

# Ultra-thin Production Line Detector



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**micro  
program** 微程式資訊



## MS2202

Digitally inspects a technology factory's automated production line for abnormal external interference or jumps in product transportation. With its wireless design, its thin and light body (**only 3mm thick**) can follow the product deep into the process equipment and respond to the sensing value in real time. This can be done without taking the machine apart, which cuts down on maintenance costs and manpower for production line equipment and speeds up the maintenance process. It can be applied on the machines in automated manufacturing processes for industries of semiconductors and flat panel display (FPD).

The automated manufacturing process equipment for semiconductors or flat panel display (FPD) plants

Automated delivery in production line

Robotic arm loading for wafers or flat panel display (FPD)

## Specifications

- Slim and light, it measures only 3mm thick
- MEMS type vibration sensor: 3-axes sensing
- The surface is made of PEEK and is resistant to wear and acid
- Designed for wireless transmission that is convenient to use
- Vibration sampling rate can reach up to 2048 Hz under real-time Bluetooth transmission
- Supports up to 4 sensor connections simultaneously
- Reloadable and time-stampable events
- Display the overall value of acceleration, speed and displacement
- Information like waveform comparison, stacked graph analysis, STFT and Power Spectrum can be displayed using the analysis software
- Supports statistical feature calculation that can be saved to a file for generation of analysis reports

Items	Specifications
Sensor Size	115.5mm * 112.0mm * 3.0mm   Note: Tolerance $\pm 0.1$ mm
Weight	<60g
Dongle Size	43mm * 19mm * 9.5mm
Dongle Weight	6g
Principle of Sensing	MEMS Accelerometer
Number of Axes	X,Y,Z – 3Axis G-Sensor
Channel	3 (X,Y,Z)
Sensitivity	0.061/0.122/0.244 mg/LSB (16384/8192/4096 LSB/g)
Operating Range	Range. $\pm 2/4/8$ G
Battery	Up to 8 hours
Sampling Rate	512Hz ~ 2kHz
Bandwidth	5Hz~1kHz
Data Transfer	Bluetooth Low Energy
Sensor Operating Temperature	-20°C ~ +60°C
Operating System	Windows 10
Fixed Way	Paste
Durable Surface Material	Polyetheretherketone (PEEK)
Software	Real-time visual feedback for 1v1~4 BLE and record data in a log file online system (Win 10).

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## 超薄型製程檢測儀

### MS2202

用於檢測科技廠自動化產線中，產品運載過程是否出現異常外力干擾或跳動，以數據化檢驗設備製程，採無線設計，其輕薄外型 (**厚度僅3mm**)可隨產品深入製程設備，即時反應感測數值，不必拆機即可量測，有效減少產線設備保養成本與人力，縮短維護流程。可應用於半導體廠、光電面板廠等產業之自動化製程機台。

半導體或面板自動化製程設備

自動化運送之產線

晶圓或面板機械手臂之乘載

## 產品特色

- 輕薄外型，厚度僅3mm
- MEMS型振(震)動感測器：3軸感測
- 表面PEEK材質，耐磨耐酸鹼
- 採無線傳輸設計，方便使用
- 即時藍芽傳輸取樣率可達 2048 Hz
- 至多支援4個感測器同時連線
- 可標記事件時間戳記並可重複載入
- 加速度、速度、位移量之OA值(Overall Value)顯示
- 搭配分析軟體，可顯示波形比較、疊圖分析、STFT、Power Spectrum等資訊
- 支援統計特徵計算，可存檔便於後續分析報告產出

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