NMR Quantum Products & Services

Brochure

Bringing Quantum Computer to Life

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Official Website

Linkedin

CONTENTS

Products

NMR quantum computers, based on nuclear magnetic resonance technology, leverage the spin properties of atomic nuclei as qubits, which are manipulated and read through RF pulses to perform quantum computations.
SpinQ has developed a range of NMR quantum computers, offering comprehensive solutions for quantum computing education and outreach. Our products are equipped with specialized teaching materials, enabling individuals with diverse backgrounds to quickly grasp the fundamentals of quantum computing and its programming techniques.

Hardware Advantages	Software Advantages	Application Advantages
Global leading miniaturized design	Supports quantum programming	Diverse uses, including education and research
Easy operation, stable, and maintenance-free	Flexible design & real data feedback	Varied quantum computing examples and models
Open access to bottom-level operations	Customizable quantum control pulses	Wide user base with robust support

SPINQ Gemini 2-qubit

Size：600*280*530mm
Weight：44Kg

SPINQ Triangulum Mini 3-qubit

Size：200*350*260mm
Weight：16kg

SPINQ Triangulum 3-qubit

Size：610*330*560mm
Weight：44kg

2021 2022 2023 2024

SPINQ Gemini Mini/Mini Pro 2-qubit

Size：200*350*260mm
Weight：14Kg

SPINQ Gemini Lab 1~3-qubit

Size：259*396*427mm(Open)
991*396*222mm(Close)
Weight：18.5Kg

SPINQ Gemini Lab

QUANTUM COMPUTING EXPERIMENTAL PLATFORM

As a one-stop experimental platform, it covers everything from quantum mechanics to computing. Equipped with advanced Radio Frequency technology and a highly open architecture, SPINQ Gemini Lab supports experiments from pulse-level to gate-level, and algorithm-level, making it ideal for both teaching and research in higher education.

Full Access to Bottom-Level Operations

1.Experimental samples can be replaced.
2.Hardware can connect to external devices.
3.Customizable quantum experiment process.

Visualized Quantum Experiments

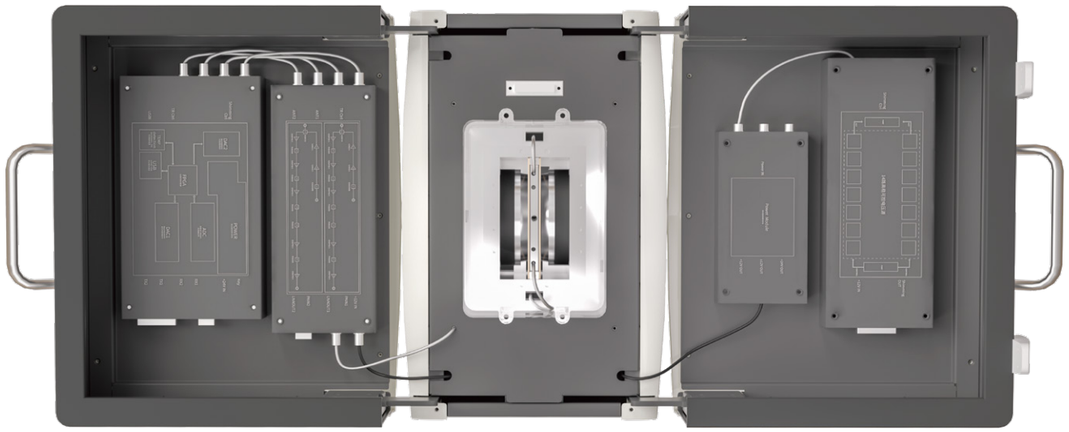
1.Open hardware structure.
2.Real quantum experimental data.
3.Various charts and graphs of data.
4.Schematic animation of principles.

Full Coverage of Quantum Information

1.Physical principles of quantum computing.
2.Algorithmic principles of quantum computing.
3.Various quantum information technologies.
4.Research-oriented quantum experiments.

Various Applicable Scenarios

1.Teaching of experimental courses.
2.Teaching of theoretical courses.
3.Conducting experimental research projects.
4.Conducting popular science activities.



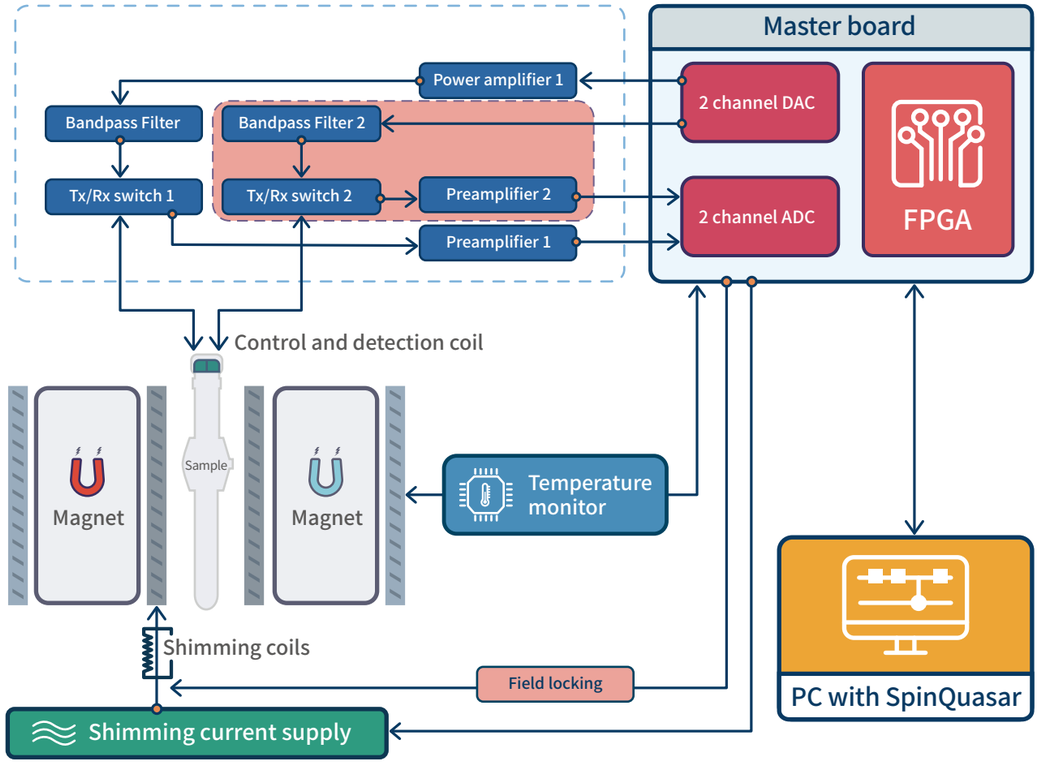
Specifications

Quantum State Control and Readout System	Qubit Count		1~3
	Coherence Time	T1	~10s
		T2	~300ms
	Best Quantum Gate Fidelity		~0.995
	Spectral Line Resolution(H Spectrum)		~32Hz
	Qubit resonance frequency(-H/-P/-F)		27.0±1 MHz/11.0±0.5MHz/22.5±1MHz
Hardware	Power Supply		100~240V AC; 50/60Hz; Single-phase
	Power		~60W
	Size (High*Width*Length)		259*396*427mm(Close)
			991*396*222mm(Open)
	Weight		18.5Kg

Product Principle

NMR quantum computing uses nuclear spin as qubits, capable of being in 0, 1, or a superposition of both. RF pulses control these spins for quantum logic operations, with results obtained through NMR signal measurements.

Nuclear spins have longer coherence times than other qubit systems, enabling more complex quantum operations. Additionally, established NMR technology ensures precise control and measurement, making it a reliable tool for quantum computing research and education.



This is an overview of the NMR system diagram. The mainboard includes an FPGA chip for controlling the NMR system. The software interfaces with the FPGA via USB, enabling user access. The magnet, shimming system, and locking system maintain a stable, uniform magnetic field. The RF module amplifies control pulses and detects qubit signals.

Physical Control and Algorithm Applications

The NMR quantum computer series offers users a flexible and precise quantum computing experience. Users can directly manipulate the quantum system at the physical level for computational tasks or foundational research, or leverage higher-level quantum logic gates and circuits for studying and developing quantum algorithms.

Physical Principle

Nuclear Magnetic Resonance & Signal	Rabi Oscillation	Quantum Bit
Quantum Decoherence	Quantum Control	Quantum System Initialization
Quantum Logic Gates & Circuits	Quantum Tomography	Quantum Computing Tasks

Algorithm Applications

Bernstein-Varirani Algorithm	Deutsch-Josza Quantum Algorithm	Grover Algorithm
Quantum Fourier Transform (QFT)	Variational Quantum Eigensolver (VQE) Algorithm	Classical-Quantum Hybrid Algorithm



Expansion and Practice

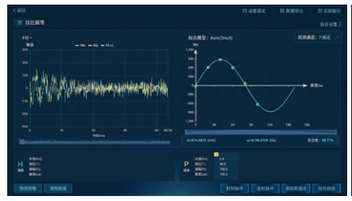
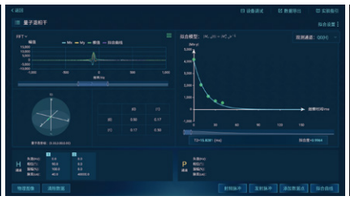
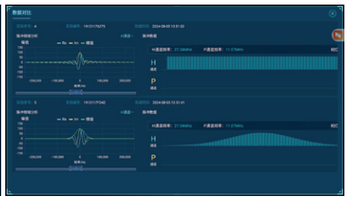
The NMR quantum computer series product, based on the principles of nuclear magnetic resonance, has highly open capabilities for pulse editing and spin dynamics control. Given the features of this device, users can not only study quantum computing, but also explore the implementation principles and technology of various quantum information technologies such as quantum control technology, quantum precision measurement, quantum communication, and quantum simulation.

Integrated Quantum Technology

Spin Echo	Dynamic Decoupling	Shaped Pulse
Strongly Modulated pluse	Spin Magnetic Resonance	Rabi Measurement Method
Ramsey Interference	Quantum Communication Protoco	Quantum Simulation

Research Experiments

Quantum System Parameters	Quantum System State Monitoring	Physical Layer Experiment
Circuit Layer Experiment	Experiment Result Evaluation	Data Processing

Application Directions

1.University-Level Experimental Teaching

It translates quantum information technology into practical, hands-on teaching experiments, moving it from research labs to university classrooms. It supports a variety of experiments, including quantum computing principles,quantum algorithms, quantum control, quantum simulation, quantum precision measurement, quantum communication protocols, and NMR. Paired with university-tailored manuals, it provides a comprehensive solution anddiverse options for experimental education.

2.Quantum Education

It’ s a comprehensive teaching tool for cultivating talent in quantum information science. It covers key topics like quantum measurement and control, algorithms, simulations, and programming languages. It's versatile and suitable for theoretical lessons, experiments, and research projects.

3.Research Experiments

This versatile platform supports quantum computing, quantum dynamics, and quantum control research, andalso functions as a compact NMR spectrometer for nuclear magnetic resonance studies.

4.Popular Science

This device features interactive experiments that clearly illustrate key concepts, making it perfect for hands-on demonstrations in museums or science centers.

SPINQ Gemini

Built on a 2-qubit real quantum computing design, SpinQ Gemini supports operations with hundreds of single-qubit gates or dozens of two-qubit gates through software. It intuitively displays the quantum computing process and results, offering a comprehensive, flexible platform for designing experiments—ideal for education and demonstrations.

Classroom-Friendly

1. Small and lightweight
2. Excellent stability in room temperature
3. Maintenance-free and cost-effective

Reliable Quantum Computation

High fidelity for single-qubit and two-qubit gates.

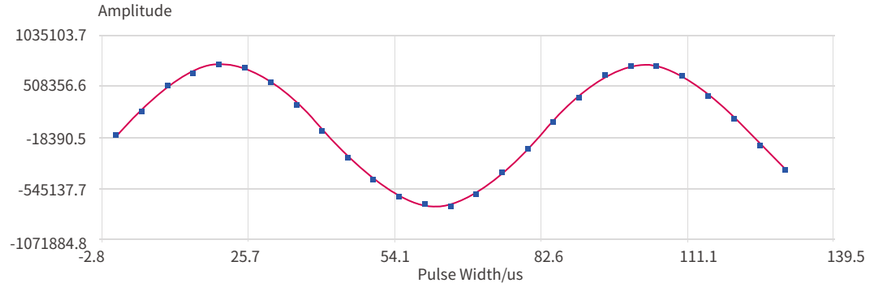
Diverse Algorithms Examples

more than 10 quantum algorithm teaching examples

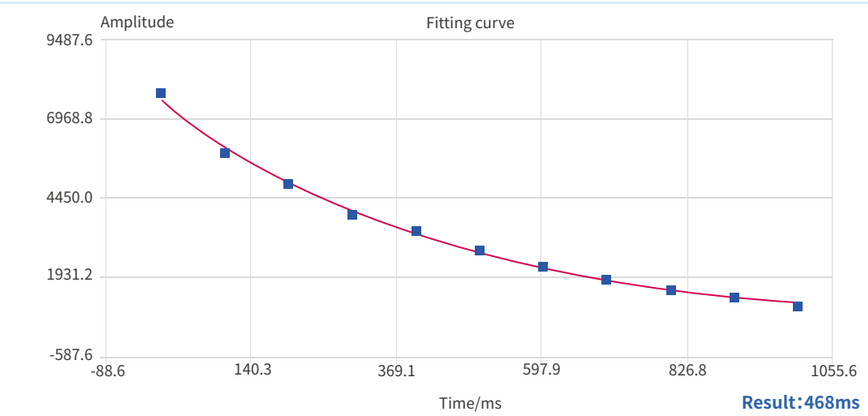
Qubit Count		2
Coherence Time	T1	~12s
	T2	~350ms
Single-Qubit Gate Fidelity		~0.996
Two-Qubit Gate Fidelity		~0.993
Qubit resonance frequency (-H/-P/-F)		36.0±1MHz/15.9±0.5MHz/33.9±1MHz
Pulse resolution		10ns
90° pulse width		~20us
Phase resolution		0.01°
Spectral line resolution (H Spectrum)		~36Hz/1.0ppm

Measured Parameters

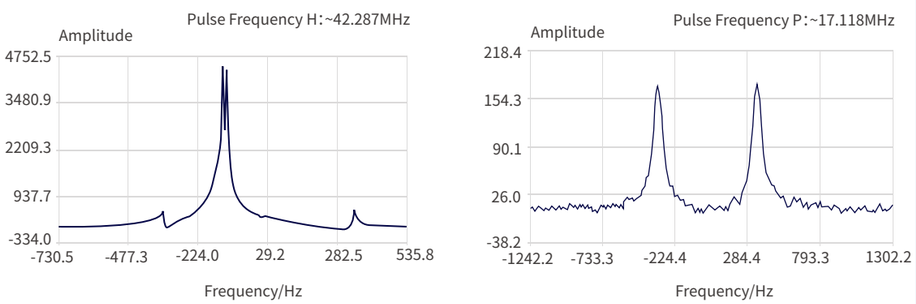
Rabi oscillation frequency



Coherence Time



Thermal Equilibrium Epectrum of the Sample



SPINQ Triangulum

It provides a complete solution for quantum computing education and demonstrations, supporting any 3-qubit quantum algorithm and allowing users to freely write quantum programs. It also features open hardware-level pulse sequence editing. And it is cost-effective, maintenance-free, and highly stable.

Classroom-Friendly

1. Small and lightweight
2. Excellent temperature control and stability
3. Maintenance-free and cost-effective

Wide Audience and Custom Services

1. Ideal for universities, research institutions, and science centers
2. Reliable and tailored support

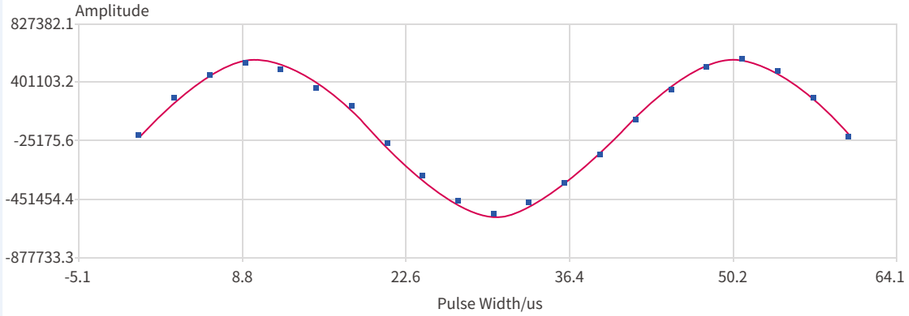
Real Quantum Computation

1. Built on nuclear magnetic resonance
2. True quantum experiments with dependable results

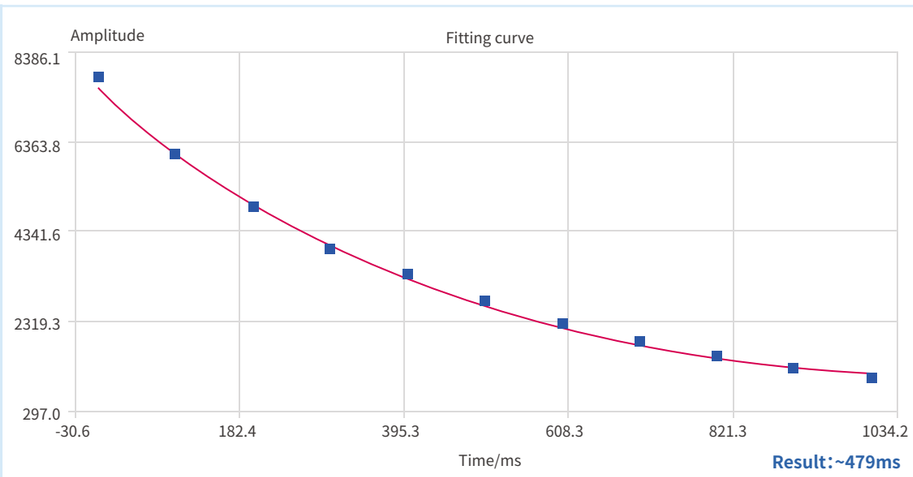
Qubit Count		3
Coherence Time	T1	~15s
	T2	~400ms
Single-Qubit Gate Fidelity		~0.99
Multi-Qubit Gate Fidelity		~0.97
Qubit resonance frequency (-H/-F)		36.0±1MHz/33.9±1MHz
Pulse resolution		10ns
90° pulse width		~10us
Phase resolution		0.01°
Spectral line resolution (H Spectrum)		~36Hz/1.0ppm

Measured Parameters

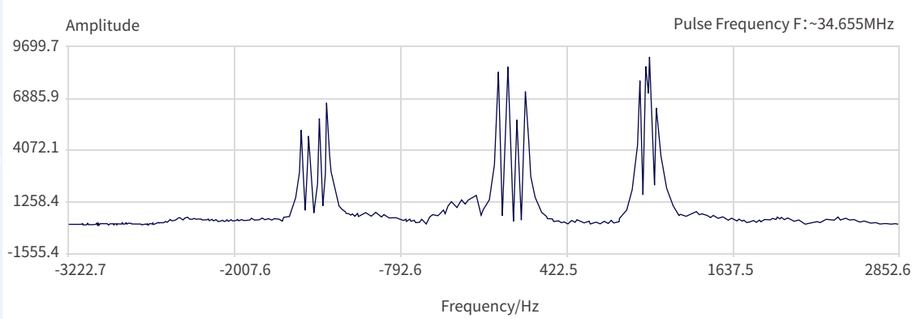
Rabi oscillation frequency



Coherence Time



Thermal Equilibrium Epectrum of the Sample



SPINQ Gemini Mini/Mini Pro

It provides a complete solution for quantum computing education and demos, with a built-in touchscreen, control system, and curriculum for teaching and self-learning. It enables people with diverse academic backgrounds and knowledge levels to quickly grasp quantum computing basics and algorithm design.

Open Teaching

1. Combination of theory and hands-on experiments
2. Small group collaboration
3. Open learning environment

Real Quantum Computation

1. Built on nuclear magnetic resonance
2. True quantum experiments with dependable results

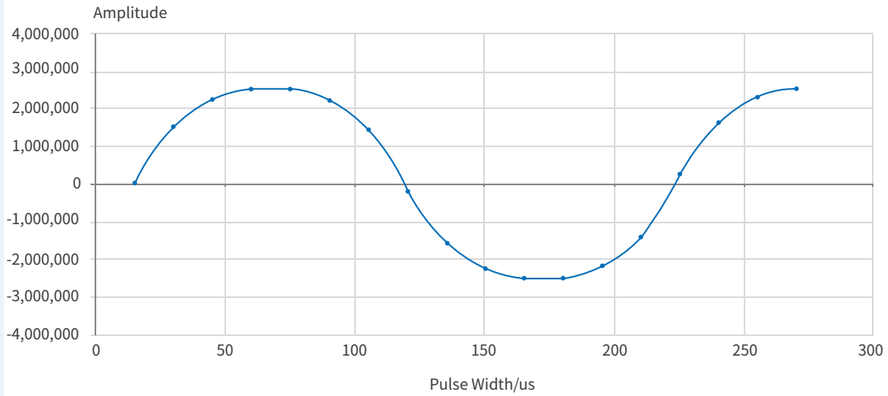
Streamlined Control Experience

1. User-friendly touchscreen and control system
2. An all-in-one operation without external devices

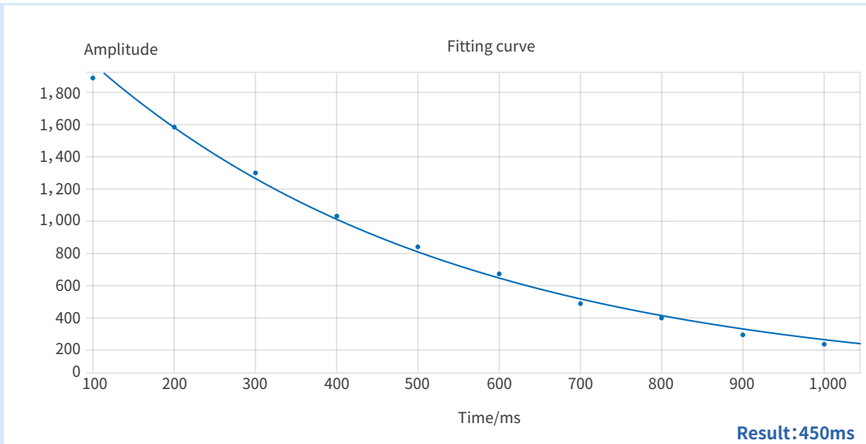
Version		Gemini Mini	Gemini Mini Pro
Qubit Count		2	
Coherence Time	T1	~8s	~10s
	T2	~200ms	~300ms
Single-Qubit Gate Fidelity		~0.99	~0.996
Two-Qubit Gate Fidelity		~0.98	~0.993
Qubit resonance frequency (-H/-P/-F)		27.0±1MHz/11.0±0.5MHz/22.5±1MHz	
Pulse resolution		100ns	10ns
90° pulse width		~50us	
Phase resolution		0.1°	0.01°
Spectral line resolution (H Spectrum)		~50Hz/1.8ppm	~32Hz/1.2ppm

Measured Parameters

Rabi oscillation frequency

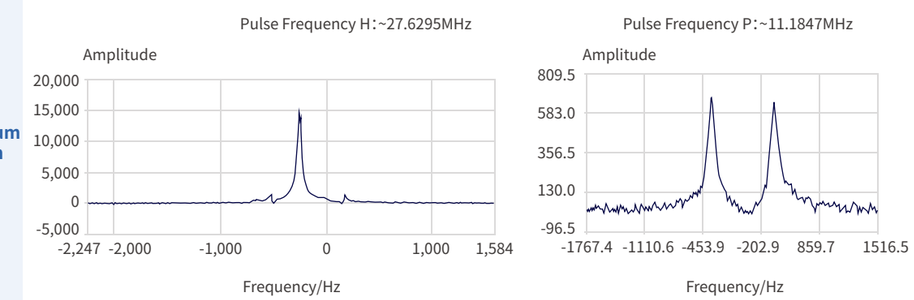


Coherence Time



Result:450ms

Thermal Equilibrium Epectrum of the Sample



SPINQ Triangulum Mini

The SpinQ Triangulum Mini is a compact, integrated version of the SpinQ Triangulum. It features a newly designed pulse control system that supports a broader range of 3-qubit gate operations, enabling more complex quantum circuits and advanced quantum algorithms. It serves as an ideal platform for teaching university-level physics, quantum mechanics, and quantum information, as well as for research in quantum algorithms and simulations.

More Qubits

1. More quantum gates
2. A wider range of experiments

New Pulse Design

Meets the performance requirements for 3-qubit experiments

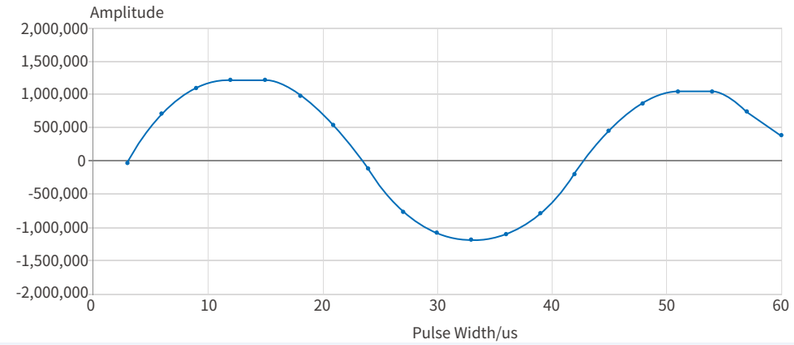
Comprehensive Built-In Courses

1. A wide range of topics for diverse teaching needs
2. Ideal for educators, students, and tech enthusiasts

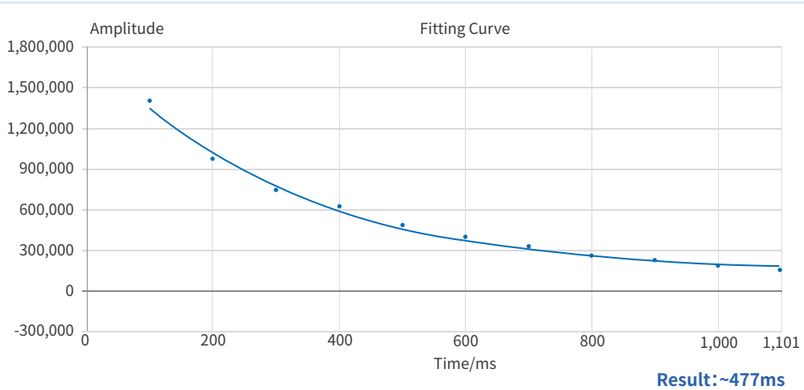
Qubit Count		3
Coherence Time	T1	~10s
	T2	~300ms
Single-Qubit Gate Fidelity		~0.98
Two-Qubit Gate Fidelity		~0.96
Qubit resonance frequency (-H/-F)		27.0±1MHz/25.5±1MHz
Pulse resolution		100ns
90° pulse width		~10us
Phase resolution		0.1°
Spectral line resolution (H Spectrum)		~32Hz/1.2ppm

Measured Parameters

Rabi oscillation frequency

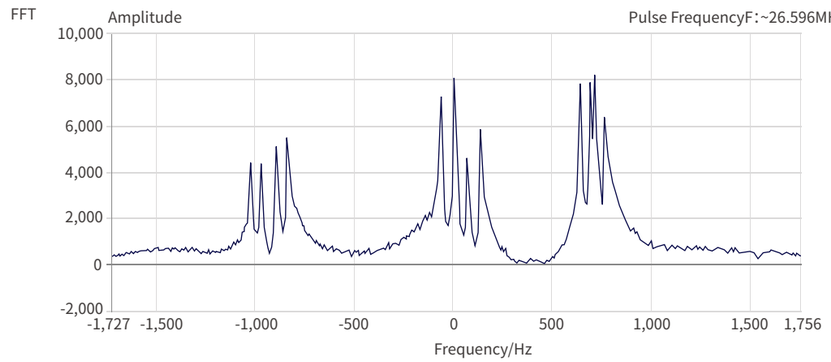


Coherence Time



Result:~477ms

Thermal Equilibrium Epectrum of the Sample



SpinQit

Quantum Computing Programming Framework

It supports quantum programming based on Python, provides users with rich quantum algorithm interfaces, supports cross-platform execution, realizes connection with quantum computers, quantum simulators, and the SpinQ cloud platform, and provides new, flexible, and efficient software tools for developers or scientific research enthusiasts.

Python Syntax

The software tools use a Python frontend, making them easy to learn and integrate with classical computing.

Customizable Quantum Programs

Users can write custom quantum gates or functions, providing strong extensibility.

Multiple Platforms

Quantum programs can be executed on quantum computers, simulators, and cloud platforms.

Built-In Optimizer

The compiler offers circuit optimization algorithms, reducing complexity and improving efficiency.

Modular Architecture

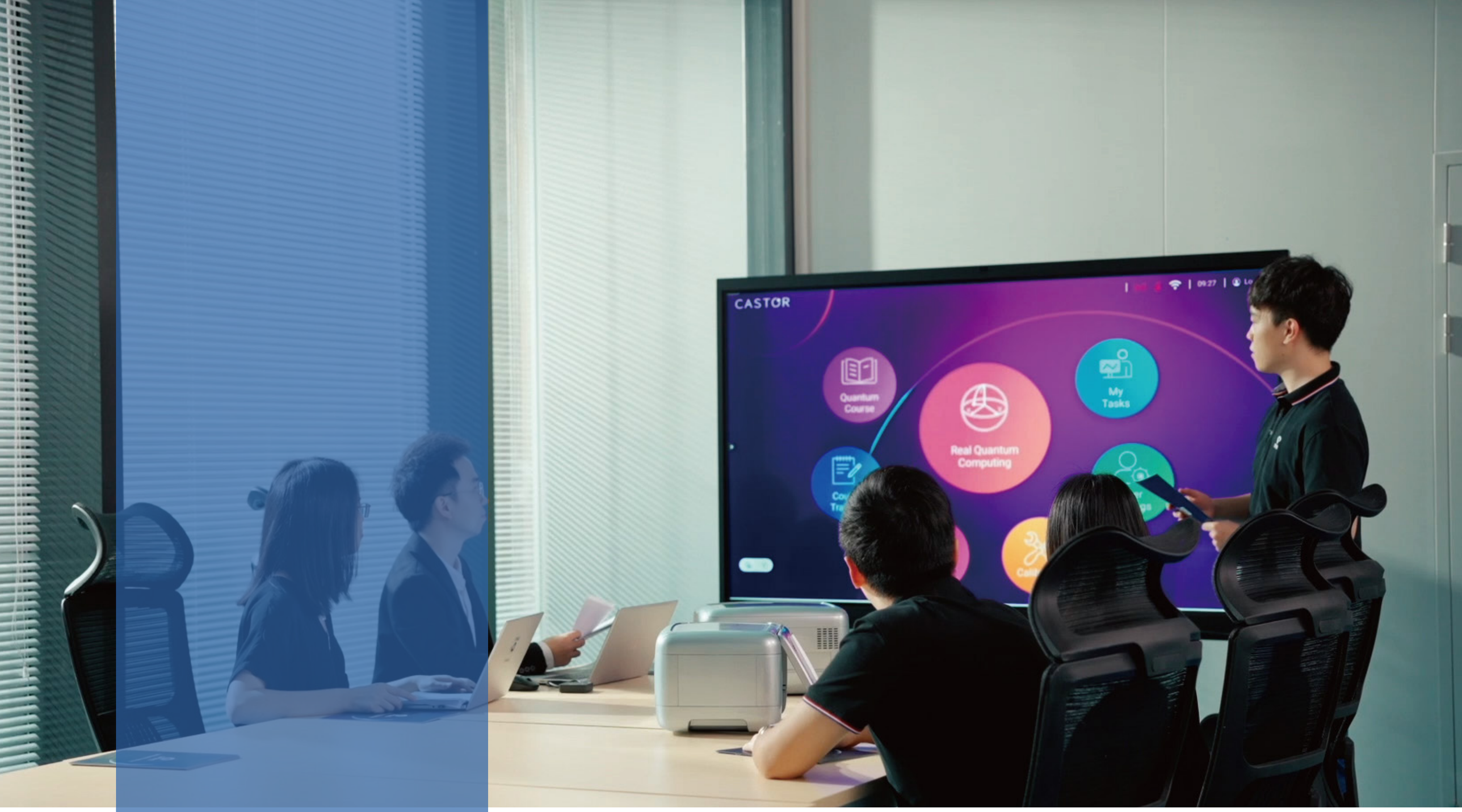
Intermediate representation and decomposition enable straightforward modularization and expansion.

High Compatibility

Compatible with OpenQASM 2.0 and Qiskit, allowing for seamless code migration and execution.

Advantages

- **Easily Extensible Framework**
- **Unified Interface with Multiple Configurations**
- **Comprehensive Platform Support**
- **Open Resource Community Support**


CASTOR
09:27
Quantum Course
Real Quantum Computing
My Tasks

Solutions

Quantum Education Solutions

We provide comprehensive and cutting-edge quantum education solutions tailored for universities, K12 education, and various science popularization scenarios. By combining in-depth theoretical teaching with practical exercises, we offer customized classroom setups, professional teaching teams, and educational quantum computing equipment to help teachers and students master essential future skills in quantum computing.

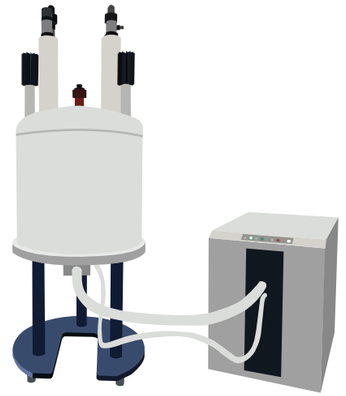
Interest Education

Scientific Research

Popular Science

Experimental Teaching

Our Advantages



Volume	Approx. 0.04 m^3	A whole room
Weight	Approx. 18 kilograms	Several tons
Price	Tens of thousands of USD	Millions of USD
Maintenance cost	Maintenance-free	Regular coolant replenishment
Operating conditions	Room temperature	Ultra-low temperature

Comprehensive Curriculum

We offer a complete quantumcomputing program, integrating theory and hands-on practice to develop students' expertise in quantum information science.

Systematic Training

Our structured training program helps teachers progressively understand and deliver the curriculum effectively.

Hands-On Experience

We offer extensive practical sessions with real quantum computers, where students write quantum algorithms and run actual quantum computations, building their research interest and practical skills.

Expert Support

We deliver exceptional service, addressing special requests and ensuring optimal support for equipment and experimental needs.

High School Quantum Computing Experimental Classroom

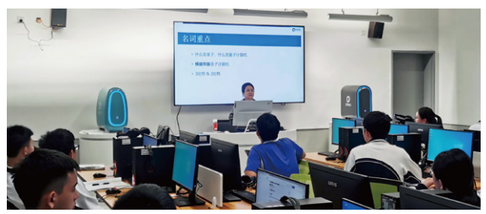
Quantum physics, quantum information, and quantum computing are vital to K-12 education. Although challenging for K-12 students, our educational quantum computers and tailored resources make these concepts accessible, enhancing understanding and fostering innovation. We prepare students for future academic and career success.

- Inspire interest and curiosity
- Foster innovation and problem-solving abilities
- Encourage interdisciplinary learning
- Cultivate scientific literacy
- Prepare for future employment

Introduction:

These lessons are designed for high school students with a basic understanding of sets and vectors. The course covers foundational concepts in quantum mechanics, the basic principles of quantum computing, essential linear algebra, quantum computing algorithm design, and introductory quantum programming skills.

No.	Type	Overview	class hours
1	Introduction	Computing and Computers, Introduction to Quantum Bits, etc.	3
2	Quantum Gates, Circuits and Classic Quantum Algorithms	Quantum Computation Circuit Model, Introduction to Deutsch's Algorithm, etc.	5
3	Mathematical Expression	Introduction to Linear Algebra, Mathematical Representation of Qubits and Quantum Gates, etc.	5
4	Building a Quantum Computer	How to Manufacture a Quantum Computer.	2
5	Extension	Expansion of Grover's Algorithm, Shor's Algorithm.	2



Recommended Configuration 1

- **Medium to Large Innovative Experiment Classroom (20-40 Students)**

Teachers use desktop quantum computers for instruction, while students either operate the teacher' s desktop system via software or run algorithms directly on their own portable quantum computers. The interface is consistent between the teacher's and students' systems.

Category	No.	Product/Service	Quantity
Quantum Computing Hardware	1	SPINQ Triangulum/SPINQ Gemini Lab	2
	2	Classical Computer for Operating Software	2
	3	SPINQ Gemini Mini/MiniPro	20
Quantum Computing Software	4	Quantum computing desktop application software/ Quantum computing experimental platform software	2
	5	Quantum Education Platform	20
Quantum Computing Courses	6	Theoretical Training Materials	one set
	7	Experimental Training Materials	one set
Training Service	8	Equipment Fundamentals Training	one time
	9	Equipment Usage Training	one time
	10	Course Content Training	one time
	11	Instrument Technical Support	one time

- **Small to Medium Innovative Experiment Classroom (10-30 Students)**

Teachers use desktop quantum computers for instruction, while students operate portable devices. Students can engage in hands-on activities and connect to digital learning systems for real-time experimentation.

Category	No.	Product/Service	Quantity
Quantum Computing Hardware	1	SPINQ Triangulum	1
	2	Classical Computer for Operating Software	1
	3	SPINQ Gemini Mini/MiniPro	10
Quantum Computing Software	4	Quantum Computing Desktop Application Software	1
	5	Quantum Education Platform	10
Quantum Computing Course	6	Theoretical Training Materials	one set
	7	Experimental Training Materials	one set
Training Service	8	Equipment Fundamentals Training	one time
	9	Equipment Usage Training	one time
	10	Course Content Training	one time
	11	Instrument Technical Support	one time

University Experimental Classroom

Introduction:

Our quantum computing courses are designed for undergraduate students with a basic understanding of linear algebra. These courses focus on helping students grasp the core principles of quantum computing, the key concepts of algorithm design, and the control techniques needed to operate quantum computers, all without requiring specialized knowledge of quantum mechanics.

Our Advantages:

Our solutions combine quantum computing theory with hands-on lab sessions to reinforce students' foundational knowledge. Students will gain a comprehensive understanding of quantum computing principles, master control and measurement techniques, practice quantum algorithms, and learn quantum programming.

Category	Content	Quantum Information Science	Physics	Computer Science	Other Science and Engineering	Scientific Research Direction
Quantum Computing Course	Quantum Computing Theoretical Courses	•	•	•	•	
	Quantum Computing Experiment Course	•	•		•	
Quantum Computing Hardware	Quantum Computing Experimental Platform: SPINQ Gemini Lab	•	•			•
	Desktop NMR Quantum Computer: SPINQ Triangulum	•	•		•	•
	Portable NMR Quantum Computer: SPINQ Triangulum Mini /SPINQ Gemini Mini			•	•	
Quantum Computing Software	Quantum Computing Desktop Application Software	•	•		•	•
	Quantum Education Platform			•	•	
	Quantum Computing Experimental Platform Software	•	•	•		•
	Quantum Computing Toolkit:SpinQit			•		•
	Quantum Computing Simulator					
Quantum Computing Service	Industry-Academia-Research Cooperation	•	•	•	•	•
	Scientific Cooperation					•
	Co-construction Of Laboratories	•	•	•	•	•

Recommended Configurations

- **Physics Laboratory**

The SPINQ Gemini Lab offers extensive experiments in quantum computing, quantum mechanics, and nuclear magnetic resonance, supporting the needs of physics and quantum computing majors. It also provides specialized quantum mechanics experiments, giving students deeper insights into quantum computing.

Category	No.	Product/Service	Quantity
Quantum Computing Hardware	1	SPINQ Gemini Lab	4
	2	Android Desktop Computer for Operating Software	4
Quantum Computing Software	3	Quantum Computing Experimental Platform Software	4
Quantum Computing Course	4	Theoretical Training Materials	one set
	5	Experimental Training Materials	one set
Training Service	6	Equipment Fundamentals Training	one time
	7	Equipment Usage Training	one time
	8	Course Content Training	one time
	9	Instrument Technical Support	one time

- **Quantum Computing Innovation Lab**

The desktop NMR quantum computer and experimental platform deliver stable, high-performance quantum computing experiments. Users can design quantum circuits, run them on the teaching instruments, and explore bottom-level quantum operations. These tools meet the educational needs in quantum computing, with specialized software that streamlines the design and execution of quantum experiments for multiple users.

Category	No.	Product/Service	Quantity
Quantum Computing Hardware	1	SPINQ Triangulum/SPINQ Gemini Lab	4
	2	Classic Computer for Operating Software/ Android Desktop Computer for Operating Software	4
Quantum Computing Software	3	Quantum Computing Desktop Application Software/ Quantum Computing Experimental Platform Software	4
	4	Quantum Computing Desktop Application Secondary Software	Optional
Quantum Computing Course	5	Theoretical Training Materials	one set
	6	Experimental Training Materials	one set
Training Service	7	Equipment Fundamentals Training	one time
	8	Equipment Usage Training	one time
	9	Course Content Training	one time
	10	Instrument Technical Support	one time

Introduction to the University Quantum Computing Course

—— Theoretical Course ——

No.	Type	Overview	course count	course hours
1	Quantum Computing Overview	Introduction to Quantum Computing	1	2
2	Linear Algebra Review	Revisiting knowledge of Linear Algebra	1	2
3	Basic Concepts in Quantum Mechanics	Concept of Quantum, Quantum States…	3	6
4	Fundamental Principle of Quantum Computing	Qubits, Quantum Control…	3	10
5	Quantum Algorithms	DJ Algorithm, Grover's Algorithm…	4	8
6	Quantum Communication	Bell's Inequality, Brief Introduction to Quantum Communication Scheme	1	2
7	Extension	Learning about Quantum Error Correction and Fault-tolerant Quantum Computation	1	2

—— Experimental Course ——

No.	Type	Overview	course count	course hours
1	Basics	Experiments on Quantum States and Qubits, Single Quantum Bit Gates, etc.	4	4
2	Physical Phenomena	Continuous Wave Experiment, Rabi Oscillation Experiment, etc.	4	6
3	Pulse Techniques	Dynamic Decoupling, Ramsey Interference Experiment	3	4
4	Quantum Algorithms	Deutsch Quantum Algorithm, Grover Quantum Algorithm experiments, etc.	7	14
5	Quantum Simulation	Quantum Harmonic Oscillator Simulation, Open Quantum System Simulation.	2	4

Application of NMR Quantum Computers in Quantum Mechanics Teaching

No.	Course Content	Course Hours
1	Introduction (History of the development of quantum mechanics)	4
2	Topic One: Wave Function	8
3	Topic Two: Solutions of One-Dimensional Schrödinger Equations	8
4	Topic Three: Basic Principles of Quantum Mechanics	12
5	Topic Four: Algebraic Solution of Harmonic Oscillator	2
6	Topic Five: Three-Dimensional Schrödinger Equation and Quantum System	6
7	Topic Six: Angular Momentum and Spin	8
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About Us

Company

Founded in 2018, SpinQ Technology Inc. is a one-stop solution provider dedicated to the industrialization and popularization of quantum computing.

With a strategy driven by both technology research and commercial implementation, SpinQ has established a comprehensive industry layout through superconducting quantum computers, NMR(Nuclear Magnetic Resonance) quantum computers, quantum computing cloud platform, and application software.

SpinQ is empowering various cutting-edge fields such as scientific research, education, drug development, fintech, and artificial intelligence, collaborating with partners to build scenario-based solutions that integrate quantum computing into diverse industries, making it a true productivity tool.

2018

Aug
SpinQ was founded

Nov
Completed the development of a large-scale nuclear magnetic quantum computing cloud platform.

2019

Apr
Released 2-qubit desktop NMR quantum computer prototype

2020

Jan
Released "SPINQ Gemini", the world's first programmable desktop NMR quantum computer (2-qubit)

Oct
Released "SPINQ Cloud",the new generation of universal quantum computing cloud platform

Dec
Completed Round-A financing of tens of millions CNY

Advantages

Industry's top capability in ENGINEERING quantum computing products

The Pioneer in GLOBALIZING the quantum computing market

The first to set the milestone of making quantum computer ACCESSIBLE TO INDIVIDUALS

Over 50% of the company's staff are research and development personnel, with a substantial number of senior researchers coming from top-tier institutions around the world, such as Harvard University, Massachusetts Institute of Technology, Tsinghua University, Peking University, and the University of Science and Technology of China.

2021

Sep
Released "SPINQ Triangulum", the 3-qubit desktop NMR quantum computer

Dec
Won the first prize of the 2020 Financial Technology Development Award issued by the People' s Bank of China

2022

Jan
Released "SPINQ Gemini Mini", the world's first programmable portable NMR quantum computer

Mar
Obtained the national high-tech enterprise certification of China

Sep
Completed nearly 100 million CNY in Pre-Series B financing

2023

Mar
Honored with the title of "Specialized and Innovative Small and Medium-sized Enterprise" by the Shenzhen Municipal Government

Apr
Held a strategic conference to relaunch the industrial-grade superconducting quantum computer series products and release the new generation of educational-grade nuclear magnetic quantum computer series products.

Nov
Delivered China's first superconducting quantum core exported overseas.wafer, creating an industry record.

R&D

Invested
¥100M+
in R&D
...

~100 patents
(authorized/applying)
...

The patent layout will focus on product technology to consolidate the core technological barriers
...

Honors

People's Bank of China Science and Technology Development Award, First Prize

Shandong Province Natural Science First Prize

Elected as a council unit of the Shenzhen Federation of Advanced Manufacturing

Shenzhen "Specialized, Fine, Special, New" Small and Medium Enterprise

National High-tech Enterprise

"Desktop Quantum Computer" Recognized by the Shenzhen Enterprise Innovation (National Standard) Record

> SpinQ's quantum computer is a 'remarkable engineering achievement'... it is the first milestone on the road to personal use of quantum computers.

Neue Zürcher Zeitung

The Neue Zürcher Zeitung (NZZ), founded in 1780, is Switzerland's oldest newspaper and one of the world's largest-circulating newspapers, with extensive influence in Europe's German-speaking areas.

MCPRO

Muycomputerpro is a Spanish professional website for hardware, software solutions, cloud computing, virtualization, services, and networks. It helps IT managers and professionals keep up-to-date with the latest technologies and business news in the advanced professional technology market.

> When it comes to teaching applications, SpinQ's quantum computer is the best choice. What it aims for is exactly to become a revolutionary element with differentiation in the market: realizing the popularization of quantum computing. When it comes to teaching applications, SpinQ's quantum computer is the best choice. What it aims for is exactly to become a revolutionary element with differentiation in the market: realizing the popularization of quantum computing.

> A 4-year-old company in Shenzhen has scaled the quantum computer down to the size of a desktop computer and built a quantum chip production line.

南方日报

The Southern Daily, the official newspaper of the Guangdong Provincial Committee, was founded in 1949. It is the flagship media of the Southern Daily Press Group, the first authoritative political and economic newspaper in Guangdong province targeting high-end readers.

Use Cases

Advancing Practical Quantum Education

University of Western Australia (UWA), Established in 1911, UWA is one of Australia' s oldest research universities, leading in quantum computing. UWA provides advanced quantum computing resources to students and researchers, driving innovation and application in quantum technology.

Challenges

UWA faculty stress the need for hands-on experience alongside theoretical learning.

1. Insufficient quantum teaching tools to provide a fully interactive learning platform.

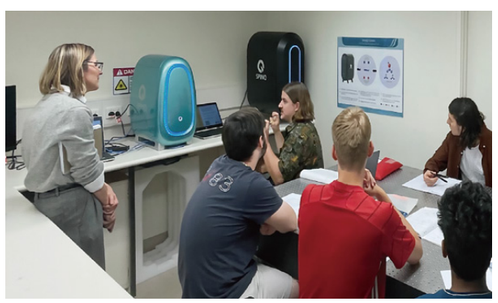
2. Limited educational resources for quantum computing.

Solutions

Integrated Hardware and Software Solutions for Quantum Education

Desktop Quantum Computers
Compact and lightweight
Room temperature operation with stable performance

Quantum Computing Curriculum
Comprehensive hands-on learning solutions
A wide range of quantum algorithm examples



Advancing New Models for Quantum Talent Development

Shenzhen Gezhi Academy An innovative secondary school focused on becoming a national leader in science and technology education, pioneering new approaches to developing innovative talent. Quantum computing is one of the school' s key areas of focus.

Challenges

The need for advanced experimental equipment and technical support to provide professional demonstrations and hands-on experiences tailored for high school students.

The necessity to develop curriculum content that is suitable for middle and high school students, effectively capturing their interest and enhancing engagement.

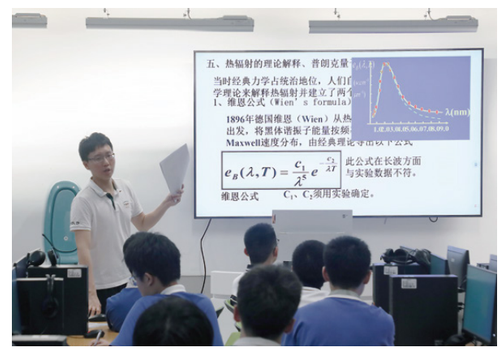
Solutions

Quantum Computing Classroom Solution

Teacher-Side Hardware and Software
Compact and lightweight
Stable operation at room temperature

Student-Side Hardware and Software
20 portable quantum computers
CASTOR client software

Quantum Computing Curriculum
Specialized curriculum materials integrating theory with practical experiments for K-12



Partners

Tsinghua University

Fudan University

Hong Kong University

The Hong Kong University of Science and Technology

Xi' an Jiaotong University

Wuhan University

Southern University of Science and Technology

Beijing Institute of Technology

Nanjing University

National Taiwan University

The Hong Kong Polytechnic University

Chung Yuan Christian University

City University of Hong Kong

University of Electronic Science and Technology of China

Nation Supercomputing Center in Shenzhen

BGI Genomics

Deeproute AI

Ping An Bank

Beijing Academy of Quantum Information Sciences

Hua Xia Bank

Massachusetts Institute of Technology

Duke University

University of Waterloo

The University of Western Australia

The University of Tokyo

NYU Abu Dhabi

Université de la Réunion

Heinz Nixdorf MuseumForum

The University of Arizona

Université de technologie de Troyes

Nottingham Trent University

Fraunhofer IKTS