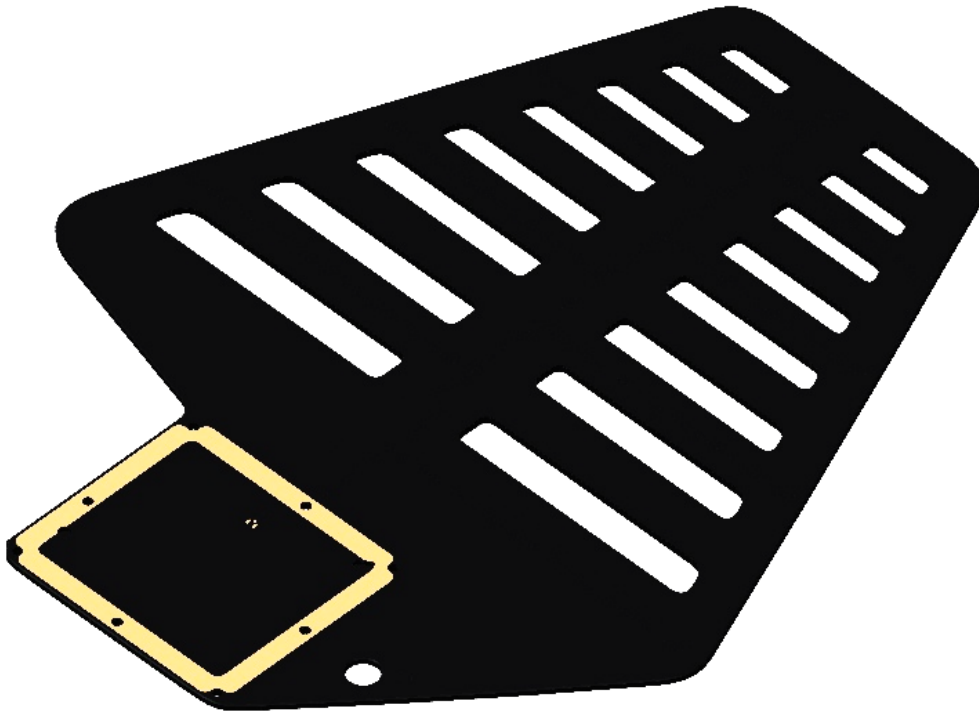


Printed Logarithmic Periodic Dipole Antenna




470 MHz – 698 MHz

W3935 SE No.: 594110 Rev: 04

YAGEO GROUP
PULSE



Features & Applications:

-  Directional antenna for wireless microphone systems
-  Operating frequency range 470 MHz to 698 MHz
-  Reduced wind load

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Version Control		
Rev	Date	Description
0.1	2023-06-21	Initial release
0.2	2024-03-06	Update the header, adding the labels and other RF sections
0.3	2024-05-20	Update mechanical drawing, packing info and production line test setup
0.4	2024-05-31	Update the vacuum foil bag and carton box labels and packing spec

Electrical specifications ¹ @ 25° C			
Antenna type	Nominal Impedance	Polarization	Radiation pattern
LPDA	50Ω	Vertical	Directional

Mechanical / Environmental Specifications			
Dimension (Length x Width x Height)	Color	Weight	Material
349mm x 292.17mm x 3mm	Black	195g	FR4

Operating Temperature	Storage Temperature	RoHS-6 Compliant
-40°C to 85°C	-40°C to 85°C	Yes

Notes:

1. Measured with amplifier metal housing.



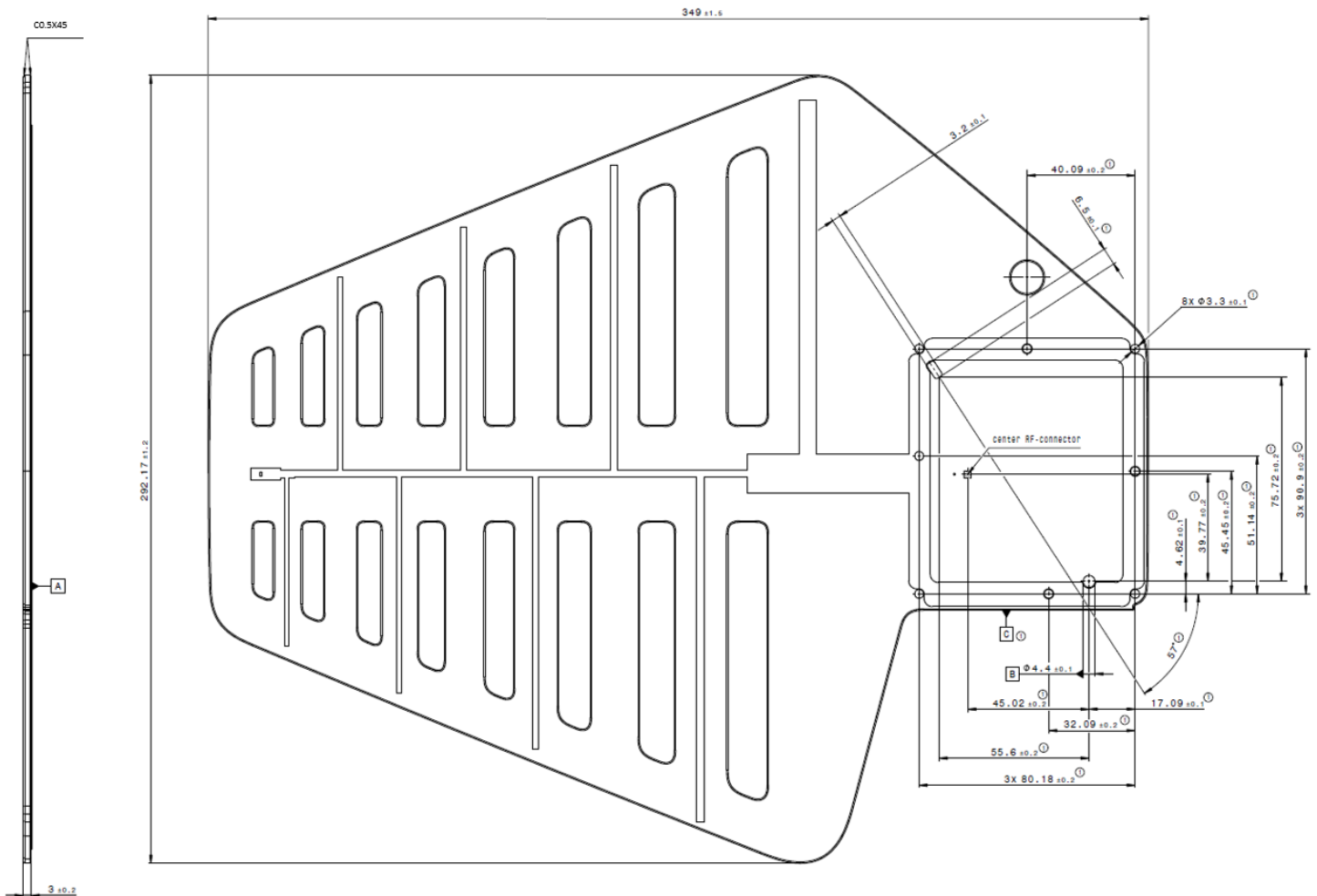
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Drawing



Dimensions: mm

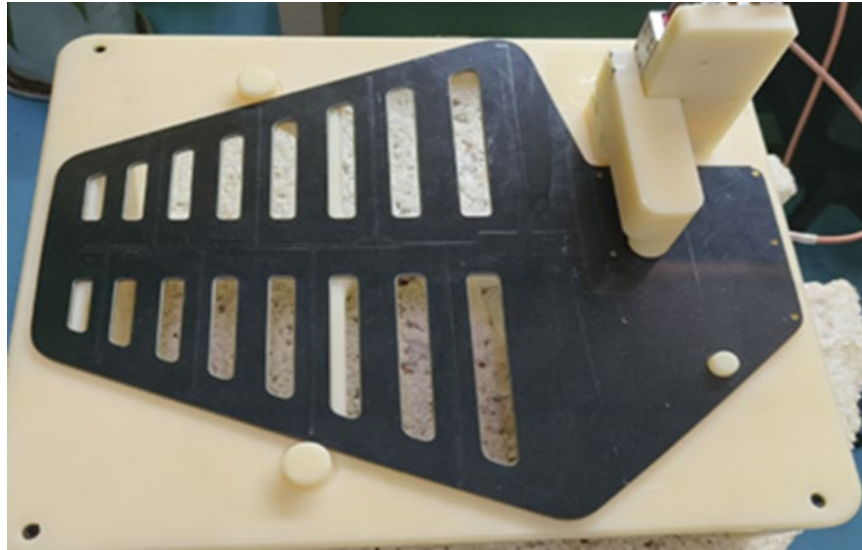
Unless otherwise specified, all tolerances are ±0.25mm

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Production line test setup



Bare pcb laminate RF-parameters can be only measure in specified RF -jig on factory. Please check Pulse production SOP document for antenna PCB measurement results without coating and final assembly.

Printed Logarithmic Periodic Dipole Antenna

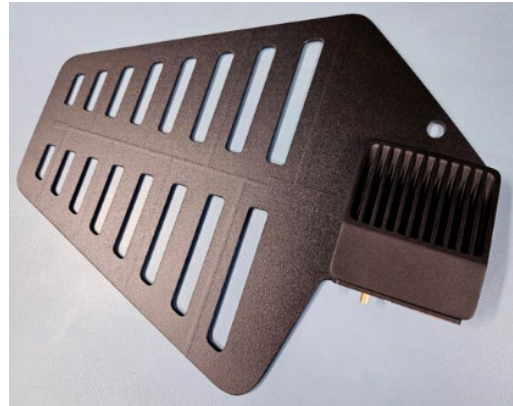
470 MHz – 698 MHz

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Design Verification

Antenna radiator passive RF-performance (amplifier excluded) can be only verified with dummy amplifier box and painted antenna radiator.



RF Results

Free space measurement:

Frequency (MHz)	470-698
Return Loss(dB)	<-14
Peak Gain (dBi)	>5
Avg. Efficiency (%)	>70
F/B ratio (dB)	>15
Max. RF input power (dBm)	+33
HPBW (deg.)	>110

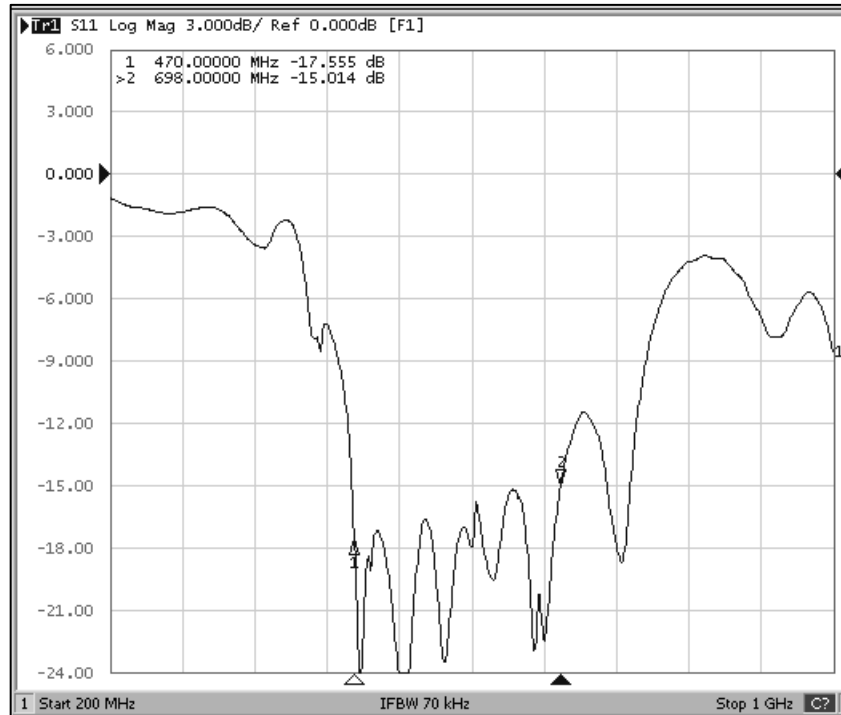
Printed Logarithmic Periodic Dipole Antenna

470 MHz – 698 MHz

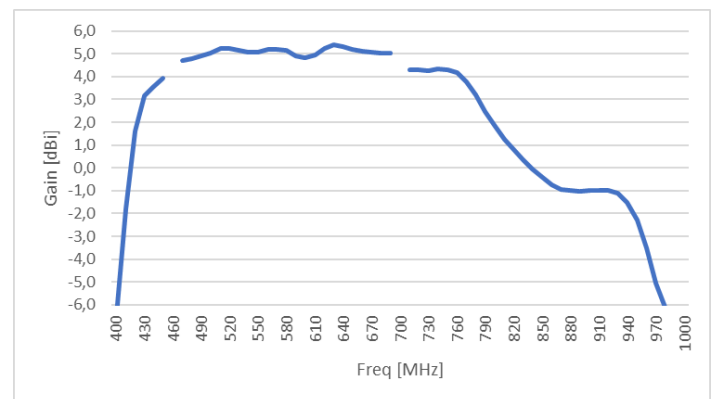
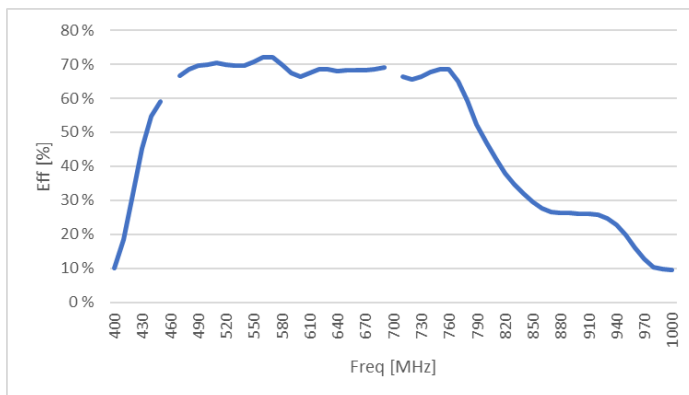
W3935 SE No.: 594110 Rev: 04



Return Loss



Peak Gain & Efficiency



Printed Logarithmic Periodic Dipole Antenna

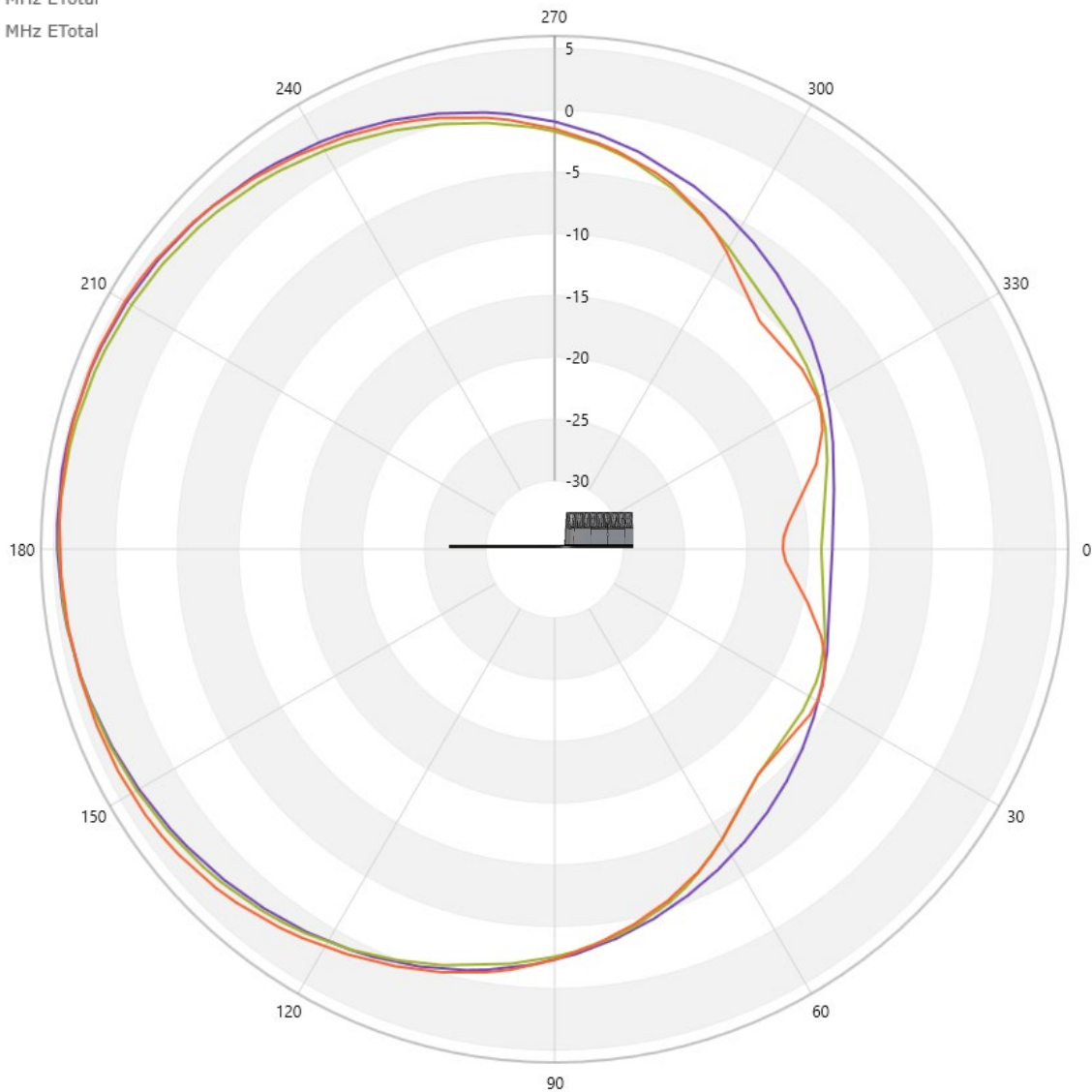
470 MHz – 698 MHz

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Radiation Pattern

- 90° 470.00 MHz ETotal
- 90° 600.00 MHz ETotal
- 90° 700.00 MHz ETotal



Printed Logarithmic Periodic Dipole Antenna

470 MHz – 698 MHz

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Packing

Antennas packed by aluminum foil vacuum bag and Carton box

Vacuum 8pcs PCBs into one vacuum bag, PCBs are separated by kraft paper, 1 desiccant bag per vacuum bag, honeycomb packing material as filling material.

Master carton box dimensions (MM): (375mm*285mm*200mm), 40pcs/carton box

Labeling

Aluminum Foil Vacuum Bag Label

1. P/N: W3935/594110
2. Q'TY: 8PCS
3. DATE: 2024-05-20

- 1 Pulse Part Number/Sennheiser Part Number
- 2 Packing Quantity inside Vacuum Bag
- 3 Packing Data: YYYY-MM-DD

Carton box Label




Printed Logarithmic Periodic Dipole Antenna

470 MHz – 698 MHz

W3935 SE No.: 594110 Rev: 04



1	Pulse P/No: W3935		
2	Sennheiser P/No: 594110		
3	PART NAME: PRINTED LPDA ANTENNA 470 MHz – 698 MHz		
4	WO: 2242860	11	RoHS
5	QTY: 40	6 Unit: EA	
7	Date Code: 2417	12	
8	Batch No: 0001472752		
9	Label No: 1007538583		
10	Remark: PROTO	13	REV:01
		14	6 of 8

- 1 Pulse Part Number
- 2 Sennheiser Part Number
- 3 Part Name
- 4 Work Order Number
- 5 Delivery Quantity
- 6 Unit
- 7 Date Code: YYWW
- 8 Pulse Batch Number
- 9 Pulse Label Number
- 10 Pulse Remark
- 11 RoHS Conformation
- 12 Pulse Data Matrix Code
- 13 Pulse Review Number
- 14 Carton Number, for example, 6 of 8, it means there are totally 8 packages from the same batch and data code, this is the 6th of those 8 cartons.

For More Information:

Americas - antennas.us@pulseelectronics.com | Europe – antennas.eu@pulseelectronics.com | Asia – antennas.as@pulseelectronics.com | Questions? +1-800-ANTENNA
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