Engineering/Process Change Notice

ECN/PCN No.: R0100

For Manufacturer

Product Description: 5G Sub-6GHz External Whip Antenna	**Abracon Part Number / Part Series:** AEBC1101X	☐ Documentation only ☒ ECN ☐ EOL	☒ Series ☐ Part Number
Affected Revision: I.R.	**New Revision:** Rev A	**Application:**	☐ Safety ☒ Non-Safety

Prior to Change:

115 x Ø19 mm
RoHS/RoHS II Compliant
MSL = 3

Parameter	Specification
Operating Temperature	-30°C to +65°C
Storage Temperature	-30°C to +85°C
ROHS Complaint	Yes RoHS 2011/65/EU with IEC 62321:2008 Method
MSL Level	3

After Change:

115 x Ø19 mm
RoHS/RoHS II Compliant
MSL = N/A

Parameter	Specification
Operating Temperature	-30°C to +65°C
Storage Temperature	-30°C to +85°C
ROHS Complaint	Yes RoHS 2011/65/EU with IEC 62321:2008 Method
MSL Level	N/A

Cause/Reason for Change:
Amend the Moisture Sensitivity Level from MSL 3 to MSL N/A according to the product requirements

Change Plan

Effective Date: 6/30/2022	**Additional Remarks:** N/A

Change Declaration:
Performance, form and size are not affected

Issued Date: 6/30/2022	**Issued By:** *Evgenii Filatov*	**Issued Department:** Engineering
Approval: *Syed Raza* *VP of Engineering*	**Approval:** *Reuben Quintanilla* Quality Director	**Approval:** *Ying Huang* Purchasing Director

For Abracon EOL only

Last Time Buy (if applicable):	**Alternate Part Number / Part Series:**	
Additional Approval:	**Additional Approval:**	**Additional Approval:**

Customer Approval (If Applicable)

Qualification Status:

☐ Approved ☐ Not accepted

Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.

Customer Part Number:	**Customer Project:**	
Company Name:	**Company Representative:**	**Representative Signature:**

Customer Remarks:

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5G Sub-6GHz External Whip Antenna

AEBC1101X

Request Samples | Check Inventory

115 x Ø19 mm
RoHS/RoHS II Compliant
MSL = N/A

Features

- 600 MHz ~ 6GHz
- Supports 5GNR, CBRS, Private LTE Bands
- Peak Gain of 3 dBi
- Optimal Efficiency
- Easy installation with built-in connector
- Customizable connector options

Applications

- IoT
- M2M
- Smart Grid
- Vending Machines
- Gateways & Routers
- Security / Remote Monitoring

Product Image

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MSL = N/A

Part Number Builder

AEBC1101X□ - □

Color / IP Rating / UV Coating			
Code	**Color**	**IP Rating** (excluding cable outlet)	**UV Protective Coating**
S (Standard)	Black	No	No

Connector Type	
Code	**Connector Type**
S (Standard)	SMA (M)
A	RP-SMA

Example Configurations:

Part Number	Color / IP Rating / UV Coating	Connector Type
AEBC1101XS-S	Black / No / No	SMA (M) (Standard)
AEBC1101XS-A	Black / No / No	RP-SMA

Note:

- For the standard part number (AEBC1101XS-S), please refer to the packaging at the end of the document.
- For custom configurations (AEBC1101X□-□), MOQs, pricing and packaging changes may apply.

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Electrical Specification

Parameter		Specification			Unit
		Min	Typ	Max	
Operating Frequency		600		6000	MHz
VSWR				3.0	
Peak gain				3.0	dBi
Efficiency	(600-960 MHz)	30		50	%
	(1400-6000 MHz)	45		60	
Impedance			50		Ω
Polarization		Linear			
Radiation Pattern (Azimuth)		Omni-directional			

Mechanical Specification

Parameter	Specification
Dimensions	115 x Ø19 mm
Material	PC+PT / ABS
Color	Black
Antenna Type	Whip
RF Connector	SMA(M)
Connector Pull Force	>3.0 Kg

Environmental Specification

Parameter	Specification
Operating Temperature	-30°C to +65°C
Storage Temperature	-30°C to +85°C
ROHS Complaint	Yes RoHS 2011/65/EU with IEC 62321:2008 Method
MSL Level	N/A

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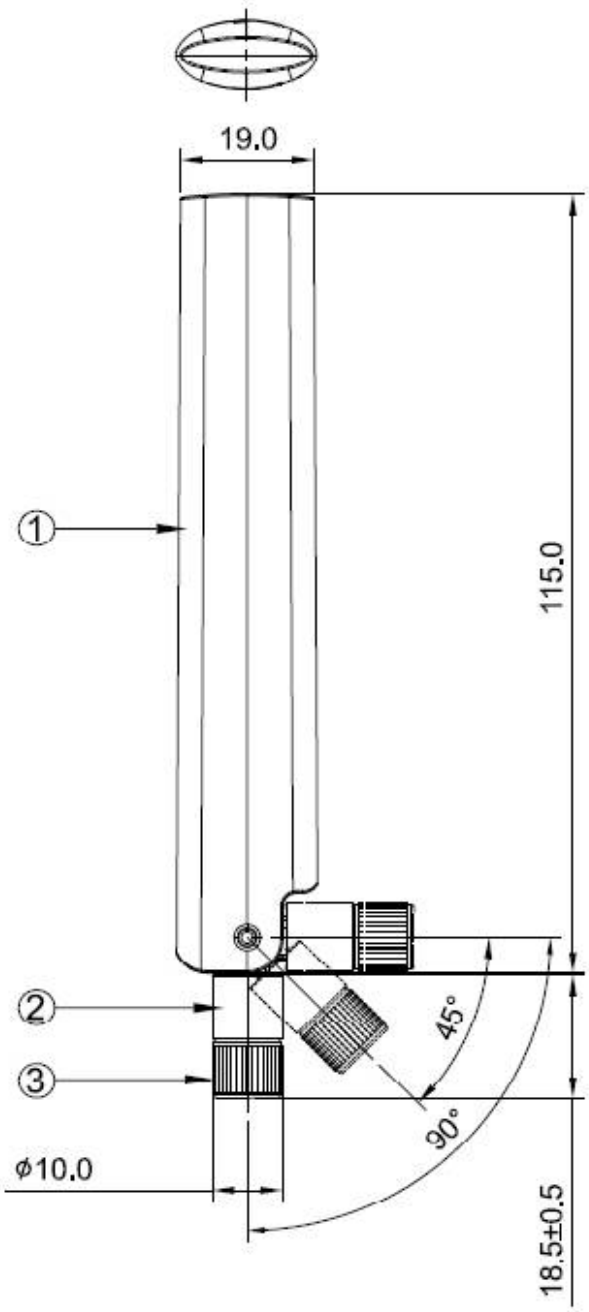
Product Dimension



Unit : mm

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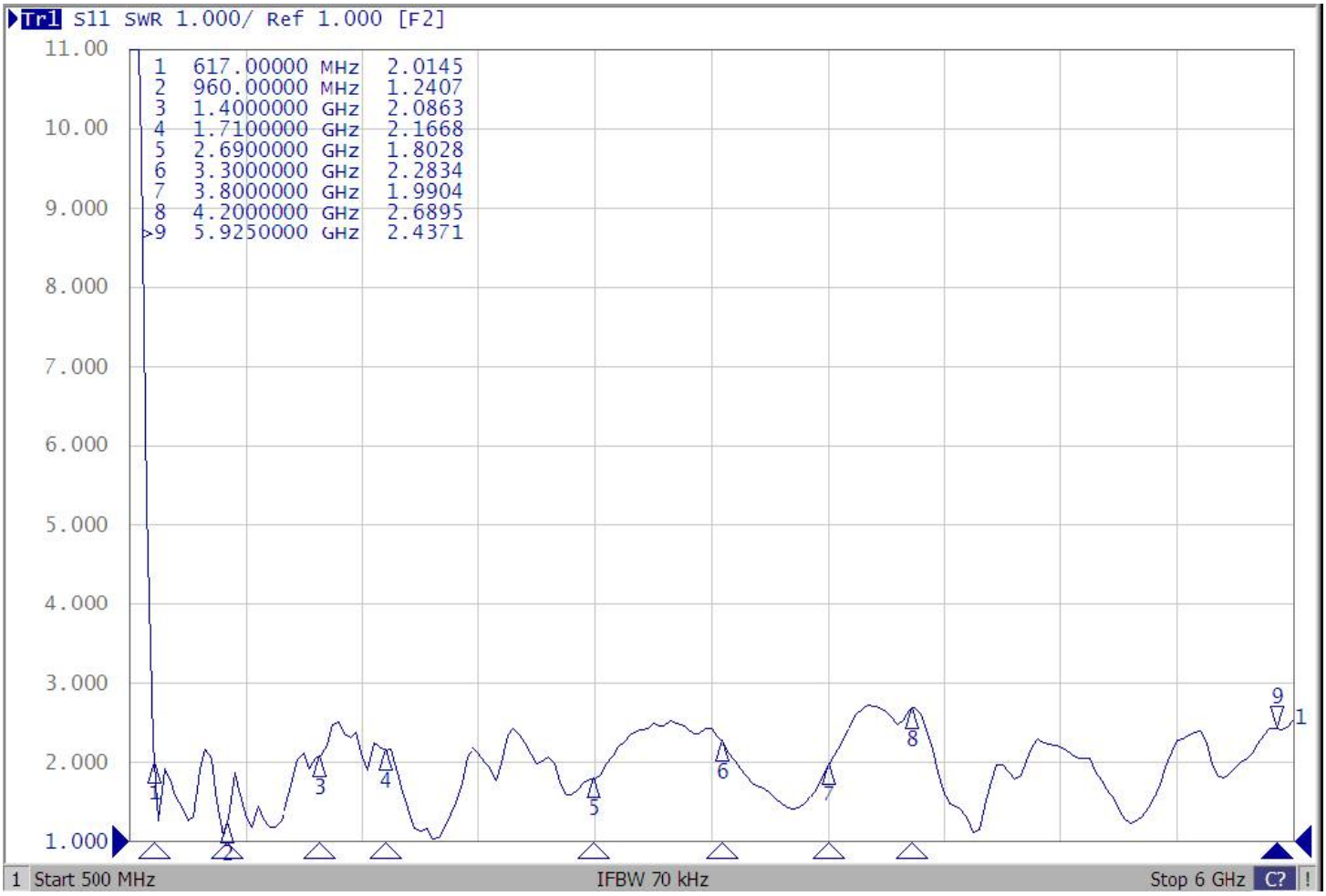
VSWR Measurement



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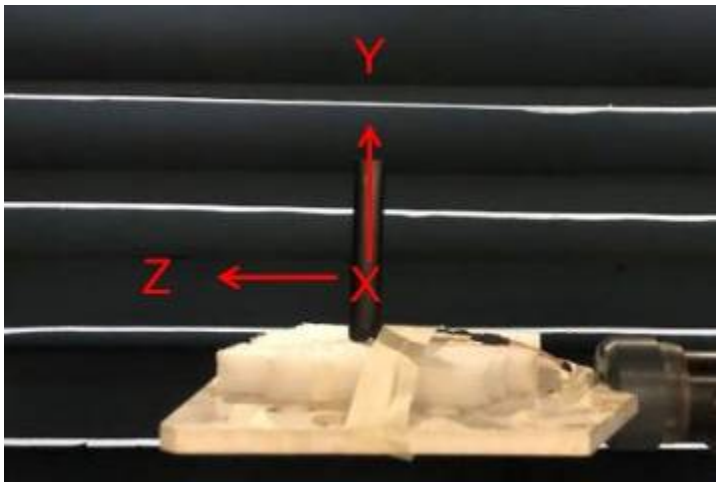
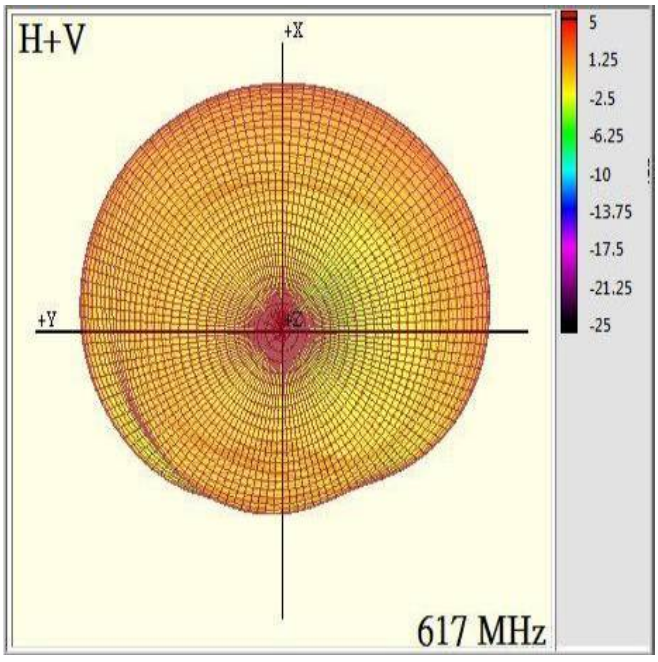
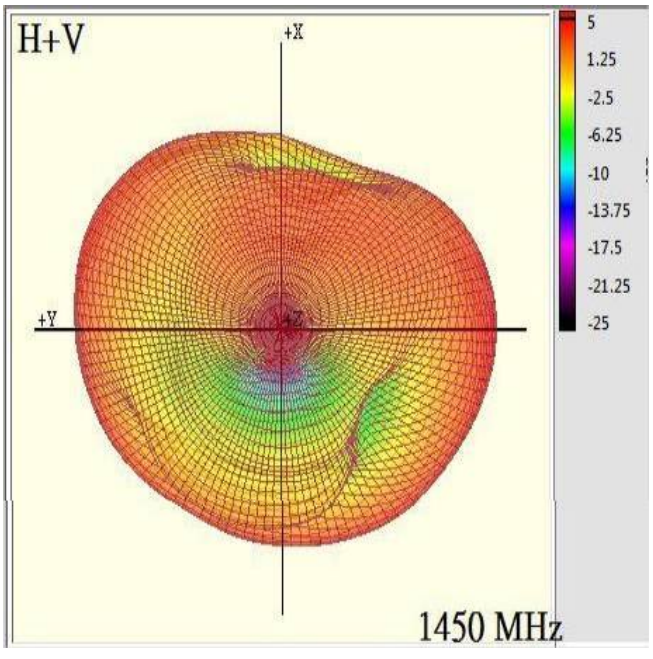
3D Radiation Pattern







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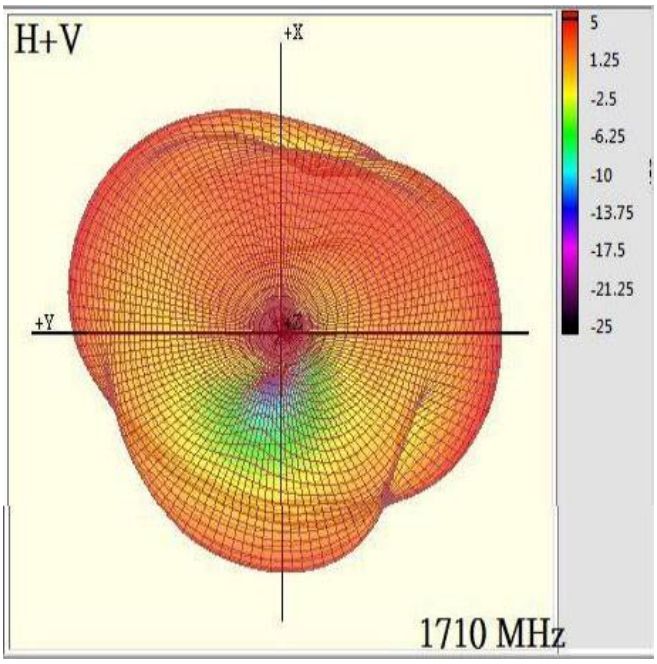

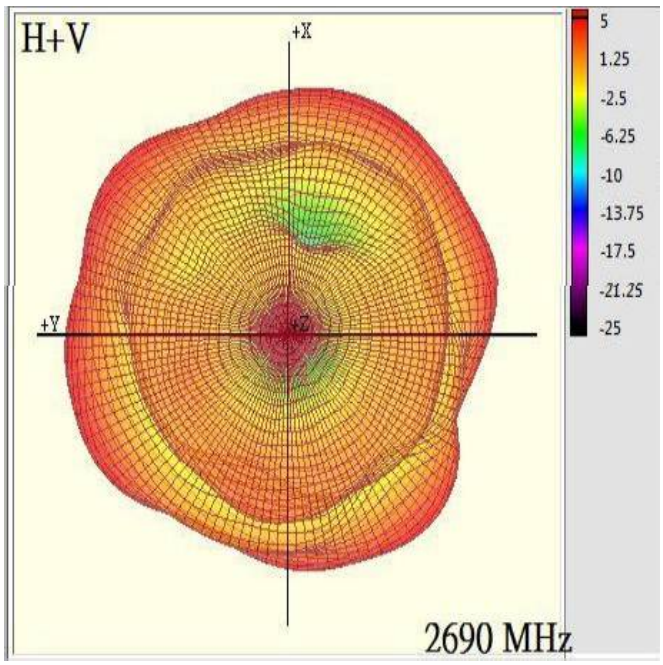

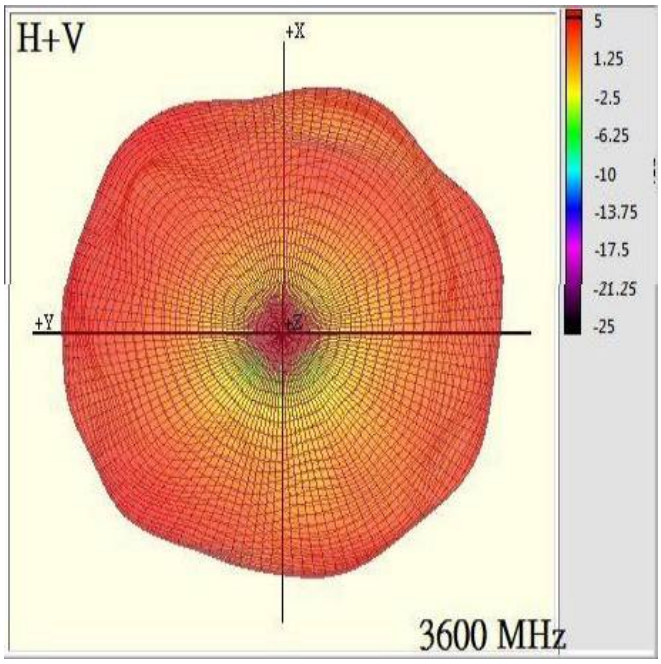

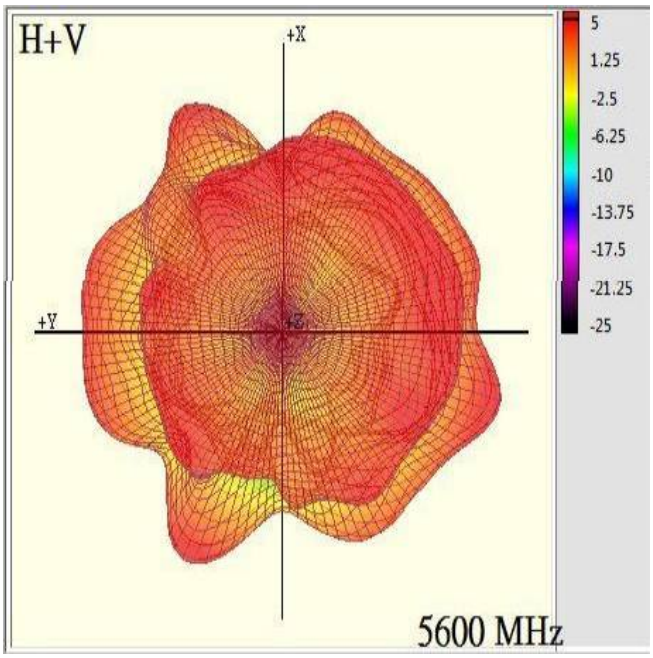

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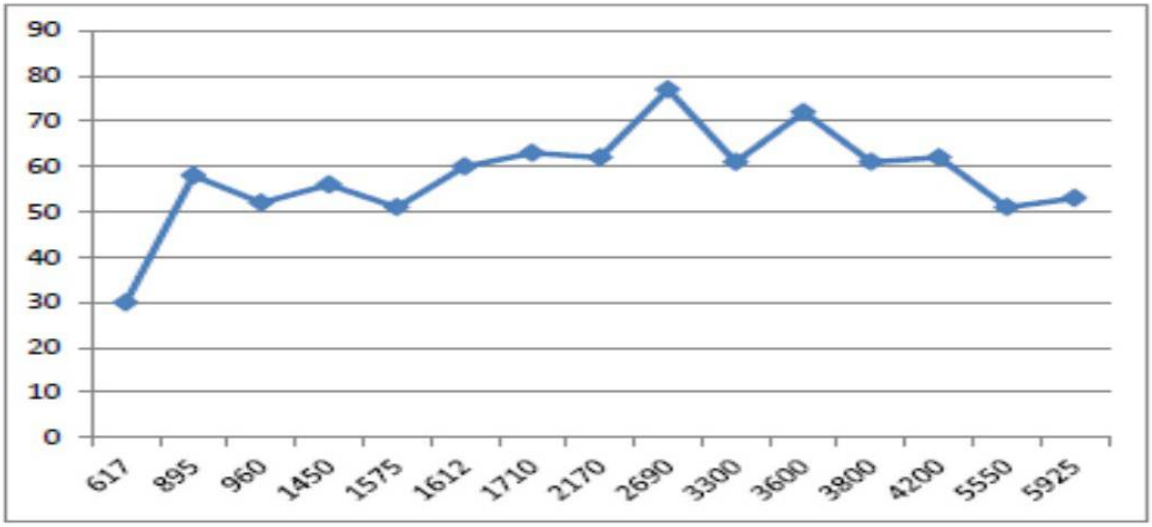
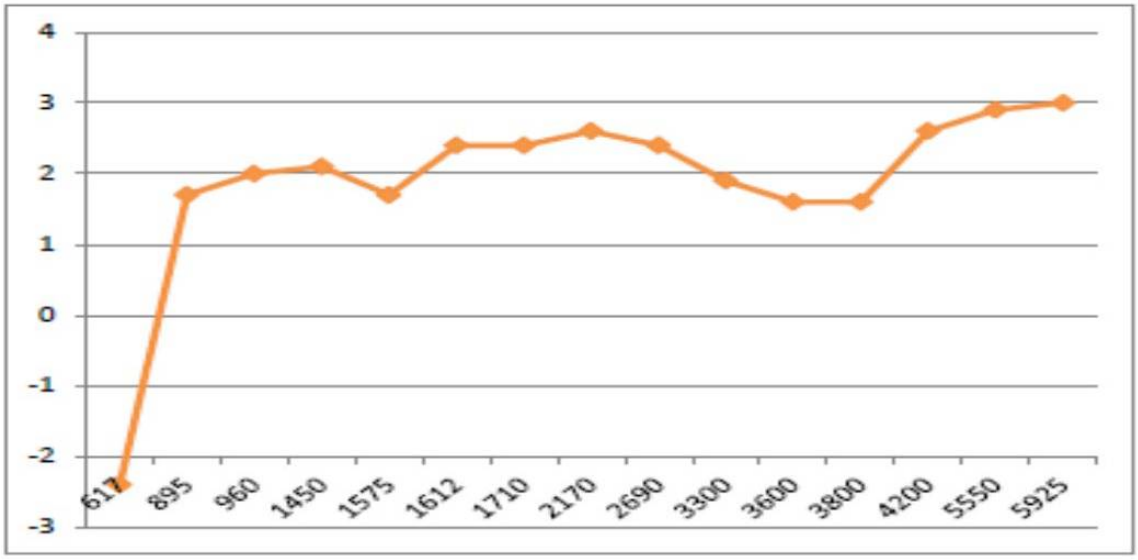
Gain and Efficiency

Efficiency



Gain



Frequency (MHz)	617	895	960	1450	1575	1612	1710	2170	2690	3300	3600	3800	4200	5550	5925
Efficiency (%)	30	58	52	56	51	60	63	62	77	61	72	61	62	51	53
Peak Gain (dBi)	-2.4	1.7	2	2.1	1.7	2.4	2.4	2.6	2.4	1.9	1.6	1.6	2.6	2.9	3

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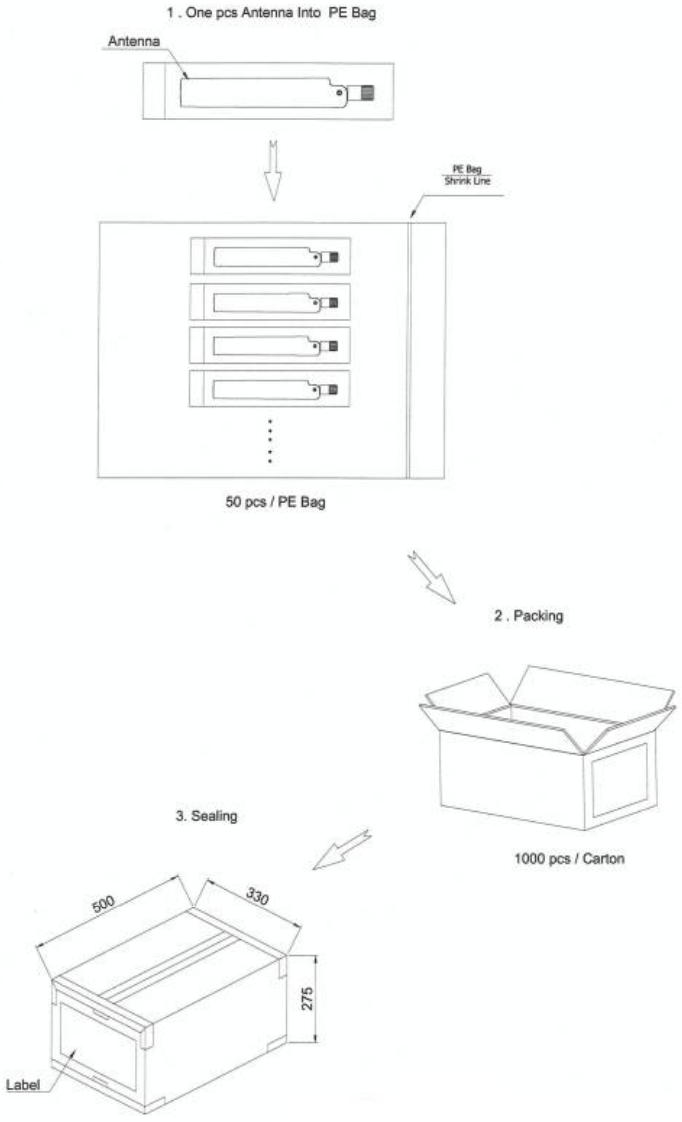
Packaging Information

Dimension of the Carton : 500 x 330 x 275 mm
No. of pieces/bag: 50 pcs
No. of bags/carton: 20
Total no. of pieces/carton: 1000 pcs



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