

P/N: Z114607 S/N: 0069 Type: PA BBO 600S3 BBF-H-D-05 Z SP

Declaration

The specified values listed on this page are valid in the context of the technical specification sheet of this probe. Bruker guarantees these values to be achievable on the customer instrument within the restriction mentioned.

Pulse Specification

Nucleus	Sample	90° Pulse (in μ s)	Achieved power (in W)	Maximum allowed peak power (in W)	Remarks
¹ H	Z10263	11	24	38	
¹³ C	Z10263	12	97	160	
¹⁵ N	Z10263	18	154	260	
¹⁹ F	Z10234	14	29	50	
³¹ P	Z10201	12	45	70	

Sensitivities

Nucleus	Sample	Signal-to-Noise Ratio	Remarks
¹ H	Z10120	875	noise: 200 Hz variable, method: sino best
¹³ C	Z10163	330	noise: 40 ppm variable, method: sino best
¹³ C	Z10153	330	noise: 40 ppm variable, method: sino best , with ¹ H decoupling during acquisition and relaxation delay
¹⁵ N	Z10187	45	noise: 2 ppm variable, method: sino best, with ¹ H decoupling during acquisition
¹⁹ F	Z10234	700	LB: 0.5 Hz, noise: 1 ppm variable, method: sino best, with ¹ H decoupling during acquisition
³¹ P	Z10201	250	noise: 5 ppm variable, method: sino best

Lineshape

Nucleus	Sample	50% (in Hz) ¹	0.55% (in Hz) ¹	0.11% (in Hz) ¹	Spinning side bands (in %)	Remarks
¹ H	Z10248	0.80	7.0	14.0	-	without sample rotation
¹³ C	Z10163	0.20	3.0	5.0	-	with sample rotation, with ¹ H decoupling during acquisition

Gradient Recovery

Nucleus	Sample	Signal recovery (in %)	Recovery time (in μ s)	Gradient time (in ms)	Gradient strength (in T/m)	Remarks
¹ H	Z10083	95	100	5.0	0.37	with squared gradient shape

¹ Signal line width is measured relative to the total intensity of the signal of interest (chloroform or p-dioxane).

● **Customer Certificate**



NMR RT Probe

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Samples

Sample	Description
Z10083	0.1 mg/ml Gadolinium Chloride (GdCl ₃), 0.1% Methanol- ¹³ C (¹³ CH ₃ OH), 1% H ₂ O in Deuteriumoxide (D ₂ O)
Z10120	0.1% Ethylbenzene (EB) in Chloroform-D
Z10153	10% Ethylbenzene (EB) in Chloroform-D
Z10163	40% Dioxane in Benzene-D ₆ (ASTM Test)
Z10187	90% Formamide (HCONH ₂) in Dimethylsulfoxide-D ₆ (DMSO)
Z10201	0.0485 M Triphenylphosphate (TPP, [C ₆ H ₅] ₃ PO ₄) in Acetone-D ₆
Z10234	0.05% Trifluorotoluene (TFT, CF ₃ C ₆ H ₅) in Chloroform-D
Z10248	1% Chloroform (CHCl ₃) in Acetone-D ₆
Z10263	100 mM Urea- ¹⁵ N ([¹⁵ NH ₂] ₂ CO), 100 mM Methanol- ¹³ C (¹³ CH ₃ OH) in Dimethylsulfoxide-D ₆ (DMSO)

Test date: 2011-10-07

TEST-DATA



SEL	SEI	SEF	SEX	DUL	DUX	BBO	BBI	QNP	QNI	QXI	TXO	TXD	TXI	TBI	TBO
						X									

Probehead No.	Z114607 / 69	EC	1.07	MHz	600	SB	X	WB	
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Produktion	X	Sample Ø	1 mm		8 mm		Dual Flow Insert	
Repair			2.5 mm		10 mm			
Convert			3 mm		20 mm		Probe-Body SB	
			5 mm	X		Probe-Body WB	

OPTIONS			
HT		ATM Acc.	X
LTA		
LTB		
Micro		
Z-Grad.	X	
XYZ-Grad.		
LEAKPRF		
BTO 2000		

000.0000 = 17.5 MHz (-15dB)
 799.0000 = 247 MHz
 899.0000 = 590 MHz

VSP600				
Tuning-Card		Z114607 / 69		
Nuc.	Freq.	Tuning	Matching	Att.dB
19F	564.686	899.0072	99.0326	
31P	242.937	799.0054	99.0284	
87Rb	196.365	799.0186	99.0240	
13C	150.903	797.0210	99.0146	
17O	81.356	783.0152	88.0163	
15N	60.834	766.0249	85.0223	
14N	43.367	615.0244	78.0254	
109Ag	27.927	448.0228	63.0195	
		-	-	

Nuc. / Freq. (MHz)	forw. Pulse	forw. CW
1H 600.130	38 W	5 W
D 92.124	30 W	5 W
	W	W
X: 19F 564.686	50 W	W
X: 31P 242.937	70 W	W
X: 13C 150.903	160 W	W
X: 15N 60.834	260 W	W
	W	W
	W	W

Date: Thursday, 29. September 2011 Signature: STZ