

# 8100 Product Series

## Firmware Release Notes

### Remark

This document contains the firmware release notes for all products of the 8100 product series.

### Changes

Product	Changes	Current firmware version	Previous firmware version
FG8101G01	-	v0109	v0109
FG8101G02	-	v0109	v0109
FG8701G01	X	v1001	v1000
FG8701G02	X	v1001	v1000
FG8701G03	X	v1001	v1000
FG8702G01	X	v1001	v1000
FG8702G02	X	v1001	v1000
FG8702G03	X	v1001	v1000
FG8702G04	X	v1001	v1000
FG8702G05	X	v1001	v1000
FG8702G06	X	v1001	v1000
FG8702G11	X	v1001	v1000
FG8702G12	X	v1001	v1000
FG8702G13	X	v1001	v1000
FG8702G14	X	v1001	v1000
FG8702G15	X	v1001	v1000
FG8800M00	X	v1001	v1000
FG8801F02	X	v1001	v1000
FG8801N02	X	v1001	v1000
FG8802S00	-	v0300	v0300
FG8802S01	-	v0300	v0300
FG8802S02	-	v0300	v0300
FG8802S20	-	v0300	v0300
FG8803S02	-	v0300	v0300
FG8803S20	-	v0300	v0300

## FG8101Gxx Firmware Release Notes

Firmware Version	Changes
v0109	Improvement: Fan speed evaluation has been improved
v0108	Improvement: Display representation while leap second event  Improvement: Local time representation after a reboot
v0107	Improvement: Display shows “H” for holdover mode instead of “C” for crystal mode
v0106	Improvement: Changed display default configuration, to same behaviour as in v0104  Improvement: Support of different display behaviours (permanent on or timeout based)
v0105	Bugfix: Fixed issue with negative time zone offset on display
v0104	First released firmware version

## FG870xGxx Firmware Release Notes

Firmware Version	Changes
v1001	<p>Improvement: Fixed a potential issue that could cause startup failure</p> <p>Improvement: SNMP stability</p> <p>Bugfix: FG8101Gxx is consistently included in system reboot process</p>
v1000	<p>Added: Additional status values for PRP, Bonding and ETH interfaces</p> <p>Added: Action to clear network interface status counters</p> <p>Added: Additional status values for PTP as sync source</p> <p>Added: Additional status values for PTP as time service</p> <p>Added: Maximum accuracy clamping for PTP as time service</p> <p>Added: Configuration to redirect from HTTP to HTTPS</p> <p>Added: Configurable event for the network firewall triggered when configurable amount of network packets are blocked within a configurable time (NW203)</p> <p>Added: Configuration value for receiver jamming indication in advanced receiver settings for boards with standard and high precision GNSS receivers</p> <p>Added: Action to ping an IP address</p> <p>Added: Configuration to disable ETH interfaces</p> <p>Added: Active event shown if system uses default configuration when management board has been reequipped from none-management position to a management position</p> <p>Added: Configuration to close status relay permanently after device is started</p> <p>Added: Hint shown if unavailable interfaces are used for services</p> <p>Added: Snowflake symbol for freezed boards in <b>huma</b> aside</p> <p>Improvement: Cyber security hardening</p> <p>Improvement: GNSS status page restructured</p> <p>Improvement: Sync module communication and frequency control moved to sync setting general status</p>

	<p>Improvement: Deactivated all permission in default configuration for VIEWER role which leads to a disabled viewer user in default configuration</p> <p>Bugfix: Removed fourth GNSS configuration setting in boards with maximum precision GNSS receivers</p>
v0900	<p>Added: Support of FG8101G02</p> <p>Added: Support of FG8701G01, FG8701G02 and FG8701G03</p> <p>Added: Configurable event for successful user login (AC405)</p> <p>Added: SNMPv3 traps</p> <p>Added: Ignore UDP checksum, overwrite 0.0.0.0 source IP, enable VLAN ID appending, enable VLAN filter and PTP over PRP with 2 instances in PTP extended functionalities</p> <p>Added: Action for capturing network packets on ETH interfaces</p> <p>Added: Configuration of minimum needed satellites and minimum needed C/N0 in advanced satellites settings for GNSS</p> <p>Added: Sync source data of FG870xGxx has been added to display pages of FG8101G0x</p> <p>Improvement: Representation of GNSS reception quality. Satellite Quality is now represented as C/N0 in dBHz</p> <p>Improvement: Login names with format "name.surname" are permitted</p> <p>Improvement: Login names with only numbers are permitted</p> <p>Improvement: LDAP server certificates can be removed</p> <p>Bugfix: Network firewall rules for PTP with a PRP-interface were fixed</p>
v0800	<p>Added: FG8702G04, FG8702G05, FG8702G06, FG8702G11, FG8702G12, FG8702G13, FG8702G14 and FG8702G15 support</p> <p>Added: PTP v2.0 compatibility mode</p> <p>Added: Action to set current number of leap seconds</p> <p>Added: SNMP MIB values for GNSS2 (gnss2SatTracked, gnss2JammingState, gnss2SpoofingState, gnss2AntennaOpenDetected, gnss2AntennaShortCircuitDetected)</p> <p>Added: Status information about the current number of leap seconds</p> <p>Improvement: Additional information about network status (duplex, speed, auto-negotiation)</p>

	<p>Improvement: Remote IPs of firewall rules can be set with CIDR-notation</p> <p>Bugfix: huma®-access with PRP via RedBox fixed</p> <p>Bugfix: PTP with IPv4/E2E via PRP fixed</p>
v0701	No changes, only firmware version increased
v0700	<p>Added: Support of SINEC H1 time service (this feature requires an activation key)</p> <p>Added: Support for PTP Profile ITU-T G8275.1</p> <p>Improvement: PTP time service configuration per network interface</p> <p>Improvement: PTP time service output for UTC and arbitrary time in addition to TAI</p> <p>Improvement: Minimum sync accuracy configuration for PTP</p> <p>Improvement: SYSLOG support for up to 32 servers</p> <p>Improvement: SNMP v2 and v3 can now be enabled / disabled separately</p> <p>Improvement: Scalar values of the SNMP MIB can now be requested with trailing .0</p> <p>Improvement: SNMP boardsVarTable index can now be added at the end of the OID</p> <p>Improvement: SNMP MIB entries timeServiceNtpStratum, gnssAntennaOpenDetected and gnssAntennaShortCircuitDetected added</p> <p>Improvement: SNMP response time improved</p> <p>Improvement: NTP time service output configuration for UTC, STD or LOC</p> <p>Improvement: Support for increased number of 200 VLAN configurations</p> <p>Improvement: Improved representation of active events</p> <p>Improvement: PTP operation during simulation mode</p> <p>Bugfix: Removed possible problems in the leap second handling</p> <p>Bugfix: Removed a bug that caused problems, when DHCP was enabled but no DHCP server was reachable</p>
v0601	Improvement: LED behaviour of FG8802S02 in huma®
v0600	Added: FG8801F02 support

	<p>Added: NTS (RFC 8915) support</p> <p>Added: Trusted certificate support</p> <p>Improvement: Every “crystal” text changed to “holdover”</p> <p>Improvement: Update of card cover images</p> <p>Improvement: Antenna short circuit detection improved</p>
v0502	<p>Added: Synchronization Setting for stepping when offset &gt;= 100ms</p> <p>Added: NTP Configuration - Holdover operation (Specific stratum while holdover, Always output NTP)</p> <p>Improvement: Set time is now also possible in normal operation mode (before it was only possible in simulation mode)</p> <p>Improvement: NTP behaviour with execute time jump</p>
v0501	<p>Added: FG8803S02 and FG8803S20 support</p> <p>Added: Immediate PTP service start configuration</p> <p>Added: PTP clock class 6 simulation mode</p> <p>Improvement: SNMPv3 MIB-2 Support</p> <p>Improvement: Removed 30s SNMP value caching</p> <p>Improvement: Feature to update whole system with one update file</p>
v0201	<p>Added DNS as service option in network firewall rules</p> <p>Bugfix: Fixed simulation mode issue</p> <p>Bugfix: Fixed RADIUS PAP with local as fallback</p>
v0200	<p>Added FG8802S00, FG8802S01, FG8802S02, FG8802S20 and FG8901P06 support</p> <p>Added GNSS firewall feature</p> <p>Added LI8100A04 and LI8100A05 support</p> <p>SIMATIC time service can now be configured for two broadcast addresses</p> <p>Reworked SNMP MIB</p> <p>Improved synchronization</p>

	Improved bus communication
v0106	Bugfix: Fixed synchronisation issue
v0103	First released firmware version

## FG8800M00 Firmware Release Notes

Firmware Version	Changes
v1001	<p>Improvement: Fixed a potential issue that could cause startup failure</p> <p>Improvement: SNMP stability</p> <p>Bugfix: FG8101Gxx is consistently included in system reboot process</p>
v1000	<p>Added: Additional status values for PRP, Bonding and ETH interfaces</p> <p>Added: Action to clear network interface status counters</p> <p>Added: Configuration to redirect from HTTP to HTTPS</p> <p>Added: Configurable event for the network firewall triggered when configurable amount of network packets are blocked within a configurable time (NW203)</p> <p>Added: Action to ping an IP address</p> <p>Added: Configuration to disable ETH interfaces</p> <p>Added: Active event shown if system uses default configuration when management board has been reequipped from none-management position to a management position</p> <p>Added: Configuration to close status relay permanently after device is started</p> <p>Added: Hint shown if unavailable interfaces are used for services</p> <p>Added: Snowflake symbol for freezed boards in <b>huma</b> aside</p> <p>Improvement: Cyber security hardeningImprovement: Deactivated all permission in default configuration for VIEWER role which leads to a disabled viewer user in default configuration</p>
v0900	<p>Added: Support of FG8101G02</p> <p>Added: Support of FG8701G01, FG8701G02 and FG8701G03</p> <p>Added: Configurable event for successful user login (AC405)</p> <p>Added: SNMPv3 traps</p> <p>Added: Action for capturing network packets on ETH interfaces</p> <p>Added: Configuration of minimum needed satellites and minimum needed C/N0 in advanced satellites settings for GNSS</p>



	<p>Added: Sync source data of FG870xGxx has been added to display pages of FG8101G0x</p> <p>Improvement: Representation of GNSS reception quality. Satellite Quality is now represented as C/N0 in dBHz</p> <p>Improvement: Login names with format "name.surname" are permitted</p> <p>Improvement: Login names with only numbers are permitted</p> <p>Improvement: LDAP server certificates can be removed</p>
v0800	<p>Added: FG8702G04, FG8702G05, FG8702G06, FG8702G11, FG8702G12, FG8702G13, FG8702G14 and FG8702G15 support</p> <p>Added: SNMP MIB values for GNSS2 (gnss2SatTracked, gnss2JammingState, gnss2SpoofingState, gnss2AntennaOpenDetected, gnss2AntennaShortCircuitDetected)</p> <p>Added: Status information about the current number of leap seconds</p> <p>Improvement: Additional information about network status (duplex, speed, auto-negotiation)</p> <p>Improvement: Remote IPs of firewall rules can be set with CIDR-notation</p> <p>Bugfix: huma@-access with PRP via RedBox fixed</p>
v0701	<p>No changes, only firmware version increased</p>
v0700	<p>Added: Support of SINEC H1 time service (this feature requires an activation key)</p> <p>Improvement: SYSLOG support for up to 32 servers</p> <p>Improvement: SNMP v2 and v3 can now be enabled / disabled separately</p> <p>Improvement: Scalar values of the SNMP MIB can now be requested with trailing .0</p> <p>Improvement: SNMP boardsVarTable index can now be added at the end of the OID</p> <p>Improvement: SNMP MIB entries timeServiceNtpStratum, gnssAntennaOpenDetected and gnssAntennaShortCircuitDetected added</p> <p>Improvement: SNMP response time improved</p> <p>Improvement: NTP time service output configuration for UTC, STD or LOC</p> <p>Improvement: Support for increased number of 200 VLAN configurations</p> <p>Improvement: Improved representation of active events</p>

	<p>Bugfix: Removed possible problems in the leap second handling</p> <p>Bugfix: Removed a bug that caused problems, when DHCP was enabled but no DHCP server was reachable</p>
v0601	Improvement: LED behaviour for FG8802S02 in huma®
v0600	<p>Added: FG8801F02 support</p> <p>Added: NTS (RFC 8915) support</p> <p>Added: Trusted certificate support</p> <p>Added: Synchronization setting for stepping when offset <math>\geq 100\text{ms}</math></p> <p>Improvement: Every “crystal” text changed to “holdover”</p> <p>Improvement: Update of card cover images</p>
v0501	First released firmware version

## FG8801F02 Firmware Release Notes

Firmware Version	Changes
v1001	<p>Improvement: Fixed a potential issue that could cause startup failure</p> <p>Improvement: SNMP stability</p> <p>Bugfix: FG8101Gxx is consistently included in system reboot process</p>
v1000	<p>Added: Additional status values for PRP, Bonding and ETH interfaces</p> <p>Added: Action to clear network interface status counters</p> <p>Added: Additional status values for PTP as time service</p> <p>Added: Maximum accuracy clamping for PTP as time service</p> <p>Added: Action to ping an IP address</p> <p>Added: Configuration to disable ETH interfaces</p> <p>Added: Hint shown if unavailable interfaces are used for services</p> <p>Improvement: Sync module communication and frequency control moved to sync setting general status</p>
v0900	<p>Added: Ignore UDP checksum, overwrite 0.0.0.0 source IP, enable VLAN ID appending, enable VLAN filter and PTP over PRP with 2 instances in PTP extended functionalities</p> <p>Added: Action for capturing network packets on ETH interfaces</p>
v0800	<p>Added: PTP v2.0 compatibility mode</p> <p>Added: Status information about the current number of leap seconds</p> <p>Improvement: Additional information about network status (duplex, speed, auto-negotiation)</p> <p>Improvement: Remote IPs of firewall rules can be set with CIDR-notation</p> <p>Bugfix: Uplink-detection of FG9000F02 SFP-module after power reset fixed</p> <p>Bugfix: PTP with IPv4/E2E via PRP fixed</p>
v0701	<p>Bugfix: hopf FG9000F02 support</p>

v0700	<p>Added: Support for 100Mbit SFP modules</p> <p>Added: Support of SINEC H1 time service (this feature requires an activation key)</p> <p>Added: Support for PTP Profile ITU-T G8275.1</p> <p>Improvement: PTP time service configuration per network interface</p> <p>Improvement: PTP time service output for UTC and arbitrary time in addition to TAI</p> <p>Improvement: Minimum sync accuracy configuration for PTP</p> <p>Improvement: NTP time service output configuration for UTC, STD or LOC</p> <p>Improvement: Support for increased number of 200 VLAN configurations</p> <p>Improvement: Improved representation of active events</p> <p>Improvement: PTP operation during simulation mode</p> <p>Bugfix: Removed possible problems in the leap second handling</p> <p>Bugfix: Removed a bug that caused problems, when DHCP was enabled but no DHCP server was reachable</p>
v0601	No changes, only firmware version increased
v0600	First released firmware version

## FG8801N02 Firmware Release Notes

Firmware Version	Changes
v1001	<p>Improvement: Fixed a potential issue that could cause startup failure</p> <p>Improvement: SNMP stability</p> <p>Bugfix: FG8101Gxx is consistently included in system reboot process</p>
v1000	<p>Added: Additional status values for PRP, Bonding and ETH interfaces</p> <p>Added: Action to clear network interface status counters</p> <p>Added: Additional status values for PTP as time service</p> <p>Added: Maximum accuracy clamping for PTP as time service</p> <p>Added: Action to ping an IP address</p> <p>Added: Configuration to disable ETH interfaces</p> <p>Added: Hint shown if unavailable interfaces are used for services</p> <p>Improvement: Sync module communication and frequency control moved to sync setting general status</p>
v0900	<p>Added: Ignore UDP checksum, overwrite 0.0.0.0 source IP, enable VLAN ID appending, enable VLAN filter and PTP over PRP with 2 instances in PTP extended functionalities</p> <p>Added: Action for capturing network packets on ETH interfaces</p>
v0800	<p>Added: PTP v2.0 compatibility mode</p> <p>Added: Status information about the current number of leap seconds</p> <p>Improvement: Additional information about network status (duplex, speed, auto-negotiation)</p> <p>Improvement: Remote IPs of firewall rules can be set with CIDR-notation</p> <p>Bugfix: PTP with IPv4/E2E via PRP fixed</p>
v0701	No changes, only firmware version increased
v0700	Added: Support of SINEC H1 time service (this feature requires an activation key)

	<p>Added: Support for PTP Profile ITU-T G8275.1</p> <p>Improvement: PTP time service configuration per network interface</p> <p>Improvement: PTP time service output for UTC and arbitrary time in addition to TAI</p> <p>Improvement: Minimum sync accuracy configuration for PTP</p> <p>Improvement: NTP time service output configuration for UTC, STD or LOC</p> <p>Improvement: Support for increased number of 200 VLAN configurations</p> <p>Improvement: Improved representation of active events</p> <p>Improvement: PTP operation during simulation mode</p> <p>Bugfix: Removed possible problems in the leap second handling</p> <p>Bugfix: Removed a bug that caused problems, when DHCP was enabled but no DHCP server was reachable</p>
v0601	No changes, only firmware version increased
v0600	<p>Added: NTS (RFC 8915) support</p> <p>Added: Trusted certificate support</p> <p>Added: Synchronization setting for stepping when offset <math>\geq</math> 100ms</p>
v0502	<p>Added: NTP Configuration - Holdover operation (Specific stratum while holdover, Always output NTP)</p> <p>Improvement: NTP behaviour with execute time jump</p>
v0501	<p>Improvement: Internal communication improved</p> <p>Added: Immediate PTP service start configuration</p> <p>Added: PTP clock class 6 simulation mode</p>
v0201	Added DNS as service option in network firewall rules
v0200	<p>SIMATIC time service can now be configured for two broadcast addresses</p> <p>Events and alarms are forwarded to the management board for distribution</p> <p>Improved synchronization</p>

	Improved bus communication
v0106	Bugfix: Fixed synchronisation issue
v0104	First released firmware version

## FG8802Sxx Firmware Release Notes

Firmware Version	Changes
v0300	Added: DCF output with optional SIMEAS R modification  Added: Status information about the current number of leap seconds  Improvement: Leap second behaviour
v0200	Added: Synchronization setting for stepping when offset $\geq 100\text{ms}$  Improvement: Overcurrent detection improved
v0100	First released firmware version



## FG8803Sxx Firmware Release Notes

Firmware Version	Changes
v0300	Added: Support of ION 7550 string  Added: Status information about the current number of leap seconds  Improvement: Leap second behaviour
v0200	Added: Synchronization setting for stepping when offset $\geq 100\text{ms}$  Bugfix: Statusbits in Hopf Time Universal string adjusted  Bugfix: Character 25 in SAT1703 string adjusted  Bugfix: Characters 13 and 14 in IEC-103 string adjusted
v0100	First released firmware version