



QUBE 4010

UHF RFID Antenna

Specification

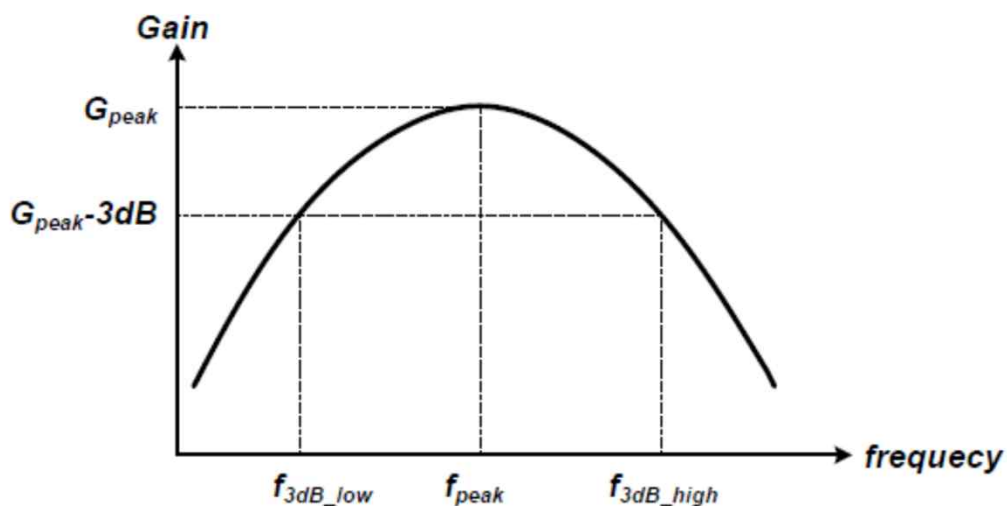
1. Part Name

KSA-866A4010B100B

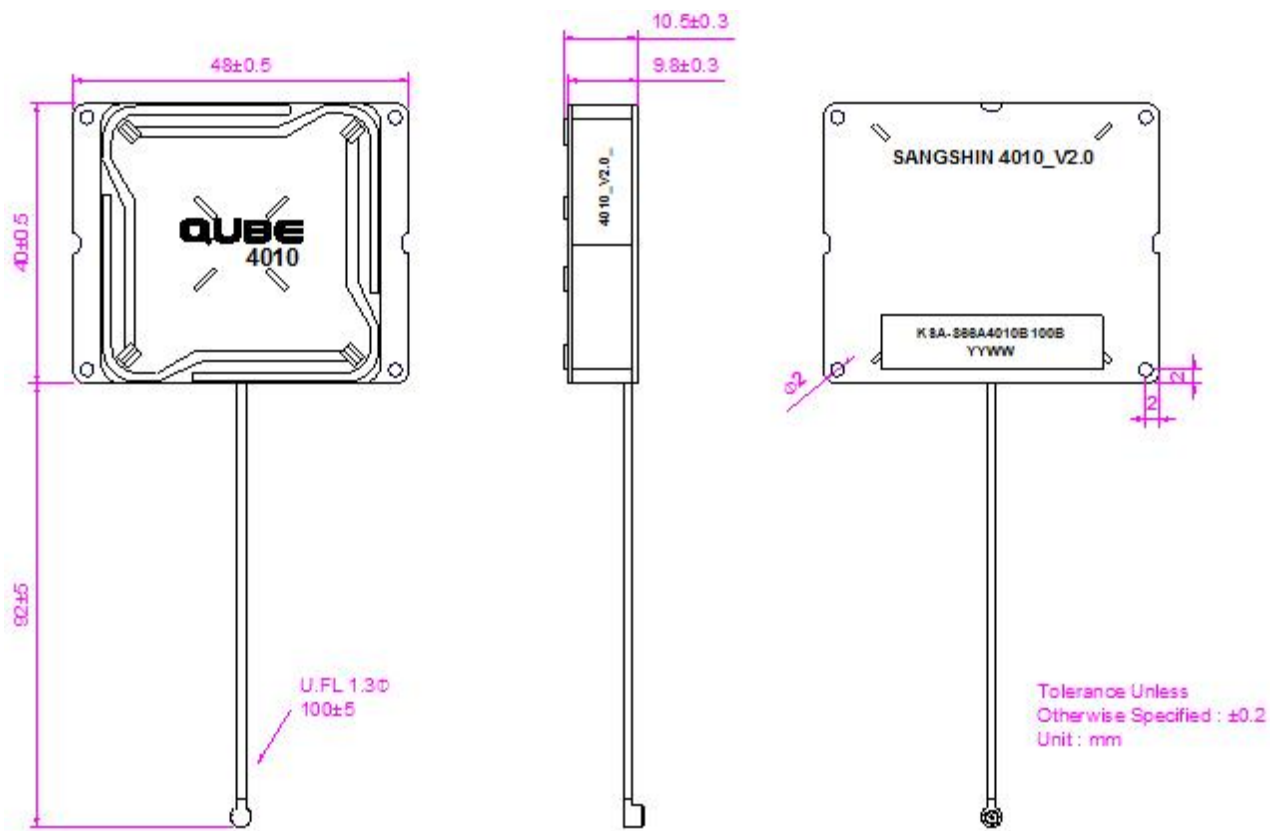
2. Electrical Specifications

Item	Specifications			
	Min.	Typical	Max.	Unit
Center Frequency (= Fc)	862	866	870	MHz
Operating Frequency	$F_c \pm 5$	$F_c \pm 8$		MHz
Return Loss @ Operating Frequency			-15	dB
Polarization	R.H.C.P			
Peak Gain @ Fc (RHCP)		-1		dBic
Gain @ Reference Antenna		-15		dB
Axial Ratio @ Fc			1.3	
Beamwidth (@3dB)	80	110		degree
Impedance		50		Ω
Operating Temperature	-30		+70	°C
Weight		7.0		g

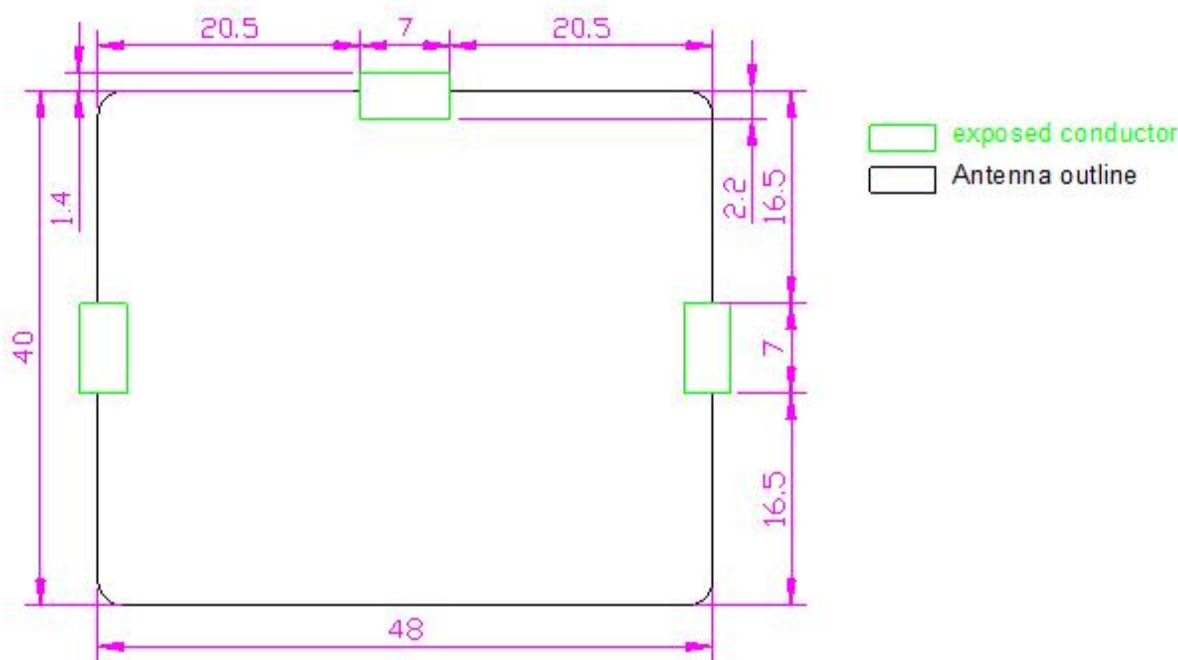
Note 1. Operating frequency is defined as frequency range between f_{3dB_low} and f_{3dB_high} .



3. Dimensions

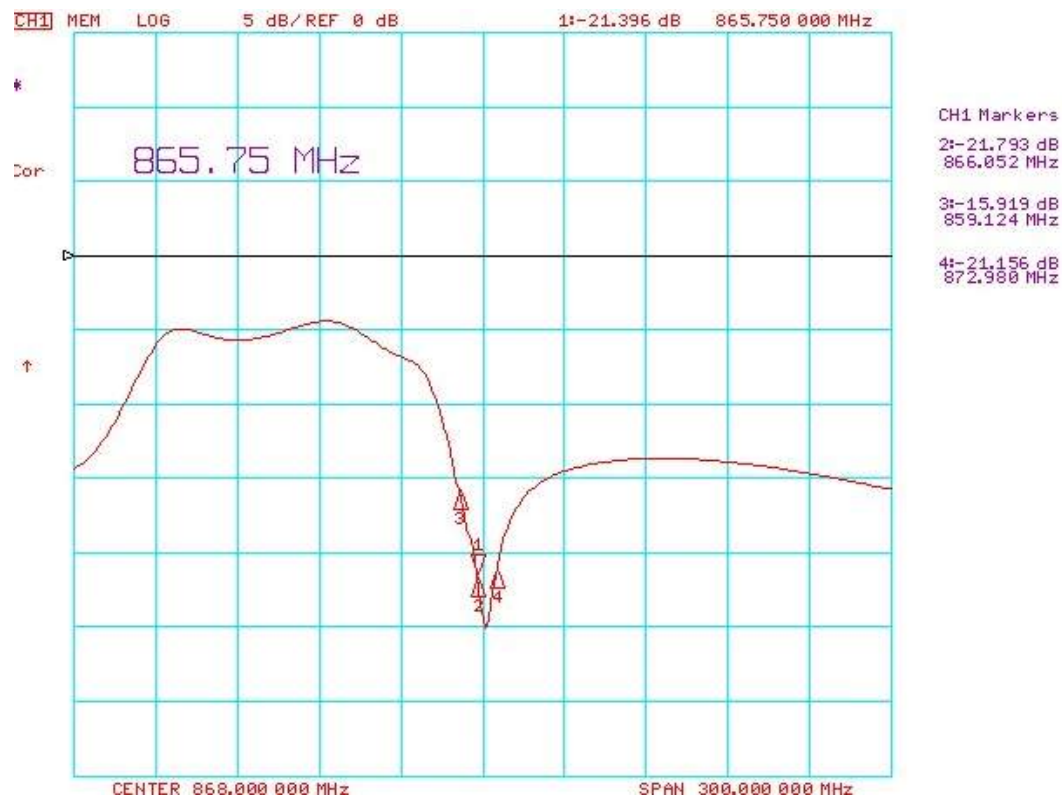


- Foot Print

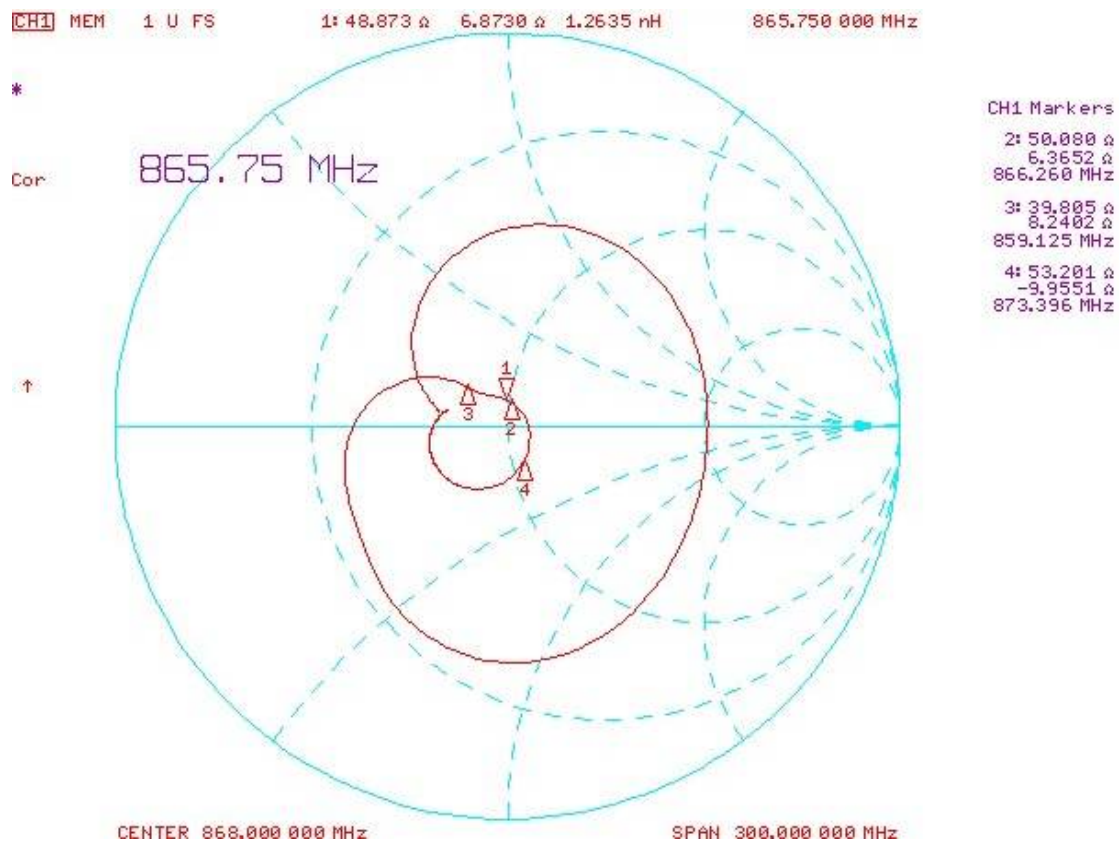


4. S-parameter Data

4.1 Return Loss (S11)



4.2 Smith Chart (S11)

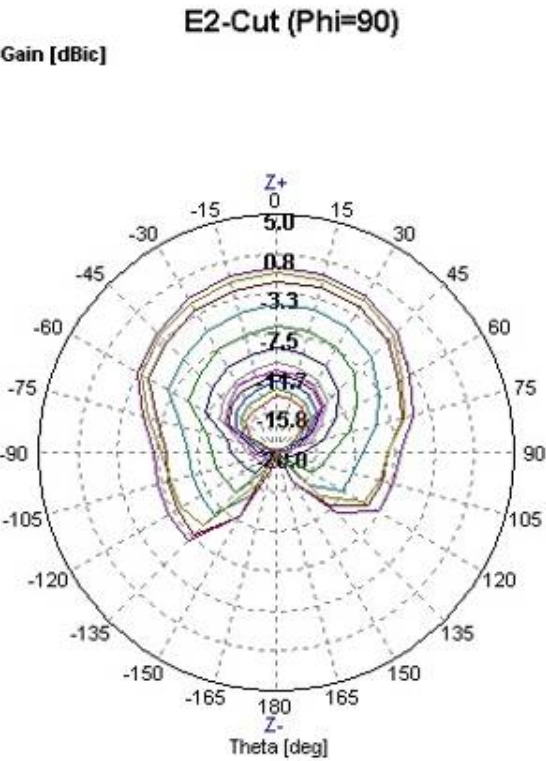


4.3 Gain (S21)



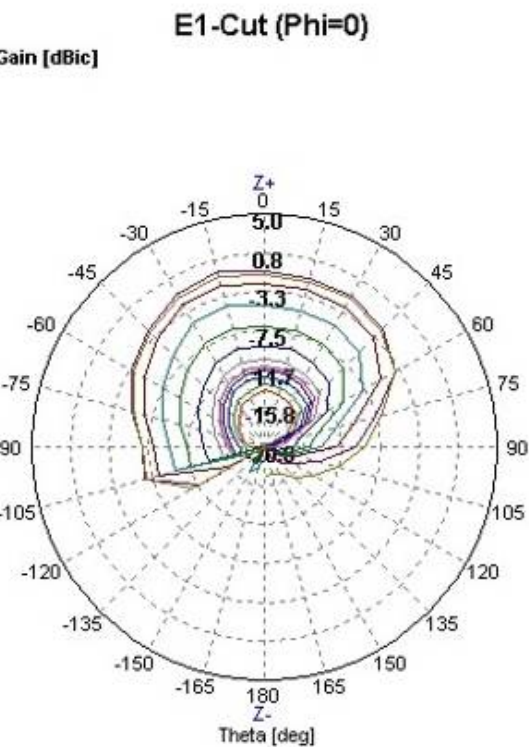
5. Antenna Chamber Data

5.1 E-Plane



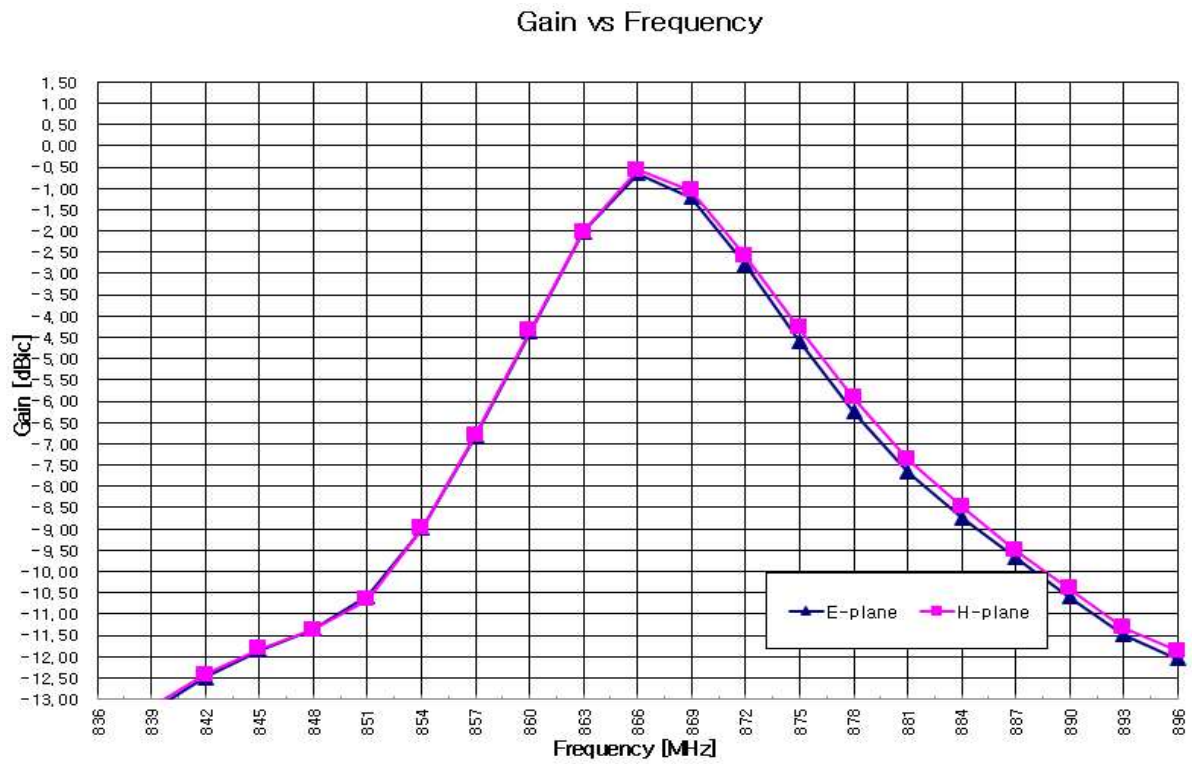
E - plane	
Frequency [MHz]	Gain [dBic]
836	-14.06
839	-13.27
842	-12.49
845	-11.85
848	-11.36
851	-10.59
854	-8.98
857	-6.81
860	-4.37
863	-2.02
866	-0.66
869	-1.22
872	-2.80
875	-4.59
878	-6.25
881	-7.67
884	-8.74
887	-9.67
890	-10.60
893	-11.48
896	-12.04

5.2 H-Plane



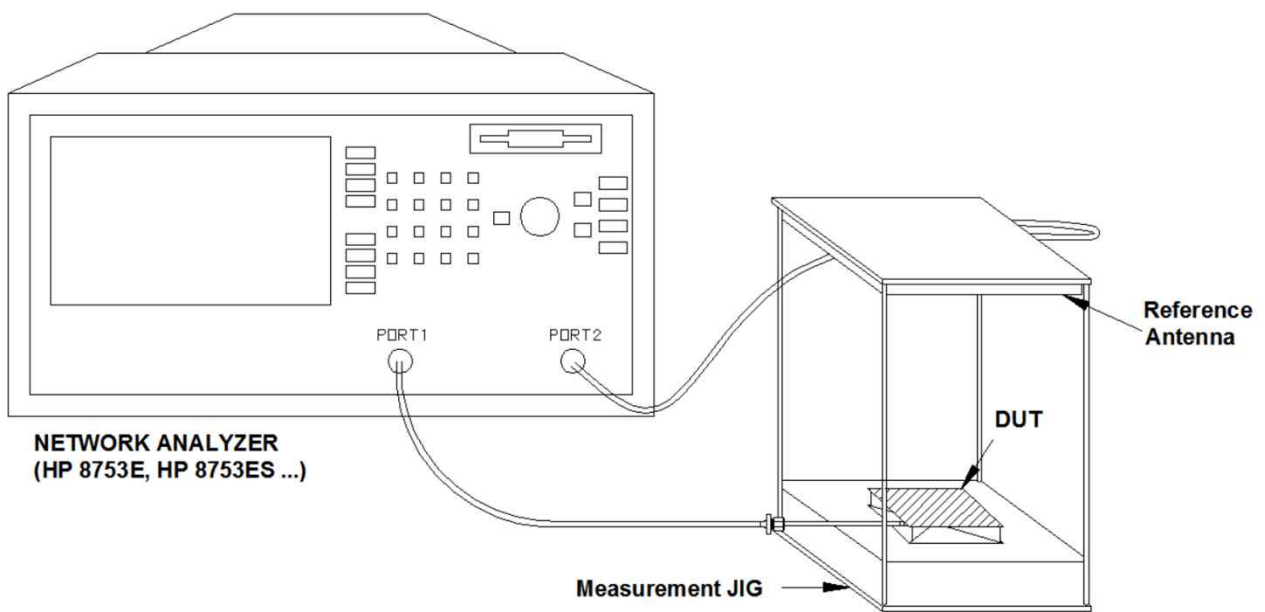
H - plane	
Frequency [MHz]	Gain [dBic]
836	-13.90
839	-13.18
842	-12.42
845	-11.82
848	-11.37
851	-10.66
854	-8.99
857	-6.79
860	-4.34
863	-2.03
866	-0.58
869	-1.05
872	-2.60
875	-4.27
878	-5.92
881	-7.38
884	-8.47
887	-9.52
890	-10.40
893	-11.32
896	-11.86

5.3 Gain vs Frequency

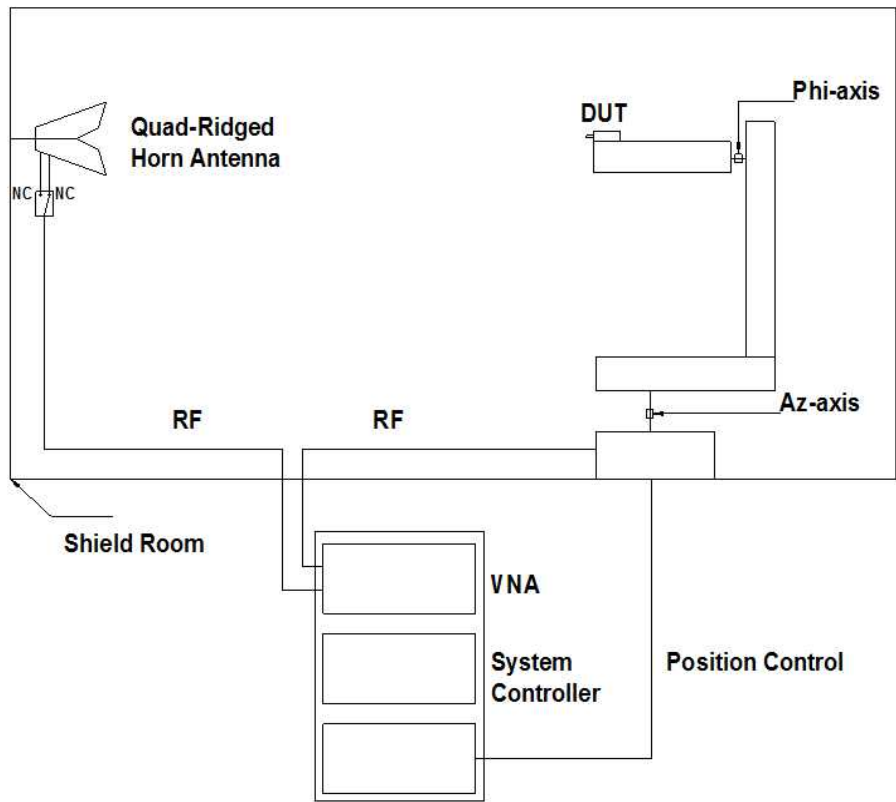


6. Measurement Condition

6.1 S-parameter Measurement



6.2 Gain Measurement



8.Revision

Revision No.	Originator	Description of Change	Date of Changes
Ver-00	JS KIM	Full specification	19-May-15

9.Address Information

PHYCHIPS Inc.

#104, 187 Techno 2-ro Yuseong-gu, Daejeon, Korea

(Yongsan-dong. Migun Technoworld 2), 34025

Web site : <http://www.phychips.com>

E-mail : sales@phychips.com

TEL : +82-42-864-2402

FAX : +82-42-864-2403

Disclaimer: PHYCHIPS reserves the right to make changes to the information in this document without prior notice. The purchase of PHYCHIPS products does not convey any license under patent rights owned by PHYCHIPS or others. PHYCHIPS does not assume any responsibility for the use of this product. It is the customer's responsibility to make sure that the system complies with regulations.

© 2018 PHYCHIPS Inc. All rights reserved. The reproduction of this document is NOT allowed without approval of PHYCHIPS Inc.