

NEW

OMRON

## V680 RFID Handheld Reader Writer

V680-CH Series

Reliability Is Finally Here!



### Main Features

- Communications possible with ISO/IEC 18000-3 (ISO/IEC 15693)-compliant ID Tags, as well as with the V680-series ID Tags.
- Equipped with RS-232C and USB interfaces.
- Supports V600-series commands to enable use with existing systems.
- Conforms to CE and FCC.

- ☐ V680-CHUD 0.8M Model with USB, 0.8 m
- ☐ V680-CHUD 1.9M Model with USB, 1.9 m
- ☐ V680-CH1D Model with RS-232C, 2.5 m  
(for use with a personal computer or programmable controller)
- ☐ V680-CH1D-PSI Model with RS-232C, 0.8 m  
(Recommended model: Psion Teklogix Handheld Terminal)
- ☐ V600-A22 AC Adaptor  
(for V680-CH1D)
- ☐ V680-A-7527S-G2-EG-S Psion Teklogix Handheld Terminal

Communicate with both V680-series Tags and Tags that comply with international standards.

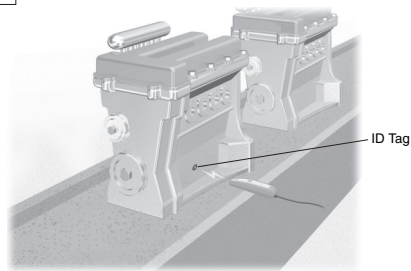


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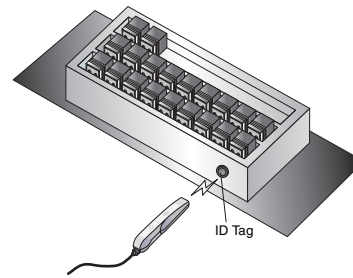


## Application Examples

### Automobile Parts

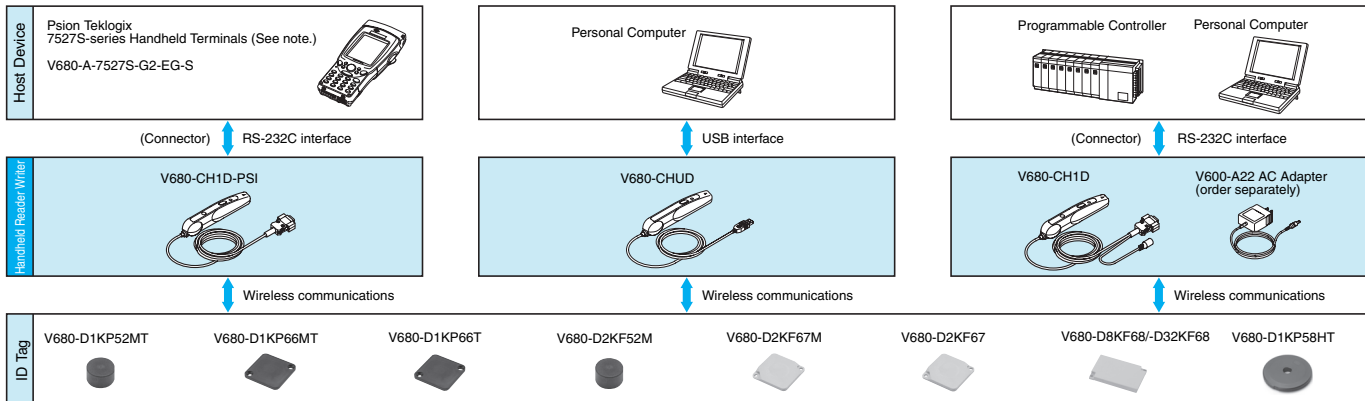


### Inspecting Secondary Batteries



- Can be used for the following:
- Lot numbers
  - Model numbers
  - Production instructions
  - Process control information
  - Quality information management

## System Configuration



Note. Easy Access demonstration software for V680/V600 is pre-installed.

## Ratings and Specifications

### Handheld Reader Writer

| Item                                               | Model | V680-CHUD 0.8M                                                                                    | V680-CHUD 1.9M                                | V680-CH1D                                     | V680-CH1D-PSI                                 |
|----------------------------------------------------|-------|---------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Power supply voltage                               |       | 5 VDC±5%                                                                                          |                                               |                                               |                                               |
| Current consumption                                |       | 500 mA max. (for a power supply voltage of 5.0 V)                                                 |                                               |                                               |                                               |
| Insulation resistance                              |       | 50 MΩ min. (at 500 VDC) between connector and case                                                |                                               |                                               |                                               |
| Dielectric strength                                |       | 1,000 VAC, 50/60 Hz for 1 min (leakage current: 1 mA max.) between connectors and case            |                                               |                                               |                                               |
| Vibration resistance                               |       | Destruction: 10 to 150 Hz, 0.2-mm double amplitude, with 10 sweeps for 8 min each in 6 directions |                                               |                                               |                                               |
| Shock resistance                                   |       | Destruction: 150 m/s <sup>2</sup> , 3 times each in X, Y, and Z directions                        |                                               |                                               |                                               |
| Ambient operating temperature during communication |       | 0 to +40°C                                                                                        |                                               |                                               |                                               |
| Ambient operating humidity during communication    |       | 35% to 85% (with no condensation)                                                                 |                                               |                                               |                                               |
| Ambient storage temperature                        |       | -25 to +65°C                                                                                      |                                               |                                               |                                               |
| Ambient storage humidity                           |       | 35% to 85% (with no condensation)                                                                 |                                               |                                               |                                               |
| Degree of protection                               |       | IEC 60529: IP63 (See note 2.)                                                                     |                                               |                                               |                                               |
| Cable length                                       |       | 0.8 m                                                                                             | 1.9 m                                         | 2.5 m                                         | 0.8 m                                         |
| Weight                                             |       | Approx. 110 g (including connector and cable)                                                     | Approx. 140 g (including connector and cable) | Approx. 170 g (including connector and cable) | Approx. 120 g (including connector and cable) |

Note 1. Refer to the User Manual (Cat. No. Z272) for details.

2. This does not include the connector section. The main unit is not resistant to chemical or oils.

## Host Communications Specifications

### Host Communications Interface Specifications

#### <V680-CHUD>

| Item                 | Model | V680-CHUD            |
|----------------------|-------|----------------------|
| Interface connector  |       | Series A plug        |
| USB version          |       | Ver 1.1              |
| Communications speed |       | Full speed (12 Mbps) |
| Device class         |       | COM class            |

#### <V680-CH1D or V680-CH1D-PSI>

| Item                             | Model | V680-CH1D                                                           | V680-CH1D-PSI |
|----------------------------------|-------|---------------------------------------------------------------------|---------------|
| Connector                        |       | D-SUB 9-pin (compatible with IBM PC/AT or compatible) (See note 1.) | D-SUB 9-pin   |
| Standards                        |       | RS-232C                                                             |               |
| Transmission path connections    |       | 1:1                                                                 |               |
| Communications method            |       | 2-wire half-duplex                                                  |               |
| Synchronization                  |       | Start-stop (stop bits = 1 or 2) (See note 2.)                       |               |
| Baud rate                        |       | 2,400, 4,800, 9,600, 19,200, or 38,400 bps (See note 2.)            |               |
| Transmission code                |       | ASCII (7-bit) or JIS8 (See note 2.)                                 |               |
| Communications control procedure |       | 1:1 protocol                                                        |               |
| Error detection                  |       | Vertical parity (even, odd, or none) (See note 2.)                  |               |

Note 1. To convert to a 25-pin connector, use the Sunhayato SGC-X9P/25P-2 or the equivalent.  
2. Set using a setting command.

This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

## Tag Communications Specifications

Transmission is possible with currently sold V680-series ID Tags.

| ID Tags                                  | Communications distance |              |
|------------------------------------------|-------------------------|--------------|
|                                          | Read                    | Write        |
| V680-D1KP52MT                            | 0 to 9.0 mm             | 0 to 7.5 mm  |
| V680-D1KP52MT (embedded in metal: steel) | 0 to 3.0 mm             | 0 to 2.5 mm  |
| V680-D1KP66MT                            | 0 to 21.0 mm            | 0 to 18.0 mm |
| V680-D1KP66T                             | 0 to 27.0 mm            | 0 to 25.0 mm |
| V680-D1KP58HT                            | 0 to 19.0 mm            | 0 to 17.0 mm |
| V680-D2KF52M                             | 0 to 7.0 mm             | 0 to 7.0 mm  |
| V680-D2KF52M (embedded in metal: steel)  | 0 to 2.0 mm             | 0 to 2.0 mm  |
| V680-D2KF67M                             | 0 to 22.0 mm            | 0 to 22.0 mm |
| V680-D2KF67                              | 0 to 28.0 mm            | 0 to 28.0 mm |
| V680-D8KF68                              | 0 to 32.0 mm            | 0 to 32.0 mm |
| V680-D32KF68                             | 0 to 32.0 mm            | 0 to 32.0 mm |

Note. ID Tag Mounting Conditions

- V680-D1KP52MT: Embedded in resin or steel.
- V680-D1KP66MT: ID Tag mounted with steel on back surface.
- V680-D1KP66T: ID Tag mounted on resin surface (no metal on back surface).
- V680-D1KP58HT: ID Tag mounted on resin surface (no metal on back surface).
- V680-D2KF52M: Embedded in resin or steel.
- V680-D2KF67M: ID Tag mounted with steel on back surface.
- V680-D2KF67: ID Tag mounted on resin (no metal on back surface).
- V680-D8KF68: ID Tag mounted on resin (no metal on back surface).
- V680-D32KF68: ID Tag mounted on resin (no metal on back surface).

### Also Available: Psion Teklogix Handheld Terminals

V680-A-7527S-G2-EG-S



Includes the Handheld Terminal, batteries, and a charger.

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Note: Specifications subject to change without notice.

Cat. No. Q157-E1-01

# Mouser Electronics

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## Omron:

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[V680-CA5D01-V2](#) [V680-HA63A 5M](#) [V680-CA5D02-V2](#) [V680-CHUD 0.8M](#) [V680-CHUD 1.9M](#) [V680-HA63B 10M](#)  
[V680-D32KF68](#) [V680-D8KF68](#)