

Operator panels

Mobile Panels - 270 series

SIMATIC Mobile Panel 277(F) IWLAN

Technical specifications (continued)

	6AV6 645-0DD01-0AX1	6AV6 645-0DE01-0AX1	6AV6 645-0EB01-0AX1	6AV6 645-0EC01-0AX1	6AV6 645-0EF01-0AX1
Product type designation	SIMATIC Mobile Panel 277 IWLAN V2 (RoW version)		SIMATIC Mobile Panel 277F IWLAN V2 PROFIsafe (RoW version)		
Logging through printer					
• Recording/Printing	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET
Transfer (upload/download)					
• Transfer of configuration	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition
• Wireless LAN	Yes	Yes	Yes	Yes	Yes
Process coupling					
• Connection to controller	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"
• Zones	Yes	Yes	Yes	Yes	
- Number of zones per project, max.	254	254	254	254	
- Number of transponders for zones per project, max.	255	255	255	255	
• Effective range			Yes	Yes	Yes
- Number of effective ranges per project, max.			127	127	127
- Number of transponders for effective ranges per project, max.			127	127	
• Transponder	Yes	Yes	Yes	Yes	
- Number of transponders per project, max.	256	256	256	256	
- Adjustable distance range	Yes	Yes	Yes	Yes	
- Adjustable distance, min.	2 m	2 m	2 m	2 m	
- Adjustable distance, max.	8 m	8 m	8 m	8 m	
I/O					
I/O devices	Barcode reader	Barcode reader	Barcode reader	Barcode reader	Barcode reader
• Multi Media Card	Yes	Yes	Yes	Yes	Yes
Mechanics/material					
Type of housing (front)	Plastic	Plastic	Plastic	Plastic	Plastic
Dimensions					
Housing diameter/depth (mm)	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm
Weight					
Weight	2.2 kg	2.2 kg	2.2 kg	2.2 kg	2.2 kg
	6AV6 645-0FD01-0AX1	6AV6 645-0FE01-0AX1	6AV6 645-0GB01-0AX1	6AV6 645-0GC01-0AX1	6AV6 645-0GF01-0AX1
Product type designation	SIMATIC Mobile Panel 277 IWLAN V2 (USA version)		SIMATIC Mobile Panel 277F IWLAN V2 PROFIsafe (USA version)		
Display					
Size	7.5"	7.5"	7.5"	7.5"	7.5"
Display type	TFT, 65536 colors	TFT, 65536 colors	TFT, 65536 colors	TFT, 65536 colors	TFT, 65536 colors
Resolution (pixels)					
• Resolution (WxH in pixel)	640 x 480	640 x 480	640 x 480	640 x 480	640 x 480
Backlighting					
• MTBF backlighting (at 25 °C)	about 50,000 hours	about 50,000 hours	about 50,000 hours	about 50,000 hours	about 50,000 hours
Control elements					
Operating options	Keys and Touch	Keys and Touch	Keys and Touch	Keys and Touch	Keys and Touch
Function keys, programmable	18 function keys, 18 with LEDs	18 function keys, 18 with LEDs	18 function keys, 18 with LEDs	18 function keys, 18 with LEDs	18 function keys, 18 with LEDs
Connection for mouse/keyboard/barcode reader	USB / USB / USB	USB / USB / USB	USB / USB / USB	USB / USB / USB	USB / USB / USB
Touch operation					
• Touch screen	Analog, resistive	Analog, resistive	Analog, resistive	Analog, resistive	Analog, resistive

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Technical specifications (continued)

	6AV6 645-0FD01-0AX1	6AV6 645-0FE01-0AX1	6AV6 645-0GB01-0AX1	6AV6 645-0GC01-0AX1	6AV6 645-0GF01-0AX1
Product type designation	SIMATIC Mobile Panel 277 IWLAN V2 (USA version)		SIMATIC Mobile Panel 277F IWLAN V2 PROFIsafe (USA version)		
Special operator controls		Yes		Yes	Yes
• Illuminated pushbutton		Yes		Yes	Yes
• Handwheel					
Supply voltage					
Supply voltage	DC	DC	DC	DC	DC
Via charging station	Yes	Yes	Yes	Yes	Yes
Via table power supply	Yes	Yes	Yes	Yes	Yes
Main battery					
Rated voltage	7.2 V	7.2 V	7.2 V	7.2 V	7.2 V
Capacity	5 100 mA·h	5 100 mA·h	5 100 mA·h	5 100 mA·h	5 100 mA·h
Number of loading cycles, min	500	500	500	500	500
Charging time, typ.	4 h	4 h	4 h	4 h	4 h
Operating time, typ.	4 h	4 h	4 h	4 h	4 h
Display for battery capacity	Yes	Yes	Yes	Yes	Yes
Energy-saving mode	Yes	Yes	Yes	Yes	Yes
Battery replacement during operation	Yes	Yes	Yes	Yes	Yes
Processor					
Processor	ARM, 520 MHz	ARM, 520 MHz	ARM, 520 MHz	ARM, 520 MHz	ARM, 520 MHz
Memory					
Type	Flash / RAM	Flash / RAM	Flash / RAM	Flash / RAM	Flash / RAM
Usable memory for user data	6 MB usable memory for user data	6 MB usable memory for user data	6 MB usable memory for user data	6 MB usable memory for user data	6 MB usable memory for user data
Type of output					
Status LEDs	Yes	Yes	Yes	Yes	Yes
LED for safe			Yes	Yes	Yes
LED for communication	Yes	Yes	Yes	Yes	Yes
LED for battery	Yes	Yes	Yes	Yes	Yes
Vibrations	Yes	Yes	Yes	Yes	Yes
Time of day					
Clock					
• Type	Hardware clock, battery backup, synchronizable	Hardware clock, battery backup, synchronizable	Hardware clock, battery backup, synchronizable	Hardware clock, battery backup, synchronizable	Hardware clock, battery backup, synchronizable
Interfaces					
Interfaces	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)
USB port	1 x USB	1 x USB	1 x USB	1 x USB	1 x USB
Multi Media Card slot	1 MMC/SD card slot	1 MMC/SD card slot	1 MMC/SD card slot	1 MMC/SD card slot	1 MMC/SD card slot
Industrial Ethernet					
• Industrial Ethernet interface	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)	1 x Ethernet (RJ45)
WLAN					
• Wireless LAN	Yes	Yes	Yes	Yes	Yes
• Supports rapid roaming	Yes	Yes	Yes	Yes	Yes
Protocols					
PROFINET	Yes	Yes	Yes	Yes	Yes
Supports protocol for PROFINET IO	Yes	Yes	Yes	Yes	Yes
Supports protocol for PROFIsafe			Yes	Yes	Yes

Operator panels

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SIMATIC Mobile Panel 277(F) IWLAN

Technical specifications (continued)

	6AV6 645-0FD01-0AX1	6AV6 645-0FE01-0AX1	6AV6 645-0GB01-0AX1	6AV6 645-0GC01-0AX1	6AV6 645-0GF01-0AX1
Product type designation	SIMATIC Mobile Panel 277 IWLAN V2 (USA version)		SIMATIC Mobile Panel 277F IWLAN V2 PROFIsafe (USA version)		
EMC					
Emission of radio interference acc. to EN 55 011					
• Emission of radio interferences acc. to EN 55 011 (limit class A)	Yes; The product is designed for use in industrial environments. When used in residential areas, the emission of radio interference according to limit class B of EN 55011 must be ensured. For further information refer to the user documentation	Yes; The product is designed for use in industrial environments. When used in residential areas, the emission of radio interference according to limit class B of EN 55011 must be ensured. For further information refer to the user documentation	Yes; The product is designed for use in industrial environments. When used in residential areas, the emission of radio interference according to limit class B of EN 55011 must be ensured. For further information refer to the user documentation	Yes; The product is designed for use in industrial environments. When used in residential areas, the emission of radio interference according to limit class B of EN 55011 must be ensured. For further information refer to the user documentation	Yes; The product is designed for use in industrial environments. When used in residential areas, the emission of radio interference according to limit class B of EN 55011 must be ensured. For further information refer to the user documentation
Degree and class of protection					
IP65 enclosure	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates					
Certifications	CE, cULus, C-TICK	CE, cULus, C-TICK	CE, cULus, C-TICK	CE, cULus, C-TICK	CE, cULus, C-TICK
TÜV safety certification			Yes	Yes	Yes
Performance level acc. to EN ISO 13849-1			e	e	e
Safety category according to EN954-1			Safety category according to EN954-1 (enabling button, STOP button if present) 4	Safety category according to EN954-1 (enabling button, STOP button if present) 4	Safety category according to EN954-1 (enabling button, STOP button if present) 4
Ambient conditions					
Drop height	1.2 m	1.2 m	1.2 m	1.2 m	1.2 m
Operating temperature					
• Operation	0 °C to +40 °C	0 °C to +40 °C	0 °C to +40 °C	0 °C to +40 °C	0 °C to +40 °C
Storage/transport temperature					
• Transport, storage	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C
Relative humidity					
• max. relative humidity	80 %	80 %	80 %	80 %	80 %
Operating systems					
Operating system	Windows CE	Windows CE	Windows CE	Windows CE	Windows CE
Languages					
Online languages					
• Number of online/runtime languages	16	16	16	16	16
Functionality under WinCC flexible					
Libraries	Yes	Yes	Yes	Yes	Yes
Task planner	Yes	Yes	Yes	Yes	Yes
With alarm logging system (incl. buffer and acknowledgment)					
• Number of messages	4 000	4 000	4 000	4 000	4 000
• Bit messages	Yes	Yes	Yes	Yes	Yes
• Analog messages	Yes	Yes	Yes	Yes	Yes
Recipes					
• Number of recipes	300	300	300	300	300
• Data records per recipe	500	500	500	500	500
• Entries per data record	1 000	1 000	1 000	1 000	1 000
• Recipe memory	64 KB integrated Flash, expandable	64 KB integrated Flash, expandable	64 KB integrated Flash, expandable	64 KB integrated Flash, expandable	64 KB integrated Flash, expandable
Variables					
• Number of variables per device	2 048	2 048	2 048	2 048	2 048
• Limit values	Yes	Yes	Yes	Yes	Yes
• Multiplexing	Yes	Yes	Yes	Yes	Yes

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SIMATIC Mobile Panel 277(F) IWLAN

Technical specifications (continued)

	6AV6 645-0FD01-0AX1	6AV6 645-0FE01-0AX1	6AV6 645-0GB01-0AX1	6AV6 645-0GC01-0AX1	6AV6 645-0GF01-0AX1
Product type designation	SIMATIC Mobile Panel 277 IWLAN V2 (USA version)		SIMATIC Mobile Panel 277F IWLAN V2 PROFIsafe (USA version)		
Images					
• Number of configurable images	500	500	500	500	500
Image objects					
• Text objects	10,000 text elements	10,000 text elements	10,000 text elements	10,000 text elements	10,000 text elements
• Graphics object	Bit maps, icons, vector graphics	Bit maps, icons, vector graphics	Bit maps, icons, vector graphics	Bit maps, icons, vector graphics	Bit maps, icons, vector graphics
Complex image objects					
• Status/control	With SIMATIC S7	With SIMATIC S7	With SIMATIC S7	With SIMATIC S7	With SIMATIC S7
• dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons	Diagrams, bar graphs, sliders, analog display, invisible buttons	Diagrams, bar graphs, sliders, analog display, invisible buttons	Diagrams, bar graphs, sliders, analog display, invisible buttons	Diagrams, bar graphs, sliders, analog display, invisible buttons
Lists					
• No. of text lists per project	500	500	500	500	500
• No. of graphics lists per project	400	400	400	400	400
Archiving					
• Number of archives per device	20	20	20	20	20
• Number of measuring points per project	20	20	20	20	20
• Number of entries per archive	10 000	10 000	10 000	10 000	10 000
Security					
• Number of user groups	50	50	50	50	50
• Number of user rights	32	32	32	32	32
• Password export/import	Yes	Yes	Yes	Yes	Yes
Logging through printer					
• Recording/Printing	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET	Alarms, report (shift report), PROFINET
Transfer (upload/download)					
• Transfer of configuration	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition	USB, Ethernet, automatic transfer recognition
• Wireless LAN	Yes	Yes	Yes	Yes	Yes
Process coupling					
• Connection to controller	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"	S7-200, S7- 300/ 400 see section on "System interfaces"
• Zones	Yes	Yes	Yes	Yes	Yes
- Number of zones per project, max.	254	254	254	254	254
- Number of transponders for zones per project, max.	255	255	255	255	255
• Effective range			Yes	Yes	Yes
- Number of effective ranges per project, max.			127	127	127
- Number of transponders for effective ranges per project, max.			127	127	127
• Transponder	Yes	Yes	Yes	Yes	Yes
- Number of transponders per project, max.	256	256	256	256	256
- Adjustable distance range	Yes	Yes	Yes	Yes	Yes
- Adjustable distance, min.	2 m	2 m	2 m	2 m	2 m
- Adjustable distance, max.	8 m	8 m	8 m	8 m	8 m
I/O					
I/O devices	Barcode reader	Barcode reader	Barcode reader	Barcode reader	Barcode reader
• Multi Media Card	Yes	Yes	Yes	Yes	Yes
Mechanics/material					
Type of housing (front)	Plastic	Plastic	Plastic	Plastic	Plastic
Dimensions					
Housing diameter/depth (mm)	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm	Dia 290 mm / D 103 mm
Weight					
Weight	2.2 kg	2.2 kg	2.2 kg	2.2 kg	2.2 kg

Operator panels

Mobile Panels - 270 series

SIMATIC Mobile Panel 277(F) IWLAN

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Ordering data	Order No.		Order No.
SIMATIC Mobile Panel 277 IWLAN V2 (RoW version ¹⁾) - Communication via WLAN (PROFINET) - Communication via WLAN (PROFINET) with integrated handwheel, key-operated switch and two illuminated pushbuttons	6AV6 645-0DD01-0AX1 6AV6 645-0DE01-0AX1	Starter kit SIMATIC Mobile Panel 277(F) IWLAN (RoW version¹⁾) for - Mobile Panel 277 IWLAN V2 - Mobile Panel 277F IWLAN V2 Accessories Note: Please order the table-top power supply or charging station as well. Required for charging the battery.	6AV6 651-5GA01-0AA1 6AV6 651-5HA01-0AA1 See HMI accessories
SIMATIC Mobile Panel 277F IWLAN V2 PROFIsafe (RoW version ¹⁾) - Communication via WLAN (PROFINET) with acknowledgement button and emergency stop button - Communication via WLAN (PROFINET) with acknowledgement button and emergency stop button with integrated handwheel, key-operated switch, and two illuminated pushbuttons - RFID tag version: Communication via WLAN (PROFINET) with acknowledgement button and emergency stop button with integrated handwheel, key-operated switch, and two illuminated pushbuttons	6AV6 645-0EB01-0AX1 6AV6 645-0EC01-0AX1 6AV6 645-0EF01-0AX1	Configuration with SIMATIC WinCC flexible or WinCC V11 SP2 Documentation (to be ordered separately)	See HMI Software
SIMATIC Mobile Panel 277 IWLAN V2 (USA version) - Communication via WLAN (PROFINET) - Communication via WLAN (PROFINET) with integrated handwheel, key-operated switch and two illuminated pushbuttons	6AV6 645-0FD01-0AX1 6AV6 645-0FE01-0AX1	Mobile Panel 277F IWLAN V2 Operating Instructions - German - English - French - Italian - Spanish Mobile Panel 277 IWLAN V2 Operating Instructions - German - English - French - Italian - Spanish	6AV6 691-1DQ01-2AA1 6AV6 691-1DQ01-2AB1 6AV6 691-1DQ01-2AC1 6AV6 691-1DQ01-2AD1 6AV6 691-1DQ01-2AE1 6AV6 691-1DM01-2AA1 6AV6 691-1DM01-2AB1 6AV6 691-1DM01-2AC1 6AV6 691-1DM01-2AD1 6AV6 691-1DM01-2AE1
SIMATIC Mobile Panel 277F IWLAN V2 PROFIsafe (USA version) - with acknowledgement button and emergency stop button - with acknowledgement button and emergency stop button with integrated handwheel, key-operated switch, and two illuminated pushbuttons - with acknowledgement button and emergency stop button with integrated handwheel, key-operated switch, and two illuminated pushbuttons (tag version)	6AV6 645-0GB01-0AX1 6AV6 645-0GC01-0AX1 6AV6 645-0GF01-0AX1	User Manual WinCC flexible Compact/Standard/Advanced - German - English - French - Italian - Spanish WinCC flexible Communication User Manual - German - English - French - Italian - Spanish	6AV6 691-1AB01-3AA0 6AV6 691-1AB01-3AB0 6AV6 691-1AB01-3AC0 6AV6 691-1AB01-3AD0 6AV6 691-1AB01-3AE0 6AV6 691-1CA01-3AA0 6AV6 691-1CA01-3AB0 6AV6 691-1CA01-3AC0 6AV6 691-1CA01-3AD0 6AV6 691-1CA01-3AE0

¹⁾ RoW version: "Rest of World" version: Version for worldwide sales except in the U.S.

²⁾ Already prepared for Rapid Roaming (iPCF-MC). iPCF-MC is already included from SCALANCE FW version V4.3.37 and higher.

Note:

The Function Manuals "Fail-Safe Operation of the Mobile Panel 277F IWLAN V1" are available for downloading in English, German, and Japanese.

<http://support.automation.siemens.com/WW/view/en/31255853>