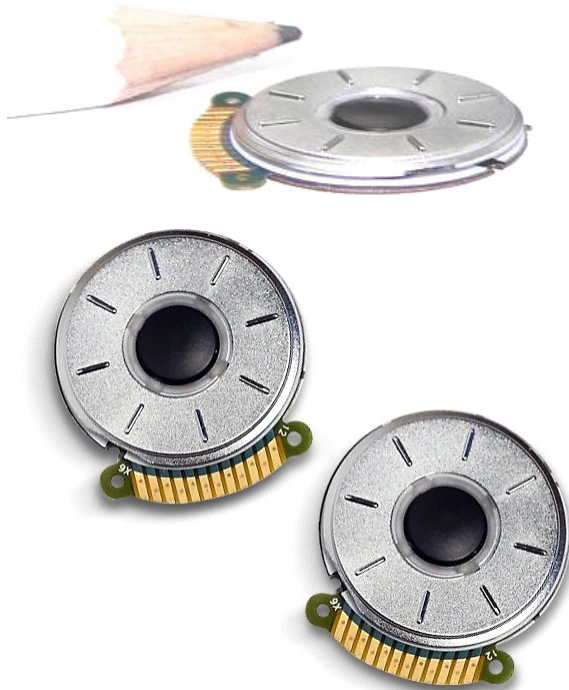


Product Brief

Description

Avago Technologies' AMRX series provide an integrated solution for scrolling, directional navigation and push button selection in a compact and ultra-slim package. With ease of use in mind, AMRX series is ideal for scrolling of menus in new handheld electronic devices, such as in mobile devices, music players, cameras, and entertainment consoles. Based on Avago Technologies' reflective optical technology, the motion sensor is non-contact and ensures reliable operations. The five tactile switches provide the four directional navigation and center push button for selection from a list of menu. The aesthetic design of the scrollwheel can be customized to different colors and design features. Please refer to factory for further details.



Standard Features

- Ultra-slim package
- Less than 2 mm height profile
- Approximate diameter of 18.5 mm
- Integrated with four directional switches and a center push button
- Integrated with scrollwheel for scrolling operation
- Built-in illumination ring
- Two-channel Quadrature Output
- 45 Cycles Per Revolution (CPR)
- 1.8/3.3V CMOS Logic Compatible Single-ended Output
- Single 2.4V to 3.3V supply
- Simple Power Down feature
- Easy assembly, no signal adjustment required
- Connectivity through direct solder (AMRX-1500) or FPC (AMRX-1510)
- Customizable aesthetic design
- RoHS compliant

Applications

- Handheld electronic devices
- Mobile phones
- Digital camera and camcorder
- Entertainment consoles
- Handheld GPS or navigation devices
- Portable audio and video players
- Photo printers

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Table 1. Technical Specification

Parameter	Symbol	Condition	Values			Units	Notes
			Min	Typ.	Max		
Operating Temperature	T_{amb}		-20	25	70	°C	
Storage Temperature	T_{stg}		-40		85	°C	
DC Supply Voltage	V_{CC}		+2.4		+3.3	V	
Supply Current – Operating	I_{CC}			7	10	mA	
Supply Current – Operating with Illumination LEDs	I_{CCIL}			30	50	mA	1
Power Down Current Consumption	I_{CCPD}				4	µA	2

Notes:

1. Dependent on LED type and illumination brightness level, operating current consumption can be lowered.
2. Activate Power Down Mode with logic low at PDN pin



Figure 1. Typical handheld device application using AMRX series with customizable aesthetic design

For different product options, customized products and technical documents, please contact factory at mido.trsc@avagotech.com

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