iPhone 4 HSMC Interface - Bug #473

TPS62203 doesn't go up to 5V

03/03/2014 09:02 PM - Andrew Kohlsmith

Status:	New	**Start date:**	03/03/2014
Priority:	Normal	**Due date:**	
Assignee:	Andrew Kohlsmith	**% Done:**	0%
Category:		**Estimated time:**	0:00 hour
Target version:			

Description

U2 was chosen to take the 12V HSMC rail down to 5V to supply AVDDH on the LCD. This won't work, because the TPS62203 series regulators don't have parts that will accept more than 6V input, much less regulate to 5V. I kind of doubt there's something pin compatible.

History

#1 - 03/04/2014 11:48 AM - Andrew Kohlsmith

Alternate parts with the same footprint. Minor board changes required, generally shorting out the inductor and either eliminating the feedback resistor or putting a bypass cap in the NP feedback resistor:

- Diodes Inc AP2210K-5.0TRG1. LDO, 300mA, $0.55
- Diodes Inc AP2202K-ADJ. LDO, 150mA, Adjustable, $0.56
- Diodes Inc AP2204K-5.0TRG1. LDO, 150mA, $0.58
- TI LP2992AIM5X. LDO, 250mA, $1.47
- Exar SPX3819M5. LDO, 500mA, $1.19
- Micrel MIC5219YM5. LDO, 500mA, $2.41
- Micrel MIC5207YM5. LDO, 180mA, $1.25

The STMicro LK112SM50 is the same footprint but the pinout is different enough that it's probably not worth it, especially with so many pinout-compatible choices.

#2 - 03/04/2014 01:49 PM - Andrew Kohlsmith

- Description updated

- Subject changed from TPS622xx doesn't go up to 5V to TPS62203 doesn't go up to 5V