

This figure presents a detailed PCB layout for a camera module, organized into four main functional sections: Camera Sensor, Connector, Mechanical, and additional power/ground planes.

### Camera Sensor

The Camera Sensor section shows the connection of the **IC1 AR0231AT7C00XUEA0-DRBR-E** sensor. It includes a comprehensive pinout table and corresponding component values:

Pin	Signal	Component	Value
A1	VDD_IO_1	C3	0.22uF
A2	DGND_1	C4	0.22uF
A3	VDD_1	C5	0.22uF
A4	VDD_2	C6	0.22uF
A5	VDD_IO_2	C7	0.22uF
A6	DATA0_P	C8	4.7uF
A7	DATA1_N	C9	2.2uF
A8	CLK_P	C10	0.22uF
A9	DATA2_P	C11	0.22uF
A10	VDD_IO_3	C12	0.22uF
B1	DGND_2	C13	0.22uF
B2	DOUT0	C14	0.22uF
B3	DOUT1	C15	0.22uF
B4	ATEST1	C16	0.22uF
B5	ATEST2	C17	0.22uF
B6	ATEST3	C18	0.22uF
B7	ATEST4	C19	0.22uF
B8	DATA0_N	C20	0.22uF
B9	DATA1_P	C21	0.22uF
B10	DATA2_N	C22	0.22uF
B11	DATA3_P	C23	0.22uF
C1	VDD_4	C24	0.22uF
C2	VAA_1	C25	0.22uF
C3	DGND_3	C26	0.22uF
C4	DOUT2	C27	0.22uF
C5	RESET_N	C28	0.22uF
C6	VDD_SILVS	C29	0.22uF
C7	VDD_PHY	C30	0.22uF
C8	DGND_4	C31	0.22uF
C9	VDD_IO_PHY	C32	0.22uF
C10	VPP	C33	0.22uF
C11	VDD_IO_4	C34	0.22uF
C12	DOUT3	C35	0.22uF
C13	DOUT4	C36	0.22uF
C14	DOUT5	C37	0.22uF
C15	DGND_5	C38	0.22uF
C16	DGND_6	C39	0.22uF
C17	DGND_7	C40	0.22uF
C18	DGND_8	C41	0.22uF
C19	DGND_9	C42	0.22uF
C20	DGND_10	C43	0.22uF
C21	DGND_11	C44	0.22uF
C22	DGND_12	C45	0.22uF
C23	DGND_13	C46	0.22uF
C24	DGND_14	C47	0.22uF
C25	DGND_15	C48	0.22uF
C26	DGND_16	C49	0.22uF
C27	DGND_17	C50	0.22uF
C28	DGND_18	C51	0.22uF
C29	DGND_19	C52	0.22uF
C30	DGND_20	C53	0.22uF
C31	DGND_21	C54	0.22uF
C32	DGND_22	C55	0.22uF
C33	DGND_23	C56	0.22uF
C34	DGND_24	C57	0.22uF
C35	DGND_25	C58	0.22uF
C36	DGND_26	C59	0.22uF
C37	DGND_27	C60	0.22uF
C38	DGND_28	C61	0.22uF
C39	DGND_29	C62	0.22uF
C40	DGND_30	C63	0.22uF
C41	DGND_31	C64	0.22uF
C42	DGND_32	C65	0.22uF
C43	DGND_33	C66	0.22uF
C44	DGND_34	C67	0.22uF
C45	DGND_35	C68	0.22uF
C46	DGND_36	C69	0.22uF
C47	DGND_37	C70	0.22uF
C48	DGND_38	C71	0.22uF
C49	DGND_39	C72	0.22uF
C50	DGND_40	C73	0.22uF
C51	DGND_41	C74	0.22uF
C52	DGND_42	C75	0.22uF
C53	DGND_43	C76	0.22uF
C54	DGND_44	C77	0.22uF
C55	DGND_45	C78	0.22uF
C56	DGND_46	C79	0.22uF
C57	DGND_47	C80	0.22uF
C58	DGND_48	C81	0.22uF
C59	DGND_49	C82	0.22uF
C60	DGND_50	C83	0.22uF
C61	DGND_51	C84	0.22uF
C62	DGND_52	C85	0.22uF
C63	DGND_53	C86	0.22uF
C64	DGND_54	C87	0.22uF
C65	DGND_55	C88	0.22uF
C66	DGND_56	C89	0.22uF
C67	DGND_57	C90	0.22uF
C68	DGND_58	C91	0.22uF
C69	DGND_59	C92	0.22uF
C70	DGND_60	C93	0.22uF
C71	DGND_61	C94	0.22uF
C72	DGND_62	C95	0.22uF
C73	DGND_63	C96	0.22uF
C74	DGND_64	C97	0.22uF
C75	DGND_65	C98	0.22uF
C76	DGND_66	C99	0.22uF
C77	DGND_67	C100	0.22uF
C78	DGND_68	C101	0.22uF
C79	DGND_69	C102	0.22uF
C80	DGND_70	C103	0.22uF
C81	DGND_71	C104	0.22uF
C82	DGND_72	C105	0.22uF
C83	DGND_73	C106	

## Mechanical

	J1			V <sub>CC</sub>	V <sub>DDA</sub>
DCML1_D1	1	2	2	VCC	
DCML1_D0	3	4	4	VDDA	
GND	5	6	6	DCML1_D13	
DCML1_D3	5	6	6	DCML1_D2	
DCML1_D2	7	8	10	VCC	
SPI_SSSEL	11	11	12	DCML1_CLK	
SPI_SCLK	13	13	14	DCML1_PCLK	
SPI_MISO	15	15	16	DCML1_VSYNC	
SPI_MOSI	17	17	18	DCML1_HSYNC	
GND	19	19	20	VCC	
DCML1_RST	23	21	22	DCML1_D11	
DCML1_ES	23	24	24	DCML1_D10	
DCML1_PWDN	25	25	26	DCML1_D8	
GND	27	27	28	DCML1_D7	
DCML1_D6	29	30	30	VCC	
DCML1_D4	31	32	32	DCML1_SCL	
DCML1_D3	33	33	34	DCML1_D5	
DCML1_D6	35	35	36	VCC	

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