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Application for Limited Modular Approval (LMA)

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Overview

The OEM-400v1.2 module is a Radio Frequency Identification (RFID) interrogator capable of reading from and writing to various 13.56MHz transponders.

The OEM-400v1.2 operates under the control of a host (in this case the SATO CL408/412 printer and is designed to be integrated within the SATO printer.

Limited Modular Approval (LMA) is requested to facilitate the integration of the OEM-400v1.2 and reduce the need for repeated testing. In accordance with Public Notice DA 00-1407 (June 2000) the following issues are addressed:

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History

Version 0.1 - document creation

1 RF Shielding

This application relates to the specific incorporation of the OEM-400v1.2 into the SATO CL408/412 printer as such all tests were performing using this printer without additional screening.

2 Data inputs

The OEM-400v1.2 is command driven. No RF is generated without the receipt of a valid command. Commands are received on a serial TTL level port at baud rates between 9600 baud and 57600 baud. Since the data input is digital it is not possible to cause overmodulation. Similarly an excessive data rate will prevent the command from being decoded and acted upon.

3 Power Supply regulation

The OEM-400v1.2 receives its regulated power supply from the SATO printer. The installation instructions in the User Manual specify that the power supply must be regulated to $5V \pm 5\%$ to retain LMA; this being the range over which the module is specified and was tested.

4 Antenna

All testing was performed using the custom antenna mounted in its final position within the printer. This antenna is connected to the OEM-400v1.2 via a non standard connector to avoid the possibility of a different antenna being connected. The installation instructions in the User Manual specify that the custom antenna must be used to retain LMA..

5 Labelling

The OEM400v1.2 is labelled on the bottom side of the using a self adhesive label as shown in Figure 1.



Figure 1: Design of OEM400V1.2 label (not to scale)

Since this will not be visible when the OEM400V1.2 is installed in the final product the installation instructions in the User Manual specify that the final product should display a label including the text “Contains Transmitter Module FCC ID: PR5OEM400V12”.

6 Specific operating requirements

There are no operating requirements for Section 15.225 that can be modified by the user.

7 RF exposure requirements

There are no RF exposure implications with operating the OEM 400 V1.2