

M-A550AR2x

Accelerometer Sensor Unit RS422 Interface

■ GENERAL DESCRIPTION

The M-A550AR2x is high accuracy and high stability 3 axis accelerometer. This sensor unit is based on Quartz technology (QMEMS) for high accuracy, high stability, small size, and low power consumption. This sensor unit enables wide dynamic range acceleration and vibration sensing. Acceleration, tilt angle and tilt angular velocity is available as user selectable output measurement options. This sensor unit uses the latest technology to improve performance and offer wider sensing bandwidth. With RS422 interface supported for host communication, the M-A550AR2x reduces technical barriers for users to incorporate seismic and vibration sensing, and minimizes design resources to implement control and monitoring applications. This unit is packaged in a water-proof and dust-proof metallic case making it suitable for use in industrial and heavy duty applications.

The features of the sensor unit such as high stability, high precision, and small size make it easy to create and differentiate applications in various fields of industrial systems.

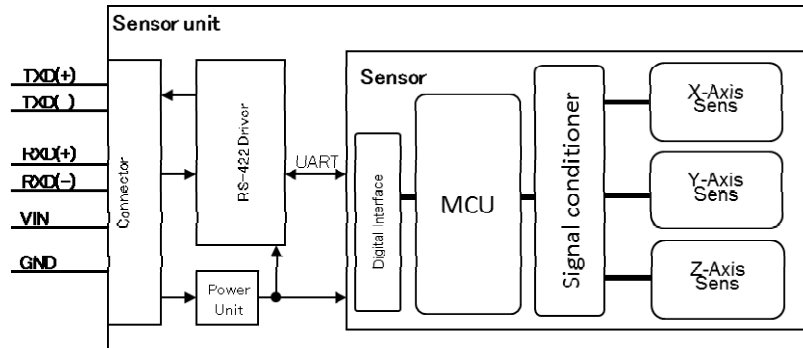


■ FEATURES

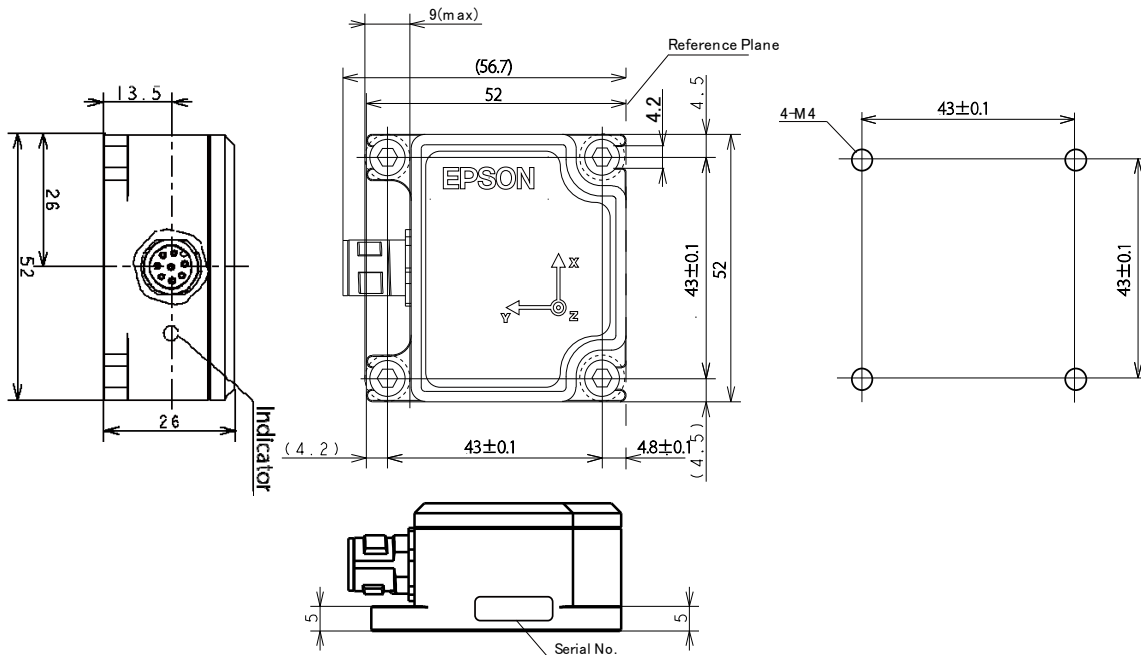
Item	Specification	Note
Sensor		
Integrated sensor	Model : M-A550AR2x Integrated Sensor : M-A351AU High-resolution 0.06 μ G Frequency range 100Hz Detection Range \pm 5G (Accuracy Range \pm 1G)	
Interface		
Protocol (DL layer)	RS-422 (TX/RX Pair, Full-Duplex transmission)	
Bit rate	Max 460.8kbps (programmable)	
Cable Length	250m(max)	
Others		
Trigger function	Internal timer event trigger function	External trigger not available
Terminator	Included (100 Ω typ)	
General specification		
Voltage supply	9~30V	
Power consumption	15mA typ.(Vin=12V)	
Operating temperature range	-20~+70°C	
External dimension		
Outer packaging	Overall metallic shield case	
Size	52×52×26 mm (Not including projection)	
Weight	81g	
Interface connector	M12, 8pin-male, water-proof	
Water-proof, Dust-proof	IP67	
Regulation		
EU	CE marking (EN61326、RoHS Directive)	Class A
FCC	FCCpart15B	Class A

M-A550AR2x

■ BLOCK DIAGRAM



■ OUTLINE DIMENSION



NOTICE:

(millimeters)

No part of this material may be reproduced or duplicated in any form or by any means without the written permission of Seiko Epson. Seiko Epson reserves the right to make changes to this material without notice. Seiko Epson does not assume any liability of any kind arising out of any inaccuracies contained in this material or due to its application or use in any product or circuit and, further, there is no representation that this material is applicable to products requiring high level reliability, such as, medical products. Moreover, no license to any intellectual property rights is granted by implication or otherwise, and there is no representation or warranty that anything made in accordance with this material will be free from any patent or copyright infringement of a third party. This material or portions thereof may contain technology or the subject relating to strategic products under the control of the Foreign Exchange and Foreign Trade Law of Japan and may require an export license from the Ministry of Economy, Trade and Industry or other approval from another government agency.

All brands or product names mentioned herein are trademarks and/or registered trademarks of their respective companies.

©SEIKO EPSON CORPORATION 2018

SEIKO EPSON CORPORATION

MSM Business Project

281 Fujimi, Fujimi-machi, Suwa-gun, Nagano 399-0293, JAPAN
Phone: +81-266-61-0614 FAX: +81-266-61-2045

Code : 3Z60-0065-02E
First issue July, 2016 in Japan
Revised date Mar. 2018
Rev.20180315