



Nano/Micro/Milli - VDD

VDD Document

Document # VDD-052020 Version 4.6

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1. ABSTRACT

This Implementing a Version Description Document of the Nano/Micro/MilliSAT system for General application.

1.1 REVISION HISTORY

Table 1: Revision history

Release	Date	Author	Description
4.0.0.0	July 1, 2019	Mark Borohov	Initial WEB revision
4.2.0.0	November 27, 2019	Mark Borohov	Release 4.2.0.0
4.3.0.0	December 12, 2019	Mark Borohov	Release 4.3.0.0
4.32.0.0	February 02, 2020	Mark Borohov	Release 4.32.0
4.33.0.0	February 25, 2020	Mark Borohov	Release 4.33.0
4.34.0.0	March 03, 2020	Mark Borohov	Release 4.34.0
4.5	August 19, 2020	Maor Malka, Mark Borohov	Release 4.5
4.6	December 24, 2020	Mark Borohov	Release 4.6

1.2 APPROVALS

Table 2: Approvals

Approved by	Date	Name	Signature
CTO	December 24, 2020	Oleg Roitberg	SEE HARD COPY

2. RELEASE – 4.6

2.1 TERMINAL MAIN COMPONENTS

Table 3: Terminal Release 4.6 versions

Element	Description
Release Date	December 24, 2020
Last Patch date	January 19, 2021
Git Version Location	http://gitlab.getsat.local/Getsat-Production/nanomicromili/-/tree/master/Version/Release%5B4.6.0%5D

2.1.1 Project Release versions

Table 4: Release 4.6 version numbers

Element	Version	Commit
MicroTracker	4.6.1	4071f873
Double Bridge	36.45	82a0be78
GUI	4.6.0	7c7cfc49
WEB GUI	1.4.1	b89b3f77

2.2 VERSION CONTENT DESCRIPTION

Table 5: Version 4.6 Content

Element	Affected Parts	Description
Added Features		
1	Web	O3B Page.
2	Microtracker+ Web	Change the name of user types to Viewer, Operator, Administrator.
3	Microtracker+ Web	Support of changing and managing login passwords for Operator and Administrator users.
4	Microtracker+ Web	Mission BUC Page.
5	Microtracker+ Web	ADS – Changing terminals rolls name to Main, Secondary.
6	Microtracker+ Web	Go To, in manual mode user can point the antenna to a desired direction using Go To option.
7	Microtracker+ Web	Double bridge Board can be updated via packages page, terminal image will contain Double Bridge components as well.
8	Web	Setup, Buc is selected automatically accordingly to terminal configuration, user would not choose BUC type on setup procedure.
9	Microtracker+ Web	Terminal is now supports working in OpenAmip mode with UHP modem.
10	Microtracker + Web	Generic I-Direct 950 modem is added to modems lists on Flex network.
11	Microtracker + Web + GUI	Get Static, a new operation mode, allows to work with the terminal in on the pause mode.
12	Microtracker	Allowing to reset satellite information to factory default.
13	Microtracker + Web	Adjusting terminals OpenAmip process to support MLT1000 modem.
14	Web	Mechanical azimuth gauge indicating zero of encoder by coloring the arrow in green.
15	Microtracker + Web	In manual mode the arrows buttons are supports with long press to perform a continues moved of the rotor.
16	GUI	Fixed device temperatures display.
17	WEB	WEB UI versioning changed from 4.5.X to 1.4.X.
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Double bridge version 45. Must use Web browser, Chrome, or Internet explorer, for technician use GUI version 4.6

2.3 PATCH NOTICE

Table 6: Version 4.6 Patches

Element	Affected Parts	Ver	Description
Patch	Microtracker + WEB	4.6.1	O3B full support of channel file, configuring terminal and modem
	Microtracker + WEB	4.6.1	Rolloff in Spectrum analyzer display, bug fix.
	Microtracker	4.6.1	Adjustments in the automatic zoom and rolloff calculation when terminal is managed via OpenAmip protocol.
	WEB	4.6.1	BUG #44, Blockage zone input error message fix.
	WEB	4.6.1	Typo bug fixes: BUG #40, BUG #41, BUG #43, BUG #48
	Microtracker	4.6.1	Logs should be deleted when resetting satellite information (BUG #47).

3. RELEASE – 4.5

3.1 TERMINAL MAIN COMPONENTS

Table 7: Terminal Release 4.5 versions

Element	Description
Release Date	October 19, 2020
Git Version Location	http://gitlab.getsat.local/Getsat-Production/nanomicromili/-/tree/master/Version%2FRelease%5B4.5.0%5D

3.1.1 Project Release versions

Table 8: Release 4.5 version numbers

Element	Version	Commit
MicroTracker	4.5.6	e3e8ec05
Double Bridge	36.45	82a0be78
GUI	4.5.2	010656d9
WEB GUI	4.5.4	bd66a370

3.2 VERSION CONTENT DESCRIPTION

Table 9: Version 4.5 Content

Element	Affected Parts	Description
Added Features		
1	Web	KU is now fully supported in web versions
2	Microtracker+ Web	System will now use terminal settings to setup relevant parts with product data (LNB Los (Mhz), BUC Los (Mhz), BUC communication style)
3	Microtracker+ Web	Web Versions now use the major.minor.patch commit version format
4	Web	Terminal will now alert if your Session has timed out
5	Web	Support for Debug controls
6	Web	ADS, option to follow elevation using IMU instead of encoders
7	Web	ADS Azimuth Gauge will now show the front panel orientation
8	Microtracker	Bugfix where Bundle 2 could not be activated
9	Microtracker	Terminal will no longer rescan if the OpenAmip satellite longitude is the same as previously sent.
10	Microtracker + Web	Added setup support for the following modems: <ul style="list-style-type: none"> • Gilat GLT1000 • MicroModem
11	Web	Other GEO Modems can now control the terminal via OpenAmip or manually
12	Microtracker + Web	Admins can now reset the system log.
13	Web	System failure alerts, for user an indicator LED in the dashboard, for tech and above a detailed alert under system page.
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Double bridge version 45. Must use Web browser, Chrome, or Internet explorer, for technician use GUI version 4.5.1

3.3 PATCH NOTICE

Table 10: Version 4.5 Patches

Element	Affected Parts	Ver	Description
Patch	Microtracker	4.5.1	Web versions now support MicroSAT and NanoSAT systems
	GUI	4.5.1	About form now use the major.minor.patch commit version format
	Microtracker	4.5.1	Fix BUC connection when Front panel KU systems.
	Microtracker + Web	4.5.1	Main page shows Tx LO
	Microtracker + Web	4.5.2	Gmodman(GM-780) modem support on MilliSAT.
	Microtracker + Web	4.5.2	Spectrum Analyzer calibration
	Web	4.5.2	Fix of loading skew tables for MilliSAT W.
	Microtracker	4.5.2	Fix OpenAmip F command when terminal in position mode
	GUI	4.5.2	Support of spectrum calibration enabling
	Microtracker	4.5.2	Timeout of OpenAmip connection changed to 3 minutes, due to Gmodman boot constraint.
	Microtracker	4.5.3	Fix activating manual pointing mode bug.
	Microtracker + Web	4.5.4	Automatic gyro calibration.
	Microtracker + Web	4.5.4	WEB, technician, control constants page.
	Microtracker	4.5.4	Supporting KU BUC 50W.
	Microtracker	4.5.4	Enhancement: ADS, robustness of communication between terminals (unicast/broadcast).
	Microtracker	4.5.4	Bug fix: OpenAmip, sending "s" message on GPS reception status change
	Microtracker	4.5.4	Bug fix: accuracy of pointing when moving from track to manual mode "sticking" to the tracked satellite
	Web	4.5.4	Bug fix: Log parsing c2n and RSSI fix.
	Web	4.5.4	Bug fix: Uploading Tx Skew tables to MilliSAT terminal with polarizer type B
	Microtracker	4.5.4	Bug fix: Changing IP of terminal in Setup procedure might cause loss of communication to terminal that requires reset
	Web	4.5.4	Bug fix: IMU configuration when uploading "General" configuration file via WEB.
	Web	4.5.4	Modem L-band range options in setup, changed to 950-1950 Mhz or 1000-2150 Mhz
	Web	4.5.4	External GPS mode is available on setup procedure.
	Web	4.5.5	Bug fix: Uploading old style Tx Skew tables (280 rows).
	Microtracker + Web	4.5.5	Bug fix: DualSAT, switching roles between terminals via setup procedure will update the remote terminal IP as well.
	Microtracker + Web	4.5.5	Support of selecting Flex network on setup.
	Microtracker	4.5.5	Bug fix: Finding Encoder absolute index on homing when starting from index position.
	Microtracker	4.5.6	Terminal can now use Spectrum compare to avoid locking on narrow, strong signals.
	Microtracker	4.5.6	On Flex network terminal will send Ident message via OpenAMIP protocol

4. RELEASE – 4.34

4.1 TERMINAL MAIN COMPONENTS

Table 11: Terminal Release 4.34 versions

Element	Description
Release Date	March 03, 2020
Git Version Location	https://serv2012.getsat.local/svn/Micro/production/General/Web Releases/Release[4.34.0.0][03.03.2020]

4.1.1 Project Release versions

Table 12: Release 4.34 version numbers

Element	Version
MicroTracker	4.34.0
Double Bridge	36.45
GUI	4.0.0
WEB GUI	4.0.0

4.2 VERSION CONTENT DESCRIPTION

Table 13: Version 4.34 Content

Element	Affected Parts	Description
Added Features		
1	MicroTracker	GX rftermrtyes are the same for Standalone and ADS.
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Active bridge version 32, Must use Double bridge version 45. Must use Web browser, Chrome or Internet explorer, for technician use GUI version 4.0.0.0.

5. RELEASE – 4.33

5.1 TERMINAL MAIN COMPONENTS

Table 14: Terminal Release 4.33 versions

Element	Description
Release Date	February 02, 2020
Git Version Location	https://serv2012.getsat.local/svn/Micro/production/General/Web Releases/Release[4.33.0.0][25.02.2020]

5.1.1 Project Release versions

Table 15: Release 4.33 version numbers

Element	Version
MicroTracker	4.33.0
Double Bridge	36.45
GUI	4.0.0
WEB GUI	4.0.0

5.2 VERSION CONTENT DESCRIPTION

Table 16: Version 4.33 Content

Element	Affected Parts	Description
Added Features		
1	MicroTracker	Support of changing ethernet switch speed capability 10M/100M
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Active bridge version 32, Must use Double bridge version 45. Must use Web browser, Chrome or Internet explorer, for technician use GUI version 4.0.0.0.

6. RELEASE – 4.32

6.1 TERMINAL MAIN COMPONENTS

Table 17: Terminal Release 4.32 versions

Element	Description
Release Date	February 02, 2020
Git Version Location	https://serv2012.getsat.local/svn/Micro/production/General/Web Releases/Release[4.32.0.0][02.02.2020]

6.1.1 Project Release versions

Table 18: Release 4.32 version numbers

Element	Version
MicroTracker	4.32.0
Double Bridge	36.45
GUI	4.0.0
WEB GUI	4.0.0

6.2 VERSION CONTENT DESCRIPTION

Table 19: Version 4.32 Content

Element	Affected Parts	Description
Added Features		
1	Web UI + MicroTracker	ADS Blockage zones, improved offset mechanism.
2	MicroTracker	Fixed keyline issue when GS-751 modem connected to MilliSAT terminal with front panel in standalone mode.
3	MicroTracker	Full Setup – Bug fix, signal track source was hardcoded instead of using from full setup procedure
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Active bridge version 32, Must use Double bridge version 45. Must use Web browser, Chrome or Internet explorer, for technician use GUI version 4.0.0.0.

7. RELEASE – 4.3

7.1 TERMINAL MAIN COMPONENTS

Table 20: Terminal Release 4.3 versions

Element	Description
Release Date	December 12, 2019
Git Version Location	https://serv2012.getsat.local/svn/Micro/production/General/Web_Releases/Release[4.3.0.0][12.12.2019]

7.1.1 Project Release versions

Table 21: Release 4.3 version numbers

Element	Version
MicroTracker	4.3.0
Double Bridge	36.45
GUI	4.0.0
WEB GUI	4.0.0

7.2 VERSION CONTENT DESCRIPTION

Table 22: Version 4.3 Content

Element	Affected Parts	Description
Added Features		
1	Web UI + MicroTracker	ADS – Dual Sat support with modem GS-950.
2	MicroTracker	Software update via WEB UI, skip burning component if it's already existed.
3	MicroTracker	GPS – handling more types of NMEA messages.
4	MicroTracker	Fixed issue – Non supporting ADS terminals entered to ADS slave mode on gs-751 setup.
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Active bridge version 32, Must use Double bridge version 45. Must use Web browser, Chrome or Internet explorer, for technician use GUI version 4.0.0.0.

8. RELEASE – 4.2

8.1 TERMINAL MAIN COMPONENTS

Table 23: Terminal Release 4.2 versions

Element	Description
Release Date	November 27, 2019
Git Version Location	https://serv2012.getsat.local/svn/Micro/production/General/Web Releases/Release[4.2.0.0][27.11.2019]

8.1.1 Project Release versions

Table 24: Release 4.2 version numbers

Element	Version
MicroTracker	4.2.0
Double Bridge	36.45
GUI	4.0.0
WEB GUI	4.0.0

8.2 VERSION CONTENT DESCRIPTION

Table 25: Version 4.2 Content

Element	Affected Parts	Description
Added Features		
1	Web UI + MicroTracker	ADS – Dual Sat support for GX network with GS-751
2	Web UI + MicroTracker	ADS – Ability to configure blockage zones for master and slave.
3	Web UI	ADS – Dashboard for ADS mode.
4	Web UI	Full Setup procedure on WEB UI.
5	Web UI	Support of more modems: GS-950, MicroModem.
6	Web UI	OpennAmip page for supporting modems.
7	MicroTracker	Support of terminals without front panel.
8	Web UI	Packages page – Date of release is now available for each bundle.
9	Web UI	Main Dashboard – Bug fix, Tx Led.
10	Web UI	Web session timeout has changed from 5 minutes to 10 minutes.
11	Web UI	Downloaded logs file names will have a prefix of terminal's serial number.
12	MicroTracker	Network driver has been improved to work in DMA mode.
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Active bridge version 32, Must use Double bridge version 45. Must use Web browser, Chrome or Internet explorer, for technician use GUI version 4.0.0.0.

9. RELEASE – 4.0

9.1 TERMINAL MAIN COMPONENTS

Table 26: Terminal Release 4.0 versions

Element	Description
Release Date	July 1, 2019
Git Version Location	https://serv2012.getsat.local/svn/Micro/production/General/WebReleases/Release[4.0.0.0][01.07.2019]

9.1.1 Project Release versions

Table 27: Release 4.0 version numbers

Element	Version
MicroTracker	4.0.0
Double Bridge	36.45
GUI	4.0.0
WEB GUI	4.0.0

9.2 VERSION CONTENT DESCRIPTION

Table 28: Version 4.0 Content

Element	Affected Parts	Description
Added Features		
1	MicroTracker	Added support for Web Server and Web UI
2	Web UI + MicroTracker	Added support for Blockage Zones
3	Web UI + MicroTracker	Added support for saving logs for 30 days
4	MicroTracker	Added support for maintaining 3 image bundles on flash and availability to choose where boot from.
Open Issues		
1		
2		
Compatibility Issues		
1		Must use Active bridge version 32, Must use Double bridge version 45. Must use Web browser, Chrome or Internet explorer, for technician use GUI version 4.0.0.0.