

1. Description

BDE-W89-20713-HRP is an 868/915MHz dipole antenna with hinged reverse polarity SMA connector.

Typical applications include:

- 868MHz/915MHz ISM band
- Lora, Wi-SUN, 802.15.4 Sub-1G
- Gateways/Routers
- IoT Solutions

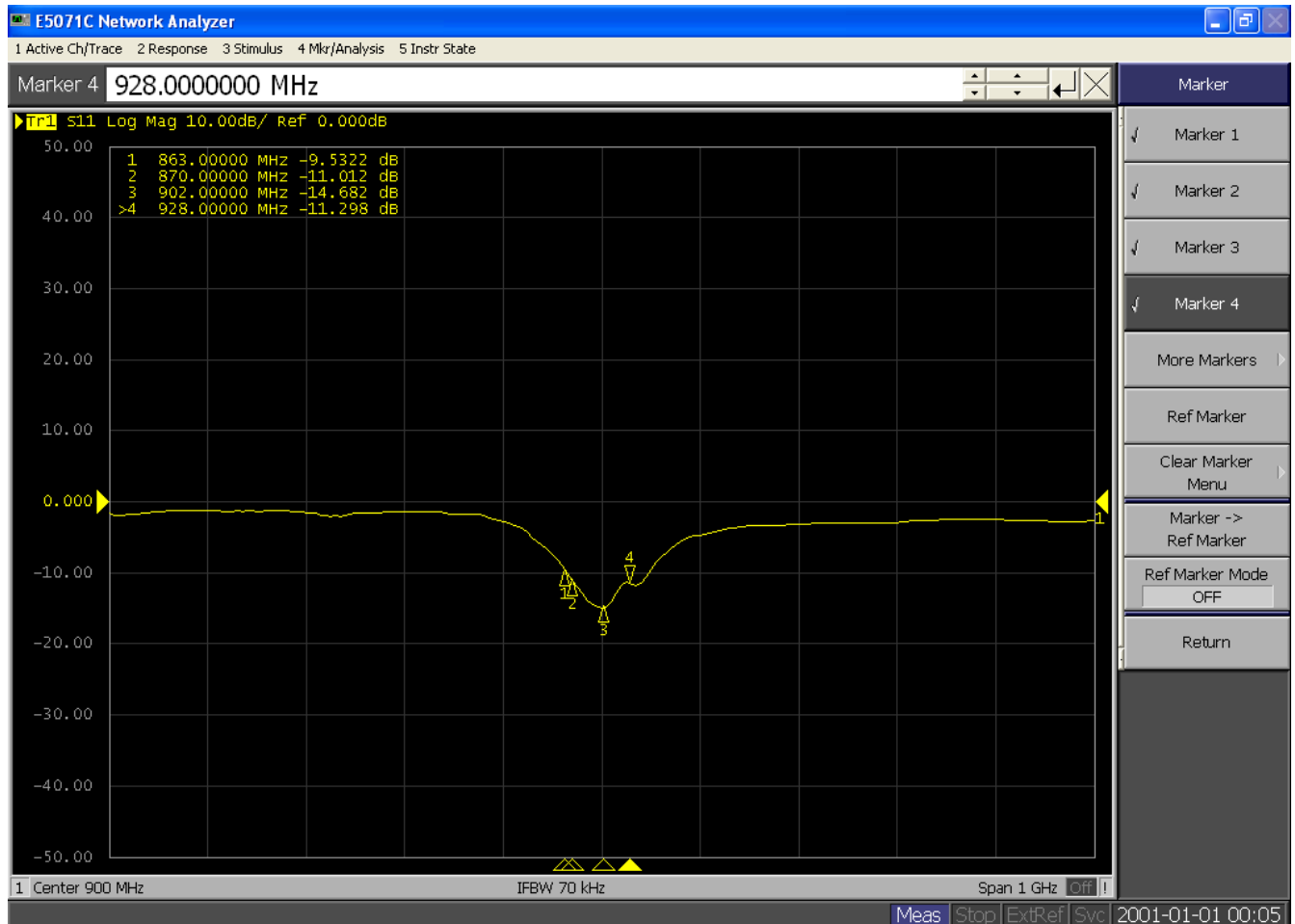


2. Specifications

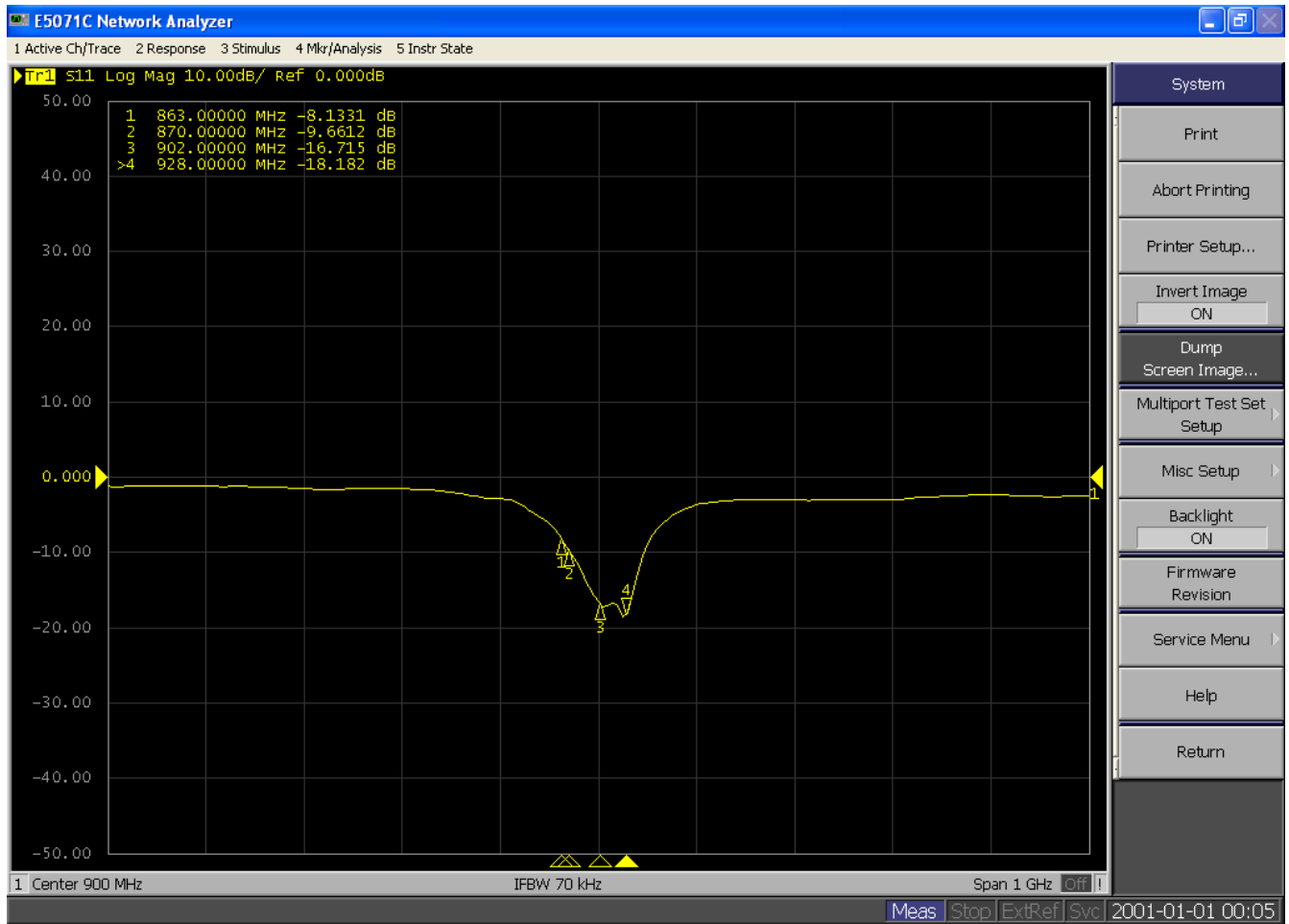
Electrical	
Frequency (MHz)	863 - 870, 902 - 928
Efficiency	53% @ 868M band
	87% @915M band
Peak Gain	1.9dBi @ 868M band
	3.8dBi @ 915M band
Impedance	50 ohm
Polarization	Linear, Vertical
Radiation	Omni-directional
Mechanical	
Heigh	Straight: 207±2mm
	Bent: 185±2mm
Diameter	Largest: 13±0.2mm
Casing	TPE
Connector	Hinged reverse-polarity SMA
Weight	16.3g
Environmental	
Temperature Range	-40°C to 85°C
IP Rating	IP67

3. Antenna Characteristics

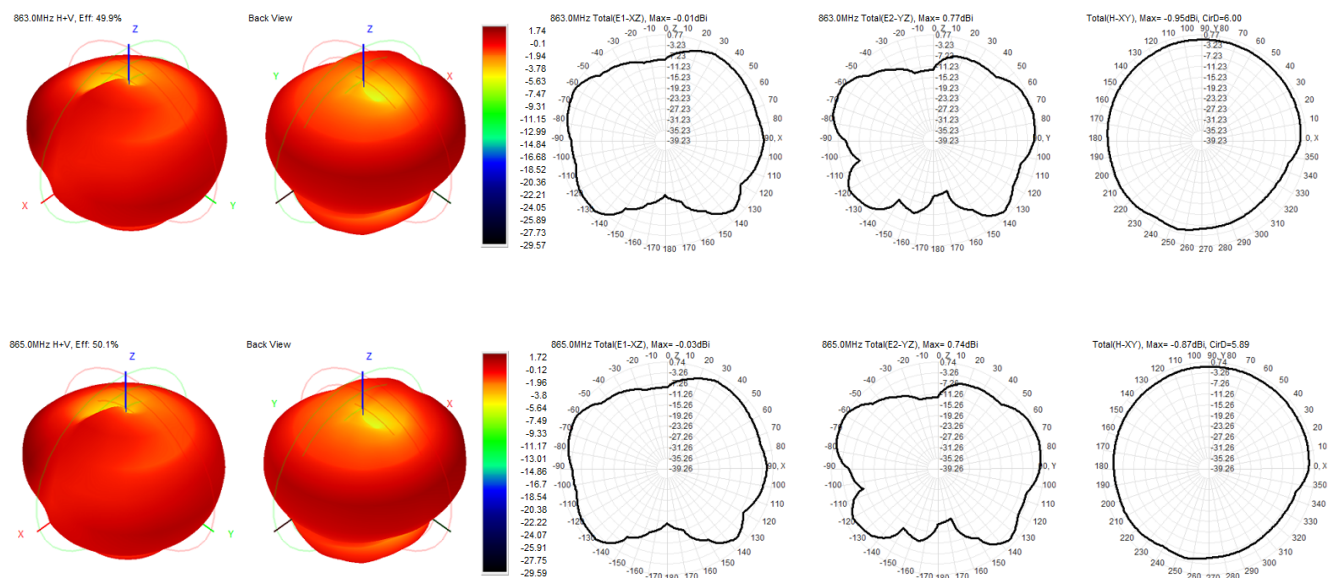
3.1 Return Loss – Straight Position

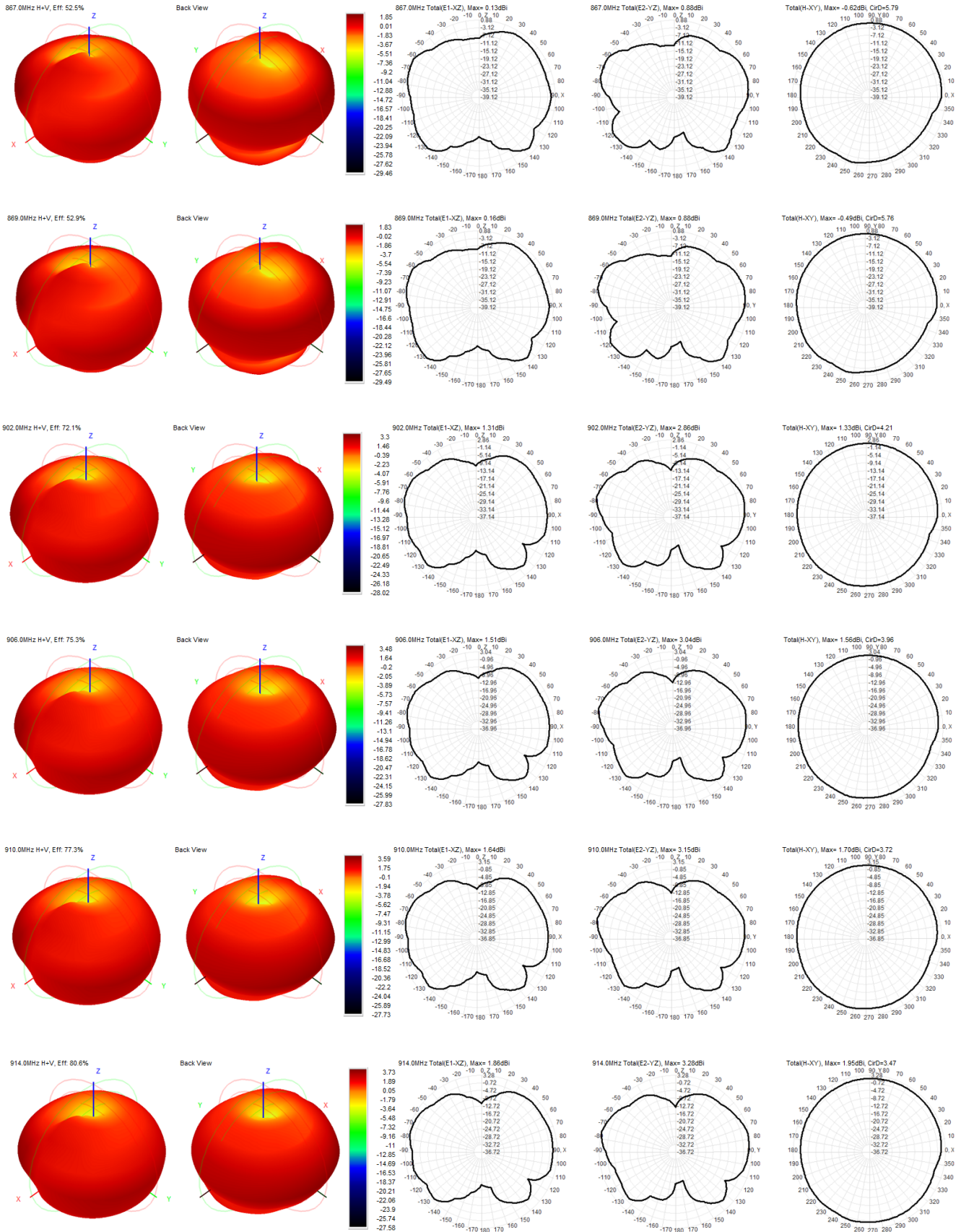


3.2 Return Loss – Bent Position (90 Degree)



3.3 Radiation Pattern

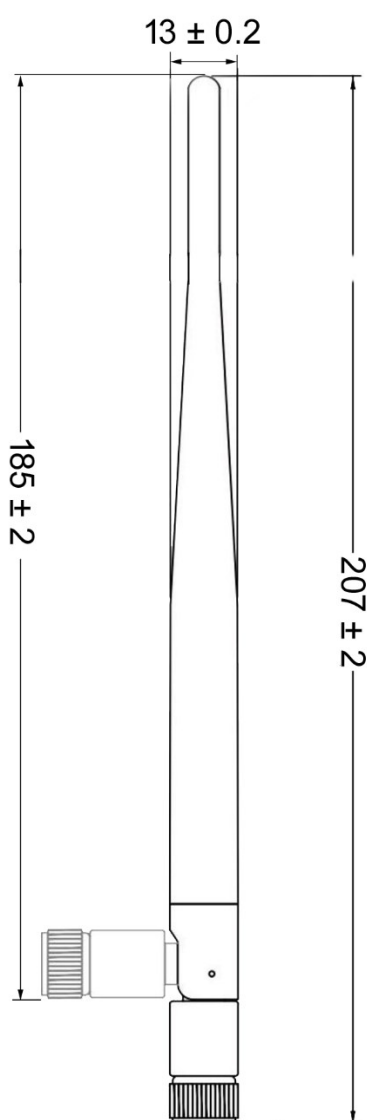




Frequency (MHz)	Efficiency (%)	Gain (dBi)
868M Band		
863	50	1.7
864	50	1.7
865	50	1.7
866	52	1.8
867	53	1.9
868	53	1.9
869	53	1.8
870	53	1.8
915M Band		
902	72	3.3

Frequency (MHz)	Efficiency (%)	Gain (dBi)
906	75	3.5
910	77	3.6
914	81	3.7
918	81	3.7
922	81	3.7
926	84	3.8
930	87	3.8

4. Mechanical Drawing



All dimensions are in millimeter.

5. Ordering Information

Orderable Part Number	Description
BDE-W89-20713-HRP-B	868/915MHz dipole antenna with RP-SMA connector, black
BDE-CA-110-IPX1-RP	IPEX I to reverse polarity SMA cable, 110mm

6. Revision History

Revision	Remark	Date
V1.0	Initial release	2024/6/3

Important Notice and Disclaimer

The information contained herein is believed to be reliable. BDE makes no warranties regarding the information contained herein. BDE assumes no responsibility or liability whatsoever for any of the information contained herein. BDE assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for BDE products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information.

Contact

BDE Technology Inc.

USA: 67 E Madison St, # 1603A, Chicago, IL 60603, US
Tel: +1-312-379-9589

China: B2-403, 162 Science Avenue, Huangpu District, Guangzhou 510663, China
Tel: +86-20-28065335

Website: www.bdecomm.com Email: info@bdecomm.com