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TECHNOLOGIES

FF32 - USB Interface Chip

Errata

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Contents

1. Summary

1.1 Silicon errata overview

Module	Item	Description	Affected revisions	Status
PWM	2.1	When set to 0%, the output is set to 100%	0.1	Fixed in 0.2
PWM	2.2	Commands storing data in non-volatile memory disable PWM	0.1	Fixed in 0.2
Digital outputs	2.3	Improper internal initialization of pins B1 to B4	0.1	Fixed in 0.2

1.2 Compatibility errata overview

Platform	Item	Description	Affected revisions	Status
Raspberry Pi	2.4	Communication errors on a system with high USB traffic	all	Fixed

1.3 Updates history

Version	Release date
0.1	Mar 10, 2014
0.2	Apr 01, 2014
0.3	Apr 13, 2014

1.4 References

Latest version of this document: http://www.flyfish-tech.com/FF32/FF32_errata.pdf

Latest version of FF32 datasheet document: http://www.flyfish-tech.com/FF32/FF32_datasheet.pdf

Latest code update: http://www.flyfish-tech.com/FF32/FF32_update.zip

2. Issues

2.1 PWM set to 100%

Description	Command to set PWM output to 0% actually set it to 100%
Affected revisions	0.1
Severity	High
Status	Fixed in 0.2
Workaround (if not upgraded)	Instead of setting PWM output value to 0%, set it to Digital output with value 0.
Recommendation	Upgrade to the latest version

2.2 PWM disabled

Description	The following commands disable the PWM: - Set address, - Set vendor, - Set product, - Set serial number. In order to re-enable the PWM, the chip must be power-cycled.
Affected revisions	0.1
Severity	Medium
Status	Fixed in 0.2
Workaround (if not upgraded)	Listed commands which set non-volatile data are meant to be executed only as a part of a product finalization stage. Therefore, they should be excluded from user-level applications. There is no workaround available - the chip needs to be power-cycled.
Recommendation	Upgrade to the latest version

2.3 Improper pins B1 to B4 initialization

Description	During power-up chip initialization procedure, the pins B1 to B4 are not completely initialized. Setting listed pins as digital output is ignored before it or any other pin is set as digital input first.
Affected revisions	0.1
Severity	High
Status	Fixed in 0.2
Workaround (if not upgraded)	Before any of pins B1 to B4 are set to output, one pin (can be the same pin B1 to B4 or any other pin) must be set as input first. It is enough to perform this workaround just once after each power-on event.
Recommendation	Upgrade to the latest version

2.4 Raspberry Pi USB communication problems

Description	In case of Raspberry Pi's higher USB communication load, packets sporadically got lost. Details: http://www.raspberrypi.org/forums/viewtopic.php?f=28&t=70437
Affected revisions	All
Severity	High
Status	Raspberry Pi USB driver has been fixed in update 3.12.18 (May 2014)
Workaround (if not upgraded)	None.
Recommendation	Update the Raspberry Pi with *rpi-update* command

3. Codename :: Emona2000

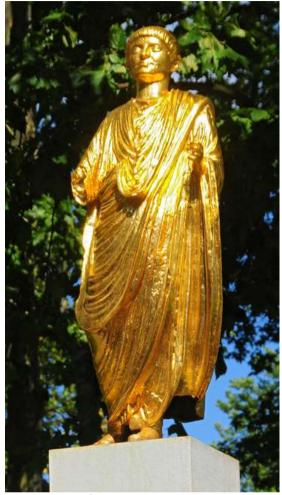FLYFISH TECHNOLOGIES headquarters is located in Ljubljana, Slovenia.

In 2014 city of Ljubljana celebrates 2000 years of the Roman City of Emona, situated on the site of today's Ljubljana, the capital city of Slovenia.

In 14 AD, the Roman colony of Emona (Colonia Iulia Aemona) unquestionably already stood on the site of the present-day city centre of Ljubljana. This is evidenced by an inscription about a donation that the city received from the emperors Augustus and Tiberius.

Due to its geographical position, Emona played an important role in the Roman Empire's system of defense and flourished from the 1st to the 5th century AD. It was part of the Roman province of Italy, as its easternmost city.

Emona was built on a Roman model and was governed in accordance with Roman political and religious principles. It is believed to have been inhabited by around 5,000 colonists, whose occupations were agriculture, trade, and crafts.

Emona was also an important Early Christian centre with its own goddess, Equrna.

Ancient statue of Emona resident, Photo: Dunja Wedam

Numerous remains have been excavated, such as parts of the Roman wall, residential houses, statues, tombstones, several mosaics, parts of the paleochristian baptistry, etc. that can be still seen today.
Some of the remains of ancient Emona have survived in Ljubljana's streets and squares, others are on display at the City Museum of Ljubljana and the National Museum of Slovenia.

Sources:
http://en.wikipedia.org/wiki/Emona
http://www.visitljubljana.com/en/activities/culture-art/49296/detail.html

What life was like in Emona 2000 years ago; animation: http://www.youtube.com/watch?v=8YrqEQs0PRg