CAMERA1

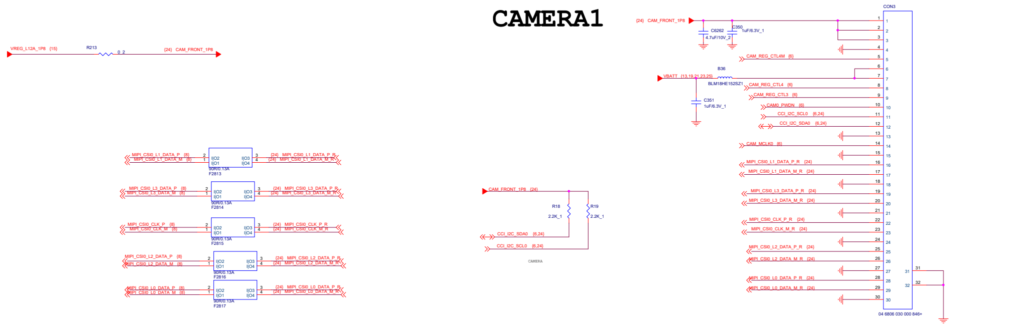
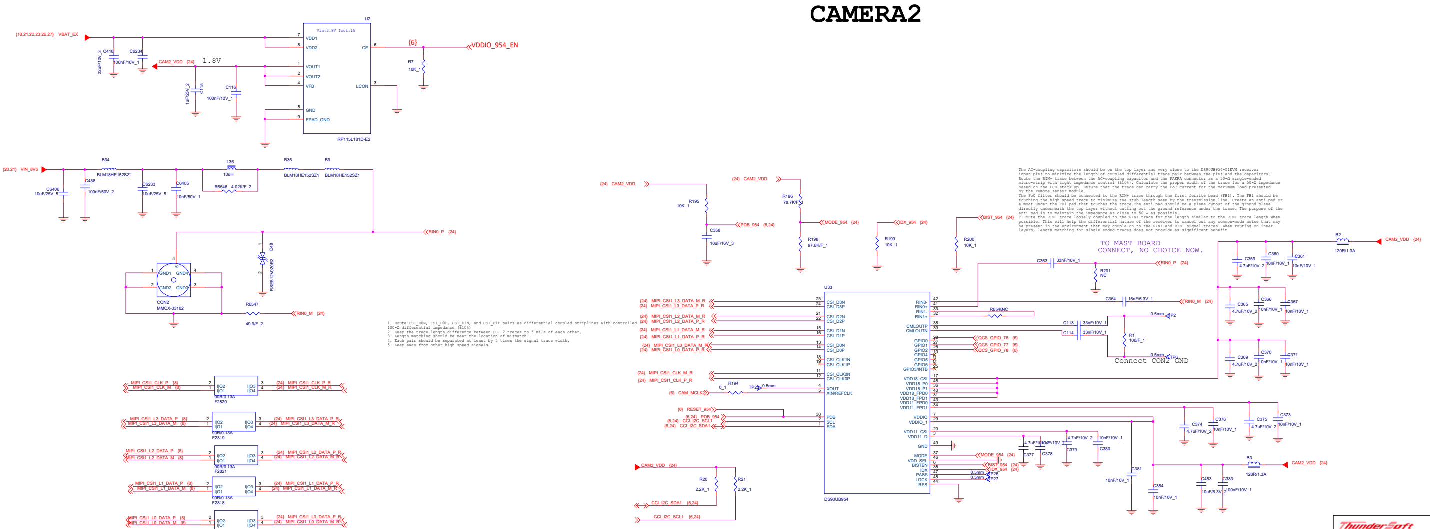


table 7-3 DC characteristics (-30°C < T_J < 85°C) (sheet 1 of 2)

symbol	parameter	min	typ	max[a]	unit
supply					
V_{DD-A}	supply voltage (analog)	2.6	2.8	3.0	V
V_{DD-IO}	supply voltage (digital I/O)	1.7	1.8	3.0	V
V_{DD-D}	supply voltage (digital core for 4-lane MIPI up to 1000 Mbps/lane)	1.1	1.2	1.3	V
I_{DD-A}	active (operating) current[b]		40	45	mA
I_{DD-IO}			3	7	mA
I_{DD-D}			120	150	mA
$I_{DDS-SCCB-A}$	standby (SCCB) current[c]		10	20	µA
$I_{DDS-SCCB-IO}$			50	70	µA
$I_{DDS-SCCB-D}$			1	20	mA
$I_{DDS-PWDNB-A}$			10	20	µA

CAMERA2



The AC-coupling capacitors should be on the top layer and very close to the DS90UB954-Q1EVM receiver input pins to minimize the length of coupled differential trace pair between the pins and the capacitors. Route the RIN+ trace between the AC-coupling capacitor and the FAKRA connector as a 50-Ω single-ended micro-strip with tight impedance control (±10%). Calculate the proper width of the trace for a 50-Ω impedance based on the PCB stack-up. Ensure that the trace can carry the PoC current for the maximum load presented by the remote sensor module.
The PoC filter should be connected to the RIN+ trace through the first ferrite bead (FB1). The FB1 should be touching the high-speed trace to minimize the stub length seen by the transmission line. Create an anti-pad or a moat under the FB1 pad that touches the trace.The anti-pad should be a plane cutout of the ground plane directly underneath the top layer without cutting out the ground reference under the trace. The purpose of the anti-pad is to maintain the impedance as close to 50 Ω as possible.
? Route the RIN- trace loosely coupled to the RIN+ trace for the length similar to the RIN+ trace length when possible. This will help the differential nature of the receiver to cancel out any common-mode noise that may be present in the environment that may couple on to the RIN+ and RIN- signal traces. When routing on inner layers, length matching for single ended traces does not provide as significant benefit

1. Route CSI_D0N, CSI_D0P, CSI_D1N, and CSI_D1P pairs as differential coupled striplines with controlled 100-Ω differential impedance (±10%)
2. Keep the trace length difference between CSI-2 traces to 5 mils of each other.
3. Length matching should be near the location of mismatch.
4. Each pair should be separated at least by 5 times the signal trace width.
5. Keep away from other high-speed signals.

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Connect CON2 GND

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