

# BMS6001200

## Force Platform

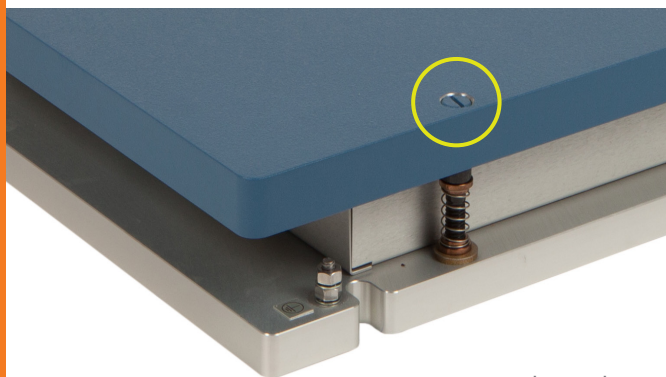
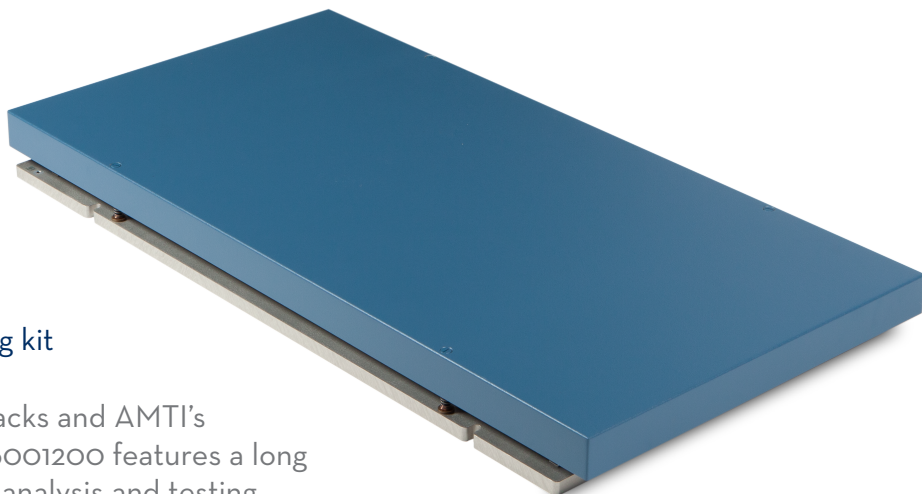
OPTIMA™ Biomechanics Measurement Series (BMS)

### System Components:

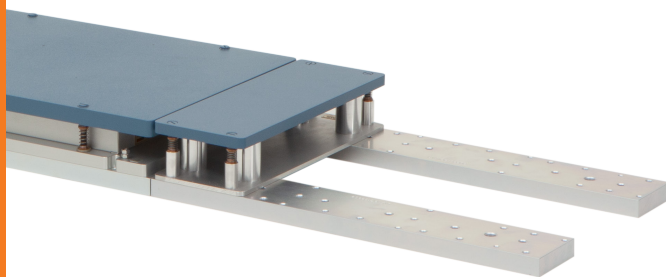
Force plate, Optima external amplifier, 9m (30ft) transducer cable, and mounting kit

Popularized through its use in running tracks and AMTI's **Instrumented Pitching Mound**, the BMS6001200 features a long target area ideal for sports performance analysis and testing.

Designed for athletic activities spanning longer distances, this mounted force platform has been installed in pitching mounds, running tracks, long jump pits, and more. With AMTI's advanced **Optima Technology**, the BMS6001200 delivers exceptional accuracy and repeatability across its entire surface.



Features through-top mounting access



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

### BMS6001200 SPECIFICATIONS

|                        |   |
|------------------------|---|
| Dimensions (W x L x H) | 600 x 1200 x 101.6 mm<br>(23.6" x 47.2" x 4") |
| Weight                 | 39 kg (85 lb)                                 |
| Sensing Elements       | Strain gauge bridge                           |
| Channels               | Fx, Fy, Fz, Mx, My, Mz                        |
| Top Plate Material     | Composite                                     |
| Temperature Range      | -17 to 52°C<br>(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.



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| AVAILABLE MODELS          |                               |                               |                               |
|---------------------------|-------------------------------|-------------------------------|-------------------------------|
| MODEL                     | BMS6001200-1K                 | BMS6001200-2K                 | BMS6001200-4K                 |
| 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               | 2710 Nm                       | 5420 Nm                       | 10850 Nm                      |
| My Capacity               | 1360 Nm                       | 2710 Nm                       | 5420 Nm                       |
| Mz Capacity               | 1020 Nm                       | 2030 Nm                       | 4070 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            | 0.78 $\mu\text{V}/\text{VNm}$ | 0.39 $\mu\text{V}/\text{VNm}$ | 0.19 $\mu\text{V}/\text{VNm}$ |
| My Sensitivity            | 1.15 $\mu\text{V}/\text{VNm}$ | 0.58 $\mu\text{V}/\text{VNm}$ | 0.29 $\mu\text{V}/\text{VNm}$ |
| Mz Sensitivity            | 1.66 $\mu\text{V}/\text{VNm}$ | 0.83 $\mu\text{V}/\text{VNm}$ | 0.42 $\mu\text{V}/\text{VNm}$ |
| Fx, Fy Natural Frequency* | 310 Hz                        | 360 Hz                        | 460 Hz                        |
| Fz Natural Frequency*     | 260 Hz                        | 270 Hz                        | 280 Hz                        |

\*Natural Frequency specifications shown for Standard Model (High Frequency 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

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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

