



W1700A BT/Zigbee Antenna Check Sheet



Revision History:

Version	Date	Change Description
1.0	2026/2/25	New Release



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Antenna Specification

Ant.	Antenna Brand	Antenna. model	Antenna type	Antenna Gain (dBi)	Frequency Range from MHz to MHz	Connector type	Cable length (mm)	Cable Loss	Remark
A10-BT	AOT	Print on board	monopole	1.5	2400~2490	NA	/	/	/



W1700A BLE/Zigbee Antenna Check Sheet

Date: 2026/2/11

Test information:

Test Condition	Test Engineer	Test Environment(°C/%)	Test Date
Radiated	Changgang Lai	20-24/45-60	02.06.2026
Band(MHz)		Test Frequency(MHz)	
2400-2490		2400/2450/2490	
Testing Location			
	Address: 289 Jinghua Road,Shipai, Bacheng Town, Kunshan City, Jiangsu Province		

Instrument	Manufacturer	Model NO.	Asset No	Cali.Interval	Cali.Due Date
ENA Network Analyzer	Keysight	E5071C	NA	1 Year	2027/01/19
EMT24 Chamber	EMT-Testing	EMT24-S	NA	1 Year	2027/01/19
Horn Antenna	EMT-Testing	EMT800	NA	1 Year	2027/01/19
Logarithmic Periodic Antenna	EMT-Testing	LOG400	NA	1Year	2027/01/19



Test Method:

23 measuring probe antennas are fixed on a circular ring at equal angular intervals, while the device under test (DUT) is placed on a horizontal turntable at the center of the ring. During testing, the turntable rotates along the azimuth axis. For each azimuth-elevation angle combination (θ , φ), the RF switch matrix sequentially connects each of the 23 probes (or conducts parallel measurements). A vector network analyzer (VNA) measures and records the S21 data (complex numbers, including magnitude and phase) corresponding to each probe. Therefore, for each sampling point on the spherical surface, 23 sets of far-field data from 23 probes at different fixed spatial positions are obtained.

Depending on the size and frequency of the device under test (DUT), set appropriate sampling intervals for θ and φ to meet the far-field sampling density requirements. Integrate and process the sampled far-field data to perform far-field calculation, and then consolidate the far-field values for each θ and φ angle. This allows for a comprehensive characterization of the DUT's far-field radiation performance.

Test Procedure:

Place the device under test (DUT) at the center of a laser-aligned ring and secure it on a low-dielectric-constant foam turntable. Connect the RF cables from the vector network analyzer (VNA) into the anechoic chamber. Then, run the test software to record the electric field amplitude and phase corresponding to each θ and φ angle, thereby completing the three-dimensional sampling that encloses the entire DUT.

Test Software :

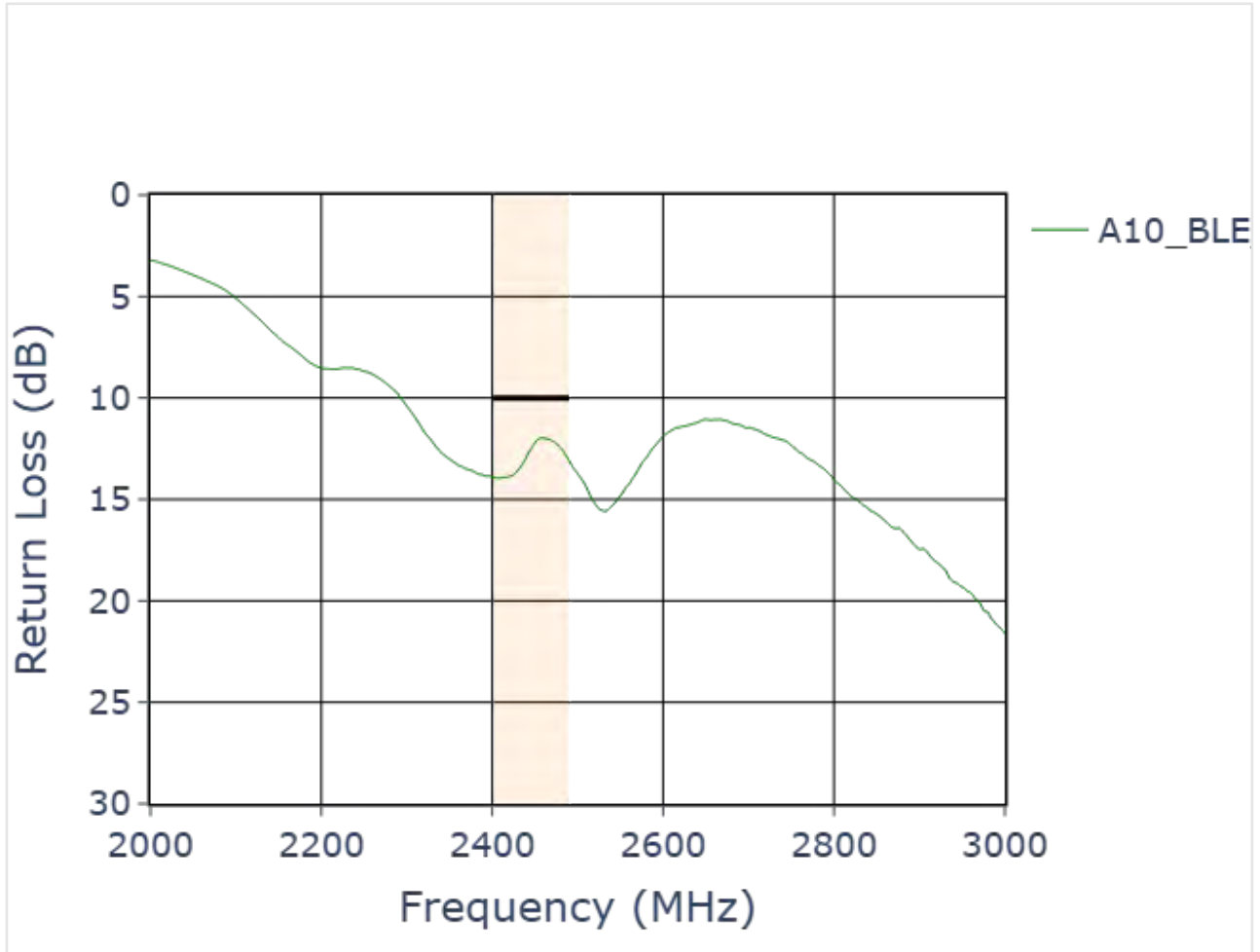
EM-Pro Antenna Measurement System



Test Result:

Return Loss

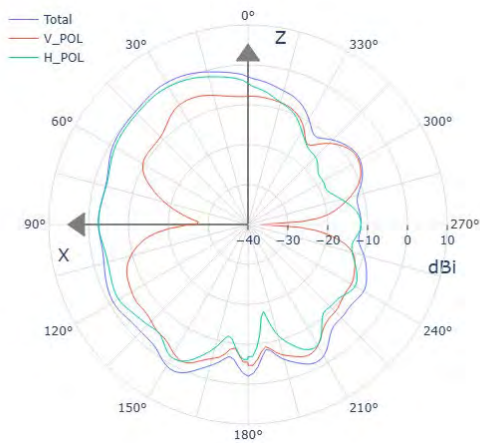
2G band



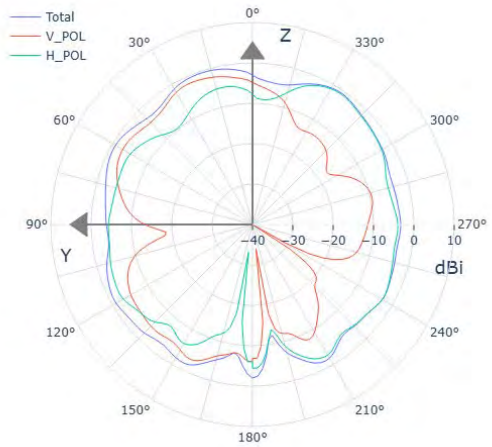


2D Radiation Patterns:

[Ant10@2.45GHz](#)



XZ-plane



YZ-plane



Antenna Gain Table:

Frequency(MHz)	Ant10 (dBi)
2400	1.5
	Theta -32 ° / phi 172 °
2450	1.3
	Theta 30 ° / Phi 26 °
2490	1.5
	Theta 154 ° / Phi 4 °



Antenna Vendor information: AOT WIRELESS TECHNOLOGY PTE.LTD

Antenna Vendor : AOT WIRELESS TECHNOLOGY PTE.LTD

Test date: 2026/02/06

Test Engineer: Changgang Lai

Address of test site: West Unit, Building 2, No. 328, Shengxi Road, Kunshan Economic Development Zone, Jiangsu Province

Measurement Setup:

Reflection Coefficient Measurement:

-Instrument : Agilent E5071C

-Setup:

VNA RF port connect to DUT

Pattern Measurement:

-Chamber : EMT-24

-Test Program:AMS

The antenna gain of the antenna model: LR was measured by AOT.

Test instrument calibration information:

Vendor	Model	Calibrated Date	Calibrated Until
Agilent	E5071C	2026/01/19	2027/01/19



Appendix

Antenna Vendor : AOT WIRELESS TECHNOLOGY PTE.LTD

Test date: 2026/02/06

Test Engineer: Changgang Lai

Address of test site: Address: 289 Jinghua Road, Shipai, Bacheng Town, Kunshan City, Jiangsu Province

Measurement Setup:

Reflection Coefficient Measurement:

-Instrument : Agilent E5071C

-Setup:

VNA RF port connect to DUT

Pattern Measurement:

-Chamber : EMT-24

-Test Software : EM-Pro Antenna Measurement System