



CALIBRATION AND TESTING SERVICES

INTRODUCTION

With the goal of providing the products and services with the highest quality, meet national and International standards, ATTECH determined to constantly improve our calibration and testing capabilities. So, ATTECH investment focused on infrastructure and human of our laboratory system, applying ISO/IEC 17025:2017 quality management system. So far, all of ATTECH's laboratories has been accredited by Bureau of Accreditation (BoA) of the Ministry of Science and Technology of Vietnam (VILAS certification). With a certified laboratory system and a team of highly qualified and experienced engineers, ATTECH committed to providing our customers the best and most reliable calibration and testing services.



CAPACITY AND EXPERIENCE

With nearly 30 years of experience in providing services, coupled with the rapid adoption of advanced quality management systems such as ISO 9001:2015, ISO/IEC 17025:2017, ATTECH ensures its capacity to provide calibration and testing services, which meets national and international standards for customers.

SERVICES

1. Calibration services for measuring equipment

- Calibration services with VILAS certificate:

No	Measurand/Calibrated equipment	Range of measurement	Calibration procedure	The best of measurement capability/The smallest uncertainty of measurement
	Field of calibration: Electricity			
1	Calibration of digital multimeters		QTHC-01	
	DC voltage	0-1020V		0.006% - 0.03%
	AC voltage	0-1020V		0.006% - 0.06%
	DC current	0-10,9999A		0.007% - 0.07%
	Field of calibration: Time - Frequency			
2	Calibration of VOR/ILS avionics signal generators	Frequency Time Base Accuracy: 10 MHz	QTHC-03	6×10^{-9}
		Accuracy of SDM (Sum of Depth Modulation) (ILS signal): 0 to 90%		1.5%
		Accuracy of VOR signal 30MHz		M=1.5%; F=0.7%
		Accuracy of VOR signal 9960MHz		M=1.5%; F=0.007%
3	Calibration of VOR/ILS avionics signal measuring equipments	Accuracy of SDM (Sum of Depth Modulation) (ILS signal): 0 to 90%	QTHC-04	2.1%
		Accuracy of VOR signal 30MHz		M=2.1%; F=0.2%
		Accuracy of VOR signal 9960MHz		M=1.5%; F=0.00058%
4	Calibration of frequency counters: Frequency from 10Hz to 1350MHz	Frequency Time Base Accuracy: 10 MHz	QTHC-02	6×10^{-9}

- Other calibration services:

In addition to the above VILAS accredited calibration services, ATTECH also provide calibration services for many types of measuring equipment such as: Oscilloscope, DC/AC power supplies, audio test set,...



2. Optical measurement and testing services:

Provides measurement and testing services with VILAS certificate as follow:

No	Materials or products tested	The name of specific tests	Detection limit	Test methods
1	Lighting products	Testing luminous intensity base on luminance	0.25-337 500 cd	QTTN-01
2	Working room, industrial building, public works	Measuring of luminance	0.01-199900 lux	TCVN 5176:1990
3	Directly illuminate surface	Measuring of luminance	0.01-19990 cd/m2	QTTN-02

3. Environmental testing services:

Provides testing services with VILAS certificate as follows:

No	Materials or products tested	The name of specific tests	Detection limit	Test methods
1	Electrical - Electronic, mechanical products (navigation aids)	Test for proper operation in the environment with unchanged temperature and humidity (Visually check before and after the test)	Temperature at 30 or 40°C Humidity at 85 or 93% RH	QTTN-03
2		Test for proper operation in the environment with low temperature (Visually check before and after the test)	Temperature within (-20 + 0)°C	QTTN-04
3		Test for proper operation in the environment with high temperature (Visually check before and after the test)	Temperature within (30 + 55)°C	QTTN-05

INFRASTRUCTURE

ATTECH's testing and calibration laboratory system, which has modern and synchronized infrastructure, complies with requirements of the quality management system ISO/IEC 17025:2017, guaranties to provide the best service to customers.

For equipment calibration services, our laboratories are fully equipped with modern measuring equipments, high accuracy, wide measuring range, which supplied by famous manufacturers such as Fluke, Agilent, Rohde & Schwarz...Those equipments are regularly calibrated in Vietnam Metrology Institute so that they provide the most accurate and reliable calibration results.

For Optical measurement and testing services, our laboratories are equipped with modern optical measuring system, are controlled by software with pre-programmed measurement methods to ensure fast measurement results, accurate and most reliable.

For Environmental testing services, our laboratories are equipped with a large environmental test chamber size 5x3x2(m) and modern measurement and control equipments to ensure providing testing services for many types of products with various size.

STANDARD APPLIED

ATTECH's laboratory system meet many national and international standards such as:

- ISO 9001:2015
- ISO/IEC 17025:2017
- Standards of International Civil Aviation Organization (ICAO): ICAO Annex 14.
- Vietnam Standards: TCVN 5176:1990.

Attachments

Decision No. 646.2019/QĐ-VPCNCL dated 17/09/2019 of BoA.