OMRON

PCB-mounted Reader/Writer Modules
V720-HMC73 (Unified Type)
V720-HMC73T (Separate Type)

V720-HMC73

V720-HMC73T

■ Product Description

OMRON's PCB-mounted Reader/Writer Modules are available in unified type (V720-HMC73) and separate type (V720-HMC73T), and are ideal for built-in applications.

■ Features

● Communication frequency: 13.56 MHz
● Applies I·CODE chip technology from Philips Semiconductors.
● Broadcasting license or permit is not required because radio output level is too small.

■ Benefits

● Both unified type and separate type are available.
● Supports host interface with two-wire half duplex serial communication system at C-MOS level (5 V).

■ General Specifications

Item	Specifications
Dimensions	40 mm x 44 mm x 14 mm (thickness) (V720-HMC73)
Mounting	M2.3 screw mounting at 3 points (V720-HMC73)
	M2 screw mounting at 2 points for the circuit board, M2.3 screw mounting at 3 points for the antenna board (V720-HMC73T)
Supply voltage	5 VDC±10%
Current consumption	Approx. 70 mA (oscillating), approx. 30 mA (not oscillating), approx. 13 mA (stopped)
Vibration resistance	Destruction: 10 to 150 Hz, 0.35-mm single amplitude at 50 m/s^2 in three directions 10 times for approximately 8 minutes
Shock resistance	Destruction: 200 m/s^2 three times each in six directions
Ambient temperature in operation	-10 to 55 °C
Ambient temperature in storage	-25 to 65 °C
Ambient humidity in operation	25% to 85% (with no condensation)
Communication frequency	13.56 MHz
Maximum communication distance	Typical 35 mm (see note) (Usable Tag type: V720-D52P30)
Weight	Approx. 12 g

Note: The communication distance may be affected by the surrounding noise environment or surrounding materials.

■ Host Interface Specifications

Item	Specifications				
Connector	S10B-ZR-SM3A-TF (J.S.T. MFG. CO., LTD.) (Applicable cables: AWG#32 to #26)				
Communications system	Two-wire half duplex serial communications system (C-MOS level)				
Synchronizing system	Asynchronous mode/start-stop synchronizing system				
Communication control system	CR control/Character control				
Baud rate	9,600 bps/38,400 bps				
Character format	Start bit	Data bit	Parity bit	Stop bit	Total
CR control	1	8	Even	1	11
Character control	1	8	None	1	10
Error detection system	Parity (CR control)/BCC (character control)				
Bit transmission sequence	LSB first				

■ List of Commands

Commands are used to specify the processing of the Reader/Writer Module. The commands shown in the following table are available.

Name	Contents
READ	Reads Tag memory data in page units.
WRITE	Writes Tag memory data in page units.
WRITE SAME DATA	Writes the same data to Tag memory.
READ SERIAL NUMBER	Reads the Tag serial number.
READ FAMILY CODE/APPLICATION ID	Reads the Tag family code and the Tag application ID.
WRITE FAMILY CODE/APPLICATION ID	Writes the Tag family code and the Tag application ID.
SET WRITE PROHIBIT	Makes write-prohibit setting for pages.
ACK	Sent when the host device receives data normally.
NACK	Sent when the host device does not receive data normally.
STOP	Stops the command currently being executed. Stops Antenna oscillation.
TEST	Sends received data to the host device without changes.