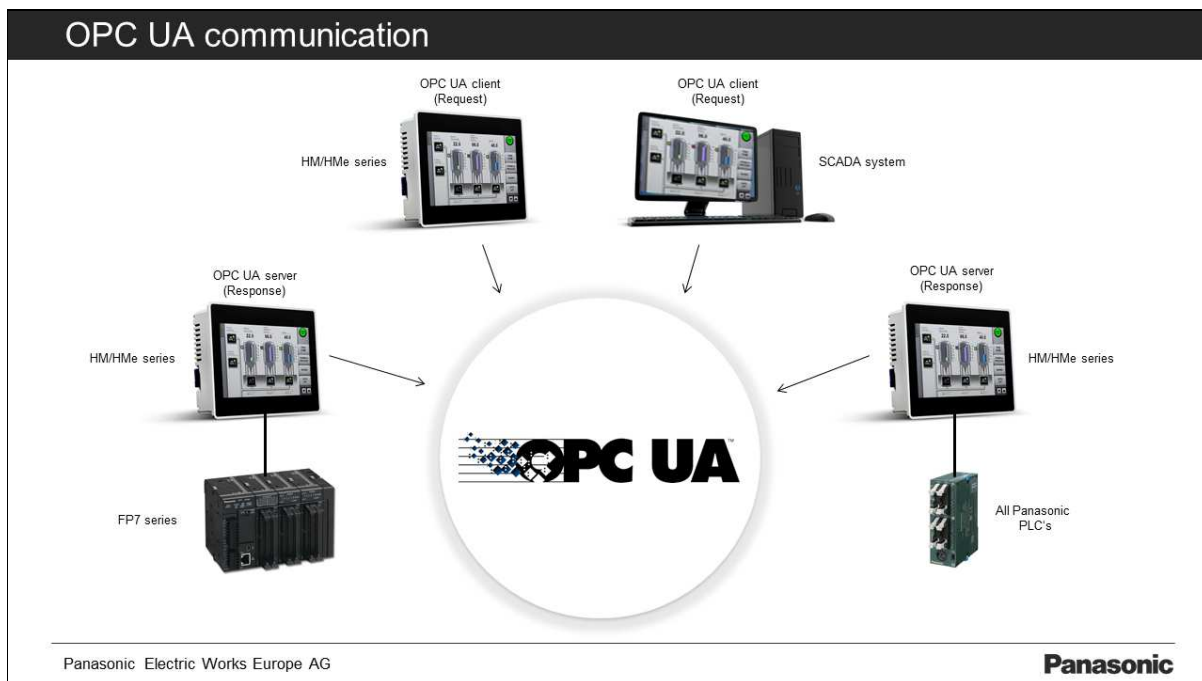


## Industry 4.0 with OPC UA

For the implementation of Industry 4.0 it is necessary to connect all production processes within a network. However, this is difficult because the conventional field bus systems work with so many different protocols. This is why a universal communication standard is required that can be used to connect machines with each other or with higher-level systems (such as SCADA/MES/ERP systems) and/or the cloud. OPC UA is such a standard machine communication protocol, and many companies offering automation and IT solutions have already integrated it into their product portfolio.

OPC Unified Architecture (OPC UA) is the next generation of the successful OPC standard. OPC UA is a globally standardized communication protocol which allows the exchange of machine data independent of manufacturers or platforms. OPC UA works with the current security standards such as authentication via user name/password and encryption with X.509 certificates. Another advantage of OPC UA compared with traditional OPC standards is the fact that it is independent of the COM/DCOM system.



The key component of the Panasonic OPC UA mechanism is the touch terminal. If the touch terminal is used as the OPC UA server, the data points can be made available in the HMI with a defined semantic. Every OPC UA client can browse the tags in the HMI and use them for inter-machine data exchange. Another security feature is the access protection which can be added to variables/groups of variables/alarms/trends so that these items cannot be browsed or used by the OPC UA client.

The touch terminal can also serve as an OPC UA client (the HMI can be both server and client at the same time).

In addition, all data can be visualized on the touch terminal and via web server functionality.

**Ordering information:**

<b>Hardware</b>	<b>Part no.</b>
<b>HM touch terminal 4.3"</b> TFT wide screen, 64k colors, 480x272 WQVGA, SD card slot, 1 x RS232/485, 1 x USB port with host interface, 2 x LAN 10/100 with switch	<b>AIHM504</b>
<b>HM touch terminal 7"</b> TFT wide screen, 64k colors, 800x480 WVGA, SD card slot, 1 x RS232/485, 2 x USB port with host interface, 2 x LAN 10/100 with switch	<b>AIHM507</b>
<b>HM touch terminal 10.4"</b> TFT, 64k colors, 800x600 SVGA, SD card slot, 1 x RS232/485, 2 x USB port with host interface, 2 x LAN 10/100 with switch	<b>AIHM510</b>
<b>HM touch terminal 13.3"</b> TFT wide screen, 64k colors, 1280x800 WXGA, SD card slot, 1 x RS232/485, 2 x USB port with host interface, 2 x LAN 10/100 with switch	<b>AIHM513</b>
<b>HMe touch terminal 7"</b> 16:9 LED wide screen, 64k colors, 800x480, 1 x RS232/422/485, 1 x USB port with host interface, 1 x LAN 10/100	<b>AIHMe07</b>
<b>HMe touch terminal 10.1"</b> 16:9 LED wide screen, 64k colors, 800x480, 1 x RS232/422/485, 1 x USB port with host interface, 1 x LAN 10/100	<b>AIHMe10</b>
<b>Panasonic PLC</b> FP-Sigma, FP-X, FP0R, FP7	
<b>Connection cable</b> RS232, FP PLC TOOL port (Mini-DIN) <-> touch terminal HM series (SUB-D9), 2m	<b>AIHM8123220</b>
<b>Connection cable</b> RS232, FP0R/FPX/FPG/FP7 COM port (open-wire) <-> touch terminal HM series (SUB-D9), 2m	<b>AIHM8023220</b>
<b>Software</b>	
<b>Programming software HMWIN</b> for touch terminals of the HM series, free demo version in the internet, license key for full version included with each HM/HMe touch terminal	