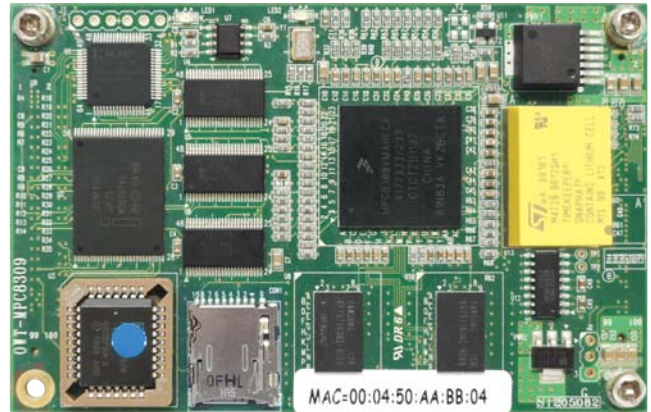


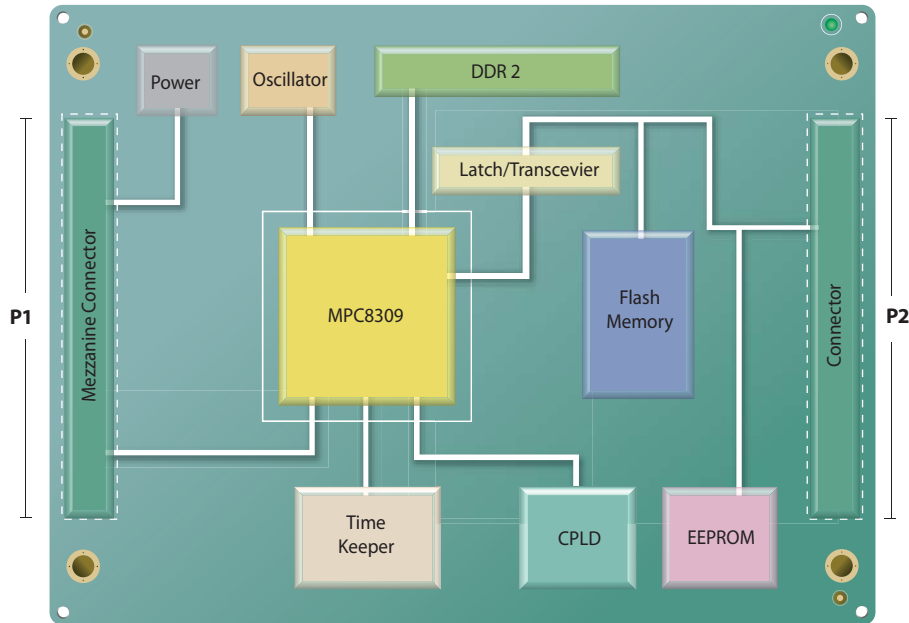
# ZCPU8309 Module

- e300 core running up to 417 MHz, DDR2 @ 266 MHz
- QUICC Engine running up to 200 MHz
- 3 x 10/100 or 2 x 10/100 w/IEEE1588v2
- Local Bus Interface support
- RS\_232C Serial Communication Interface support
- SPI / I2C Interface support
- I/O Port Interface support
- Micro SD Card Interface support
- Mezzanine connector type Interface



## Technical Information

System Processor and Chipset	
Processor	Freescale MPC8309 e300c3 Core powerPC processor operating from 266MHz up to 417MHz
Cache Structure	16KB Data + 16KB Instruction
Ethernet Controller	3 x 10/100 Mbps Ethernet/IEEE®802.3 networks or 2 x 10/100 w/IEEE1588v2
Memory Controller	Integrated synchronous DDR2 controller with ECC support up to 266MHz
Memory	
System Memory	Up to 128MB DDR2, 32-bit wide + ECC, soldered
Flash Memory	NOR flash up to 64MB flash
NVRAM	56Byte in Time keeper (M41T11)
EEPROM	512KB soldered for Boot loader
Onboard Controllers	
Watchdog	Up to 128MB DDR2, 32-bit wide + ECC, soldered
RTC	Time keeper M41T11MH6TR from STMicroelectronics
Software	
U-boot	U-boot firmware 1.3.3 release
Linux	Operating system board support package



P1				P1				P2				P3			
PIN	SIGNAL	SIGNAL	PIN	PIN	SIGNAL	SIGNAL	PIN	PIN	SIGNAL	SIGNAL	PIN	PIN	SIGNAL	SIGNAL	PIN
1	MPC_IIC2_SCL	MPC_IIC2_SDA	2	49	MPC_LBC_D14	MPC_LBC_D15	50	1.3	+3.3V	+3.3V	2	53	MPC_FEC2_TXD0	MPC_FEC2_TXD1	54
5	MPC_SP_SEL	MPC_SP_CLK	6	51	GROUND	GROUND	52	7	GROUND	+3.3V	4	55	MPC_FEC2_TXD2	MPC_FEC2_TXD3	56
7	MPC_SP_MOSI	MPC_SP_MISO	8	53	GROUND	GROUND	54	9	GROUND	GROUND	10	57	MPC_FEC2_TXEN	MPC_FEC2_TXER	58
3,9,11	GROUND	GROUND	4,10	55	MPC_LBC_ADD6	MPC_LBC_ADD7	56	11	GROUND	GROUND	12	59	MPC_FEC2_RXD0	MPC_FEC2_RXD1	60
13	PORESET*	GROUND	12	57	MPC_LBC_ADD8	MPC_LBC_ADD9	58	17	MPC_TDM1_TCK	MPC_TDM1_TFS	18	61	MPC_FEC2_RXD2	MPC_FEC2_RXD3	62
15	IRQ0_ETH	RESETIN*	14	59	MPC_LBC_ADD10	MPC_LBC_ADD11	60	19	MPC_TDM1_TD_BOOT_CFG0	MPC_TDM1_RFS	20	63	MPC_FEC2_RXDV	MPC_FEC2_RXER	64
17	IRQ2_TBD	IRQ1_TBD	16	61	MPC_LBC_ADD12	MPC_LBC_ADD13	62	21	MPC_TDM1_RCK	MPC_TDM1_RD	22	65	MPC_FEC2_COL	MPC_FEC2_CRS	66
19	GROUND	IRQ3_TBD	18	63	MPC_LBC_ADD14	MPC_LBC_ADD15	64	23	GROUND	GROUND	24	67	MPC_FEC2_TXCLK	MPC_FEC2_RXCLK	68
21	LCLK0	GROUND	20	65	MPC_LBC_ADD16	MPC_LBC_ADD17	66	25	MPC_TDM2_TCK	MPC_TDM2_TFS	26	69	GROUND	GROUND	70
23	BCS3*	BRW*	24	67	MPC_LBC_ADD18	MPC_LBC_ADD19	68	27	MPC_TDM2_TD_BOOT_CFG2	MPC_TDM2_RFS	28	71	MPC_FEC3_RXCLK	MPC_FEC3_RXER	72
25	BCS4*	BCS5*	26	69	MPC_LBC_ADD20	MPC_LBC_ADD21	70	29	MPC_TDM2_RCK	MPC_TDM2_RD	30	73	MPC_FEC3_COL	MPC_FEC3_RXDV	74
27	BCS6*	BCS7*	28	71	MPC_LBC_ADD22	MPC_LBC_ADD23	72	31	GROUND	GROUND	32	75	MPC_FEC3_RXD0	MPC_FEC3_RXD1	76
29	BOE*	BTA*	30	73	MPC_LBC_ADD24	MPC_LBC_ADD25	74	33	MPC_FEC_MDC	MPC_FEC_MDIO	34	77	MPC_FEC3_RXD2	MPC_FEC3_RXD3	78
31	BWE0*	BWE1*	32	75	MPC_LBC_ADD26	MPC_LBC_ADD27	76	35	MPC_FEC1_TXD0	MPC_FEC1_TXD1	36	79	MPC_FEC3_TXCLK	MPC_FEC3_CRS	80
33	GROUND	GROUND	34	77	MPC_LBC_ADD28	MPC_LBC_ADD29	78	37	MPC_FEC1_TXD2	MPC_FEC1_TXD3	38	81	MPC_FEC3_TXEN	MPC_FEC3_TXER	82
35	MPC_LBC_D0	MPC_LBC_D1	36	79	MPC_LBC_ADD30	MPC_LBC_ADD31	80	39	MPC_FEC1_TXEN	MPC_FEC1_TXER	40	83	MPC_FEC3_TXD0	MPC_FEC3_TXD1	84
37	MPC_LBC_D2	MPC_LBC_D3	38	81	GROUND	GROUND	82	41	MPC_FEC1_RXD0	MPC_FEC1_RXD1	42	85	MPC_FEC3_TXD2	MPC_FEC3_TXD3	86
39	MPC_LBC_D4	MPC_LBC_D5	40	83	GPIO_32	GPIO_33	84	43	MPC_FEC1_RXD2	MPC_FEC1_RXD3	44	91	GROUND	GROUND	92
41	MPC_LBC_D6	MPC_LBC_D7	42	85	GPIO_34	GPIO_35	86	45	MPC_FEC1_RXDV	MPC_FEC1_RXER	46	93	UART1_TXD_RS232	UART1_RXD_RS232	94
43	MPC_LBC_D8	MPC_LBC_D9	44	87	GPIO_36	GPIO_37	88	47	MPC_FEC1_COL	MPC_FEC1_CRS	48	95	GROUND	GROUND	96
45	MPC_LBC_D10	MPC_LBC_D11	46	89	GPIO_38	GPIO_39	90	49	MPC_FEC1_TXCLK	MPC_FEC1_RXCLK	50	97	+5.0V	+5.0V	98
47	MPC_LBC_D12	MPC_LBC_D13	48	91	GROUND	GROUND	92	51	GROUND	GROUND	52	99	+5.0V	+5.0V	100

## Ordering Information

Items	Order Code	Description
CPU Main Board	ZCPU8309 - CM	ZCPU8309 CPU Module

► Please contact [zerosysmall@gmail.com](mailto:zerosysmall@gmail.com) to define the version fitting your requirements.

### ZCPU8309 options : Make your choice!

- Processor : MPC8309
- CPU frequency : 233MHz, 333MHz, 417GHz

## Corporate Offices

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