

Release Notes



Document No.: RN-250515-01
Date: 15th May, 2025
Classification: External
Attn: Inmarsat
Related Products: GXNX VSAT series
Subject: iARM(2.07.051) & Firmware(2.51.008) Release Notes

Dear Valued Customers,

Intellian is pleased to release iARM and Firmware packages for the Intellian GXNX series antenna systems.

1 Software Release Summary

The release changes and known problems are listed in Sections 1.1 and 1.2.

1.1 Release Changes

Title	Description	Component
Ka-band RX attenuator	RX attenuator setting can be changed for Ka-band	ACU
STM board compatible	STM MCU board compatible	STK, DSTK
GPS spoofing 1	Manual GPS input [SETUP]->[Ship]->[GPS Update Config]	ACU, PCU
GPS spoofing 2	Using NMEA GYRO port in ACU for external GPS information	ACU, PCU
Blockage active during global search mode	During tracking blockage is active irrelevant to the heading device information (EL blockage angle support to -10°)	PCU
Xmega Version	Major.Minor.Patch version rule established (x.xx.xxx)	DSTK, MAIN, POL, STK, PCU, STAB
GX default Atten	GX default TX attenuator value set to 9 dB	ACU
ADS Comm error	If one ANT fail ADS system activate as single, and after recover turns back to ADS system	iARM
Restart after diagnostic	Restart available after diagnostic (Guest account unavailable)	iARM
Dashboard ADS panel	After adding ADS panel on the dashboard, it will not disappear after refresh	iARM
Restore bug fix	After activating restore function, it did not perform and logged out	iARM
Antenna event log auto reload	Antenna event log in dashboard added auto reload function	iARM
ADS status panel	During ADS when one of the terminal is disconnected, panel will show disconnected message	iARM

GX RF term type	RF term type information added in BUC configuration	iARM
SNMP(Heartbeat) response	Improving SNMP response processing efficiency	iARM
ADS TX Atten setting	TX attenuator setting update for primary and secondary	iARM
In network delay	Progress 'IN network' from repeating of ACQ	iARM
GPS information	ACU sends modem 'W' message regularly for GPS information	iARM

Table 1 shows the file name and the download link for each antenna model.

Table 1. Firmware Package Download Link

Product	File Name	Version
ACU iARM	iARM-nx-v2.07.051-202504081852	2.07.051
GX60NX	V5 GX60NX V60KA2 250402 V2.51.008	2.51.008
		DSTK 1.15.003
		MAIN 1.37.006
		OLED 1.08.000
		PCU 1.07.001
		STAB 1.04.001
GX100NX	V5 GX100NX V100NXKA 250402 V2.51.008	2.51.008
		DSTK 1.15.003
		MAIN 1.37.006
		OLED 1.08.000
		STK 1.15.003
		PCU 1.16.001
		STAB 1.17.001
GX60NX 2	V5 GX60NX2 V60KA2XCVR 250402 V2.51.008	2.51.008
		DSTK 1.15.003
		MAIN 1.37.006
		OLED 1.08.000
		PCU 1.07.001
		STAB 1.04.001
GX100NX 2	V5 GX100NX2 V100NXKAXCVR 250402 V2.51.008	2.51.008
		DSTK 1.15.003
		MAIN 1.37.006
		OLED 1.08.000
		STK 1.15.003
		PCU 1.16.001
		STAB 1.17.001

1.2 Known Issues

None

2 SW (iARM) / FW Upgrade Procedure

2.1 SW (iARM) Upgrade

1. Go to "TOOLS" and navigate to iARM upgrade section on the left side.

2. Click **Browse** and select the iARM firmware file (*.tgz).
3. Click **Start Upgrade** button.

New iARM Firmware ⓘ

1 Select the F/W file to upload

Browse

2 Start Upgrade

☒ Ignore warnings during installation and force the installation to continue.



NOTE

Select "Ignore warnings during installation and force the installation to continue" to allow uninterrupted upgrade.

4. Once the upgrade starts, the progress will be displayed on the screen. It will take up to 10 minutes to complete the firmware upgrade.

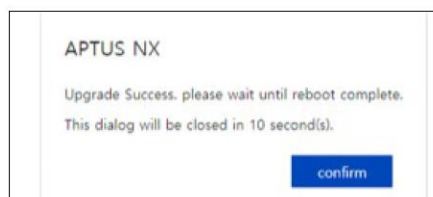


WARNING

Do not turn off the device if the firmware upgrade is in process. Failure to comply may damage the system.



5. Once the upgrade is completed, the iARM module will automatically reboot in 10 seconds.



2.2 FW Upgrade

*Please install the latest iARM before upgrading FW

1. Go to "TOOLS" and navigate to F/W upgrade section on the left side.
2. Choose **Manual Upgrade** from the pull-down menu. **Browse** and select the FW package (*.fwp).

3. Click the **Upload** button to transfer the FW package file (*.fwp). The antenna FW version will be displayed on a pop up display.



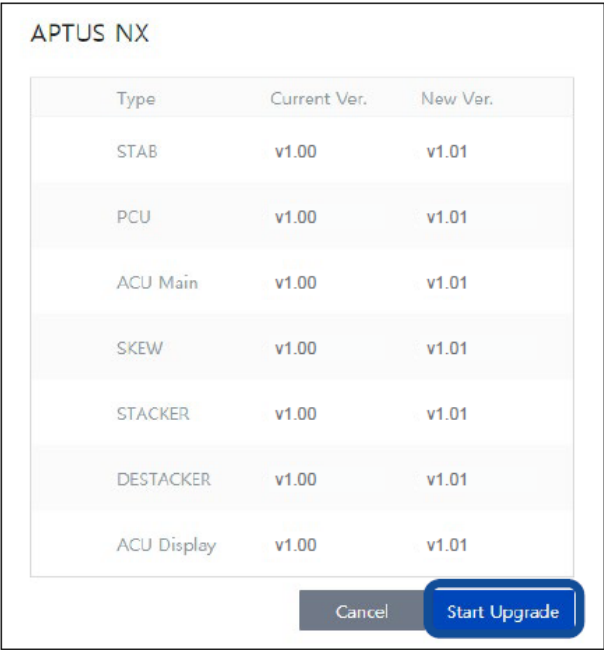
The dialog box titled "New F/W Upgrade" contains the following elements:

- 1** Upgrade Method: A dropdown menu currently showing "Manual Upgrade".
- 2** Select the F/W file to upload: A text input field with a "Browse" button to its left.
- 3** Upload: A blue button on the right side.
- Ignore warnings during installation and force the installation to continue: A checkbox that is currently checked.

NOTE

Select "Ignore warnings during installation and force the installation to continue" to allow uninterrupted upgrade.

4. Check the current version installed and the new version available, then click the **Start Upgrade** button.



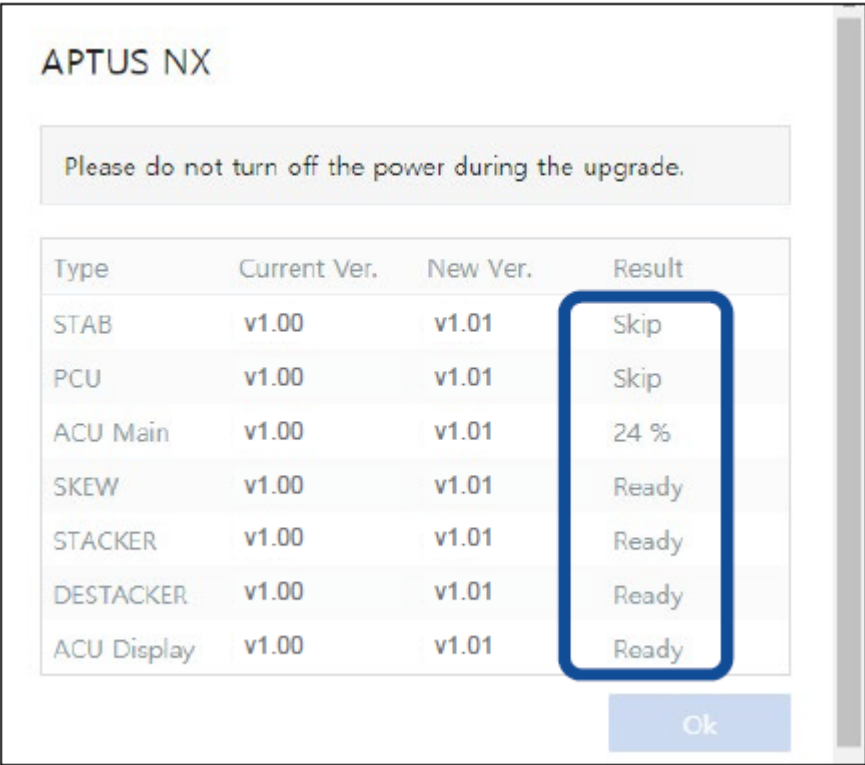
APTUS NX

Type	Current Ver.	New Ver.
STAB	v1.00	v1.01
PCU	v1.00	v1.01
ACU Main	v1.00	v1.01
SKEW	v1.00	v1.01
STACKER	v1.00	v1.01
DESTACKER	v1.00	v1.01
ACU Display	v1.00	v1.01

Buttons: Cancel, Start Upgrade

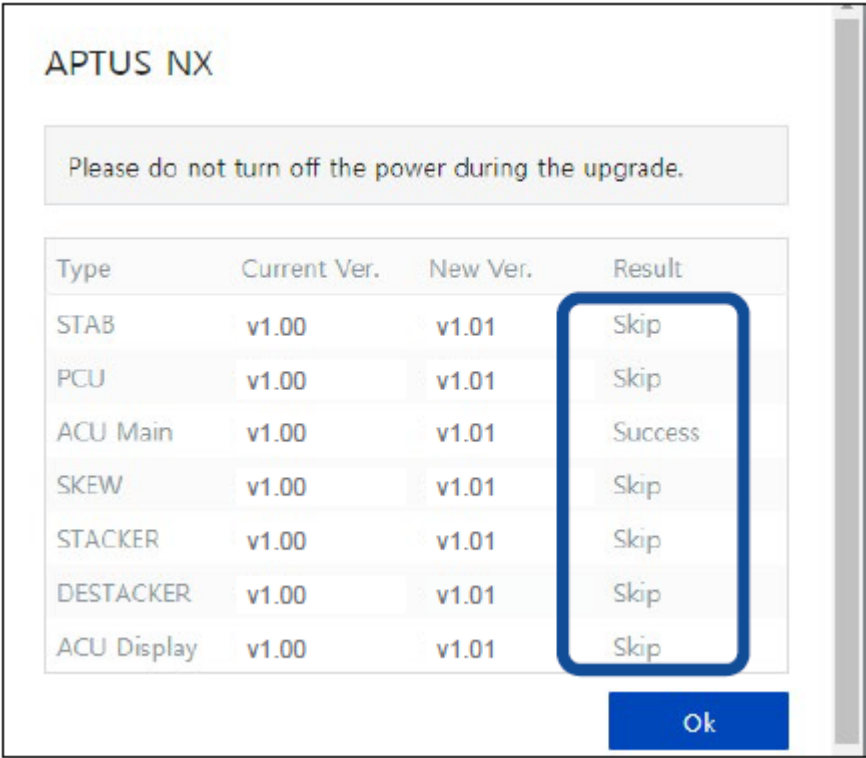
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The upgrade process is displayed on the window.



If the firmware is successfully upgraded, "Success" will be displayed in the Status column.

- 5. Click the **OK** button to close the pop-up window and complete the upgrade.



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Please contact your local Technical Support team or Product Management team if you have any questions or require any additional information.

Thank you.

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Appendix. Revision History

Date	Version	Item	FW Type
May 15 th 2025	GX60NX GX100NX GX60NX 2 GX100NX 2	2.51.008 RX attenuator setting can be changed for Ka-band	ACU
		2.51.008 STM MCU board compatible	STK, DSTK
		2.51.008 Manual GPS input [SETUP]->[Ship]->[GPS Update Config]	ACU, PCU
		2.51.008 Using NMEA GYRO port in ACU for external GPS information	ACU, PCU
		2.51.008 During tracking blockage is active irrelevant to the heading device information (EL blockage angle support to -10°)	PCU
		Major.Minor.Patch version rule established (x.xx.xxx)	DSTK, MAIN, POL, STK, PCU, STAB
		2.51.008 GX default TX attenuator value set to 9 dB	ACU
	ACU iARM	2.07.051 If one ANT fail ADS system activate as single, and after recover turns back to ADS system	iARM
		Restart available after diagnostic (Guest account unavailable)	iARM
		After adding ADS panel on the dashboard, it will not disappear after refresh	iARM
		After activating restore function, it did not perform and logged out	iARM
		Antenna event log in dashboard added auto reload function	iARM
		During ADS when one of the terminal is disconnected, panel will show disconnected message	iARM
		RF term type information added in BUC configuration	iARM
		Improving SNMP response processing efficiency	iARM
		TX attenuator setting update for primary and secondary	iARM
		Progress 'IN network' from repeating of ACQ	iARM
		ACU sends modem 'W' message regularly for GPS information	iARM
June 14 th 2024	ACU iARM	2.05.007 Logs are being missed due to miscommunication on ACU	iARM
Feb 29 th 2024	ACU iARM	2.05.006 BUC/XCVR configuration selection available in AptusNX in setup mode	iARM
		AptusNX account password combination must use number, upper/lower case & special character	
		10 minute lock out period if login failed	
		Removed unused ports	
		Fixed modem and ACU (mediator) out of sync issue after a reboot.	
	v85NX	2.04.002 Added Terrasat BUC IP address display	ACU

Jul 28 th 2023	v100NX v130NX v150NX v60Ka 2 v85NX Ka v100NX Ka v60Ka 2 XCVR v85NX Ka XCVR v100NX Ka XCVR	2.04.002	iDirect IQ200 modem has been added to the SETUP menu	ACU OLED
		2.04.003		
		2.04.003	NMEA heading format "\$XXTHS" support	ACU
		2.04.003	Hardware matching firmware check added	ACU
		2.04.003	Fixed temperature display issue during tracking/searching	STAB
		2.04.003	Antenna pedestal tilt compensation has been applied to the tracking algorithm	STAB
		1.00.003		
		2.04.003	Antenna model no. increased to 13 digits	PCU
			Fixed TX mute due to intermittent comm error between PCU and Pol MPU	PCU POL
	ACU iARM	2.03.018	Terrasat BUC IP address display added	iARM
			iDirect IQ200 modem has been added to the SETUP menu	
			OpenBMIP via Ethernet function has been added	
			Newtec modem Line-up test function added	
			SNMP MIB function added	
Feb 3 rd 2023	v85NX v100NX v130NX v150NX v60Ka 2 v85NX Ka v100NX Ka v150NX Ka	2.03.001	New IMU Sensor(Epson IMU G330) is supported.	STAB
		2.03.001		
	ACU iARM	2.03.001		
		2.03.001		
		2.03.001		
		2.03.001		
		2.03.001		
		2.03.001		
		2.03.001		
		2.02.011	Switch port configuration setting does not switch in network setting. Save function updated	iARM
Nov 29 th 2022	v85NX v100NX v130NX v150NX v60Ka 2 v85NX Ka v100NX Ka v150NX Ka	2.02.000	New demodulator application is supported.	STK DSTK
		2.02.000		
		2.02.000	The IMU sensor register setting value has been updated for antenna stability improvement.	STAB
		2.02.001	When the iDirect OpenAMIP protocol is used for the NX-Ka system, the BUC keyline is turned off while antenna information is being updated.	PCU
Sept 15 th 2022	v85NX v100NX v130NX v150NX v60Ka 2 v85NX Ka v100NX Ka v150NX Ka	2.01.004	The inclined orbit tracking information received by the OpenAMIP 's' command can be applied to the satellite tracking setting.	ACU PCU
			Antenna angle information is now displayed on the ACU OLED display window.	OLED
			Antenna "Stabilization Mode" added for the status of no signal while in blockage zone.	PCU STAB
			If a modem other than iDirect OpenAMIP modem is connected, the keyline for BUC mute/unmute is enabled as always on, so that the BUC power amplifier is in standby status without keyline command from the modem.	PCU
			On the Ku-band NX system, the external BUC path for M&C is now available for the Codan BUC M&C.	ACU
			Comtech BUC Support and M&C Function have been added to support v150NX Comtech 125W Model.	ACU
			If the antenna fails to track satellite for 2 hours during setup, the system will now reboot. Previously, the system would not reboot after 2 hours without successful satellite tracking during antenna setup.	PCU
			Cable compensation function has been updated to support Newtec Modem.	ACU

			Attenuation value reset issue resolved for Terrasat BUCs supporting High Power Mode.	ACU
	ACU iARM	2.00.020	Antenna "Stabilization Mode" added for the status of no signal while in blockage zone.	iARM
			Antenna RF Type information can now be checked via the CLI command (show acs).	
			Added support for both systems with separate gyro and tilt sensors and new systems with the gyro and tilt sensing handled by the IMU.	
			Comtech BUC Support and M&C Function have been added to support v150NX Comtech 125W Model.	
			iARM firmware versions earlier than factory default are not allowed to avoid firmware upgrade error.	
			When the iARM firmware is upgraded, progress is displayed with more detailed information.	
			iARM log download is now available on AptusNX. The "IARM_LOG" folder is included in the antenna log compressed file.	
			Cable compensation function has been updated to support Newtec Modem.	
			The BUC M&C error on the v150NX Ka dual antenna configuration has been fixed.	
			Intermittent error of the ACU subsystem firmware version information update has been fixed.	
			Attenuation value reset issue resolved for Terrasat BUCs supporting High Power Mode.	
May 4 th 2022	v85NX v100NX v130NX v150NX v60Ka 2 v85NX Ka v100NX Ka v150NX Ka	2.00.002	The firmware package has been unified and expanded for supporting new ACU board with newly applied MPU.	ACU
		2.00.002		
		2.00.002		
	v85NX Ka v100NX Ka v150NX Ka	2.00.002	New software versioning rules applied to each board level. (i.e: 1.23 > 1.23.456)	PCU STAB
		2.00.001	ADS function support on SATLINK VACP protocol is now available.	ACU
		2.00.002		
	ACU iARM	2.00.020	The firmware package has been unified and expanded for supporting new ACU board with newly applied MPU.	iARM
			New software versioning rules applied to each board level. (i.e: 1.23 > 1.23.456)	
			ADS function support on SATLINK VACP protocol is now available.	
Jan 25 th 2022	v85NX v100NX v130NX v150NX v60Ka 2 v85NX Ka v100NX Ka v150NX Ka	1.26 1.08 1.08 1.18 1.05 1.08 1.10 1.08	Function added to periodically check the receive PLL frequency	ACU
			Function added Tx attenuator value changeable function	ACU
			Improved on the phenomenon that the satellite signal is received stably, but the tuner lock is released intermittently.	ACU
			Improved the phenomenon that the value is continuously updated when NMEA heading is input even when "Heading Device" is "None" or "Static" Mode.	ACU
			Improved error LED condition.	PCU
			Fixed NMEA2000 data reception and crash during live upgrade	ACU
			Fixed "Modem Lock" did not work in the secondary antenna if the modem was Comtech I/O when configuring the dual antenna.	ACU

			Modified application of Atten Offset Table for each frequency during cable compensation	ACU
	ACU iARM	1.21.088	Switch method added after block zone is cleared in dual antenna system	iARM
			DHCP on/off function added for SNMP/SYSLOG function when using iDirect X7 velocity version	
			Green LED blinking function "Modem Info" added to menu in AptusNX .	
			Function added Tx Attenuator value changeable function	
			Improved firmware upgrade status error for NX and E series models.	
			Fixed NMEA2000 data reception and crash during live upgrade	
			Fixed information reset issue when saving and uploading library	
			Fixed the ACU power test result was missed when all diagnosis test	
May 28 th 2021	v60Ka 2 v85NX v85NX Ka v100NX v100NX Ka v130NX v150NX v150NX Ka	1.03 1.24 1.06 1.06 1.08 1.06 1.16 1.06	ACU Main firmware is updated	ACU
Dec 2 nd 2020	v60Ka 2 v85NX v85NX Ka v100NX v100NX Ka v130NX v150NX v150NX Ka	1.02 1.23 1.05 1.05 1.07 1.05 1.15 1.05	Cable compensation function has been improved.	ACU
			Skew Motor variable duty function has been improved.	POL
			Terrasat BUC serial number has been added on BUC M&C of AptusNX.	ACU
			As searching satellite after tracking lost, EL Bias correction has been improved to reduce tracking acquisition time.	STAB
			In the case where Pol motor encoder malfunction, Pol motor for target angle does not move at more than 10 times in order to protect skew belt	POL
			LNB diagnosis has been improved in order to check more precisely.	PCU
			IM8 (Intelligent Mediator Gen 2) has been compatible with NX-Series	PCU
			Modem mediator has been upgraded to support NX-Series	ACU
			As iARM update is under progress, update progress on OLED display has been added	ACU OLED
			Function of Tx attenuator has been added.	ACU
			The bug beam switch is operated repeatedly after frequency changed has been fixed.	ACU
	ACU iARM	1.20	Cable compensation function has been improved.	iARM
			Newtech Modem OpenAMIP function was only for single mode antenna. Now it has been improved for mediator function support.	
			Backup to ACU & restore from ACU function have been removed.	
			Information message has been added on firmware upgrade.	
			Terrasat BUC serial number has been added on BUC M&C of AptusNX.	

			Blockage setting for 0 to 360 in AZ and 90 in EL has been set as invalid blockage range with pop-up.	
			For E-series using iDirect(velocity) or other brands modem, Line-up Page UI has been improved to input test result (CPI and P1dB value).	
			IM8 (Intelligent Mediator Gen 2) has been compatible with NX-Series	
			Modem mediator has been upgraded to support NX-Series	
			As iARM update is under progress, update progress on OLED display has been added	
			Function of Tx attenuator has been added.	
			For NJRC BUC type, Tx input power has been removed.	
			As mediator mode is not operating, the bug which OLED display had remained mediator mode has been fixed.	
			For mediator mode, the bug primary ACU IP intermittently disconnects secondary ACU IP has been fixed.	
			For mediator mode, the 0.1° difference between primary and secondary heading value has been fixed.	
Jun 17 th 2020	v60Ka 2 v85NX v85NX Ka v100NX v100NX Ka V130NX V150NX	1.01	Detail explanation for upgrade status window	ACU
		1.22	Telenor RF terminal types have been added and revised	ACU
		1.04	v85NX Ka & v100NX Ka model ADS function have been added	STAB
		1.04		PCU
		1.06	Improvement for firmware cold upgrade	ACU
		1.04		ACU
	ACU iARM	1.18	Detail explanation for upgrade status window	iARM
			Telenor RF terminal types have been added and revised	
			v85NX Ka & v100NX Ka model ADS function have been added	
			iARM version information displayed on AptusNX login page	
			Improvement for the difference information of dBm and Es/No in Newtec webpage and AptusNX	
			Improvement for firmware cold upgrade	
Apr 10 th 2020	v85NX v85NX Ka v100NX v100NX Ka v130NX v150NX	1.21 1.03 1.03 1.03 1.03 1.13	Added the MMW BUC for M&C, and select BUC manually	ACU
			Tracking performance improvement at high elevation angle	STAB
			Firmware version display Improvement	ACU
				PCU
			Terrasat BUC M&C improvement	STAB
				ACU
			Beam switching does not occur during GX firmware live upgrade.	STK
			Fix the NMEA2000 heading error	DSTK
	ACU iARM	1.17	Fix the connection issue with Gilat modem	ACU
			Added the MMW BUC for M&C, and select BUC manually	iARM
			Able to skip the same version of firmware	
			The upload progress bar is displayed during iARM package file upload.	

			Terrasat BUC M&C improvement	
			Antenna Log storage method is changed	
			Reduced the iARM upgrade time	
			Improve the AptusNX login process	
			Fix the mediator description error at a backup file	
			Fix the mediator algorithm error	