

# Nuclear Magnetic Resonance

## PRODUCT NAME

**iSpin-NMR**

## TECHNOLOGY CATEGORY

**Molecular Spectroscopy;**

**SpinCore Technologies, Inc.**  
4631 NW 53rd Avenue, Suite 103  
Gainesville, FL 32653



Model Number	Not Specified
Synopsis	The iSpin-NMR™ can serve as a complete console for NMR or NQR with spectrometer frequencies from 0 to 100 MHz. NMR experiments can be performed once connected to a probe placed in a magnetic field. SpinCore Technologies, Inc. also markets permanent magnets, probes, and BNC connections specific to the frequency of interest. The iSpin-NMR console is simply the radio-frequency generation and amplification electronics.
Category	Chemical;
Detection Method	Nuclear Magnetic Resonance ;
Detection Principle	Molecular Spectroscopy;
Application	Laboratory Analysis;
Type	Instrument
Availability	Commercially Available
Readiness Level	9
Market Entry Date	2007
User Feedback Sources	Not Specified
Support Documents	Not Specified

## Operational Parameters

Tested for Chemical Agents	Chemical agents that have protons (1H) can be detected
Tested for ITF25TICTIMs	TIC/TIM that have protons (1H) can be detected
Tested For Explosives	Explosives (nitroaromatics, organic peroxides) that have protons (1H) can be detected
Tested For Narcotics	Narcotics that have protons (1H) can be detected
Other Chemical Targets	Chemicals that have protons (1H) can be detected
Tested For Biological Agents	Not Applicable
Other Biological Targets	Not Applicable
Radiological Targets	Not Applicable
Library Size	Not Applicable
Customize For New Targets	No
Sample Introduction	Liquid
Sensitivity Detection Limits	ppm; ppth
Known Interferents Inhibitors	Mixtures containing molecules each with protons will lead to spectra that will need some expert interpretation
False Positive Rates	Not Specified

# iSpin-NMR

False Negative Rates	Not Specified
Start-Up Time From Cold Start To Sample Ready	< 1 hour
Response Time Sample Application To Output	1 min to hours
Total Run Time	1 hour
Alarm Capability	Not Applicable
Software Control	PC
Other Operational Parameters	Comes with any customer specified frequency from 1 - 100 MHz. Can also be configured to analyze for other NMR-active nuclei (e.g. <sup>29</sup> Si, <sup>31</sup> P, <sup>13</sup> C).

## Physical Parameters

Dimensions	19 x 11 x 4 in (48 x 28 x 10 cm)
Weight	10 lbs (4.5 kg)
Power Requirements	Universal AC input power supply (90 to 240 VAC)
Noise Produced	Not Specified

## Logistical Parameters

Transportability	Benchtop/Fixed; Small Footprint
Durability	Due to the tuned components of the internal sample probe dropping equipment is not recommended.
Operating Conditions	15 to 28°C (59 to 82°F) ;35 to 70%RH non-condensing
Consumables	Glass NMR tubes, deuterated solvents
Solvents Reagents	Deuterated solvents
Calibration Schedule	Application dependent
Suggested Routine Maintenance	User may need to shim the magnet
Shelf Life	10 years
Unit Cost	N/A
Expected Operational Life	Indefinite
Available Accessories	Requires probe, magnet, and associated cables for excitation and detection wavelengths
Data Analysis Support Equipment	Microsoft Windows 7, Vista, XP
Data File Type Format	ASCII, JCAMP-DX, and Felix (binary)
Communications Interface	USB
Maintenance Cost	Not Applicable

## Training, Shipping, And Other Information

Operator Skills Required	Technical
Training Available	Not available, the systems are designed to be customizable for expert spectroscopists
Manuals Available	Yes
Reachback Service	Yes, free 20 hours telephone/email support in the first 3 months after purchase date.
Warranties	One year from the invoice date, 30-day money back guarantee
ITAR Export Regulations	Not Specified
IATA Shipping Restrictions	Not Specified
Approved Vendors	Not Specified