



Specifications AVANCE™ NEO

300 – 600 MHz NMR Systems (Onebay/TwoBay)

		Standard	Comment
System	Number RF channels	Min. 2	Max. 8
	Multi-Receive capability	Inherent	Default for all systems
	Number of Receive channels	Min. 2	Equal to number of RF channels
	System Control	Embedded	1 TB Hard Disk Drive included
		Power ON / OFF by Software	Ethernet ROUTER PDU
	Operating System	Embedded	
Timing Controller	Timing Resolution	12.5 ns	
	Channel Synchronicity	12.5 ns	For all channels
	Trigger (Input)	4	12.5 ns synchronized
	Real-time Control (Output)	11	
RF channel	Frequency Range	5 – 1280 MHz	³ H @1.2 GHz
	Frequency Resolution	< 0.005 Hz	
	Phase Resolution	< 0.006 °	
	Attenuation Resolution and Range	< 0.1 dB 90 dB	
	Amplitude Modulation	> 90 dB	
	Min. Time for Simultaneous setting of Frequency, Phase and Amplitude	12.5 ns	
	Monotony Amplitude and Phase	< +/- 0.1 dB < +/- 0.5 °	
	Waveform / Pulse Program Memory	1 GB	
	RF Intermediate Frequency	1.852 GHz	
	NMR Signal Generation	960 MSPS	Digital Up Converter (DUC)
	NMR Signal Detection	240 MSPS / 16 Bit ADC	Digital Down Converter (DDC)
	Spectral Width	50 Hz - 7.5 MHz	
	Effective Dynamic Range	> 17 Bit (SW < 7.5 MHz)	
		> 19 Bit (SW < 1 MHz)	
		> 23 Bit (SW < 6 kHz)	

		Standard	Option #1	Option #2
RF amplifier #1 (1st)	Frequency Range and RF power	180 – 600 MHz Min. 100 W (25 CW max.)	180 – 600 MHz Min. 500 / 100 W (50 / 25 CW max.)	180 – 600 MHz Min. 1000 / 100 W (50 / 25 CW max.)
RF amplifier #2 (2nd)	Frequency Range and RF power	15 – 600 MHz Min. 500 W (50 CW max.)		15 – 600 MHz Min. 1000 W (50 CW max.)
Additional RF Amplifiers			Various Options	Various Options
Preamplifier #1 (1st)	Nuclei RF Power and Noise Figure	¹⁹ F / ¹ H 4 kW peak ~1 dB / GaAs		
Preamplifier #2 (2nd)	Frequency Range / Power and Noise Figure	¹⁰⁹ Ag - ¹⁹ F or ¹³ C 500 W peak ~1.4 dB / GaAs		
Preamplifier #3 (Lock)*	Frequency Range / Power and Noise Figure	² H 500 W peak ~1.4 dB / GaAs		
Additional Preamplifiers			¹³ C, ¹⁵ N, ³¹ P 500 W peak ~1.4 dB / GaAs	⁵⁷ Fe – ³¹ P 4 kW peak ~1 dB / GaAs
Console	Mains Power Rating	230 V~ / 16A 50 or 60 Hz Single Phase	230 V~ / 16A 50 or 60 Hz Single Phase	230 V~ / 32A 50 or 60 Hz Single Phase
	Power Dissipation	~2.5 kW	~ 3 kW	~ 6 kW
	Dimensions (w x d x h)	Onebay 0.69 x 0.83 x 1.30 m	Onebay with Heightening 0.69 x 0.83 x 1.58 m	Twobay 1.31 x 0.83 x 1.30 m
	Weight	> 230 kg	> 260 kg	> 340 kg
				

* Only needed for probes requiring 2H lock Technical Specifications subject to change without notice



● **Bruker BioSpin**

info@bruker.com
www.bruker.com