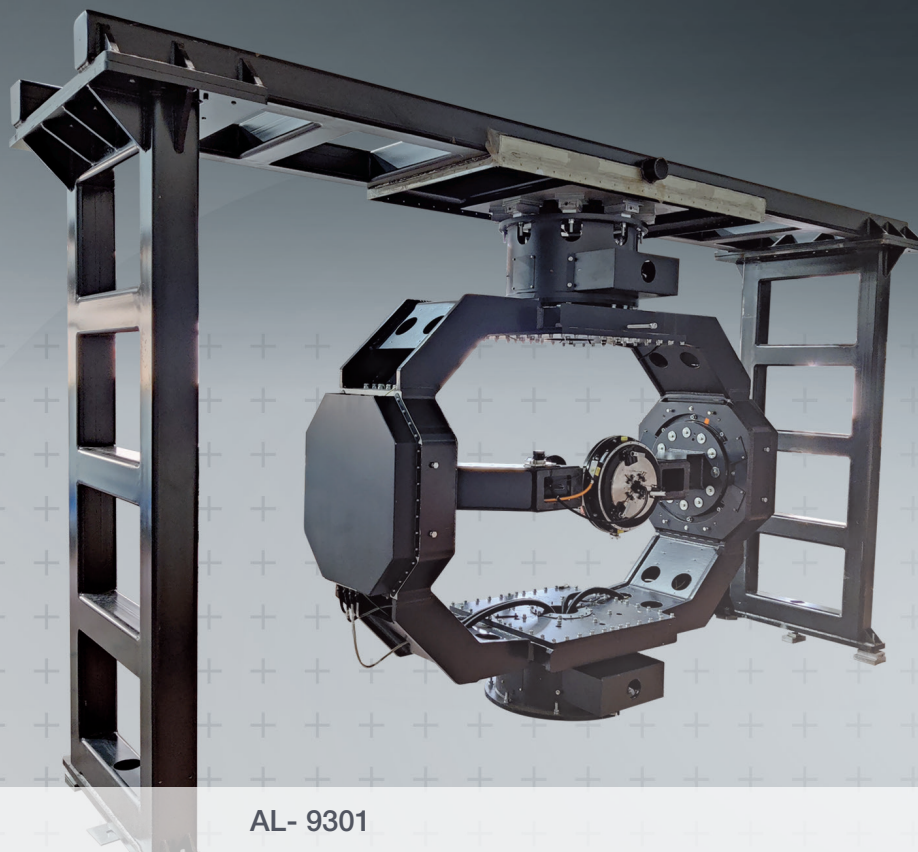**MVG**
Microwave Vision Group

AZ/EL/ROLL / NULL SEEKER

Null Seeker Positioner

AL- 9301

The **Null Seeker Positioner** is used in development and production testing to emulate flight movement of a device encasing null-seeker sensors. Its high motion dynamics and ultra-precise angular positioning, rates, and acceleration allow for accurate evaluations of null seeker technology (ie. RF signal nulls transmitted from directive antennas).

APPLICATIONS

- Null seeker testing & calibration
- Airborne target tracking
- Electro-optical device testing
- Indoor Use

PRODUCT HIGHLIGHTS

- Fast seeker head positioner
- High dynamic performance
- High inertia/ high accuracy flight motion simulation

FEATURES

- Large, 3-axis gimbal
- Repeated and defined motion cycles
- Minimum clean field of view in EL angle ± 75°, AZ ± 63°
- Roll travel range ±180° or continous
- AZ and EL with zero backlash drive system
- Max. design weight 35 Kg with reduced performance
- Accomodates large antennas (up to 25 kg)
- Limit switches and brakes to end AZ and EL movements
- Internal roll thru-hole diameter 230 mm

Specifications – Null Seeker Positioner

PARAMETER		UNITS	MODEL
			AL-9301
Dimensional Drawing Number		ICD	DCD221-0567

OPERATIONAL

Parameter	Axis	Units	Value
Travel Range	YAW	Deg	± 63
	PITCH		± 75
	ROLL		± 180[1]
Speed	YAW	Deg/Sec	60
	PITCH		60
	ROLL		170
Acceleration	YAW	Deg/Sec^2	170
	PITCH		170
	ROLL		340
Position Resolution	YAW	Deg	0.0007
	PITCH		0.0007
	ROLL		0.0007
Repeatability[2]	YAW	Deg	0.003
	PITCH		0.003
	ROLL		0.003
Stabilization Time	YAW	msec	200
	PITCH		200
	ROLL		200
Position Data Rate	YAW	Hz	1000
	PITCH		1000
	ROLL		1000

PHYSICAL

Parameter	Units	Value
Height	in	108.3
	mm	2751
Weight	lbs	8818
	kg	4000
DUT Interface Plate Diameter	in	11.97
	mm	304

ENVIRONMENTAL

Operating temperature	21° +/- 1° [3]

Dimensional drawing – AL-9301

CALIBRATION LASER

4900
2541
2556
2751
2591
1720
1376
2
1228
4200
4540

B
ROLL
FWD +180°
REV -180°
B
C   C

A   A

8 STUDS EQUALLY SPACED
Ø720

1088

3 STUDS ON EACH SIDE

4370

D   VIEW A-A   D
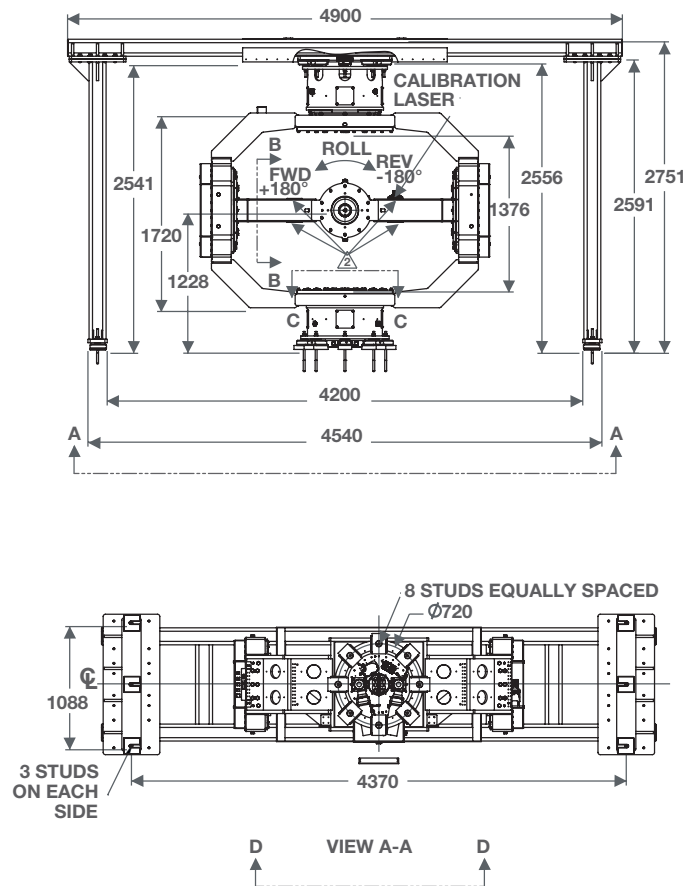
* Example drawing for general reference, please consult MVG-ORBIT/FR for ICD.

Supplied Accessories

Digital Documentation Set

User manual (installation, setup, operation & maintenance)

Technical Notes

/ 1 Continuous roll also possible

/ 2 Repeatability to zero

/ 3 To reach the specified accuracy

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For more information:
www.mvg-world.com/positioners

Contact us:
www.mvg-world.com/en/contact