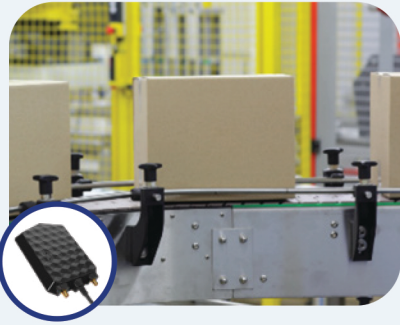


AcuPad-50

AcuPad-50 & AcuPad-50 MUX | Compact and Efficient UHF RFID Readers for Self-Checkout and Logistics Applications

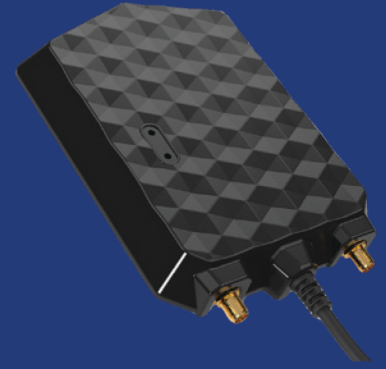


The HID Acura AcuPad-50 and AcuPad-50 MUX are compact and efficient UHF RFID readers designed to deliver high performance across a wide range of industries. Both models come with two SMA outputs for external antennas, providing flexibility in usage and enhancing their adaptability to various operational environments. The readers are powered via USB, combining the convenience of simple connectivity with reliable performance, making them suitable for a diverse set of applications.

The AcuPad-50 and AcuPad-50 MUX offer two modes of operation to suit different needs. In Autonomous Mode, they function as HID keyboard devices, allowing automatic readings without the need for additional software. This mode is particularly useful in straightforward, plug-and-play environments where minimal configuration is required. Alternatively, in Transparent Mode, the readers work with custom software using APIs, offering extensive possibilities for development and integration. This flexibility enables businesses to adapt the readers to their specific requirements, whether in retail, healthcare, logistics or other industries.

The readers are versatile solutions capable of addressing various operational challenges in fields such as retail, self-checkout, healthcare, industry and logistics. Their compact design, combined with the ability to connect a wide variety of external antennas, significantly expands the range of potential applications. This versatility ensures that the readers can be tailored to specific environments, enhancing performance and meeting unique operational needs. Whether managing inventory in a retail setting or streamlining processes in logistics and healthcare, the AcuPad-50 and AcuPad-50 MUX offer reliable and adaptable RFID solutions.

While both the AcuPad-50 and AcuPad-50 MUX share many core features, they are designed to serve slightly different applications. The AcuPad-50 is primarily optimized for use in retail and self-checkout environments, where ease of use and efficiency are paramount. The AcuPad-50 MUX, on the other hand, offers enhanced versatility, making it well-suited for more complex environments such as logistics and industrial applications, in addition to retail and healthcare. The MUX model is specifically engineered to handle larger-scale operations and more demanding tasks, providing expanded functionality and better integration with diverse antenna configurations, allowing it to cover a wider range of applications beyond those of the standard AcuPad-50.



BENEFITS:

- Plug-and-play readers offer automatic reading to ensure effortless integration
- Flexibility for custom development and integration by using available APIs
- Power and communication via USB for easy and quick connection
- Two external antennas for improved performance

KEY TECHNOLOGY HIGHLIGHTS:

RAIN® RFID (UHF)

- 902 – 907 MHz and 915 – 928 MHz (BR)
- 902 – 928 MHz (US)

TYPICAL APPLICATION AREAS:

- Access control
- Retail products reading
- Healthcare equipment monitoring
- industry product and equipment control
- Vehicle's tag register

	AcuPad-50	AcuPad-50 MUX
Base Model Number	100.721 (USA) 100.564 (BR)	100.722 (USA) 100.656 (BR)
ELECTRONIC		
Regulation	(BR) - 902-907 MHz & 915 - 928 MHz (ANATEL) (US) - 902-928 MHz (FCC)	
Mode	Frequency Hopping	
Modulation / RF Coding	DSB-ASK, FM0 / PR-ASK, M4	
RF Output power	0 to 30 dBm with 0.5 dBm increment	0 to 27 dBm with 0.5 dBm increment
Backscatter Link Frequency	250 kHz, 320 kHz and 640 kHz	
Reading distance¹	Depending on the setup, can vary from 3 to 12 meters (10 to 39 ft)	Depending on the setup, can vary from 3 to 8 meters (10 to 26 ft)
Physical Interface	Communication and Power: USB Type-A male connector	
Communication interface	USB HID keyboard: The reader is recognized by the Operating System (Windows, Mac and Linux) as a HID device. USB Serial CDC: When the reader is connected via USB, a serial port is automatically created on Windows 10, Mac, and Linux operating systems. Windows 7 and 8 need driver installation.	
Programming	Autonomous mode: The reader can be configured via serial communication using ASCII commands through a terminal application (such as Putty, Minicom, or Screen, etc) without the need for an API or SDK. It supports tag read-only functionality. Transparent mode: The reader responds to software using the Mercury API and has tag read and write functionality.	
POWER		
Operating voltage	5 VDC ± 1% (Host USB port) Maximum ripple from source: 200 m Vpp @ 20 MHz	
Consumption²	Max 3.8 W@5 VCC Read power 27 dBm	
PHYSICAL		
Dimensions	5.118 x 3.543 x 0.669 in (130 x 90 x 17) mm	
Mounting method	Desktop reader / Table or wall mount	
RF Connector	2x RP SMA Jack male pin	
Weight	200 g / 7.05 oz / 0.44 lb	
Cable length	Fixed cable, 6.5ft (2 m)	
CHEMICAL AND MECHANICAL		
IP Rating	Internal use	
Humidity	95%	
THERMAL		
Storage	+14° to +140° F (-10° to +60° C)	
Operating	+14° to +131° F (-10° to +55° C)	
OTHER		
Standards	ISO 18000-6C (EPC Gen2) ISO 18000-63 (EPC Gen2 V2)(Transparent Mode)	
Warranty	2 years	

¹ The reading distance may vary depending on the antenna connected to the reader, the power supply, the tag used and the environment of use of the reader.

² Defined for operation into a 17dB return loss load or better.

