



工程變更客戶通知單
Engineering Change Customer Notification

ECR/ECN 單號： ECR/ECN Number:	EC-22-08-018	
日期： Date:	2022/04/12	
變更者/郵箱： Author/Mail	RD	ehuang@taoglas.com
	PE	lchang@taoglas.com
客戶端工程變更需求確認：(signature) EC request confirmation by customer	請於 10 工作日內簽回，若超過 10 日未簽回將視為同意此變更 Please sign back within 10 working days, if you do not sign back within 10 working days, you will be deemed to agree to this change.	
客戶端工程變更完成確認：(signature) EC completion confirmation by customer	請於 10 工作日內簽回，若超過 10 日未簽回將視為已確認 Please sign back within 10 working days, if you do not sign back within 10 working days, it will be deemed as confirmed.	

1. 影響產品 Affected Products

產品類別 Product Category	零件編號 Part Number
AP.10G.01	AP.10G.01

2. 變更訊息 Information of change

變更類型 Type of Change	<input checked="" type="checkbox"/> 工程設計變更 Engineering Design Change <input type="checkbox"/> 生產製程變更 Production Process improvement	
	<input type="checkbox"/> 其他: Others	
變更原因 Reason for change	RD	Material change
	ME	N/A
變更說明 Description of Change	RD	1. Due to the original PATCH antenna material EOL, it will be replaced with a new material, so the color will change from purple to khaki. 2. The original LNA IC used the BGA715N7 after changing to the BGA524N6 LNA IC and the matching circuits, so the layout is different on the PCB board. But overall RF performance is similar.
	ME	Update 2D drawing.
變更影響 Impact of change	<input checked="" type="checkbox"/> 外觀 Appearance <input type="checkbox"/> 功能 Function <input type="checkbox"/> 規格 Specification <input type="checkbox"/> 品質 Quality <input type="checkbox"/> 可靠度 Reliability <input type="checkbox"/> 法規 Regulations <input type="checkbox"/> 包裝 Package: <input type="checkbox"/> 其他 Others:	
	上述影響描述: Describe if above applies :	Function has been verified meet ESP.
預估轉換日期 Forecast Estimated Transition Date	Last buy (old product)	Immediately change
	New buy (new product)	Immediately change

3. 變更圖例

Illustration of Change

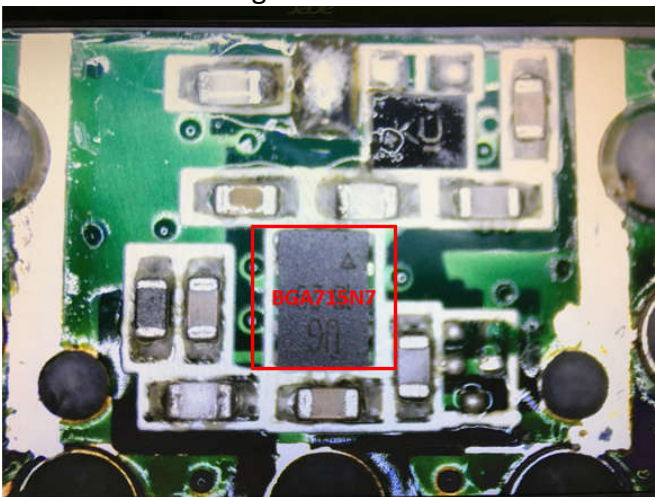
1. Patch color change



Original Antenna (Purple)

New Antenna (Khaki)

2. LNA IC change

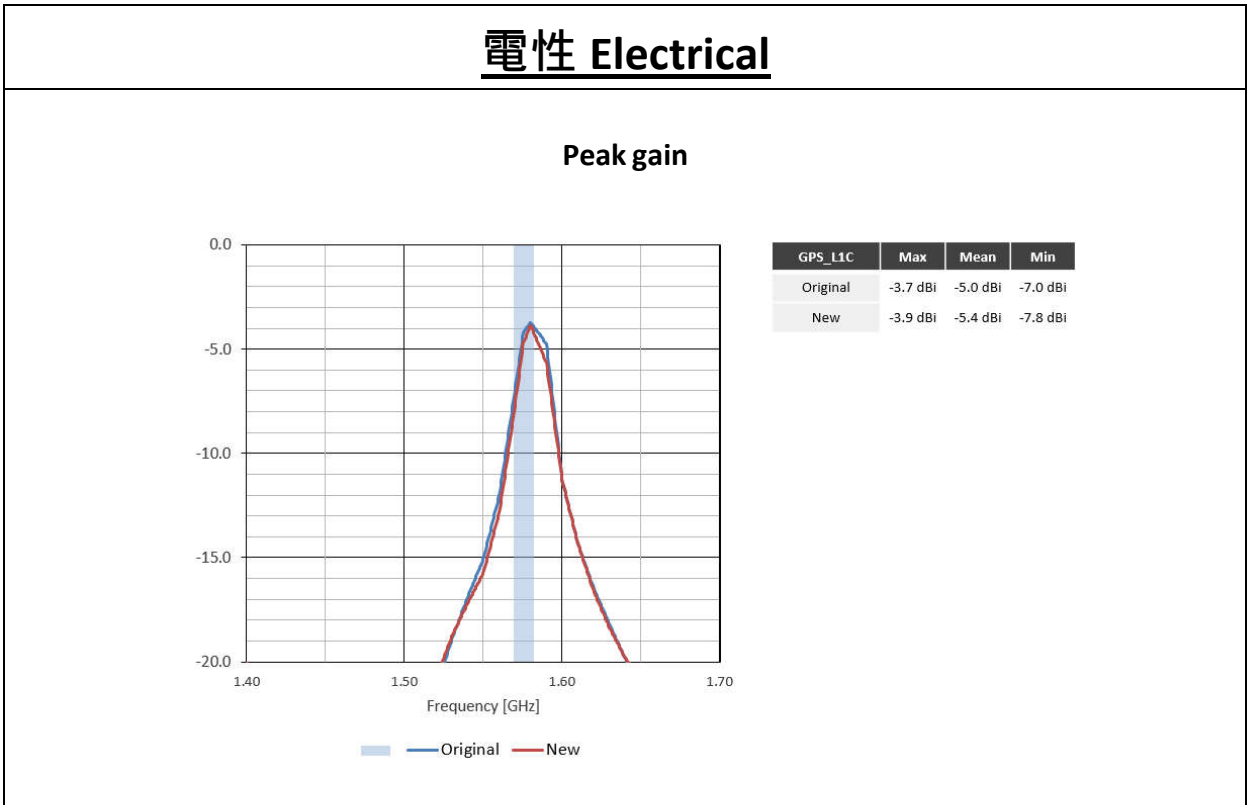
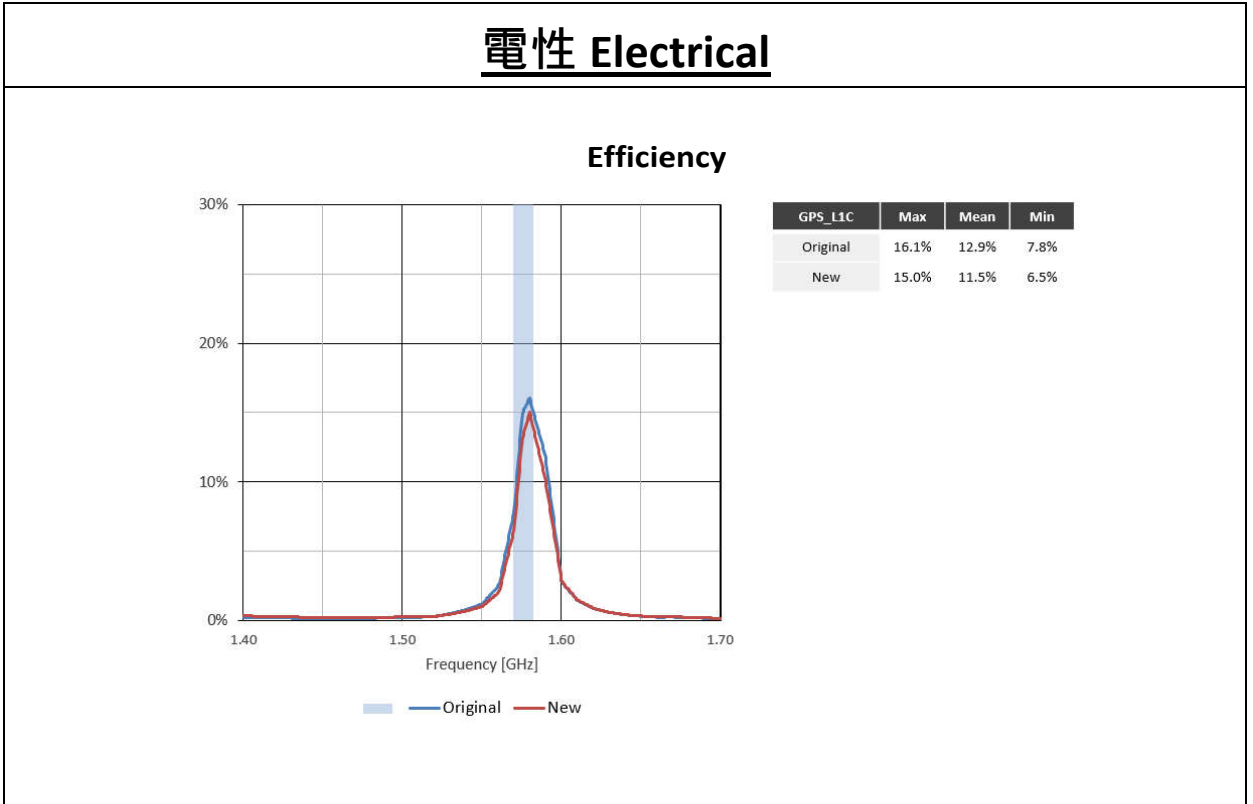


Original LNA



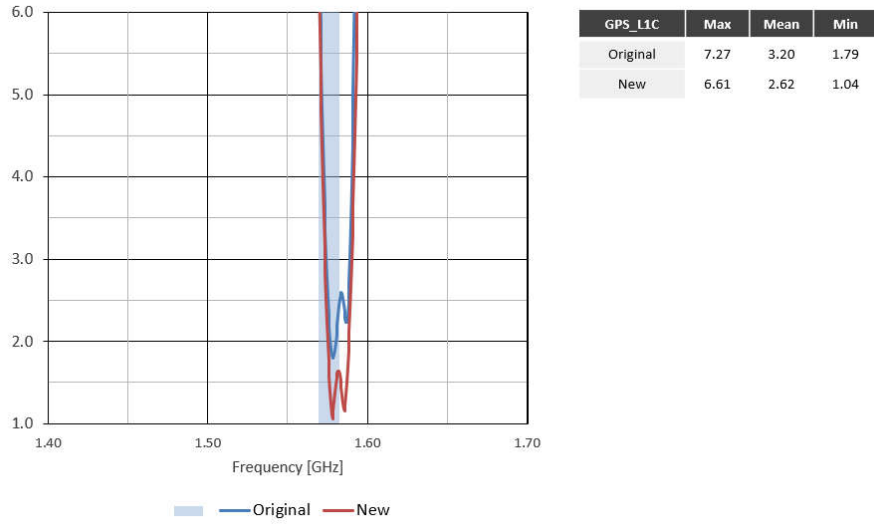
New LNA

3. Electrical performance



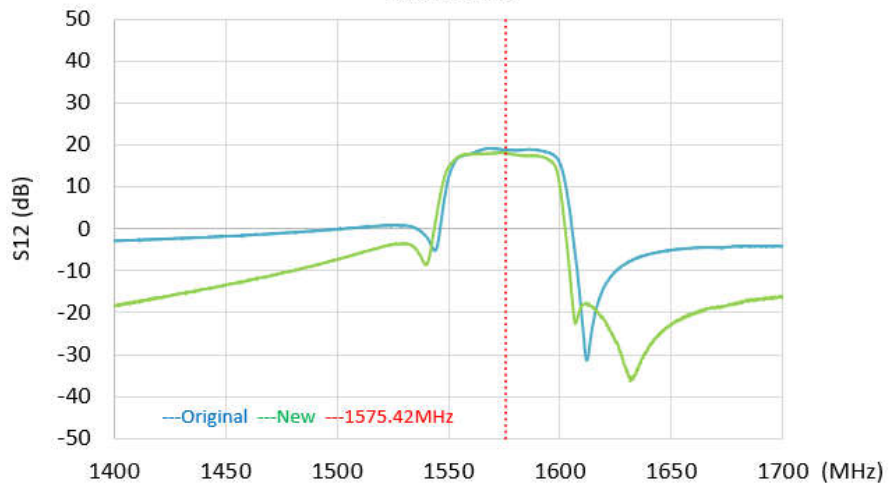
電性 Electrical

VSWR



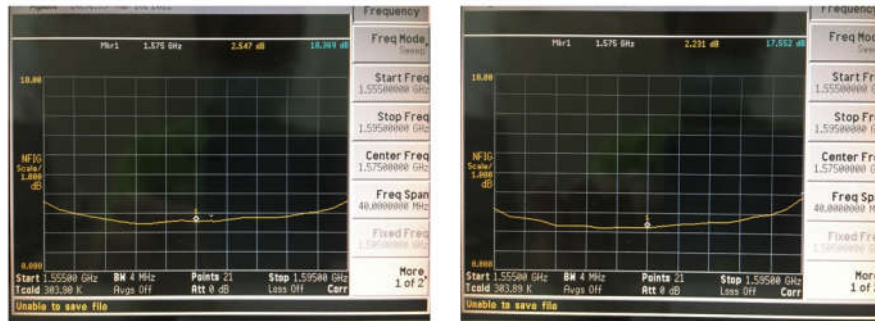
電性 Electrical

LNA gain LNA Gain



電性 Electrical

Noise



Test Freq: 1575.42 (MHz)	Original	New
Noise Figure (dB)	2.54	2.23

4. Drawing change

Before

	Name	P/N \triangle	Material	Finish	QTY
1	Patch (10mmx10mmx4.2mm)	001513B140007A	Ceramic	Clear	1
2	Shielding Case	000513B100007A	Tin (SPTE)	Tin Plated	1
3	PCB	100213B130007A	FR4 0.6t	Green	1

After

	Name	P/N \triangle	Material	Finish	QTY
\triangle 1	Patch(10x10x4.2mm)	013A013B00502D	Ceramic	Clear	1
2	Shielding Case	000513B100007A	(Tin)SPTE	Tin Plated	1
\triangle 3	PCB	02110217500100	FR4 0.6t	Green	1