Advanced Card Systems Ltd.
Card & Reader Technologies

ACM1552U-Z
Small NFC Reader Module

User Manual V1.01

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1.0. Introduction

The ACM1552U-Z is a small NFC reader module developed based on the 13.56 MHz contactless technology. It can access contactless cards and devices following the ISO 14443, ISO 15693 and ISO 18092 standards.

ACM1552U-Z is a CCID & PC/SC compliant reader module, this plug-and-play NFC reader module makes use of high-speed communication for contactless cards at a maximum of 848 kbps and proximity operating distance of up to 70 mm (depending on tag type used), which makes it suitable for highly demanding applications. It also supports three modes: card reader/writer, keyboard emulation, and card emulation, making it a powerful all-in-one device that is cost-effective and flexible for many smart card applications.

The compact size of the ACM1552U-Z module makes it an excellent choice for integration into small machines. Its small form factor offers flexibility and seamless integration into various applications, such as handheld devices and kiosks without compromising their functionality or usability.
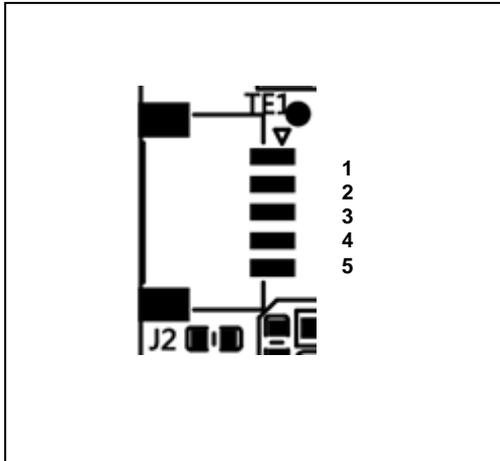
2.0. Pin Assignment

2.1. Connect ACM1552U-Z to another device via USB

A USB port is available to connect the ACM1552U-Z to other peripherals or devices.

To do this:

1. Connect socket (J2) via *USB to JST cable* to another peripheral device (see **Figure 1**)

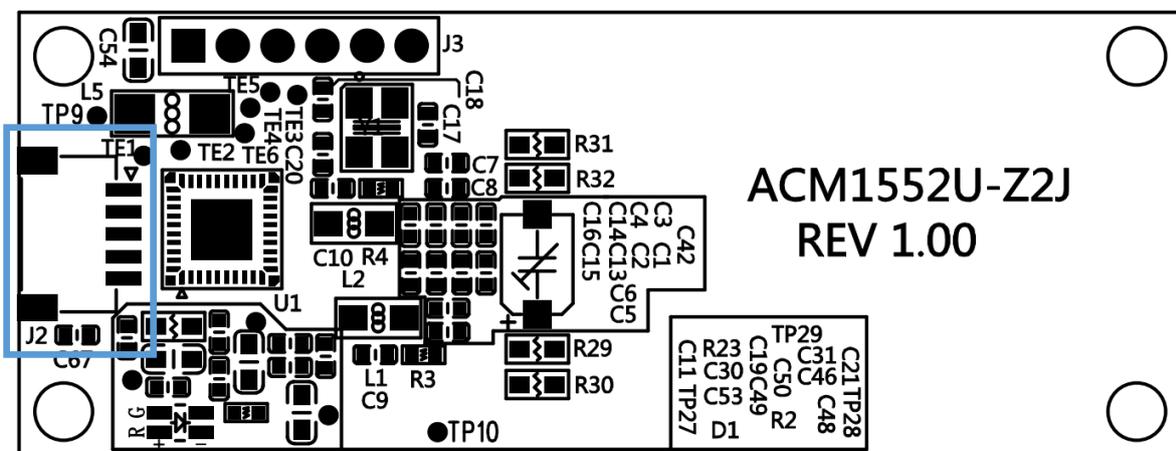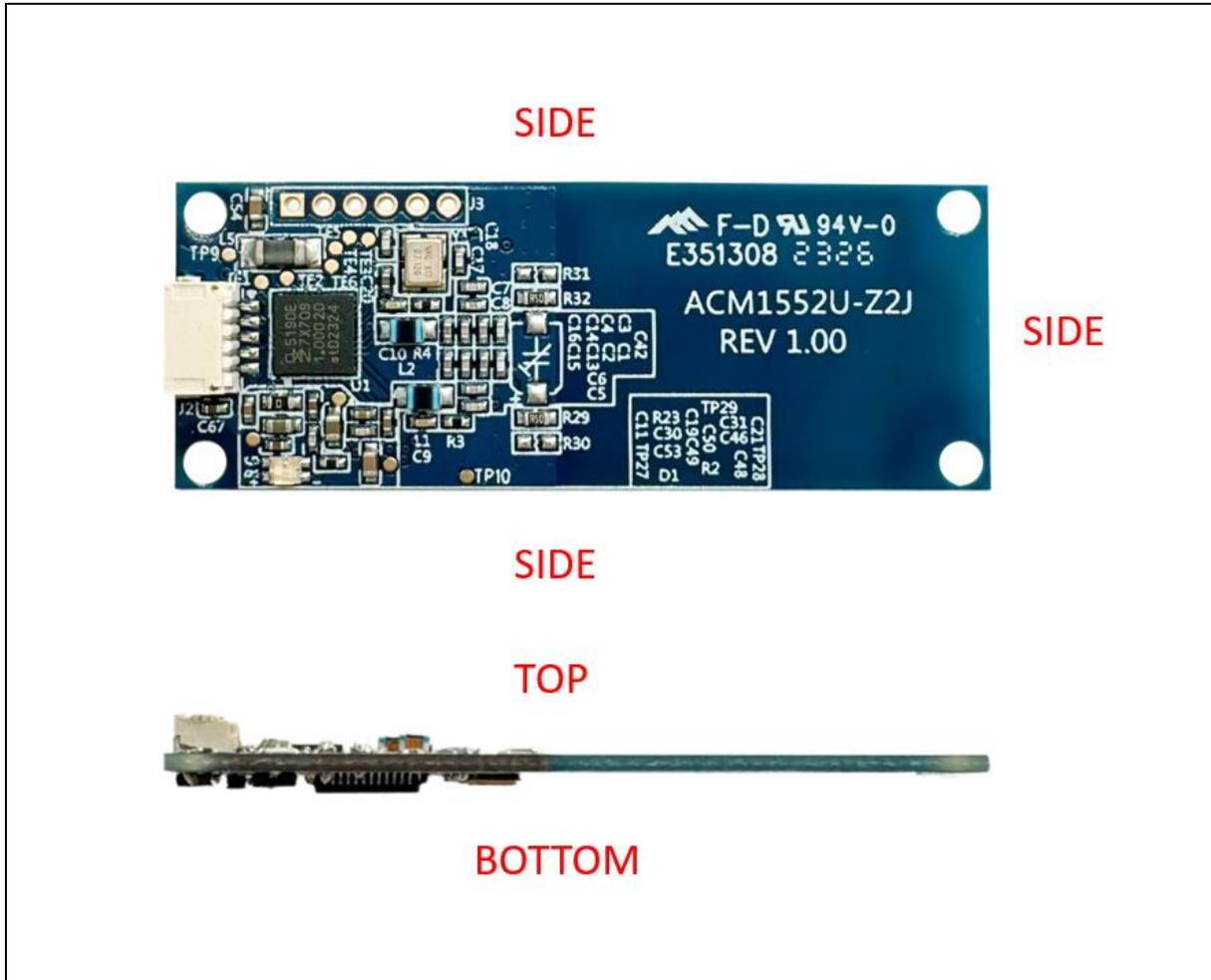|	
1	USB VCC
2	USB D-
3	USB D+
4	USB GND
5	USB shielding

Figure 1: ACM1552U-Z USB Configuration

3.0. Minimum Distances from Conductive Materials

The table below illustrates the recommended minimum distances of the ACM1552U-Z Antenna Board from conductive materials.

Location	Minimum Distance
Sides	30 mm
Top and Bottom	30 mm

Table 1: Recommended Minimum Distances from Conductive Materials
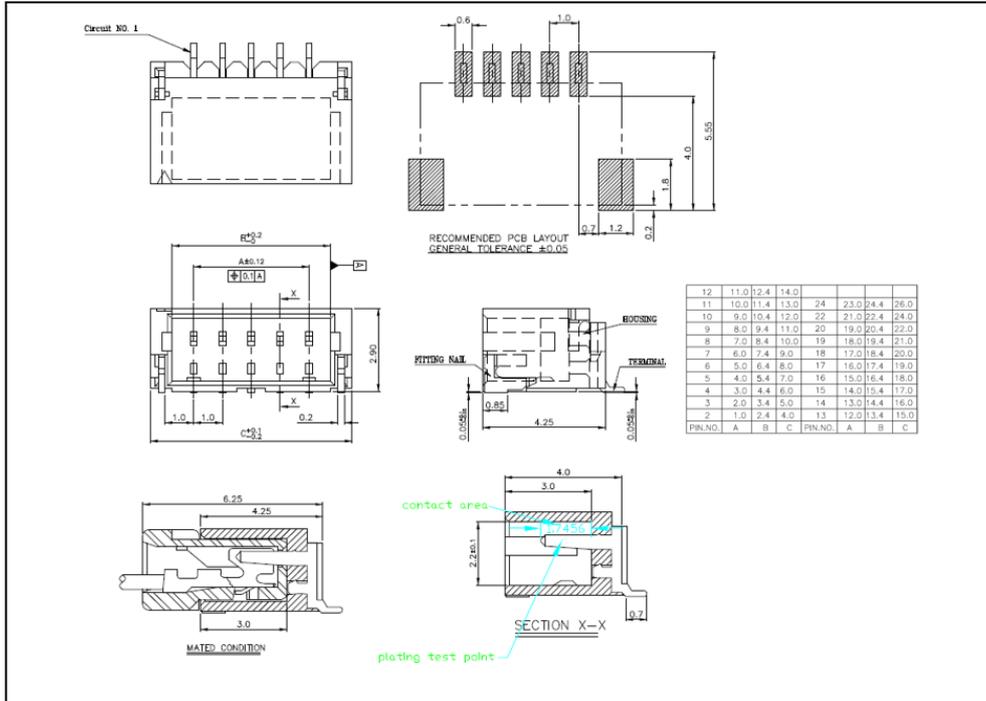
Appendix A. Connector Specification

Figure 2: ACM1552U-Z JST Connector (Male) Specification

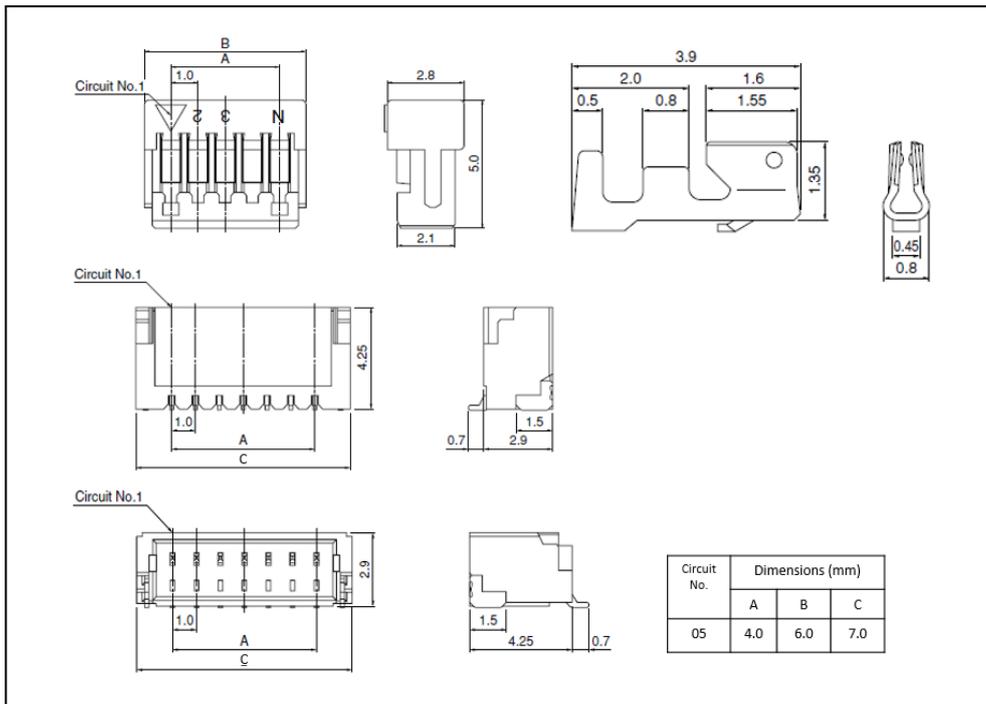*Note:* This connector is compatible with the JST SH series, 5pin, 1mm pitch.

Figure 3: ACM1552U-Z JST Connector (Female) Specification