Excellence in Compliance Testing

Certification Exhibit

FCC ID: JEH2381GATE
IC: 470B-2381GATE

FCC Rule Part: 15.225
IC Radio Standards Specification: RSS-210

ACS Report Number: 10-0325.W06.11.A

Manufacturer: NCR Corporation
Model: 2381GATE

Manual

NCR SelfServ Entertainment
2381 Gate RFID User Guide

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications to this device not expressly approved by NCR could void the user's authority to operate the equipment.

IC Compliance

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. 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.

Cet appareillage numérique de la classe B répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

This device has been designed to operate with the antennas listed below, and having a maximum gain of 0 dBi. Antennas not included in this list or having a gain greater than 0 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

Authorized antenna: NCR Gate antenna, assembly part number 497-0470304

Who Should Use This Document

This user guide is intended for use by anyone seeking to operate the 2381 Gate RFID reader independently from the 2381 DVD kiosk as a stand-alone RFID reader.

Parts Identification

The 2381 Gate RFID module, cable, and antenna are pictured below. This reader is intended to be used only with the cable and antenna supplied by NCR. A 3.3V/5V dual output power supply is required to power the reader.

Figure 1

System Setup

You will need:

- PC or laptop running Windows XP
- USB type A male to type B male cable
- 3.3V/5V dual output power supply
- Power supply cable
- Microsoft .NET 3.5
- HID terminal software
- 2381 FCC Test Firmware

IMPORTANT: You must obtain and update the 2381 Gate RFID board with **FCC Test Firmware** before using the reader in a stand-alone configuration. Refer to the **2381 Installation Guide** for firmware update instructions.

First, connect the antenna to the reader using the supplied 10 feet long RP-SMA plug to RP-SMA plug 50 ohm cable.

Figure 2

Connect the power cable and power supply to the board. Pin 1 (red) must be connected to +5V, connect pin 2 (black) to ground, and connect pin 4 (white) to +3.3V.

Figure 3

Next, locate the RFID module's USB connector on the bottom side of the PCBA, and connect the 2381 Gate RFID PCBA to a Windows PC or laptop with a USB cable.

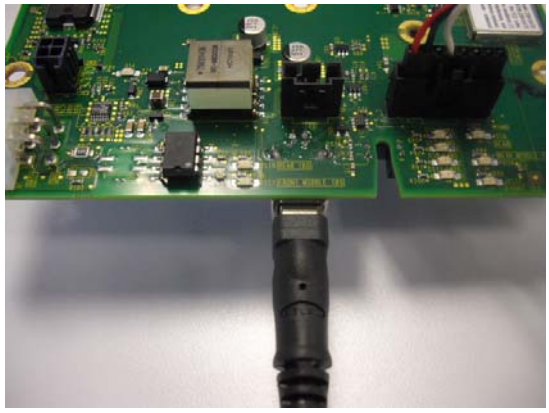

Figure 4

Operation

Open a HID terminal session by selecting the **NCR DVD Vending Kiosk HID Terminal** icon from the desktop. Accept the default options and click on the **Connect** button. Then select **rfid** from the main menu.

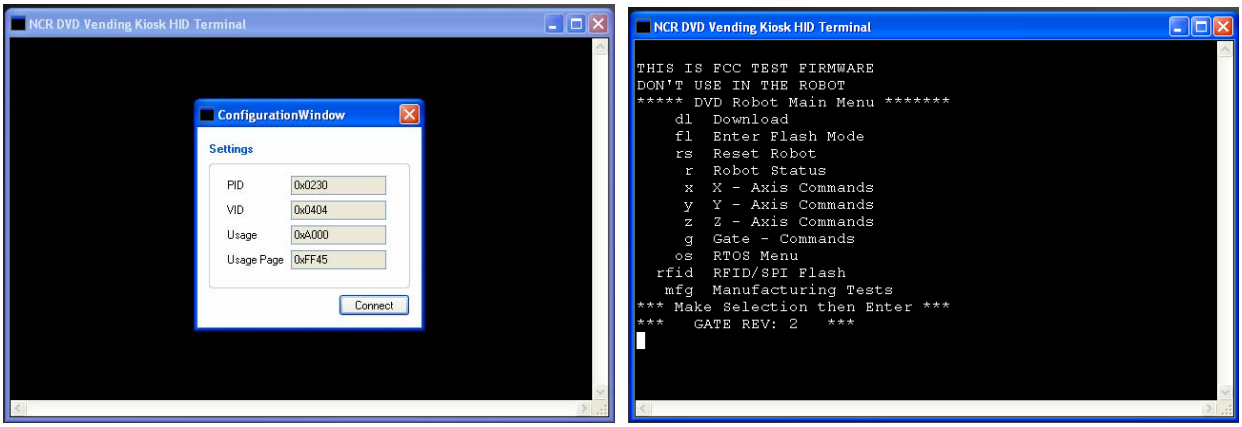

Figure 5

Select option **5**, **Gate RFID Test**, to initiate an ISO15693 inventory command, and then present an RFID tag to the RFID antenna. The reader will repeatedly send inventory commands until it is interrupted. The terminal will display the UID of any RFID tag that responds to the command. Press a key to terminate the continuous modulation from the repeating inventory command transmissions.

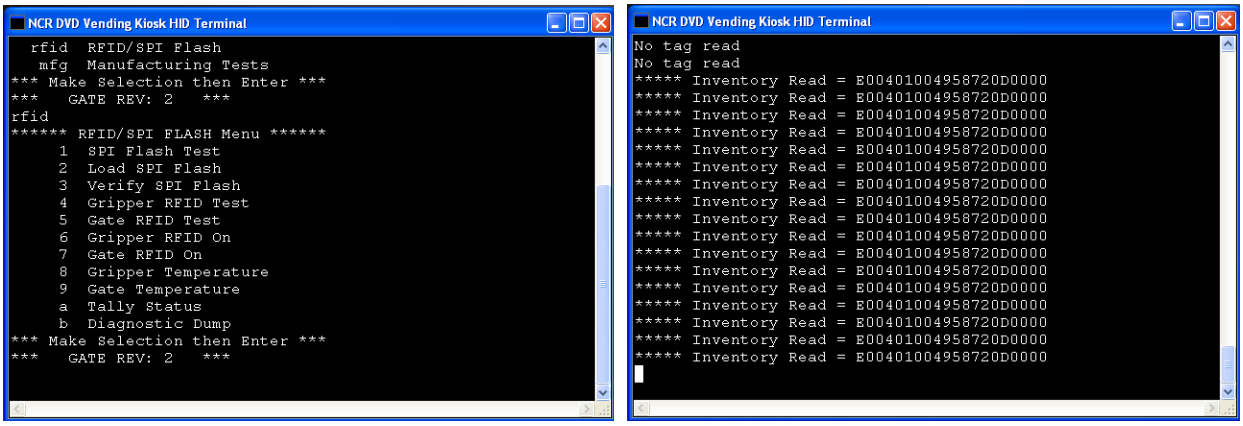

Figure 6

Select option **7**, **Gate RFID On**, to generate a continuous wave (CW) tone. The reader will continue to generate a CW tone until it is terminated with the **Gate RFID Test** option or until power is removed from the device.