

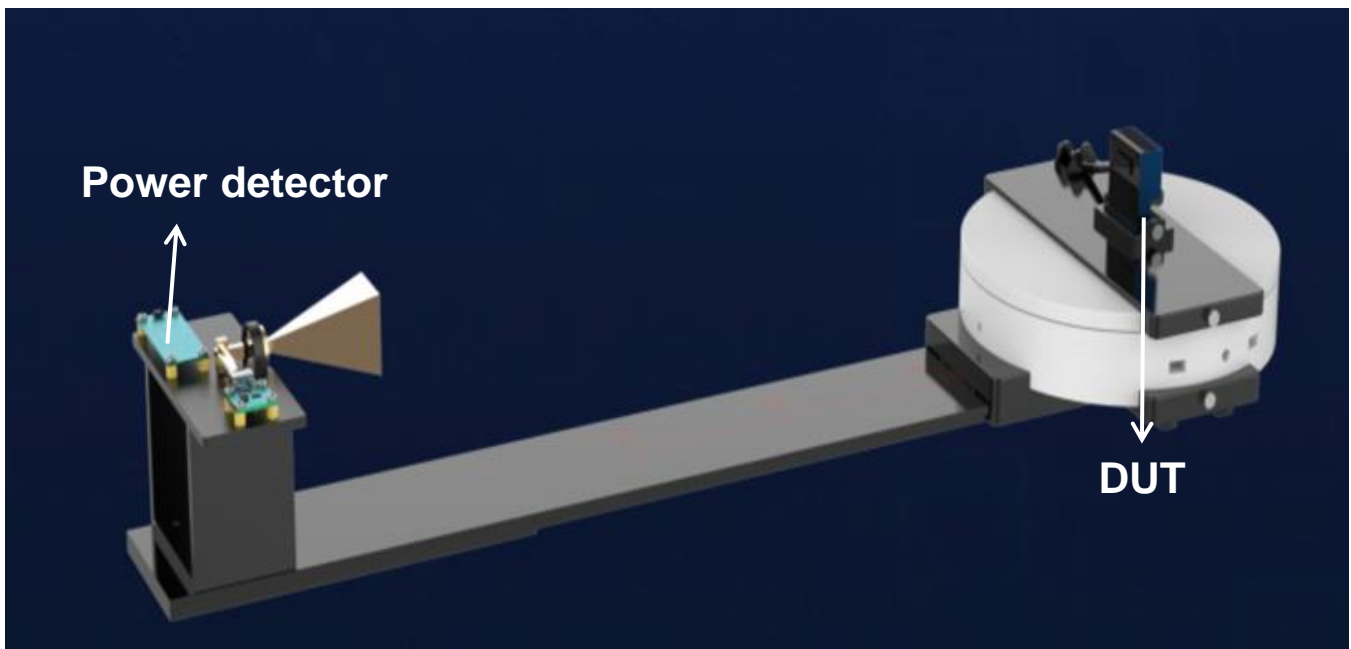
## Wideband Transceiver Platform HE-FTRX0170

### 應用情境

- 天線增益與場型量測
- Link Budget預估/ 通道增益量測
- 波束掃描
- 相位校正
- 波束成型

### ■ 量測情境-天線增益與場型量測

搭配毫米波天線設計，此設備可量測天線場型與增益，並比較量測結果與模擬的差異，分析誤差來源。



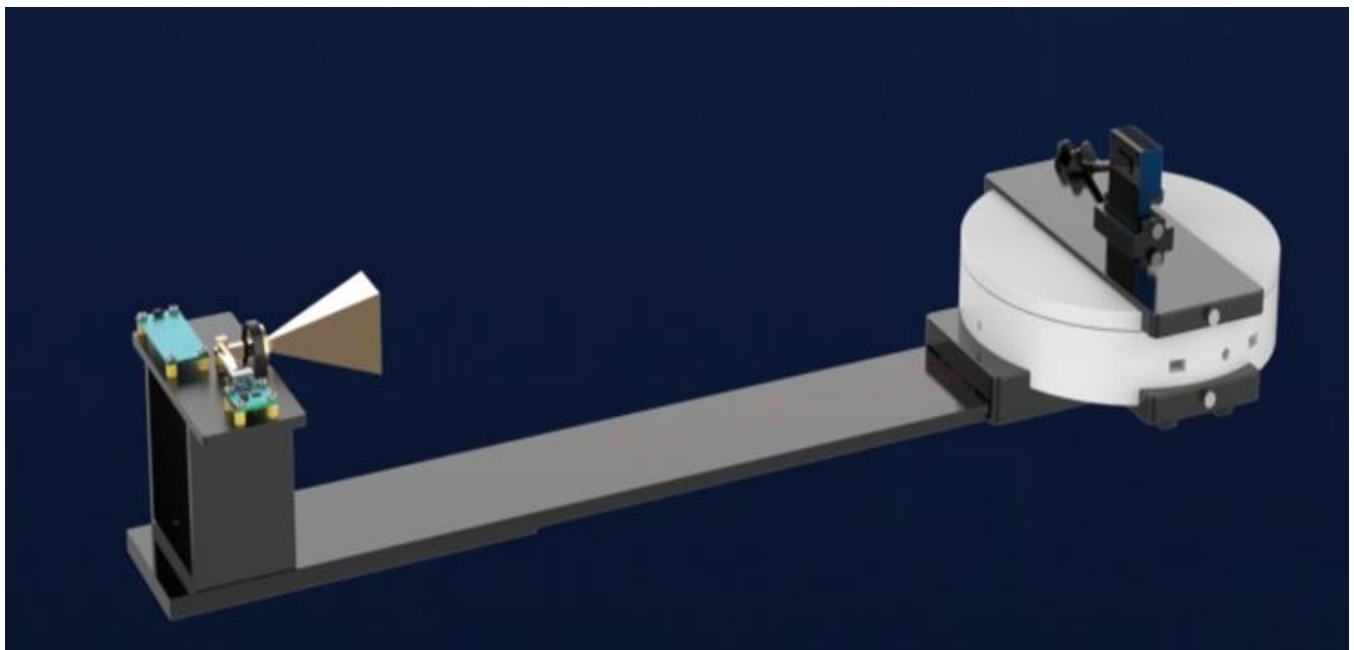
### ■ 量測情境- Link Budget預估/通道增益量測

通信信號鏈路餘量計算方法，可透過此設備了解發射功率、天線增益、通訊距離傳輸損耗、大氣損耗和接收靈敏度等關鍵參數對通信性能的影響。



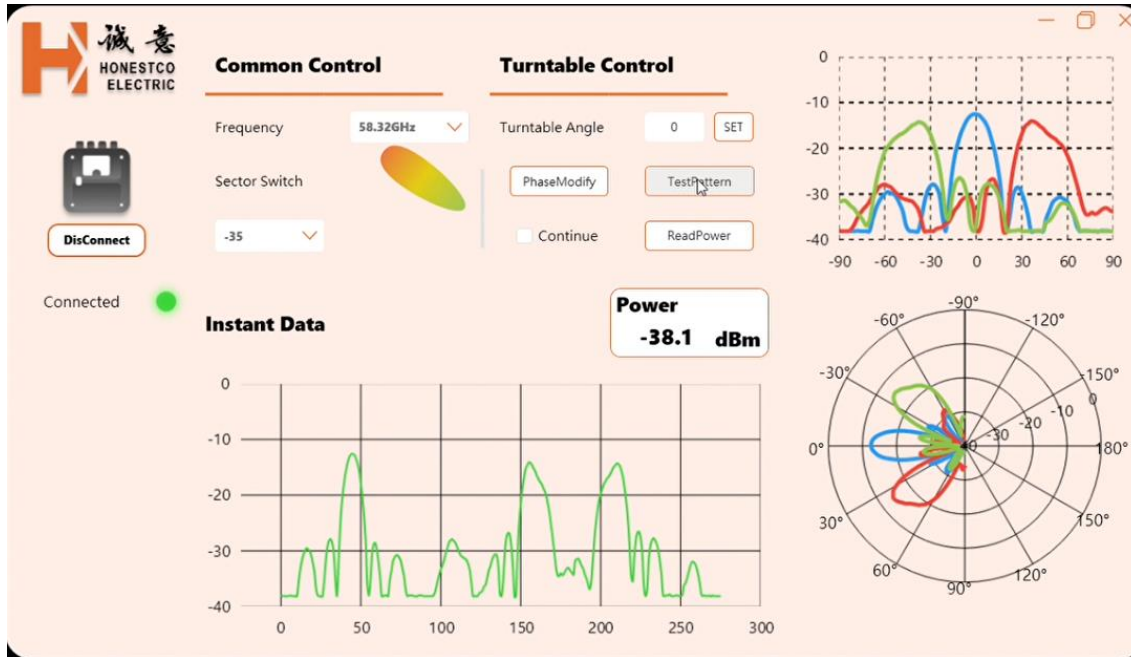
### ■ 量測情境- 波束掃描

可以透過改變饋入每個天線元件的訊號的相位來操縱輻射方向。將有效波束控制在線性陣列的目標方向上。



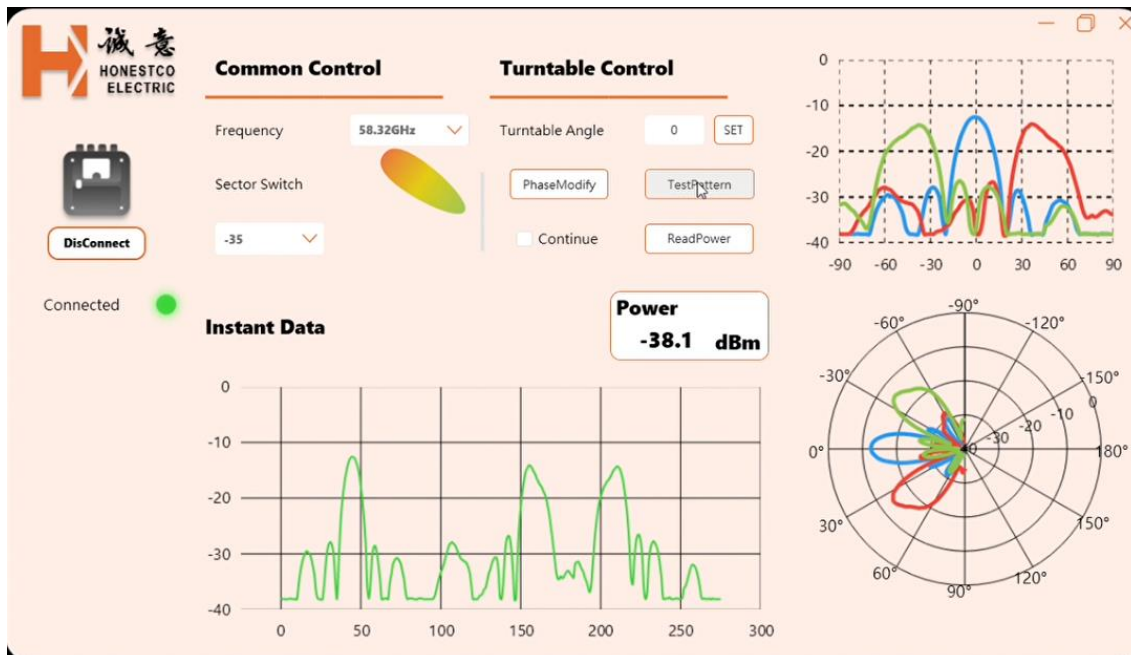
## ■ 量測情境-相位校正

通過此設備提供調整相位之功能，能根據調整個別相位來做校正。




## ■ 量測情境-波束成型

此工具附帶的軟體操控介面，能進行毫米波波束形成器的測試與演示，使用者可透過切換相位並使用功率檢測器驗證天線方向圖，從而修改毫米波模塊的場方向圖。

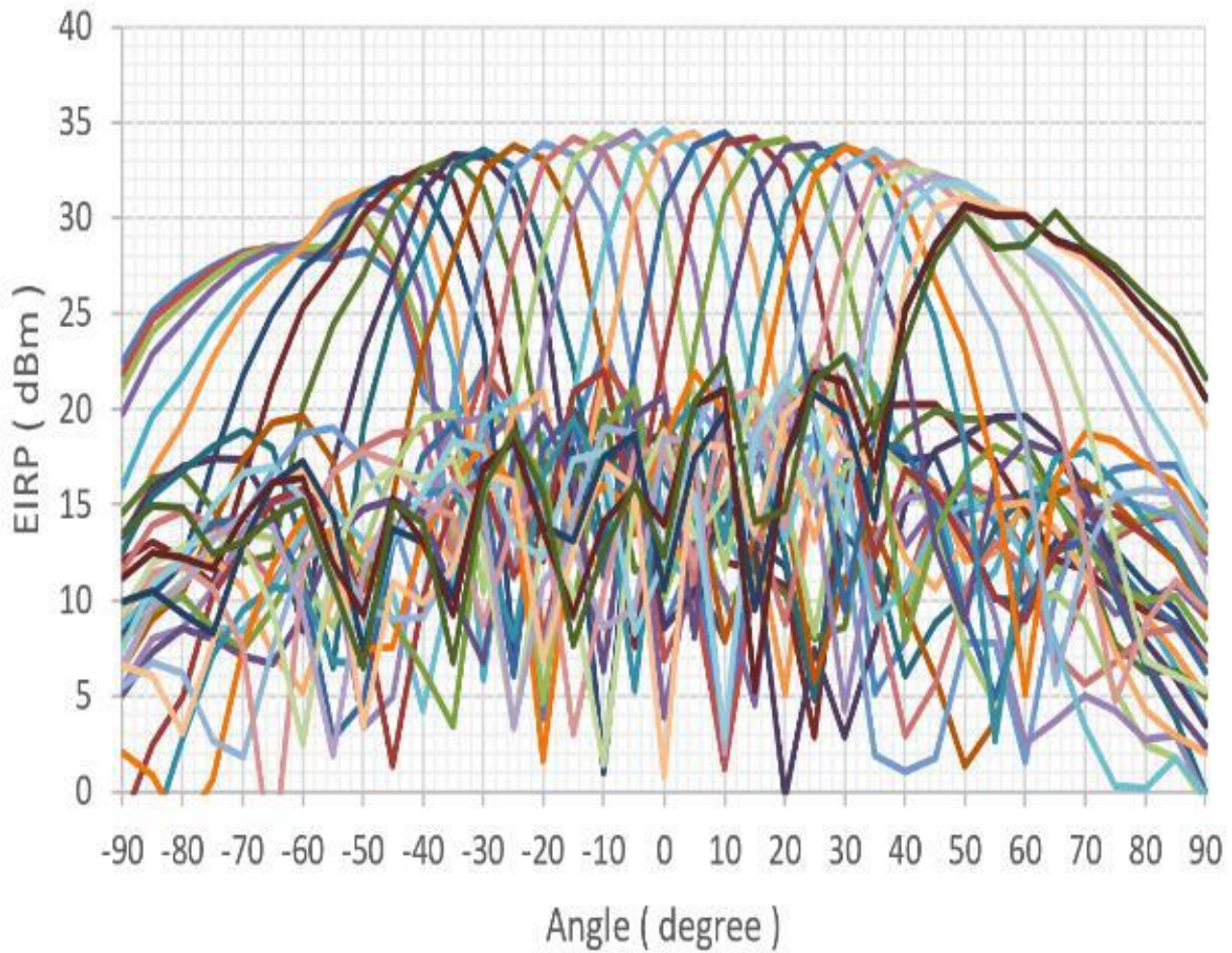


## TX Basic Information

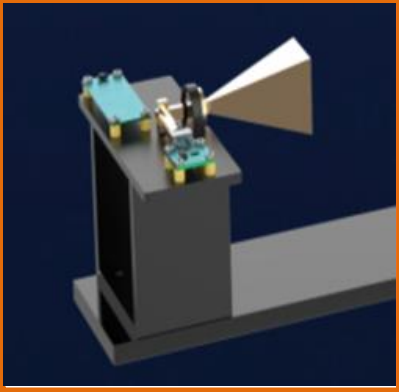
Frequency Range	57GHz~66GHz	
Channels	1 to 4	
Modulation	MCS1~9	
EIRP (Max.)	33dBm	
Antenna Gain	17.2 dBi	
Beam angle	H: 120°, V: 20°	
Throughput	1~2Gbps	
Interface	1 x Micro-B USB 3.0	
Power Supply	DC input (5V)	
Power Consumption	~3 W	
Operating Temperature	-30°C to 55°C	
Storage Temperature	-40°C to 70°C	
Environmental Humidity non-condensing	Operating: 10% to 90% Storage: 5% to 95%	
Mechanical Dimension (L*W*D mm )	60GHz module: about 35 x35 x 0.8mm (PCB) 35 x 35 x 8.3mm ( max thickness, USB socket included ) ( Heatsink is not included )	

## TX Basic Information

E-plane scanned beams compared with unit cell radiation patterns at 60.48 GHz



## RX Basic Information

Frequency Range	100MHz ~ 70GHz	
Antenna Gain	~20 dBi	
Power Supply	DC input (5V)	
Power Consumption	~0.2 W	
Sensitivity (without Antenna)	-38dBm ~ 0dBm	
Operating Temperature	-30°C to 55°C	
Storage Temperature	-40°C to 70°C	
Environmental Humidity Non-condensing	Operating: 10% to 90% Storage: 5% to 95%	
Mechanical Dimension (L * W * D mm )	about 24.3 x 24.3 x 2.1 mm	