

Release Notes

Time & Frequency Division
04-031.HM03-2017

RELEASE NOTES: Mini-T™ GG (95959-xx) Firmware v1.03

Overview

This document list the changes introduced in Mini-T™ GG firmware version 1.02. Following part numbers are affected by this release:

Part Number	Description	Firmware
95959-xx	Mini-T GG GNSS Disciplined Clock	v1.03
99880-xx	Mini-T GG GNSS Disciplined Clock Starter Kit	v1.03

Change Description

- 1) Change the TSIP packet 0x6C structure to maintain compatibility with other Timing products.

Mini-T GG 0x6C old format (v1.0 to v1.02)

Byte	Bit	Item	Type	Value	Description
0		Packet ID	UINT8	0x6C	
1	0-2	Fix dimension	bit field	001	1D clock fix
				011	2D fix
				100	3D fix
				101	OD clock fix
	3	Fix mode	bit field	0	Auto
				1	Manual
	4-7	No. of SV in fix	bit field	0-12	Count
2-5		PDOP	SINGLE		PDOP
6-9		HDOP	SINGLE		HDOP
10-13		VDOP	SINGLE		VDOP
14-17		TDOP	SINGLE		TDOP
18-n		SV PRN	SINT8	1-32, 65-96	GPS, GLONASS

<http://www.trimble.com/timing>

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In the table above Byte 1, bits 4 to 7 are used for the SV count.

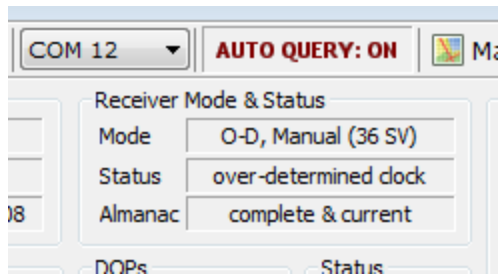
Mini-T GG 0x6C new format (v1.03 and above)

Byte	Bit	Item	Type	Value	Description
0		Packet ID	UINT8	0x6C	
1	0-2	Fix dimension	bit field	001	1D clock fix
				011	2D fix
				100	3D fix
				101	OD clock fix
	3	Fix mode	bit field	0	Auto
				1	Manual
2-5		PDOP	SINGLE		PDOP
6-9		HDOP	SINGLE		HDOP
10-13		VDOP	SINGLE		VDOP
14-17		TDOP	SINGLE		TDOP
18		No. of SV in fix	UINT8		Count
19-n		SV PRN	SINT8	1-32, 65-96	GPS, GLONASS

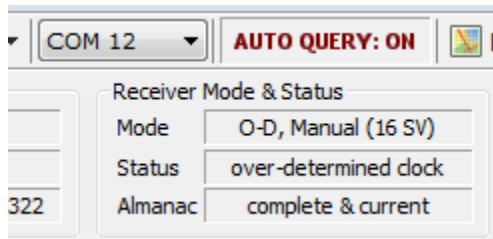
In the table above Byte 18 is now used for the SV count.

The change also corrects the SV count viewed in the Receiver Mode and Status display in Trimble VTS.

Using the old 0x6C output the SV count of 36 is incorrect



Using the new 0x6C output the SV count is correct



2) An error was fixed in the LED functionality. The LED operation is as per the table below:

State	LED1 (ACT)	LED2 (ALM)
Power Up	RED solid	RED solid
GNSS available	Blink1 GREEN	OFF
Holdover	Blink2 GREEN + ORG	OFF
Hardware failure alarm		RED solid
Operational alarm		ORG solid

(Blink1) 500msec ON / 500msec OFF

(Blink2) 125msec Green ON / 125msec Orange ON.

3) Fix to save user selected constellation configuration after power cycle or cold resets. The default configuration for the Mini T GG is to use both GPS and GLONASS constellation.

If the user chooses to select either GPS only or GLONASS only and saves the configuration this is now maintained after a power cycle or a cold reset.

NOTE: The GPS week number roll over event will happen on week #2959, which is September 27, 2036.

For more information

For more information contact your local Trimble Distribution Partner or Trimble sales representative.