

Drones LoRa

CTW-DRO-45SM115



Electrical Characteristics

Parameter	Specification
Frequency	868 ~ 915 MHz
V.S.W.R.	<= 2.0
Peak Gain	3.5dBi
Radiation Pattern	Omni-Directional
Polarization	Linear
Impedance	50 Ohm

Material & Mechanical Characteristics

Parameter	Specification
Material of Radiator	Copper / RF PCB
Cable Type	RG402
Connector Type	SMA (Optional)
Dimensions	110 * 45mm
Weight	20g

Environmental

Parameter	Specification
Operation Temperature	- 40 °C ~ + 75 °C
Storage Temperature	- 40 °C ~ + 80 °C

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CE FC RoHS COMPLIANT DNV ISO 9001



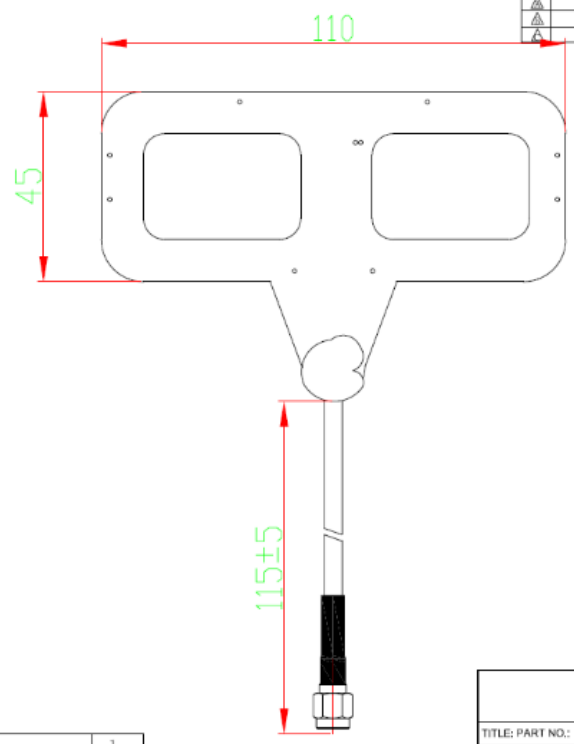
Key Technical Specifications & Features

- **Frequency Support:**
- **Dual-Band Sub-GHz Operation:** Operates on 868 / 915 MHz (Sub-GHz), providing broad compatibility with standard LoRa and LoRaWAN drone telemetry and control systems.
- **Optimized Signal Gain:** Delivers a 3.5dBi gain for stable, 360° omnidirectional signal coverage across long-range communication links.
- **Summary of Application Advantages:**
- Engineered as a dedicated LoRa antenna solution for long-range UAV communications, this model combines reliable impedance matching, dual-band (868/915 MHz) compatibility, a lightweight form factor, and versatile mounting options. It is well-suited for drone ground control stations, remote control receivers, and LoRa telemetry data links.

Applications:

- Automotive, IoT sensor nodes, UAV (Drones), long-range handheld systems.

RoHS
Compatible



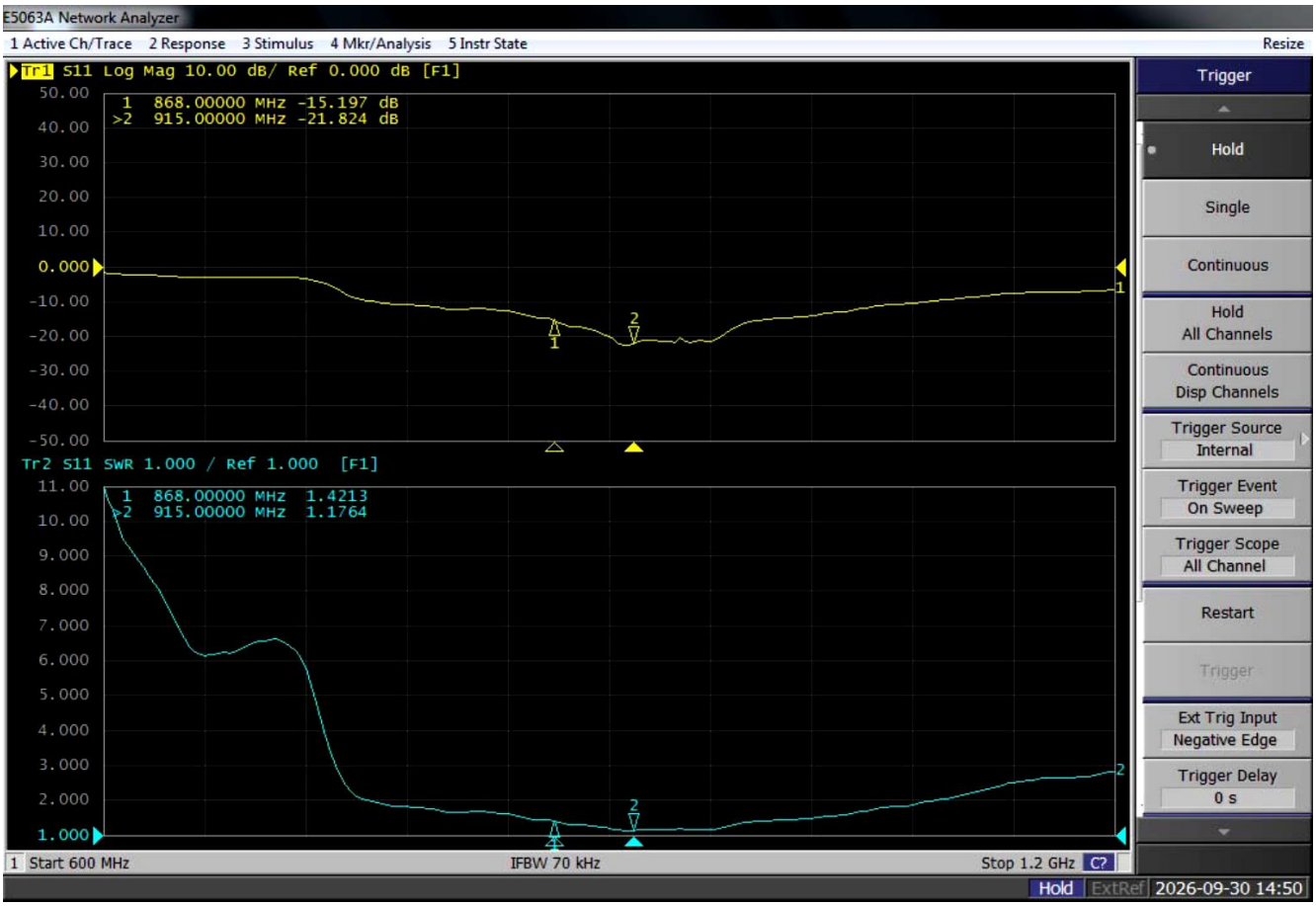
SIGN	DATE	DESCRIPTION	APPROVER
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NO	PART NAME	DESCRIPTION	Q. TY
3	SMA接頭	CU	1
2	线材	RG402黑色线	1
1	PCB	FR4	1

TITLE: PART NO.: Antenna
PART NO.:
DWG NAME:

APPROVED BY	CHECKED BY	DESIDNED BY	
		TH 2026.10.08	UNITS: mm SCALE: 1/1 REVISION: A

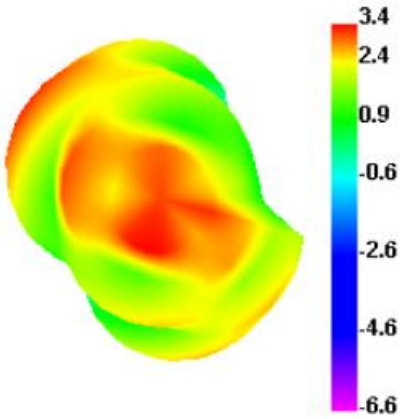
Tolerance
X.X ±0.2
X.XX ±0.1
X° ±1°



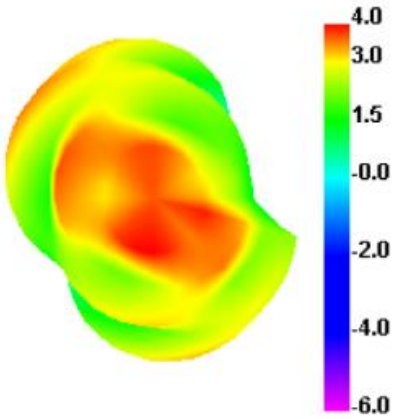
Antenna Gain Test

Antenna Radiation Pattern

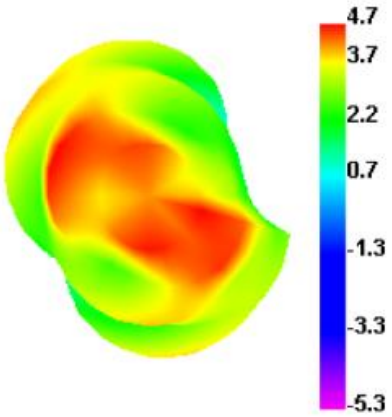
865.000MHz



885.000MHz



915.000MHz



Gain and Efficiency Test Data

Freq	(MHz)	865	875	885	895	905	915
Effi	(%)	76.61	81.41	85.75	86.92	91.04	93.69
Effi	(dB)	-1.16	-0.89	-0.67	-0.61	-0.41	-0.28
Gain	(dBi)	3.37	3.71	4	4.16	4.48	4.71
Gain	(dBd)	1.22	1.56	1.85	2.01	2.33	2.56



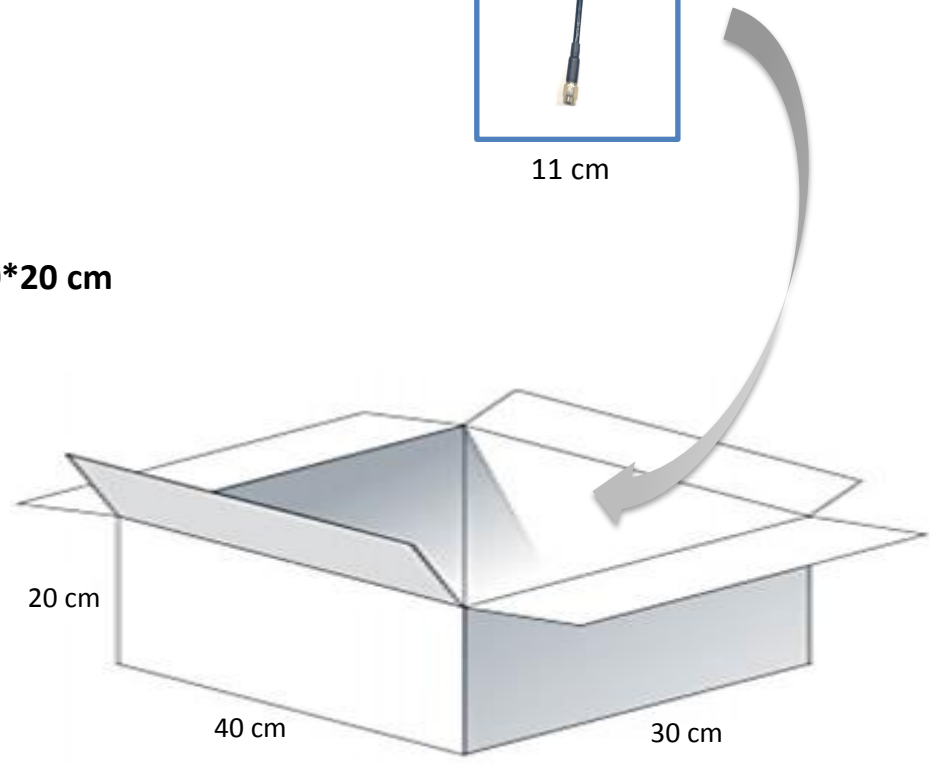
Packaging

Sealing



***1 pc Antenna**
PE bag / each

250 pcs per carton
Carton Dimensions: 40*30*20 cm



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