC_FER	I	
1	SH1636N_LNFC_FPC	I	
ITEM	PART NAME	Q-TY	REMARK

Project Name: MC9230			
Part number: SH1636N_LNFC_ASM			
APPD	Finished		
CHKD	Self-Inspected		
DWN	Customer Code		
SCALE 1:1	PAGE	REV A0	
UNIT mm	SIZE A4	DRAWING NO.	110-2830/1B-5347

Technical drawing of the rear view of a vehicle chassis, showing dimensions and components. The drawing includes the following dimensions:

- Top left corner dimensions: 415, 235, 180, 455, 195x2
- Bottom right corner dimensions: 105x2, 395, 219, 319

The drawing shows the rear suspension system, including the rear axle, rear wheels, and the rear cross-member. The chassis is shown in a side profile view, with the rear end facing the viewer. The drawing is a technical line drawing, showing the structural details of the chassis components.

8. The product must comply with RoHS standards.

A

III. Antenna Specification

ANT5			
frequency range	1575MHz	2400-2500MHz	5150-7125MHz
peak gain	0.5	0.8	3.3
Efficiency	30.31%	30.02%	35.22%
VSWR (in terminal)	≤ 1.7	≤ 1.5	≤ 1.9
ANT6			
frequency range	1175MHz	2400-2500MHz	5150-7125MHz
peak gain	0.4	-0.2	-0.5
Efficiency	31.54%	20.64%	21.11%
VSWR (in terminal)	≤ 2.1	≤ 3.7	≤ 3.5

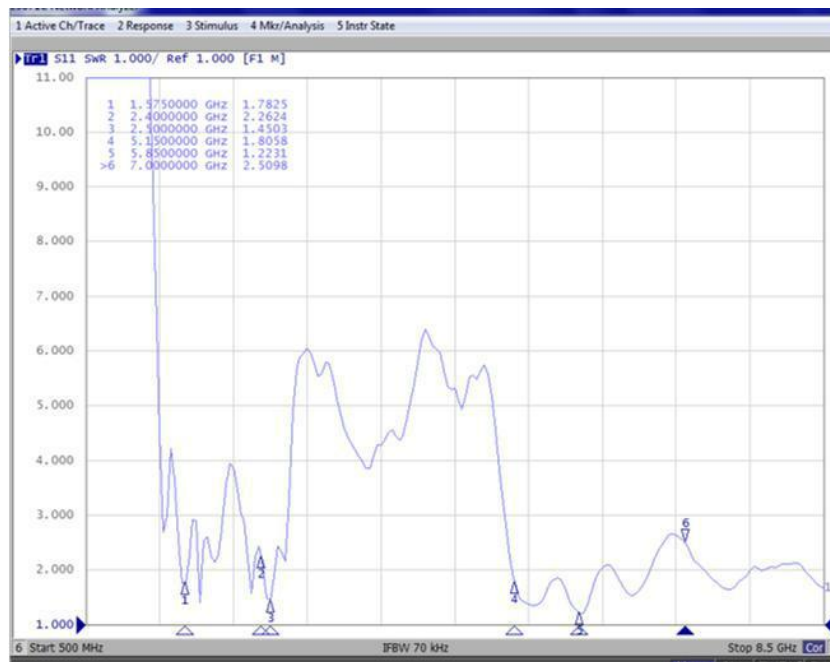
5150MHz—5250MHz: 0.9dBi (ant5) ; -0.5dBi (ant6)
 5250MHz—5350MHz: 1.9dBi (ant5) ; -1.9dBi (ant6)
 5470MHz—5725MHz: 3.3dBi (ant5) ; -2.3dBi (ant6)
 5725MHz—5850MHz: 1.1dBi (ant5) ; -2.5dBi (ant6)
 5925MHz—6425MHz: 0.6dBi (ant5) ; -2.5dBi (ant6)
 6425MHz—6525MHz: 0.2dBi (ant5) ; -2.5dBi (ant6)
 6525MHz—6875MHz: -0.3dBi (ant5) ; -2.5dBi (ant6)
 6875MHz—7125MHz: -1.3dBi (ant5) ; -2.2dBi (ant6)

2.VSWR

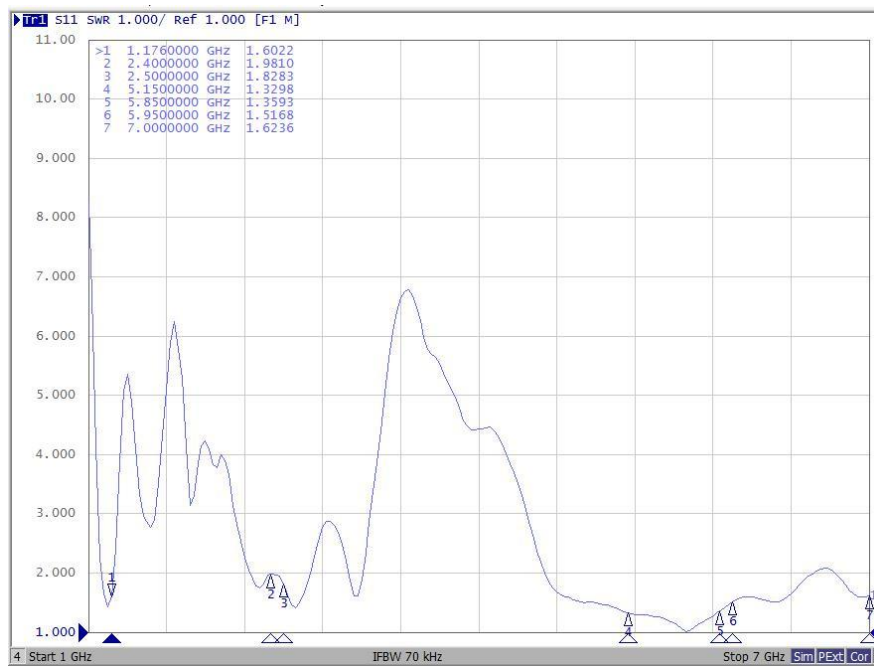
Test Equipment: Network Analyzer (E5071C)

Test method: A 50 ohm CABLE cable is derived from the instrument test port, and the SMA connector of the prototype is connected after calibration using the calibrator to record the return loss and standing wave ratio corresponding to the relevant frequency point.

ANT5(1520-1620Mhz; 2400-2500Mhz; 5150-5850MHz;5000~7125MHz)

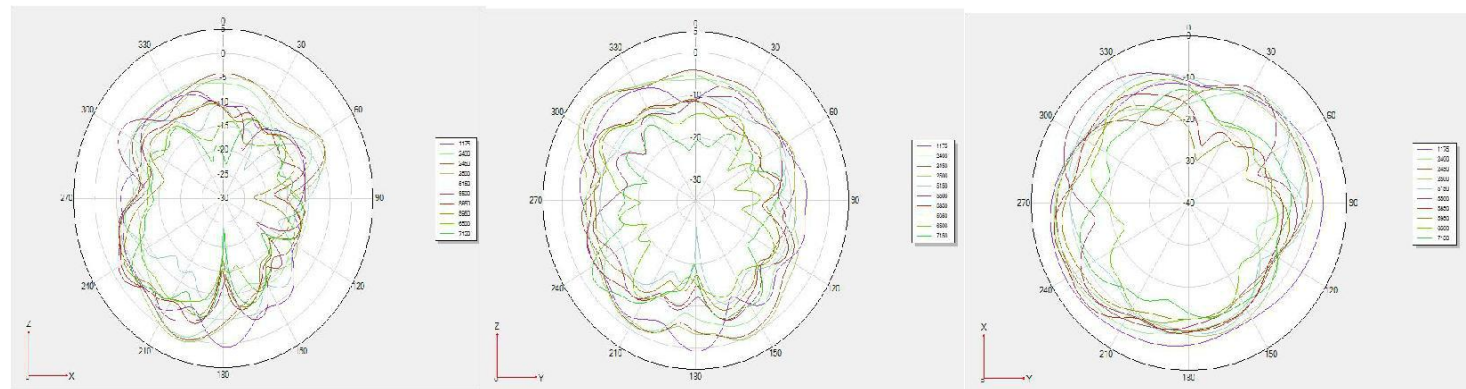


ANT6(1176Mhz、2400-2500Mhz、5150-7125Mhz)



3.Radiation Pattern

ANT5



4. OTA(TPR/TIS)

Band	Channel	Spec		OTA		GAP	
		TRP	TIS	TRP	TIS	TRP	TIS
11B (11M)	1	12.0	-82.0	12.3	-83.5	0.3	1.5
	7	12.0	-82.0	13.5	-82.9	1.5	0.9
	13	12.0	-82.0	13.1	-82.2	1.1	0.2
11A (54M)	36	9.0	-68.0	13.5	-74.0	4.5	6.0
	64	9.0	-68.0	13.1	-74.5	4.1	6.5
	165	9.0	-68.0	13.8	-73.8	4.8	5.8

Band	Spec		OTA		GAP	
	TRP	TIS	TRP	TIS	TRP	TIS
GPS	/	-149	44.4	-154.4		5.4

