

The image displays four pinout diagrams for the ATmega328P-M microcontroller, labeled IC1, IC2, IC3, and IC4. Each diagram includes a schematic of the chip with pins numbered 1-40 and a corresponding table of pin functions. The tables show connections for XTAL, CER, RESET, ROW, COL, and GND pins across four different ICs.

**IC1 Pinout:**

Pin	Function	Pin	Function
1	XTAL0_DRV0	21	GND
2	XTAL1_DRV0	22	GND
3	CER_RES0	23	RESET_DRV0
4	RESET	24	RESET_DRV0
5	VEE	25	ROW0_DRV0
6	VEE	26	ROW1_DRV0
7	VEE	27	ROW2_DRV0
8	VEE	28	ROW3_DRV0
9	VEE	29	ROW4_DRV0
10	VEE	30	ROW5_DRV0
11	VEE	31	RESET_DRV0
12	ROW6_DRV0	32	COL0_DRV0
13	ROW7_DRV0	33	COL1_DRV0
14	CS0	34	COL2_DRV0
15	MOSI	35	COL3_DRV0
16	MISO	36	COL4_DRV0
17	SCK	37	COL5_DRV0
18	XTAL0_DRV0	38	COL6_DRV0
19	XTAL1_DRV0	39	COL7_DRV0
20	AREF	40	GND

**IC2 Pinout:**

Pin	Function	Pin	Function
1	XTAL0_DRV1	21	GND
2	XTAL1_DRV1	22	GND
3	CER_RES0	23	RESET_DRV1
4	RESET	24	RESET_DRV1
5	VEE	25	ROW0_DRV1
6	VEE	26	ROW1_DRV1
7	VEE	27	ROW2_DRV1
8	VEE	28	ROW3_DRV1
9	VEE	29	ROW4_DRV1
10	VEE	30	ROW5_DRV1
11	VEE	31	RESET_DRV1
12	ROW6_DRV1	32	COL0_DRV1
13	ROW7_DRV1	33	COL1_DRV1
14	CS1	34	COL2_DRV1
15	MOSI	35	COL3_DRV1
16	MISO	36	COL4_DRV1
17	SCK	37	COL5_DRV1
18	XTAL0_DRV1	38	COL6_DRV1
19	XTAL1_DRV1	39	COL7_DRV1
20	AREF	40	GND

**IC3 Pinout:**

Pin	Function	Pin	Function
1	XTAL0_DRV2	21	GND
2	XTAL1_DRV2	22	GND
3	CER_RES0	23	RESET_DRV2
4	RESET	24	RESET_DRV2
5	VEE	25	ROW0_DRV2
6	VEE	26	ROW1_DRV2
7	VEE	27	ROW2_DRV2
8	VEE	28	ROW3_DRV2
9	VEE	29	ROW4_DRV2
10	VEE	30	ROW5_DRV2
11	VEE	31	RESET_DRV2
12	ROW6_DRV2	32	COL0_DRV2
13	ROW7_DRV2	33	COL1_DRV2
14	CS2	34	COL2_DRV2
15	MOSI	35	COL3_DRV2
16	MISO	36	COL4_DRV2
17	SCK	37	COL5_DRV2
18	XTAL0_DRV2	38	COL6_DRV2
19	XTAL1_DRV2	39	COL7_DRV2
20	AREF	40	GND

**IC4 Pinout:**

Pin	Function	Pin	Function
1	XTAL0_DRV3	21	GND
2	XTAL1_DRV3	22	GND
3	CER_RES0	23	RESET_DRV3
4	RESET	24	RESET_DRV3
5	VEE	25	ROW0_DRV3
6	VEE	26	ROW1_DRV3
7	VEE	27	ROW2_DRV3
8	VEE	28	ROW3_DRV3
9	VEE	29	ROW4_DRV3
10	VEE	30	ROW5_DRV3
11	VEE	31	RESET_DRV3
12	ROW6_DRV3	32	COL0_DRV3
13	ROW7_DRV3	33	COL1_DRV3
14	CS3	34	COL2_DRV3
15	MOSI	35	COL3_DRV3
16	MISO	36	COL4_DRV3
17	SCK	37	COL5_DRV3
18	XTAL0_DRV3	38	COL6_DRV3
19	XTAL1_DRV3	39	COL7_DRV3
20	AREF	40	GND