

# BMS464508

Previously OR6-6/OR6-7

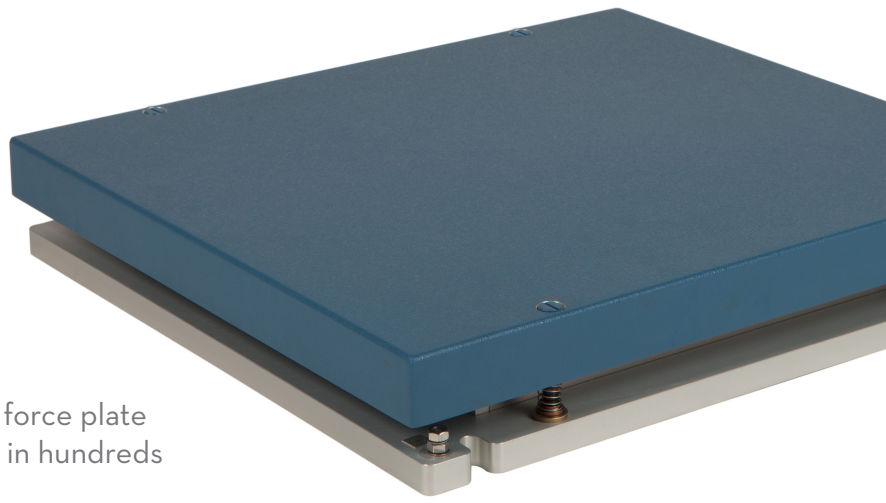
OPTIMA™ Biomechanics Measurement Series (BMS)

## System Components:

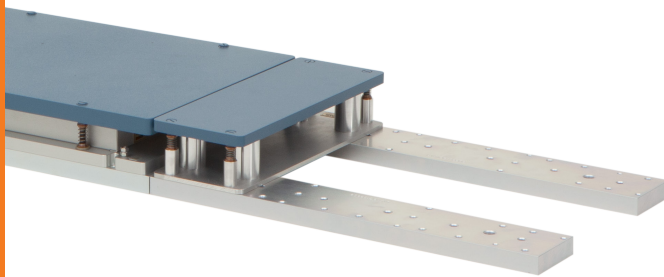
Force plate, Optima external amplifier, 9m (30ft) transducer cable, and mounting kit

The BMS464508 is an industry “standard size” force plate for adult and pediatric gait studies and is used in hundreds of labs around the world.

Featuring AMTI's advanced **Optima Technology**, this multi-axis mounted force platform is popular for gait analysis and can be used for a wide range of applications, from adult or adolescent gait analysis to balance testing or even canine gait studies.



Features through-top mounting access



**Modular Rail System (MRS) and Filler Plates** enable easy reconfiguration of force plates and future lab growth

## BMS464508 SPECIFICATIONS

Dimensions (W x L x H)	464 x 508 x 82.5 mm (18.25" x 20" x 3.25")
Available Models	Standard or High Frequency (HF)
Weight (Standard or HF)	Standard Model: 27 kg (60 lb) High Frequency: 18 kg (40 lb)
Sensing Elements	Strain gauge bridge
Channels	Fx, Fy, Fz, Mx, My, Mz
Top Plate Material	Aluminum or Composite (HF)
Temperature Range	-17 to 52°C (0°F to 125°F)
Analog Output	6 Channels
Digital Output	USB (with <b>OPTIMA amplifier</b> )
Crosstalk*	±0.2% of applied load
Fx, Fy, Fz Hysteresis	< 0.5% full scale output
COP Accuracy*	< 0.5 mm (0.02 in.)
Measurement Accuracy*	±0.5% of applied load

\*Typical Value: Minimum applied load 50 lb.  
Site and installation requirements available upon request.



The only force platform systems that conform to the ASTM F3109-23 technological standard for performance verification of multi-axis force plates.



Absolute Gauge Technologies

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# BMS464508

## Standard Model

AVAILABLE MODELS			
MODEL	BMS464508-1K	BMS464508-2K	BMS464508-4K
Fz Capacity	4450 N (1000 lbs)	8900 N (2000 lbs)	17800 N (4000 lbs)
Fx, Fy Capacity	2225 N	4450 N	8900 N
Mx Capacity	1130 Nm	2260 Nm	4520 Nm
My Capacity	1130 Nm	2260 Nm	4520 Nm
Mz Capacity	570 Nm	1130 Nm	2260 Nm
Fx, Fy Sensitivity	0.67 $\mu\text{V}/\text{VN}$	0.34 $\mu\text{V}/\text{VN}$	0.17 $\mu\text{V}/\text{VN}$
Fz Sensitivity	0.17 $\mu\text{V}/\text{VN}$	0.08 $\mu\text{V}/\text{VN}$	0.04 $\mu\text{V}/\text{VN}$
Mx Sensitivity	1.59 $\mu\text{V}/\text{VNm}$	0.80 $\mu\text{V}/\text{VNm}$	0.40 $\mu\text{V}/\text{VNm}$
My Sensitivity	1.59 $\mu\text{V}/\text{VNm}$	0.80 $\mu\text{V}/\text{VNm}$	0.40 $\mu\text{V}/\text{VNm}$
Mz Sensitivity	3.36 $\mu\text{V}/\text{VNm}$	1.68 $\mu\text{V}/\text{VNm}$	0.84 $\mu\text{V}/\text{VNm}$
Fx, Fy Natural Frequency*	320 Hz	390 Hz	480 Hz
Fz Natural Frequency*	490 Hz	510 Hz	440 Hz

\*Natural Frequency specs shown for Standard Model (Solid Top). HF Model specs on following page.  
See Specifications & Details on website for complete English Units.



Heart of the OPTIMA system.

With its advanced features, the OPTIMA (OPT-SC) signal conditioner allows for simple setup, increased accuracy, and the option for direct digital integration.



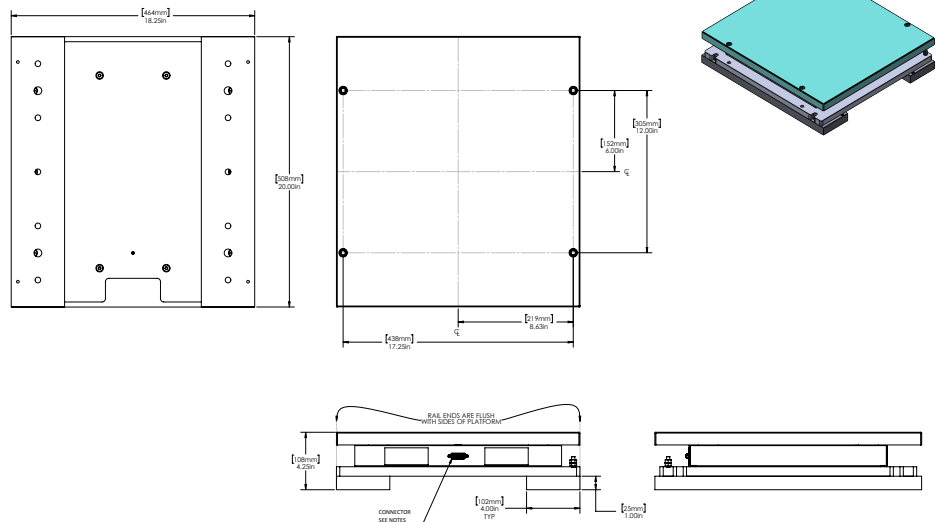
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ISO 9001:2015 certified  
ISO 13485:2016 certified  
ISO 17025:2017 accredited

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OPTIMA BMS/HPS SPEC SHEETS Rev 1



# BMS464508HF

## High Frequency Model

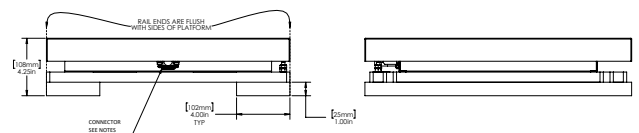
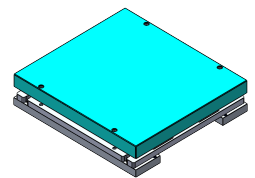
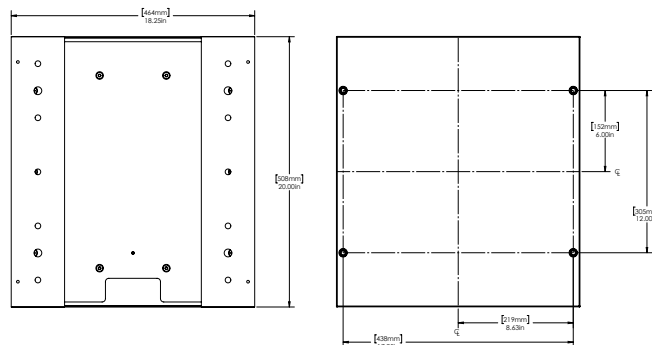
AVAILABLE MODELS		
MODEL	BMS464508HF-1K	BMS464508HF-2K
Fz Capacity	4450 N (1000 lbs)	8900 N (2000 lbs)
Fx, Fy Capacity	2225 N	4450 N
Mx Capacity	1130 Nm	2260 Nm
My Capacity	1130 Nm	2260 Nm
Mz Capacity	570 Nm	1130 Nm
Fx, Fy Sensitivity	0.67 $\mu\text{V}/\text{VN}$	0.34 $\mu\text{V}/\text{VN}$
Fz Sensitivity	0.17 $\mu\text{V}/\text{VN}$	0.08 $\mu\text{V}/\text{VN}$
Mx Sensitivity	1.59 $\mu\text{V}/\text{VNm}$	0.80 $\mu\text{V}/\text{VNm}$
My Sensitivity	1.59 $\mu\text{V}/\text{VNm}$	0.80 $\mu\text{V}/\text{VNm}$
Mz Sensitivity	3.36 $\mu\text{V}/\text{VNm}$	1.68 $\mu\text{V}/\text{VNm}$
Fx, Fy Natural Frequency*	560 Hz	660 Hz
Fz Natural Frequency*	950 Hz	960 Hz

\*Natural Frequency specifications shown for High Frequency (HF) Model (Composite Top).  
See Specifications & Details on website for complete English Units.



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