

LP11A - Feature #571

/mnt/ 60MB/s 20MB/s

10/09/2024 11:01 AM -

Status:	Closed	Start date:	10/09/2024
Priority:	High	Due date:	
Assignee:		% Done:	0%
Category:	Driver_[RK3568/RK3399Pro]	Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour
:	LP11A	:	Ubuntu
CPU:	RK3399Pro	:	Linux bionic 4.4.194 #12 SMP Fri Sep 27 11:56:21 CST 2024 aarch64 aarch64 aarch64 GNU/Linux
:	AI Pro AI-ZJ0001F-Pro	APP:	-
/:	-	:	100%
:	03	:	AP6275S
/:	03	:	N/A
:	LP11A_Ubuntu18.04_v3.0_20240930_Test.img	EMMC:	FEMDNN256G-A3A56

Description

1\192.168.1.250\07-qa\SOP&LP11A\history\24-09-18\LP11A_Ubuntu18.04_v3.0_20240918_test.img
2\192.168.1.250\07-qa\SOP&LP11A\24-09-30\LP11A_Ubuntu18.04_v3.0_20240930_Test.img

1[ON_Board_Flash]60MB/s
2[ON_Board_Flash]20MB/s
:45MB/s;

sudo dd if=/dev/zero of=/mnt/test.dbf bs=16K count=32K conv=fdatasync
sudo dd if=/mnt/test.dbf of=/dev/null bs=16K
100%

History

#1 - 10/09/2024 05:34 PM - mike

- CPU set to RK3399Pro
- / set to -
- set to 03
- / set to 03
- set to FD7352S
- set to N/A

#2 - 10/09/2024 05:37 PM - mike

- APP set to -
- EMMC set to FEMDNN256G-A3A56

#3 - 10/09/2024 06:05 PM - mike

- File clipboard-202410091801-b8a0y.png added
- File clipboard-202410091802-bcvgt.png added
- set to AI Pro AI-ZJ0001F-Pro
- set to Linux bionic 4.4.194 #12 SMP Fri Sep 27 11:56:21 CST 2024 aarch64 aarch64 aarch64 GNU/Linux
- changed from FD7352S to AP6275S

5 DC Parameters

5.1 Reference Schematics

V_{CC} is used for the NAND Flash device; V_{CCQ} is used for the controller and for the eMMC and NAND interface voltage.

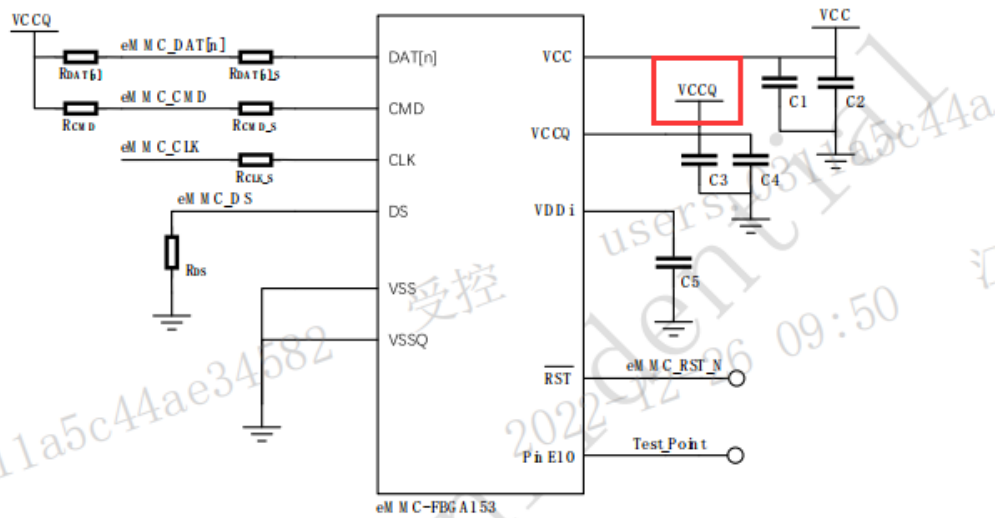


Figure 9 eMMC Reference Schematics

Table 25 Reference Component Parameters

Parameter	Symbol	Min	Typical	Max	Remark
Power of V _{CC}	V _{CC}	2.7V	3.3V	3.6V	Should be separated from V _{CCQ}
Power of V _{CCQ} (High Perf.)	V _{CCQ}	1.7V	1.8V	1.95V	HS200/HS400
Power of V _{CCQ} (Low Perf.)	V _{CCQ}	2.7V	3.3V	3.6V	52MHz CLK SDR/DDR
DAT[n] Pull-Up Resistance	RDAT[n]	10kΩ	–	100kΩ	DAT[n], n=0~7
CMD Pull-Up Resistance	RCMD	4.7kΩ	–	100kΩ	
DS Pull-Down Resistance	RDS	10kΩ	–	100kΩ	HS200/HS400
DAT[n] Serial Resistance	RDAT[n]_S	--	0Ω	33Ω	Reserving for EVT
CMD Serial Resistance	RCMD_S	--	0Ω	33Ω	Reserving for EVT
CLK Serial Resistance	RCLK_S	--	0Ω	33Ω	Reserving for EVT
Power Coupling Capacitor 1	C1, C3	2.2μF	–	4.7μF	6.3V, X5R or higher classification
Power Coupling Capacitor 2	C2, C4	--	0.1μF	--	6.3V, X5R or higher classification
VDDi Coupling Capacitor	C5	0.1μF	1μF	--	6.3V, X5R or higher classification

VCCQ 3.0V, EMMC 52MHz CLK SDR/DDR 52x4/8 = 26Mbyte

2.3 Performance

Table 6 Write/Read Performance

Part Number	Write	Read
FEMDNN064G-A3A56	Up to 200MB/s	Up to 330MB/s
FEMDNN128G-A3A56	Up to 270MB/s	Up to 330MB/s
FEMDNN256G-A3A56	Up to 270MB/s	Up to 330MB/s

Note:

#4 - 11/07/2024 01:59 PM - mike

This bug be defined as a feature.

#5 - 11/07/2024 02:02 PM - mike

- Tracker changed from Bug to Feature

#6 - 11/07/2024 02:06 PM - mike
- Status changed from New to Closed

Files			
clipboard-202410091801-b8a0y.png	132 KB	10/09/2024	mike
clipboard-202410091802-bcvgt.png	25.9 KB	10/09/2024	mike