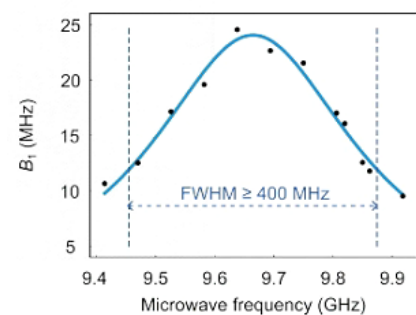


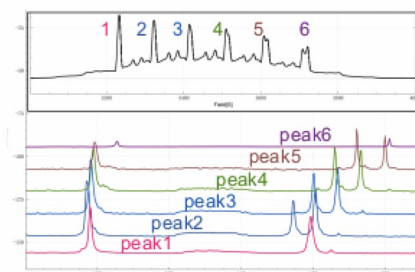
PW-4201-DR pulsed resonator



- Cavity resonant frequency: 9.4–9.8 GHz
- Resonator bandwidth: 400 ± 40 MHz
- Detection dead time: ≤ 100 ns
- Compatible with nitrogen and helium variable temperature system

Sample rod: 423 mm
Optical window: 5×12.5 mm
Flange: KF50
Available sample tube diameter: 3 mm or 4 mm OD

ENDOR pulsed resonator



Davies ENDOR of Mn^{2+} in calcite collected at 10 K

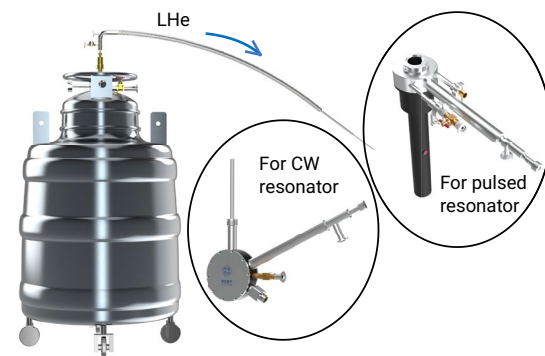
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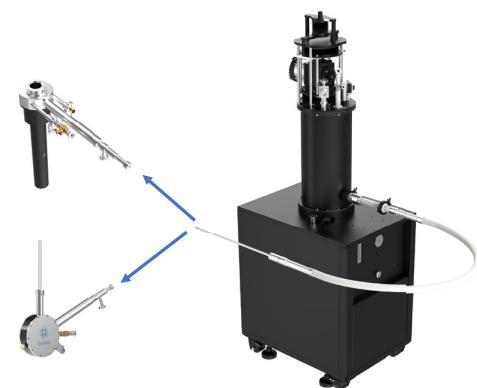
Accessories: Cryogenic Systems

Liquid Helium Continuous-Flow Cryogenics System

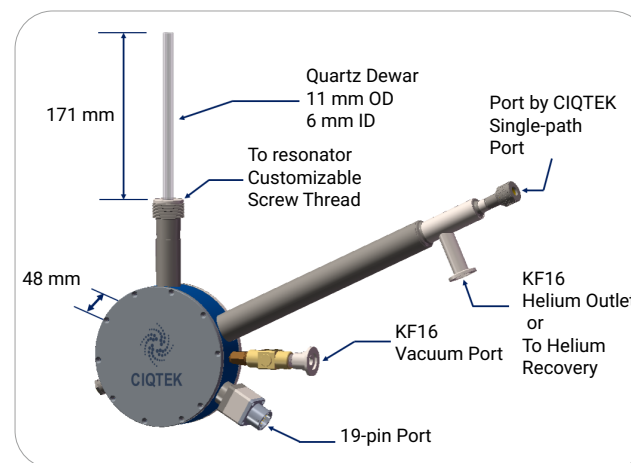
- Controllable temperature range of sample area: 3.8–300 K
- Temperature stability: ± 0.1 K (in liquid helium temperature zone)
- Rapid cooling: cooling time < 30 min
- Low liquid helium loss
- Easy installation



Liquid Helium-free Dry Cryogenic System

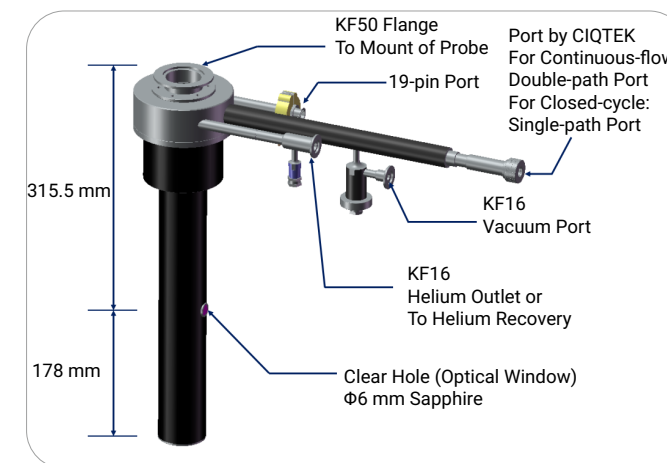


- Controllable temperature range of sample area: 3.8–300 K
- Temperature stability: ± 0.1 K (in liquid helium temperature zone)
- Wider temperature control range
- Stable and easy operation
- Rapid temperature recovery after sample change (< 30 min)
- Extremely low operating costs



CW-type cryostat :

- Compatible with High-Q resonator and Dual mode resonator

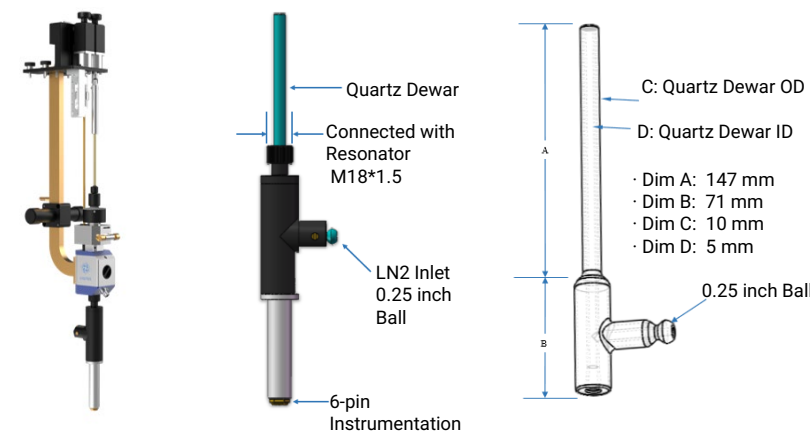


L-type cryostat :

- Compatible with DR pulsed resonator and ENDOR resonator
- Cavity ID: 45 mm (wet system)
43 mm (dry system)

Liquid Nitrogen Variable Temperature System

- Controllable temperature range of sample area: 93–573 K
- Temperature Stability: ± 0.2 K
- Rapid cooling: cooling time < 30 min
- Compatible with high temperature test



(주)비케이인스트루먼트

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V.2026.01



Succeeds customers, succeeds companion



EPR Spectrometer Upgrade

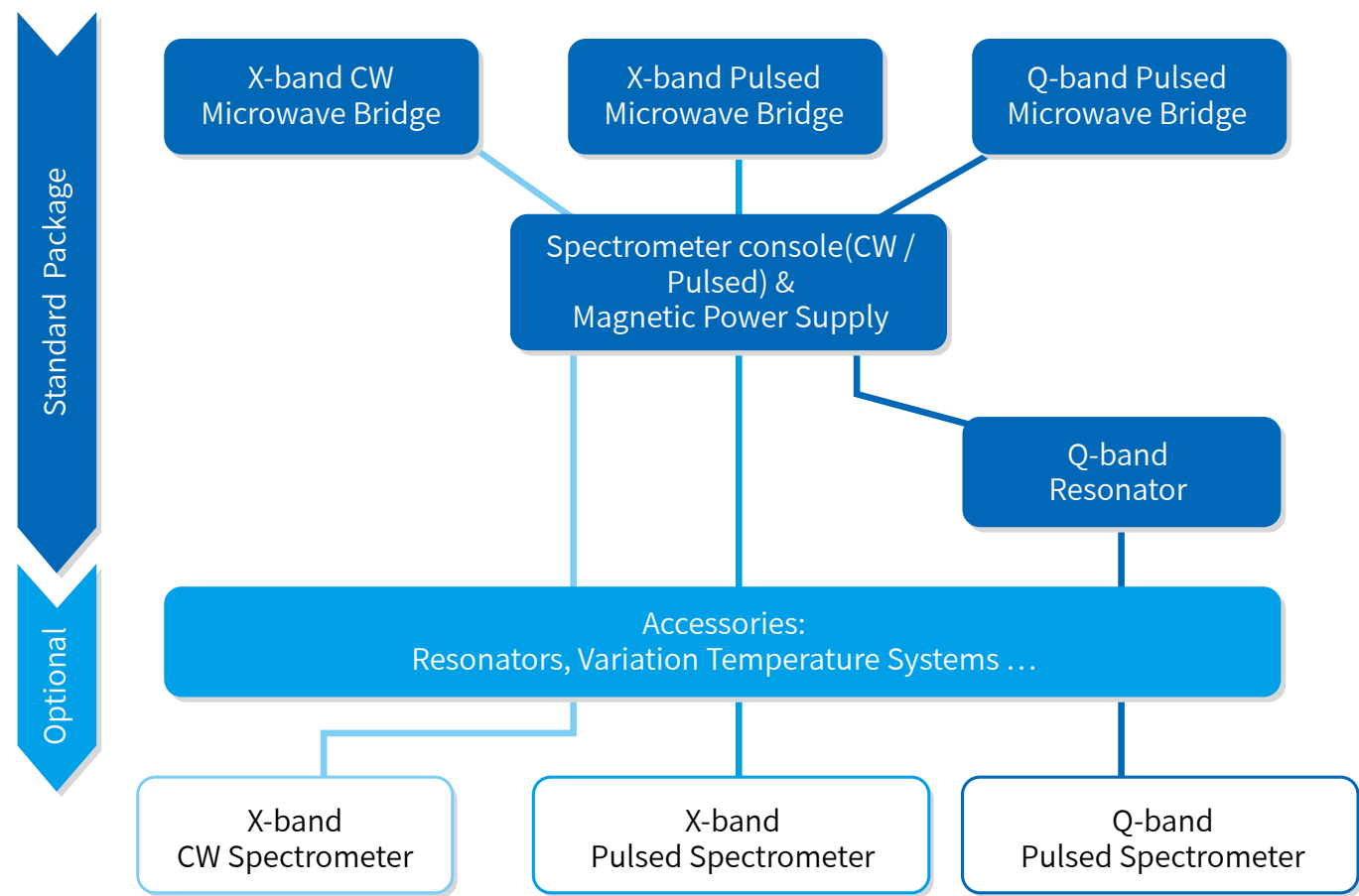
Upgrade your old instrument to match the demands of cutting-edge EPR spectroscopy -- CIQTEK aims to support all EPR users with new spectrometers and accessories for best lab experience.



This upgrade will bring features, including:

- **Higher sensitivity**
Ultra-low noise microwave source and signal detection technology
- **Better resolution**
Precise magnetic field control technology
- **Good compatibility**
Compatible with a wide range of spectrometers
- **Prompt delivery**
Complete delivery of upgrade hardware within 2-6 months
- **High-quality service**
On-site installation and two-year warranty

Upgrade Pathways



Microwave Bridges

CW microwave bridge featuring:



X-band

- Microwave frequency range: 9.2–9.9 GHz
- Max output microwave power in leveled mode: 200 mW
- Microwave attenuator: 0–60 dB in 1 dB steps
- Support automated and manual tuning
- Upgradeable to Q-band
- Size: 85 × 62 × 18 cm

Q-band

- Microwave frequency: 33.7-34.4 GHz
- Max output microwave power: 100 mW
- Microwave attenuator: 0-50 dB
- Size: 65 × 62 × 20 cm

Pulsed microwave amplifier featuring:

Solid-state amplifiers have the same linearity and intermodulation distortion as travelling wave tube amplifiers, but are smaller in size, have a longer life and do not require high voltage power supplies or periodic operation.

X-band

- Microwave amplifier power: 450 W
- Size: 43 X 35 X 15 cm

Q-band

- Solid-state power amplifier power: 200 W
- Size: 45 × 40 × 16 cm



Spectrometer Console & Magnetic Power Supply

CW part featuring:

- **Magnetic Field Controller**
Magnetic field stability in sample region: 10 mG/hour
Operating range: -0.1–1.8 T
- **Digital Lock-in Detection**
- **Modulation frequency range**
0.5–120 kHz
- **Ultra Stable Magnet Power Supply**

Pulsed part featuring:

- **Data Acquisition Unit**
Number of channels: 2
Sampling rate: 1 GHz
Supports internal and external trigger modes
- **Pulse Generator**
12 digital channels
Time resolution: 0.05 ns



Accessories: Resonators

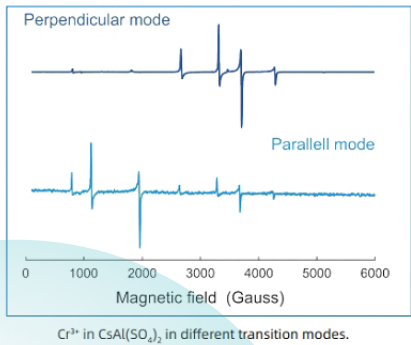
High-Q resonator

- Cavity resonance frequency: 9.5–9.9 GHz
- Unloaded $Q \geq 18000$ (critically coupled)
- Maximum modulation field amplitude: 20 Gauss
- Compatible with nitrogen and helium variable temperature system
- **Auto tune available**



Resonator width : 50 mm
Optical window: Ø 5 mm, compatible with optical fiber
Maximum sample access: Ø 10 mm

Dual mode resonator



- Cavity resonance frequency: 9.6–10 GHz (perpendicular mode) 9.4–9.8 GHz (parallel Mode)
- Maximum modulation field amplitude: 10 Gauss
- Compatible with nitrogen and helium variable temperature system

Resonator width : 46 mm
Optical window: Ø 5 mm, compatible with optical fiber
Maximum sample access: Ø 10 mm