

Product: **Bruker 5mm BBI H&F 600 MHz Z-Gradient high resolution probe (non-standard probe)**

Description: An inverse broadband high resolution probe fitted with an actively shielded single axis Z-gradient for 5 mm sample diameters and 600 MHz standard bore magnets. The inner NMR coil is tuned to observe ^1H and can alternatively be tuned to ^{19}F . The outer NMR coil can be tuned for decoupling with any nucleus in the range from ^{31}P to ^{109}Ag . The probe is fitted with a ^2H lock channel. It is equipped with automatic tuning and matching accessory (ATM).

Specification:

Signal/Noise			
^1H sensitivity	$\geq 1100:1$	(0.1% EB; Wilmad 454 PP tube)	1
Pulse Widths			
^1H pulse width	$\leq 9 \mu\text{s}$		
^{31}P pulse width	$\leq 25 \mu\text{s}$		
^{13}C pulse width	$\leq 15 \mu\text{s}$		
^{15}N pulse width	$\leq 30 \mu\text{s}$		
^{19}F pulse width	$\leq 10 \mu\text{s}$		
Lineshape and Spinning Sidebands			
^1H spinning lineshape	$\leq 0.45/5/10 \text{ Hz}$	(50%/0.55%/0.11%, 1% CHCl_3)	
^1H non-spinning lineshape	$\leq 0.7/6/12 \text{ Hz}$	(50%/0.55%/0.11%, 1% CHCl_3)	
^1H spinning sidebands	$\leq 2 \%$	(1% CHCl_3 sample)	
Z-Gradient			
Gradient strength	$\geq 0.5 \text{ T/m}$	(max current 10 A) ²	
Variable Temperature Range			
Standard Range	-150°C to +150°C ^{2,4}		

Model: PA BBI 600S3 H&F-BB-D-05 Z

Technical data and specifications subject to change without notice.
2014-11-11/DSC, Bruker BioSpin AG Probe Department.

1) s = wall thickness of sample tube

2) Specifications verified at production, not at installation

3) With sample 0.1 mg GdCl_3 / ml D_2O + 1% H_2O + 0.1% CH_3OH ; 5 ms gradient square pulses with strength $\pm 37.5 \text{ G/cm}$

4) The shim system temperature must not be allowed to exceed +80°C. At low temperatures, precautions must be taken to prevent the magnet dewar O-rings from freezing.