

TC-5500A 3D Rotator



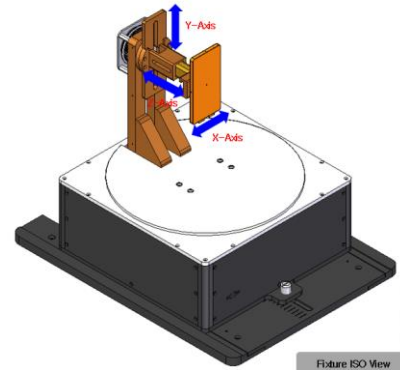
Features

- Rotation fixture for 3D radiation pattern measurement
- Cradle Base and Cradle rotate, 2-axis rotation system.
- Mechanically designed to avoid cable twist using slip ring and rotary joint
- Each part is designed and manufactured considering permittivity.
- Tick mark on the Cradle Base.

Introduction

In 5G technology, a highly directional beamforming technique is necessary to compensate for the large path loss, so adaptive beamforming (smart antenna) that adjusts the antenna in the optimal direction and beam tracking technology to track the signal are very important.

The 3D Rotator provides precision within $\pm 1^\circ$ and reliability of repeated measurements to perform these tests. In order to select the optimum position of the DUT, the DUT holder can be easily adjusted to the X / Y / Z axis according to the antenna position of the DUT.



The 3D rotator contains 2.92 mm rotary joint to provide DUT with RF signal, by which continuous rotation of AC power or data connection cable using a rotation connector, slip ring without twist is realized.

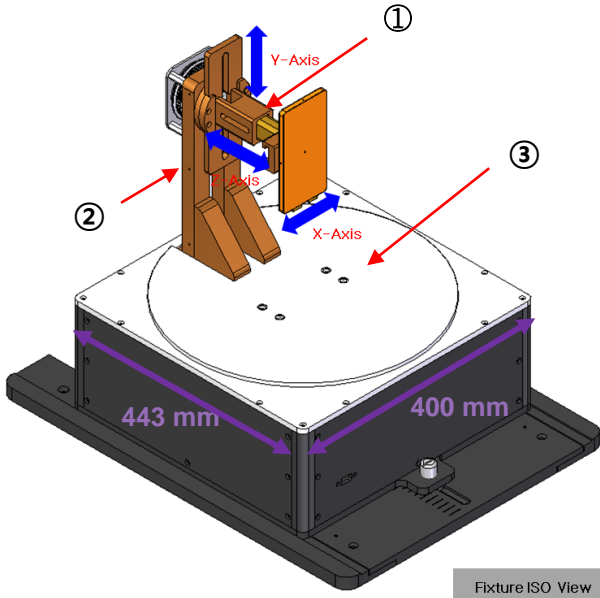
Specifications

Mechanical Specifications

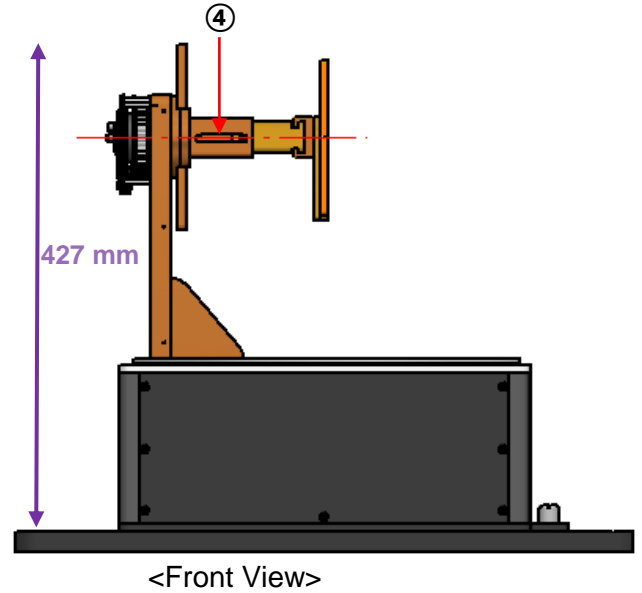
Rotation axis	Elevation and Azimuth (Automated / Homing)
Rotation Range	
Theta-Axis(EL)	0° ~ 360°
Phi-Axis(AZ)	0° ~ 180°
Rotation Speed	Elevation: 12 ~ 13 RPM Azimuth: 8 ~ 9 RPM
Positioning Accuracy	Elevation & Azimuth < 1°
Material	Resin series
Max. DUT Weight	0.5 kg
Max. DUT Size (Length x Width x Height)	162 mm x 76.5 mm x 8.8 mm
Control Interface	USB, Ethernet
Power Supply	24 V DC Adapter
Size (Length x Width x Height)	443 mm x 400 mm x 427 mm
Weight	Approx. 18 kg

Rotator Dimensions

- 3D Rotator : 443(L) x 400(W) x 427(H) mm



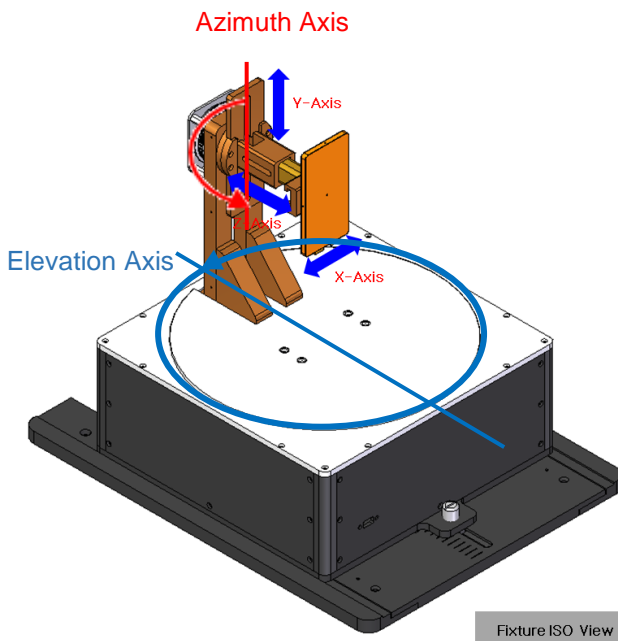
Fixture ISO View



<Front View>

- ① Cradle
- ② Cradle Support
- ③ Cradle Base
- ④ DUT Holder

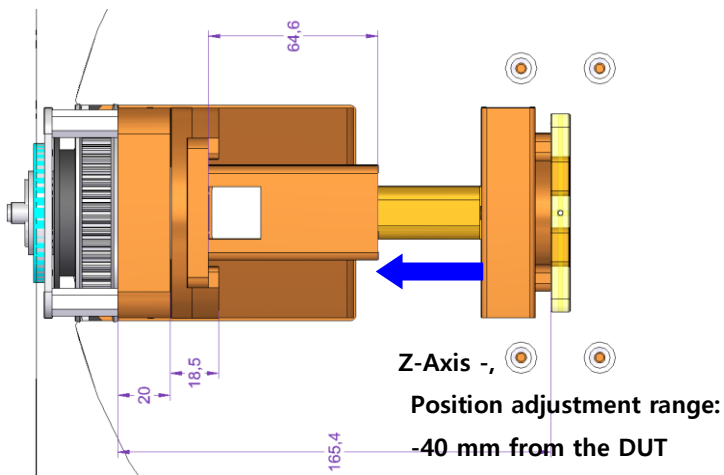
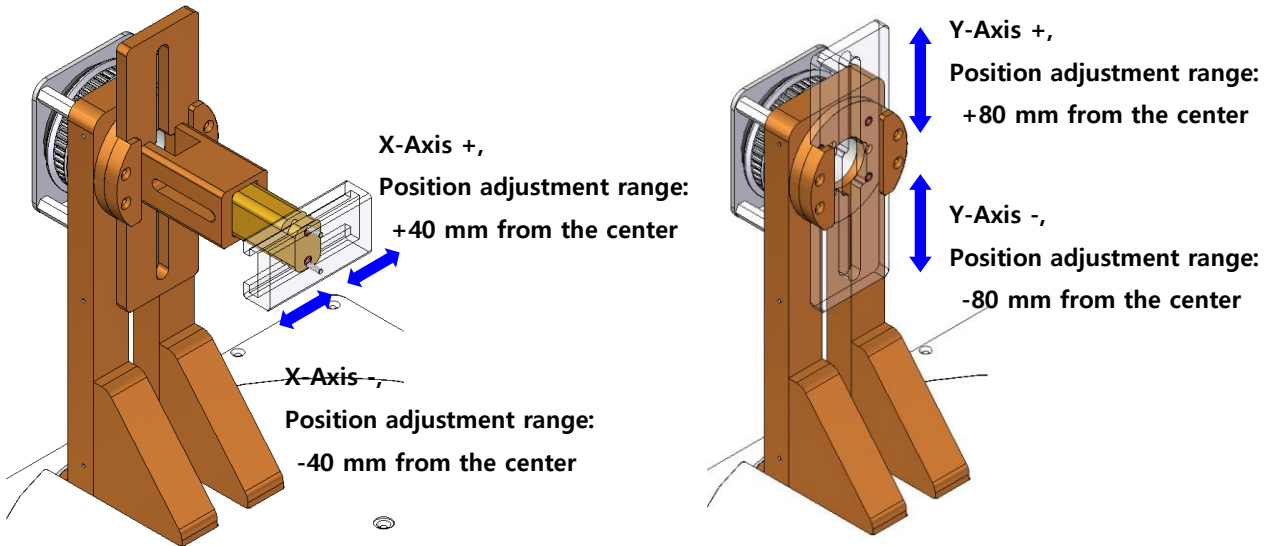
Rotation Axis



Fixture ISO View

- Elevation Axis : 0° ~ 360°
- Azimuth Axis : 0° ~ 180°

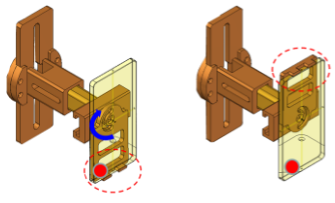
Optional DUT Holder



Ordering Information

Order Number	Description
TC-5500A	3D Rotator (Including accessories below) - 2.92 mm RF Rotary Joint -

■ DUT Holder

Fixture	Order Number	Configuration
	Customized Fixture	<ul style="list-style-type: none"> • Exclusive DUT holder for TC-5500A • Customized depending on the DUT size and antenna location
3D Rotator DUT Holder		

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE