

Specification For Approval

Date: 2025 / 02 / 20

File No.: 2502200001

Version: 1.0

Customer : H00595

Customer P/N : /

INVAX P/N : AN0915-5002BRS

Description : Antenna

Cortec Checked By:

RD
2025.02.20
SF

Customer Approved By:



INVAX System Technology Corp.
4F. No. 815.Chung Hsiao East Rd.,Sec.5
Taipei, TAIWAN

TEL:886-2-2788-5218 FAX:886-2-2783-1658
<http://www.invaxsystem.com>



Cortec Technology Inc.
Xian-Xi Industrial, Sha-Tou Administration Zone,
Chang-An Town, Dong-Guan City, Guangdong
Province, China

TEL:86-769-85388261 FAX:86-769-85317869
<http://www.cortec.com.cn>

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1. Revision History

Revision	Date	Change Notification	Description
1.0	2025.02.20	First Edition	

Product Number: AN0915-5002BRS

Product Name: Antenna



2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	902 ~ 928 MHz
V.S.W.R.	≤ 2.0
Peak Gain	2.34 dBi
Antenna Type	Dipole
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	ABS / TPEE
Cable Type	RG-178
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

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3. Characteristics and Reliability Test

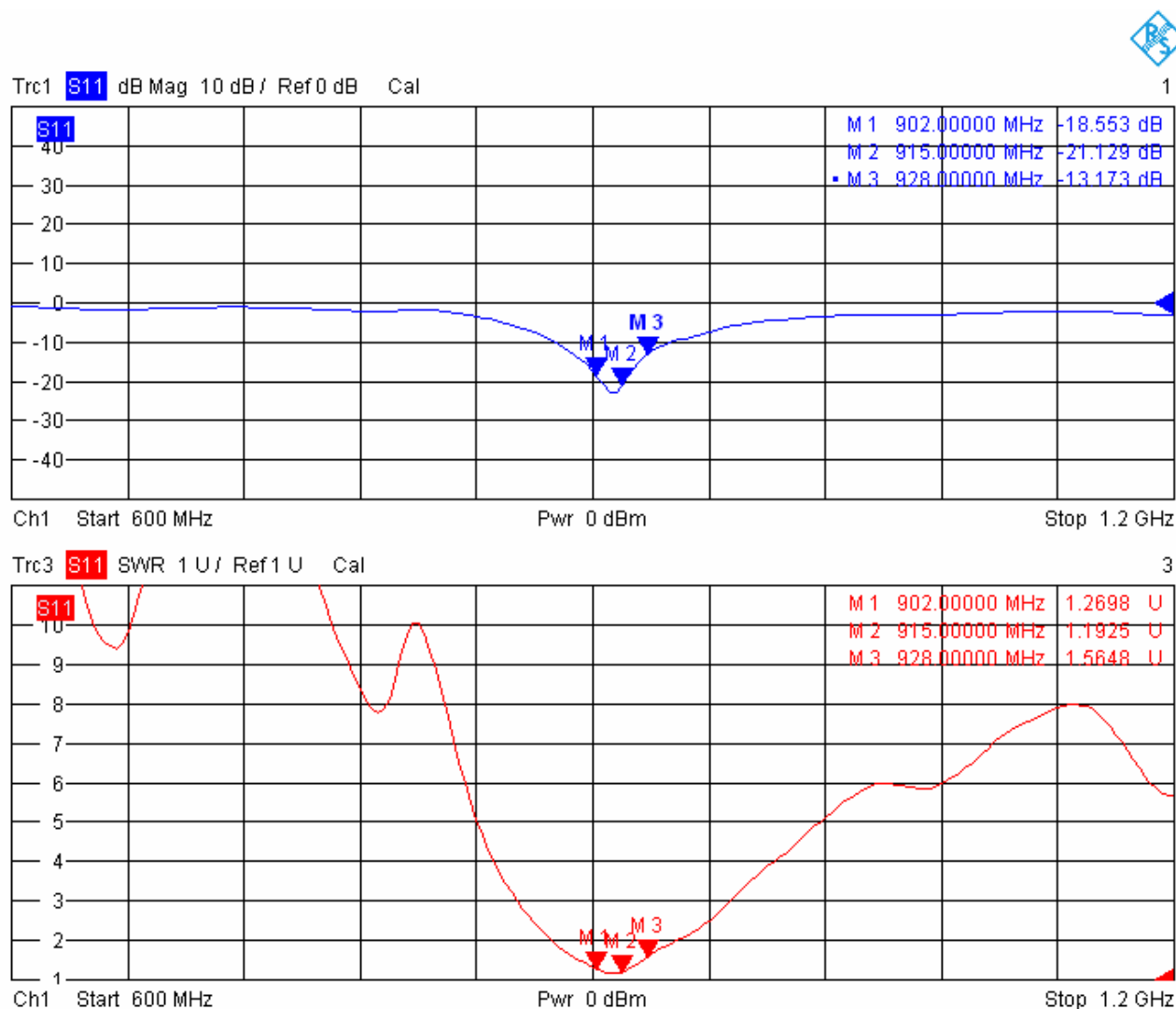
Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	GB / T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

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4. Antenna - S Parameter Test Data

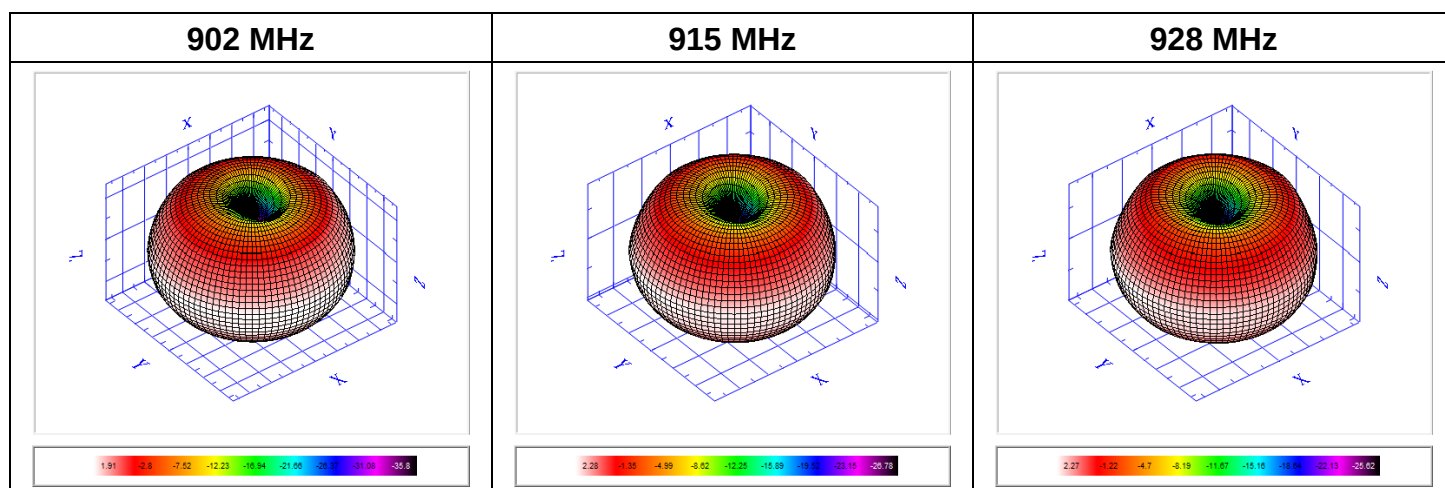
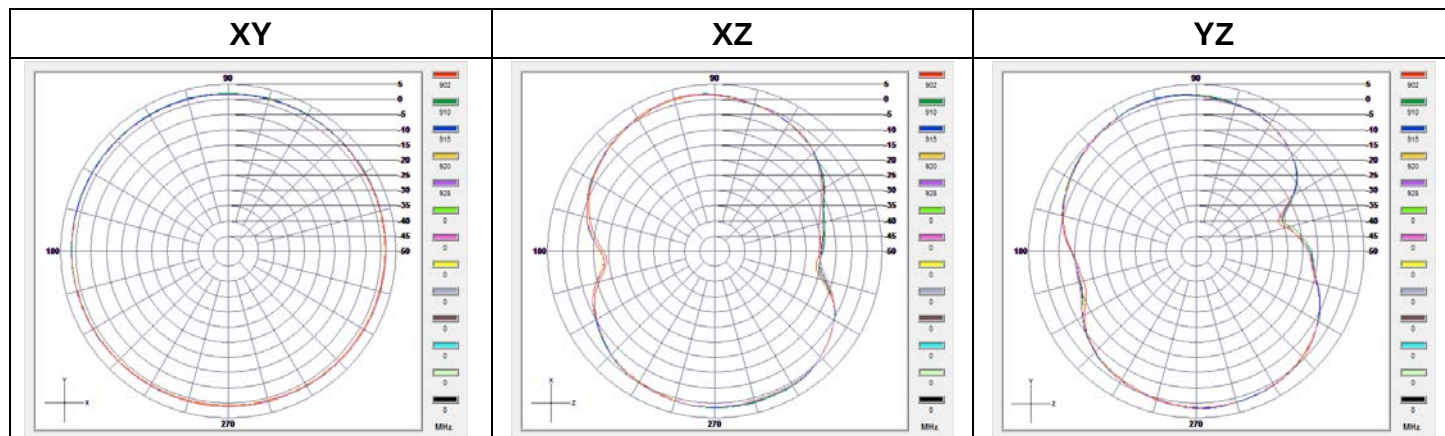


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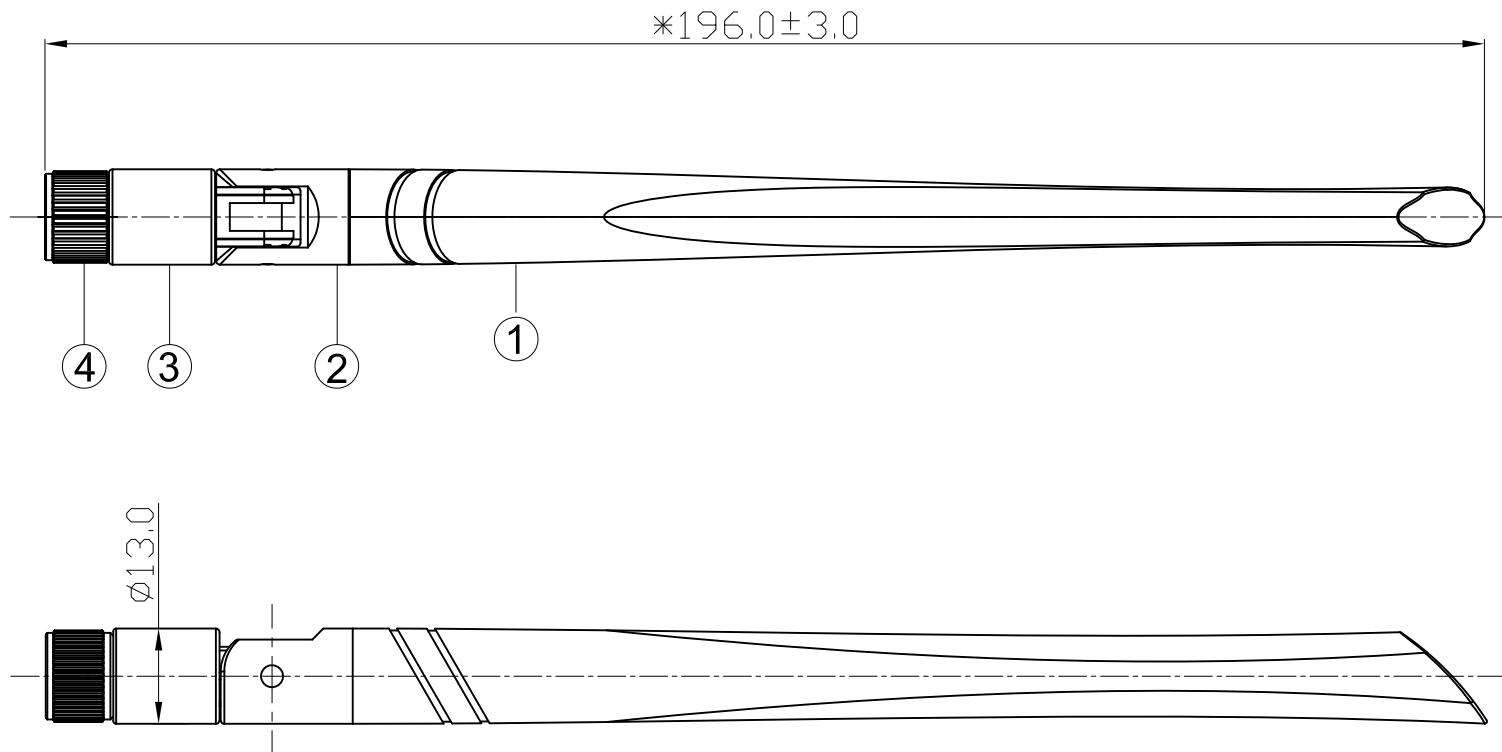
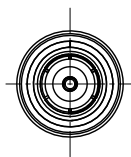
5. Antenna - Radiation Pattern Test Data



Frequency	902	910	915	920	928
TRP (dBm)	-0.4	-0.13	-0.25	-0.35	-0.32
Peak EIRP (dBm)	1.91	2.34	2.28	2.2	2.27
NHPRP +/- 45 (degree)	-0.62	-0.36	-0.48	-0.58	-0.55
NHPRP +/- 30 (degree)	-1.25	-0.99	-1.11	-1.23	-1.21
E-Theta Peak Gain (dBi)	-18.5	-17.7	-18.2	-17.3	-17.6
E-Phi Peak Gain (dBi)	1.9	2.33	2.27	2.18	2.25
E-Total Peak Gain (dBi)	1.91	2.34	2.28	2.2	2.27
Directivity (dBi)	2.3	2.47	2.53	2.55	2.59
Efficiency (%)	91.3	97	94.4	92.2	92.9

RoHS

Compatible



SIGN	DATE	DESCRIPTION	APPROVER

4	SMA194-CCT5AN19-A	SMA Male Reverse	CU	Electrodeposition	1
3	AN0304-T07B	BODY-2	ABS	Black	1
2	AN9201-06B	BODY-3	ABS	Black	1
1	BODY-AN50-01B	BODY-1	TPEE	Black	1
No.	Part Number	Description	Material	Finished	Q'ty

Invax System Group.			Cortec Technology Inc.		
Cortec			Http://www.invaxsystem.com E-mail:info@invax.com.tw		
			Tel :886-2-27885218 Fax:886-2-27831658		
TITLE: 902~928MHz Antenna					
PART NO.: AN0915-5002BRS			CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY		Tolerance
SF	YS		LISA	UNITS: mm	X.X ±0.3
2025.02.20	2025.02.20		2025.02.20	SCALE: 1/1	X.XX ±0.2
				REVISION: A	X° ±1

Date: 2016.08.11

Part Number : AN0915-5002BRS	Revision : A
Name: 902~928MHz Antenna	Customer : All

1.Enter OPP bag ◦

R-STI-BAG-25040
1PCS/bag

R-NIP-BAG-250320
50PCS/bag

2.PACKING ◦

SIZE:29.0x23.0x32.5cm
300PCS/CARTON

3. SEALING ◦

SIDE

FRONT

APPROVED BY : GrantCHECKED BY : JackDESIGNED BY : ZGR

SGS TaiBei Network---http://twap.sgs.com/sgsrsts/chn/cheres_tw.asp
SGS Mainland Network---http://rsts.cn.sgs.com/zh-cn/cheres_cn.asp
SGS Korea S. Network---http://rohs.kr.sgs.com/sgsrsts/en/cheres_en.asp
PLS fill out the correct data for search

- 1.Report Number
- 2.Report Date(YYYY/MM/DD)
- 3.Product Name(Input the first 10 figures. Do not include the blank)
- 4.The graphic presentation checking yard



Cortec Technology Inc.	
Writer :	Sally
Dept :	R&D
Job :	Assistant

HSF Datasheet

Part Number : AN0915-5002BRS

Num ber	Detali Part Number	Detail Name	Material	RoHS Test Results										Report Number	Test Date	Test Name	Test Locale
				Cd	Pb	Hg	Cr(VI)	PBBs	PBDEs	DBP	BBP	DIBP	DEHP				
1	BODY-AN50-01B	Body1	TPEE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	A2240057268120001	2024.03.13	TPEE	SGS
2	AN9201-06B AN0304-T07B	Body	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANPC24004074901	2024.03.14	ABS HP171-NP	SGS
3	SMA194-CCT5AN19-A	SMA Male Reverse	Brass	24	28333	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANPC24009508910	2024.05.17	C3604	SGS
4	R-AN1901-650 R-AN8065-245	Tube	Brass	N.D.	41	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC24019446601	2024.09.09	appy to H65(C2680,C2700	SGS
5	R-GS-SP3001001	泡棉	EVA	N.D.	14	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC24028865441	2025.01.03	Environmental	SGS
6	R-RG-178U-03	Cable	FEP Brown	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	NGBPC24005315513	2024.09.23	Colored-FEP (Brown)	SGS
7			FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	NGBPC24000131241	2024.01.16	FLUORINATED ETHYLENE	SGS
8			Silverplated Copper	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC24002005301	2024.01.31	SC	SGS
9			Tinned copper wire	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	A2240144866101001C	2024.03.22	Tinned copper wire	CTI

PLS refer the SGS report, fill out the content of Pb, Cd, Hg, Cr6+, PBBs, PBDEs

The content of Pb, Cd, Hg, Cr6+, PBBs, PBDEs is less than 100 ppm in the package. The content of Cd is less than 5 ppm.

According to the EU ROHS directive exemption clause 2015/863/EU Lead as an alloying element in steel containing up to 0,35 % aluminium containing up to 0,4% copper alloy containing up to 4%