

User Manual for Film core drum

1. Introduction

Model: JC-SE-R-001 FCC ID:2APN9JC-SE-R-001

This system is a unit that acquires the type of wrapping paper.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

-Model: JC-SE-R-001

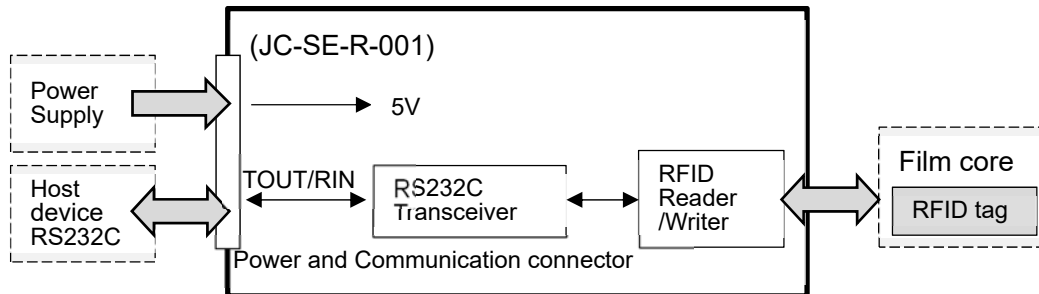
-This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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2. System Description



This system equipped with an RFID reader / writer and determines the type of packaging paper based on the contents of the set “RFID tag” (mounted on “film core”).

The type of “RFID tag” corresponds to the international standard ISO15693, and the conformity tags are YTBP01-129 (by YRSC).

The packaging paper wrapped around the film core is packaged at the sealing temperature according to the type of “RFID tag”.

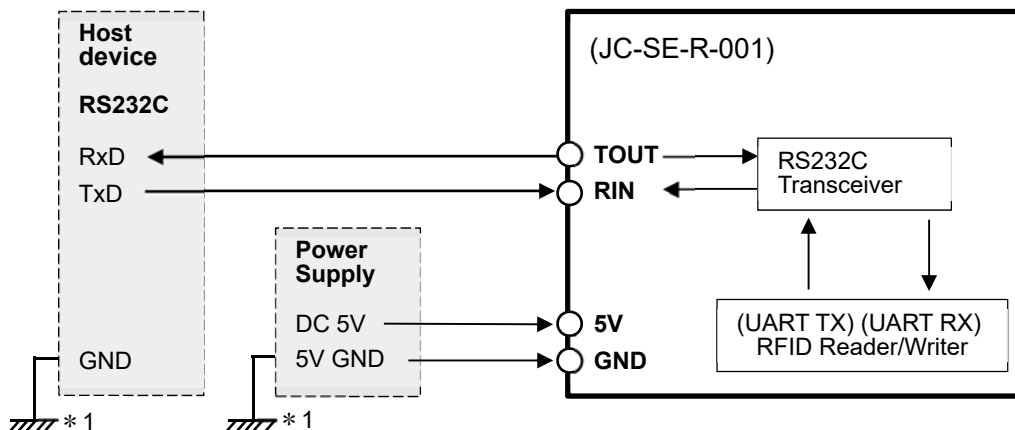
For the “Power supply”, DC5V are required.

It operates by sending a command from the “Host device” via RS232C.

3. Connection

• “Power and Communication connector” . . . (HIROSE : DF-11-4DS-2C)

1pin:TOUT、2pin:GND、3pin:RIN、4pin:5V



* 1 : Each GND is not connected, so connect it to the “Power Supply” side.

4. Operating

- Supply to “Power and Communication connector” DC5V.
- Send the following commands from the “Host device”.

5. Command List

The behavior is determined by a state machine capable to perform a certain set of commands.

By writing a command-code to the command register the command is executed.

Arguments and/or data necessary to process a command, are exchanged via the FIFO buffer.

- Each command that needs a certain number of arguments will start processing only when it has received the correct number of arguments via the FIFO buffer.
- The FIFO buffer is not cleared automatically at command start. It is recommended to command afterwards.
- Each command may be stopped by the host by writing a new command code into the command register e.g.: the Idle-Command.

- Command set

Command	No.	Parameter	Short description
Idle	00h	-	no action, cancels current command execution
LPCD	01h	-	low-power card detection
AckReq	04h	-	performs a query, an Ack and a Req-Rn for ISO/IEC 18000-3 mode 3/ EPC Class-1 HF
Receive	05h	-	activates the receive circuit
Transmit	06h	bytes to send: byte1, byte2,....	transmit data from the FIFO buffer
Transceive	07h	bytes to send: byte1, byte2,....	transmits data form the FIFO buffer and automatically activates the receiver after transmission finished
WriteE2	08h	address H, address L, data;	gets one byte form FIFO buffer and writes it to the internal EEPROM
WriteE2Page	09h	(page Address), data0, [data1 ..data63];	gets up to 64 bytes (one EEPROM page) form the FIFO buffer and writes it to the EEPROM
ReadE2	0Ah	address H, address L, length;	Reads data from the EEPROM and copies it into the FIFO buffer
LoadReg	0Ch	(EEPROM address H), (EEPROM address L), RegAdr, (number of Register to be copied);	reads data from the internal EEPROM and initializes the SLRC610 registers. EEPROM address needs to be within EEPROM sector 2
LoadProtocol	0Dh	(Protocol number RX), (Protocol Number TX);	reads data from the internal EEPROM and initializes the SLRC610 registers needed for a Protocol change
ReadPNR	1Ch	-	copies bytes form the Random Number generator into the FIFO until the FIFO is full
Soft Reset	1Fh	-	reset the SLRC610

This film core drum reader/writer uses SLRC61003HN. Refer to the SLRC61003HN data sheet for more details.