

HPS464508

Previously OR6-6/OR6-7

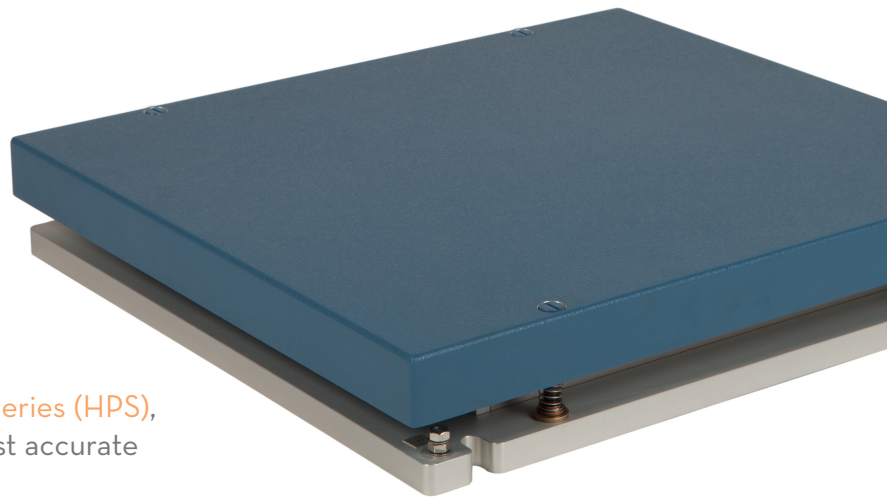
OPTIMA™ Biomechanics Measurement Series (BMS)

System Components:

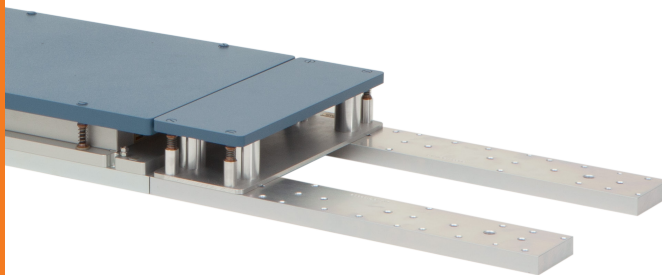
Force plate, Optima external amplifier, 9m (30ft) transducer cable, and mounting kit

As part of AMTI's **Optima High Performance Series (HPS)**, the HPS464508 is the most advanced and most accurate force platform system available. Period.

This 46 x 51 cm force plate is an industry “standard size” for adult and pediatric gait studies and is used in hundreds of labs around the world. It supports a wide range of applications, from 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

HPS464508 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 OPTIMA amplifier)
Crosstalk*	±0.05% of applied load
Fx, Fy, Fz Hysteresis	< 0.5% full scale output
COP Accuracy*	< 0.2 mm (0.008 in.)
Measurement Accuracy*	±0.1% 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.



HPS464508

Standard Model

AVAILABLE MODELS		
MODEL	HPS464508-1K	HPS464508-2K
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*	320 Hz	390 Hz
Fz Natural Frequency*	490 Hz	510 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.

AMTI
FORCE AND MOTION

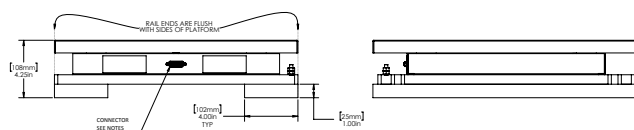
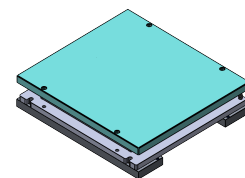
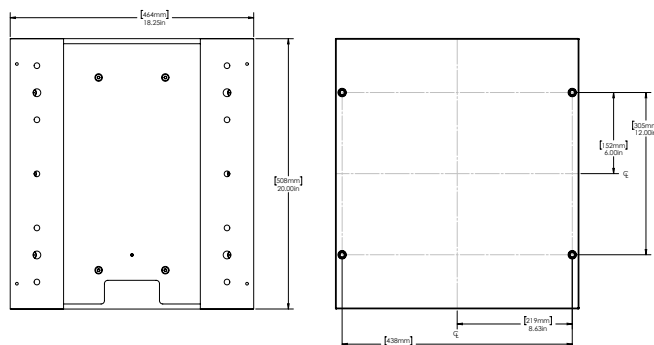
176 Waltham Street, Watertown, MA 02472 USA

+1-617-926-6700 | sales@amtmail.com | www.amti.biz



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

©2025 Specifications subject to change without notice.
OPTIMA BMS/HPS SPEC SHEETS Rev 1



HPS464508HF

High Frequency Model

AVAILABLE MODELS		
MODEL	HPS464508HF-1K	HPS464508HF-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.



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.

AMTI
FORCE AND MOTION

176 Waltham Street, Watertown, MA 02472 USA

+1-617-926-6700 | sales@amtmail.com | www.amti.biz



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

©2025 Specifications subject to change without notice.
OPTIMA BMS/HPS SPEC SHEETS Rev 1

