




Specifications AVANCE™ NEO

300 – 400 MHz NMR Systems (Nanobay)

		Standard	Comment
System	Number RF Channels	2	-
	Multi Receive capability	Inherent	Default for all systems
	Number of receive channels	2	Equal to number of RF channels
	System Control	Embedded	1 TB Hard Disk Drive included
		Power OFF by Software	Ethernet Router
	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 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 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 / Comment
RF amplifier #1 (1st)	Frequency Range ^{57}Fe - ^{19}F / ^1H RF power	180 – 400 MHz Min. 50 W >20 – 101 MHz Min. 170 W >101 – 162 MHz Min. 140 W	Max. duty cycle at full power: 10% Max. pulse length at full power: 10ms
RF amplifier #2 (2nd)	Frequency Range ^{57}Fe - ^{19}F / ^1H RF power	180 – 400 MHz Min. 50 W >20 – 101 MHz Min. 170 W >101 – 162 MHz Min. 140 W	Max. duty cycle at full power: 10% Max. pulse length at full power: 10ms
Console	Mains Power Rating	230 V~ / 16A 50 or 60 Hz Single Phase	
	Power Dissipation	~1.0 kW	
	Dimensions (w x d x h)	0.45 x 0.91 x 0.75 m	
	Weight	< 90 kg	

