

SPECIFICATION LIST	TYPE OF PRODUCT
	GPS Active Antenna

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1. 概述 Introduction

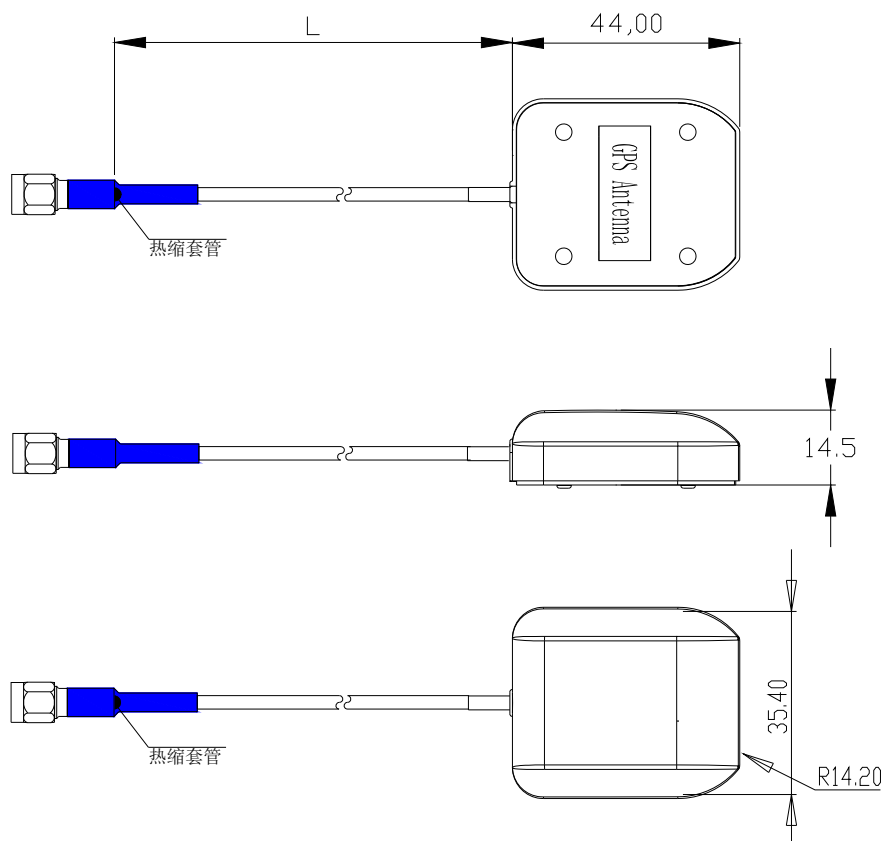
微波介質天線系列產品用於 GPS 產品中，採用右旋圓極化設計，扁平狀小型結構，具有低反射損耗、軸比小、增益高的特點。

Microwave dielectric antenna elements and its series are designed to be used for GPS device. The patch antenna with compact size incorporates a rectangular micro-strip design for GPS C/A right-hand circular polarization wave reception, featuring low RL, low Axial Ratio but high gain, etc.

2. 結構與材料 Structure and Material

號碼 NO.	名稱	Description	規格	Specification
1	電纜組	Cable	RG174/U	500 ± 10cm
2	外殼	Housing	X TYPE	
3	連接器	Connector	SMA MALE	
4	磁鐵	Alnico	Magnet	
5	貼紙	Plotting	Terylene	

3. 外型尺寸 Dimension



4. 電氣特性 Electrical Characteristics

4.1 陶瓷天線特性 Patch antenna Electrical Characteristics

特性	型號	DAS1575(25*25*4)
衛星頻率 Satellite Frequency		1575.42 ± 1.02 MHz
天線頻率 Antenna Frequency		1575 ± 2 MHz
電壓駐波比 V.S.W.R		1.5:1
帶寬 Band Width		> 10MHz
阻抗 Impedence		50 ohm
最高增益 Peak Gain		5.0dBic @ 7×7cm ground plane
天線極化 Polarization		RHCP

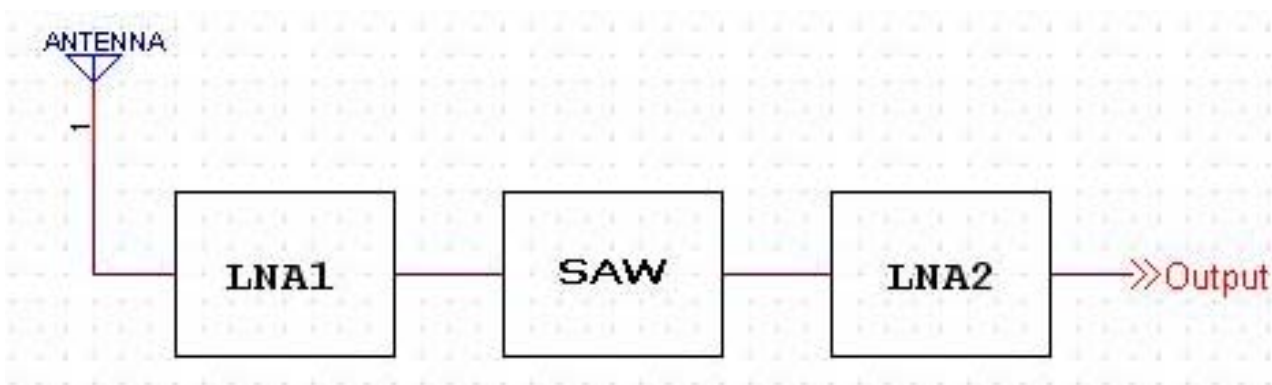
4.2 低雜訊放大器性能 LNA Electrical Characteristics

特性	型號	DAM1575A4X1_J5M
放大器增益 LNA Gain		26 ± 2dB (+25°C±10°C)
		24 ± 2dB (with LNA and line)
雜訊係數 Noise Figure		1.5 (+25°C±10°C)
直流電壓 DC Voltage		3.0 ~ 5.0V
輸出電壓駐波比 Output VSWR		2.0 max
直流電流 DC current		15.5mA (At 5.0V)

4.3 濾波器規格 Filter Specification

項目 Item	特性 Specification
中心頻率 Antenna Frequency	1575.42 MHz
插入損耗 Insertion Loss	≤ 3.0dB (at 25 ± 5°C)
	≤ 3.5dB (at -40 ~ +85°C)
帶寬 Band Width	$f_0 \pm 5\text{MHz}$
漣波 Ripple(in BW)	≤ 0.5dB
電壓駐波比 VSWR(in BW)	≤ 2.0
帶外衰減(絕對值) Attenuation(Absolute value)	≥ 25dB($f_0 + 100\text{ MHz}$)
	≥ 40dB($f_0 - 100\text{ MHz}$)
輸入/輸出阻抗 Input/Output Impedance	50Ω

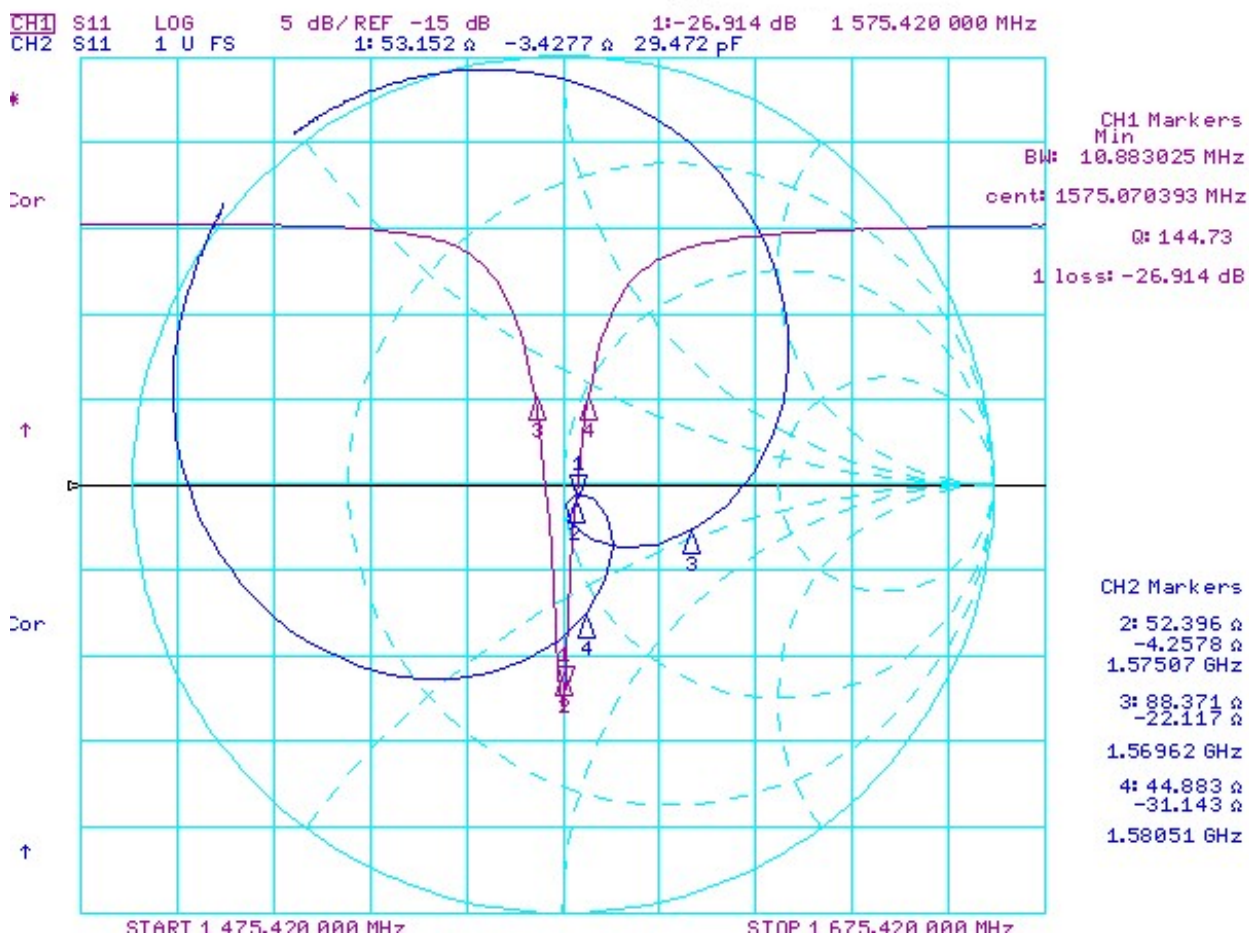
4.4 方塊圖 Block Diagram



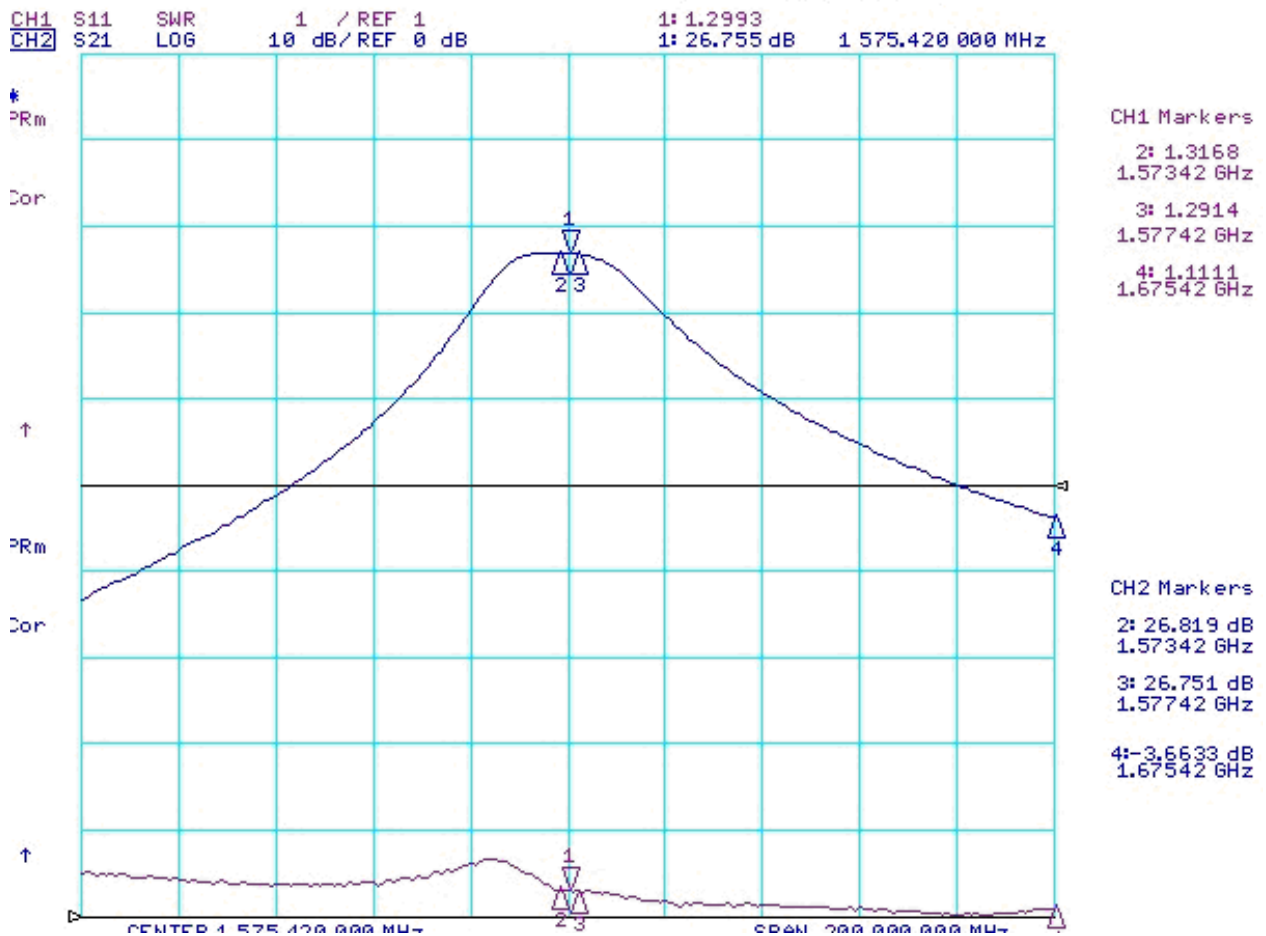
5. 測試條件 Test Conditions

工作溫度 Working Temp	-25°C ~+65°C
儲存溫度 Storage Temp	-45°C ~+85°C
振動 Vibration	Sine sweep 1g(0-p) 10~50~10Hz each axis
直流電壓 DC Voltage	DC 3.0 ~ 5.0V
防水防塵等級 International Protection	IP67

6. 被動天線測試曲線 Passive Antenna Test Curve



7. 低噪音放大器測試曲線 LNA Test Curve



8. 包裝 PACKING

Each inbox put 1PCS antenna, the size is 122 * 95 * 22 mm.



9.圖片 Picture

