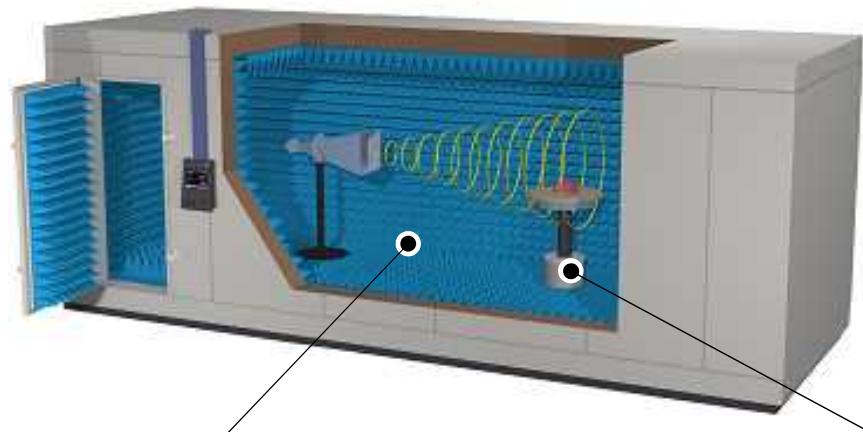


## Chambers optimized for evaluations of temperature characteristics and of high heat-dissipations of 5G base station components by over-the-air measurements

The commercialization of 5G has begun, but base stations must continue to improve throughput for future updates. In the antenna performance evaluation, it is necessary to prevent the radio wave interferences to surrounding devices and people caused by samples and require chamber to be powerful enough to compensate for the heat dissipated by the base station components.

### Temperature-controlled anechoic chamber with turntable



Temp. Range	-40 to +100C
Frequency Range	0.5 to 30 GHz
Attenuation	>60dB
Internal Dimensions WHD (mm)	14,000 3,000 7,000

Accurately temperature-controlled anechoic chamber

Espec's unique thermal control technology prevents condensations in the test area, allowing the maneuver of turntable and positioner under low-temperature conditions.

### Conditioned air supply unit for shielded box / anechoic chamber

The Precision conditioned air supply unit is to be connected to the shielded box or anechoic chamber to evaluate the antenna's performance under a temperature environment.

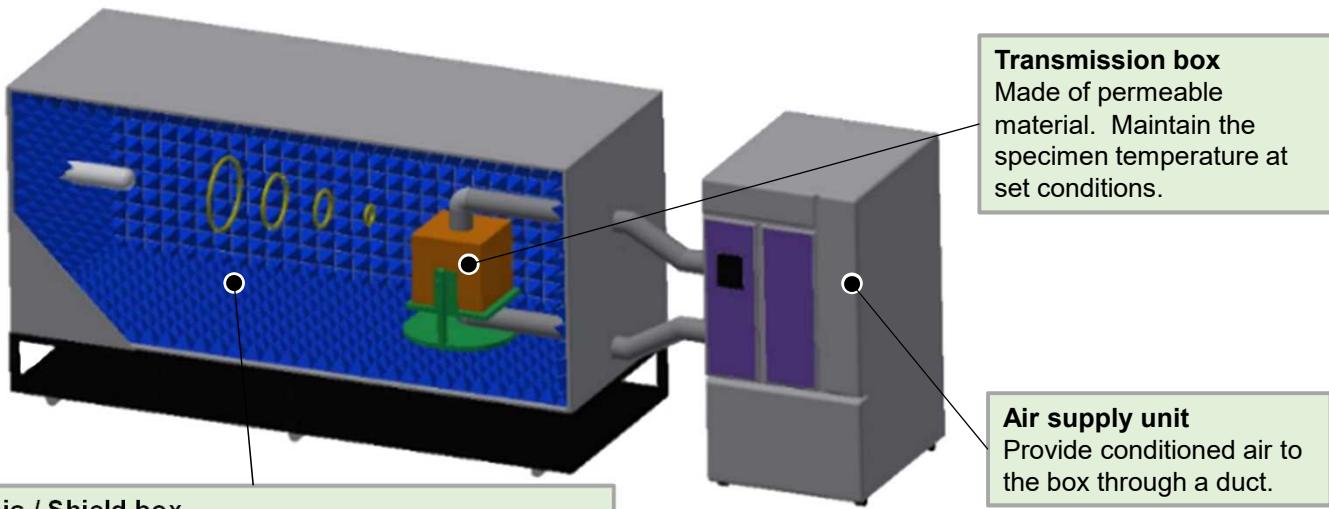
The duct is made of non-metal, and provided is a radio wave transmission box matching the specimen's size.



Temperature Range: -40 to +100C

Runs on AC power.

## Application



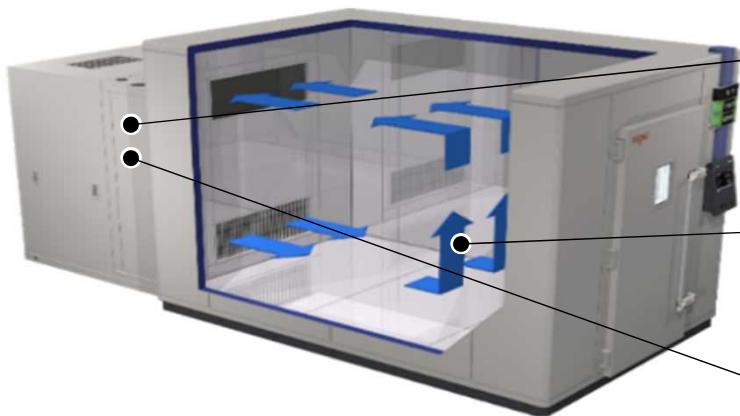
### Anechoic / Shield box

Consult ESPEC representative for connection to already-installed anechoic/shield box. ESPEC can provide both anechoic/shield box and an air supply unit as a package.

**Transmission box**  
Made of permeable material. Maintain the specimen temperature at set conditions.

**Air supply unit**  
Provide conditioned air to the box through a duct.

## Walk-in for high heat load



### Walk-in with high power refrigeration

Designed to handle high-heating components and systems for the base stations.

### Selectable air-flow direction

The flexible design allows you to select the airflow between downflow and upflow. The left showing upflow.

### Fast temperature change rate

The powerful refrigeration not only compensates the heat load but also can increase the ramp rate.

Temperature Range		-70 to +150C, 20 to 95%rh (+20 to +80C)		
Allowable Heat Load		13kW (at -40C)		
Temperature Change Rate	Cooling	3C/min (-40 to +150C)	0.5C/min (-70 to +150C)	
	Heating	3C/min (-70 to +150C)		
Size Variations		<b>TYPE 1:</b> 4.2m <sup>3</sup> (2.0m <sup>2</sup> )	<b>TYPE 2:</b> 8.1m <sup>3</sup> (3.9m <sup>2</sup> )	<b>TYPE 3:</b> 12.5m <sup>3</sup> (5.9m <sup>2</sup> )
		<b>TYPE 4:</b> 16.8m <sup>3</sup> (8.0m <sup>2</sup> )	<b>TYPE 5:</b> 25.8m <sup>3</sup> (12.3m <sup>2</sup> )	<b>TYPE 6:</b> 34.8m <sup>3</sup> (16.6m <sup>2</sup> )
		<b>TYPE 7:</b> 43.8m <sup>3</sup> (20.8m <sup>2</sup> )	<b>TYPE 8:</b> 57.7m <sup>3</sup> (25.1m <sup>2</sup> )	( ): footprint