

# DDR2 Offerings

October 05, 2023

## Commercial, Industrial and Automotive Temperatures.

DDR2	128Mb	8Mx16	EM68916CBQD-XXAH	Automotive Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	128Mb	8Mx16	EM68916CBQD-XXH	Commercial Temp. (0~85C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	128Mb	8Mx16	EM68916CBQD-XXIH	Industrial Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	256Mb	16Mx16	EM68A16CBQC-XXBH	Automotive Temp. (-40~105C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball TFBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	256Mb	16Mx16	EM68A16CBQC-XXAH	Automotive Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball TFBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	256Mb	16Mx16	EM68A16CBQC-XXH	Commercial Temp. (0~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball TFBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	256Mb	16Mx16	EM68A16CBQC-XXIH	Industrial Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball TFBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	512Mb	64Mx8	EM68B08CWAH-XXH	Commercial Temp. (0~85C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball Window FBGA (WA:8x10x1.2mm), Pb and Halogen free
DDR2	512Mb	64Mx8	EM68B08CWAH-XXBH	Automotive Temp. (-40~105C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball Window FBGA (WA:8x10x1.2mm), Pb and halogen free
DDR2	512Mb	64Mx8	EM68B08CWAH-XXAH	Automotive Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball Window FBGA (WA:8x10x1.2mm), Pb and halogen free
DDR2	512Mb	64Mx8	EM68B08CWAH-XXIH	Industrial Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball Window FBGA (WA:8x10x1.2mm), Pb and halogen free
DDR2	512Mb	32Mx16	EM68B16CWQL-XXH	Commercial Temp. (0~85C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (WQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	512Mb	32Mx16	EM68B16CWQL-XXIH	Industrial Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (WQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	512Mb	32Mx16	EM68B16CWQL-XXBH	Automotive Temp. (-40~105C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (WQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	1Gb	128Mx8	EM68C08CWAG-XXIH	Industrial Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball FBGA (WA: 8x10x1.2mm), Pb and Halogen free
DDR2	1Gb	128Mx8	EM68C08CWAG-XXBH	Automotive Temp. (-40~105C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball FBGA (WA: 8x10x1.2mm), Pb and Halogen free
DDR2	1Gb	128Mx8	EM68C08CWAG-XXAH	Automotive Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball FBGA (WA: 8x10x1.2mm), Pb and Halogen free
DDR2	1Gb	128Mx8	EM68C08CWAG-XXH	Commercial Temp. (0~85C)	1.8, 2.5, 3	1.8V, SSTL_18	60-ball FBGA (WA: 8x10x1.2mm), Pb and Halogen free
DDR2	1Gb	64Mx16	EM68C16CWQG-XXBH	Automotive Temp. (-40~105C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball Window FBGA (WQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	1Gb	64Mx16	EM68C16CWQG-XXAH	Automotive Temp. (-40~85C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball Window FBGA (WQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	1Gb	64Mx16	EM68C16CWQG-XXH	Commercial Temp. (0~85C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball Window FBGA (WQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	1Gb	64Mx16	EM68C16CWQG-XXIH	Industrial Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball Window FBGA (WQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	2Gb	128Mx16	EM68D16CBQC-XXBH	Automotive Temp. (-40~105C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	2Gb	128Mx16	EM68D16CBQC-XXAH	Automotive Temp. (-40~85C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	2Gb	128Mx16	EM68D16CBQC-XXH	Commercial Temp. (0~85C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (BQ:8x12.5x1.2mm), Pb and Halogen free
DDR2	2Gb	128Mx16	EM68D16CBQC-XXIH	Industrial Temp. (-40~95C)	1.8, 2.5, 3	1.8V, SSTL_18	84-ball FBGA (BQ:8x12.5x1.2mm), Pb and Halogen free

# DDR3 Offerings

## Commercial (shown), Industrial and Automotive Temperatures.

DDR3	512Mb	64Mx8	EM6GB08EWUA-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.5V	78-ball FBGA (WU:8x10.5x1.0mm), Pb and Halogen free
DDR3	512Mb	64Mx8	EM6HB08EWUA-XXH	Commercial Temp. (0~95C)	12, 15	1.35V	78-ball FBGA (WU:8x10.5x1.0mm), Pb and Halogen free
DDR3	512Mb	32Mx16	EM6GB16EWKA-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.5V	96-ball FBGA (WK:8x13x1.0mm), Pb and Halogen free
DDR3	512Mb	32Mx16	EM6HB16EWKA-XXH	Commercial Temp. (0~95C)	12, 15	1.35V	96-ball FBGA (WK:8x13x1.0mm), Pb and Halogen free
DDR3	1Gb	128Mx8	EM6GC08EWAHH-XXH	Commercial Temp. (0~95C)	09	1.5V	78-ball Window FBGA (WAH:7.5x10.5x1.0mm), Pb and Halogen free
DDR3	1Gb	128Mx8	EM6GC08EWAHH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.5V	78-ball Window FBGA (WAH:7.5x10.5x1.0mm), Pb and Halogen free
DDR3	1Gb	128Mx8	EM6HC08EWAHH-XXH	Commercial Temp. (0~95C)	09	1.35V	78-ball Window FBGA (WAH:7.5x10.5x1.0mm), Pb and Halogen free
DDR3	1Gb	128Mx8	EM6HC08EWAHH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.35V	78-ball Window FBGA (WAH:7.5x10.5x1.0mm), Pb and Halogen free
DDR3	1Gb	64Mx16	EM6GC16EWBH-XXH	Commercial Temp. (0~95C)	09	1.5V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	1Gb	64Mx16	EM6GC16EWBH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.5V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	1Gb	64Mx16	EM6HC16EWBH-XXH	Commercial Temp. (0~95C)	09	1.35V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	1Gb	64Mx16	EM6HC16EWBH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.35V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	2Gb	256Mx8	EM6GD08EWAHH-XXH	Commercial Temp. (0~95C)	09	1.5V	78-ball Window FBGA (WAH:7.5x10.5x1.0mm), Pb and Halogen free
DDR3	2Gb	256Mx8	EM6GD08EWAHH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.5V	78-ball Window FBGA (WAH:7.5x10.5x1.0mm), Pb and Halogen free
DDR3	2Gb	256Mx8	EM6HD08EWAHH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.35V	78-ball Window FBGA (WAH:7.5x10.5x1.0mm), Pb and Halogen free
DDR3	2Gb	128Mx16	EM6GD16EWBH-XXH	Commercial Temp. (0~95C)	09	1.5V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	2Gb	128Mx16	EM6GD16EWBH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.5V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	2Gb	128Mx16	EM6HD16EWBH-XXH	Commercial Temp. (0~95C)	09	1.35V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	2Gb	128Mx16	EM6HD16EWBH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.35V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free

# DDR3 Offerings<sup>(continued)</sup>

## Commercial(shown), Industrial and Automotive Temperatures.

DDR3	4Gb	512Mx8	EM6GE08EW9G-XXH	Commercial Temp. (0~95C)	09	1.5V	78-ball Window FBGA (W9:7.5x10.6x1.2mm), Pb and Halogen free
DDR3	4Gb	512Mx8	EM6GE08EW9G-XXH	Commercial Temp. (0~95C)	10, 12	1.5V	78-ball Window FBGA (W9:7.5x10.6x1.2mm), Pb and Halogen free
DDR3	4Gb	512Mx8	EM6HE08EW9G-XXH	Commercial Temp. (0~95C)	09	1.35V	78-ball Window FBGA (W9:7.5x10.6x1.2mm), Pb and Halogen free
DDR3	4Gb	512Mx8	EM6HE08EW9G-XXH	Commercial Temp. (0~95C)	10, 12	1.35V	78-ball Window FBGA (W9:7.5x10.6x1.2mm), Pb and Halogen free
DDR3	4Gb	256Mx16	EM6GE16EWAKG-XXH	Commercial Temp. (0~95C)	09	1.5V	96-ball Window FBGA (WAK:7.5x13.5x1.2mm), Pb and Halogen free
DDR3	4Gb	256Mx16	EM6GE16EWAKG-XXH	Commercial Temp. (0~95C)	10, 12	1.5V	96-ball Window FBGA (WAK:7.5x13.5x1.2mm), Pb and Halogen free
DDR3	4Gb	256Mx16	EM6HE16EWAKG-XXH	Commercial Temp. (0~95C)	10, 12	1.35V	96-ball Window FBGA (WAK:7.5x13.5x1.2mm), Pb and Halogen free
DDR3	4Gb	256Mx16	EM6HE16EWAKG-XXH	Commercial Temp. (0~95C)	09	1.35V	96-ball Window FBGA (WAK:7.5x13.5x1.2mm), Pb and Halogen free
DDR3	4Gb	256Mx16	EM6GE16EWBH-XXH	Commercial Temp. (0~95C)	10, 12, 15	1.5V	96-ball Window FBGA (WB:7.5x13x1.0mm), Pb and Halogen free
DDR3	8Gb	512Mx16	EM6GF16EBXB-XXSH	Commercial Temp. (0~95C)	10, 12	1.5V	96-ball FBGA (BX:9x13x1.2mm), Pb and Halogen free
DDR3	8Gb	512Mx16	EM6HF16EBXB-XXSH	Commercial Temp. (0~95C)	09	1.35V	96-ball FBGA (BX:9x13x1.2mm), Pb and Halogen free
DDR3	8Gb	512Mx16	EM6HF16EBXB-XXSH	Commercial Temp. (0~95C)	10, 12	1.35V	96-ball FBGA (BX:9x13x1.2mm), Pb and Halogen free

# DDR4 / LPDDR4 /LPDDR4X Offerings

## Commercial, Industrial, Automotive

Type	Density	I/O	Part Number	Speed Code	Speed (MTPS)	Commercial	Industrial	Automotive (Grade-2)	VDD	Package	Process Node
DDR4	4Gb	x8	EM6OE08NW9A	07,08	2666/2400	V	V	V	1.2V	78-ball	25nm
DDR4	4Gb	x16	EM6OE16NWAKA	07,08	2666/2400	V	V	V	1.2V	96-ball	25nm
DDR4	4Gb	x8	EM6OE08NWALB	07,08	2666/2400	V	V	X	1.2V	78-ball	1xnm
DDR4	4Gb	x16	EM6OE16NWBB	62,07,08	3200/2666/2400	V	V	X	1.2V	96-ball	1xnm
DDR4	8Gb	x8	EM6OF08NWAND	62,07	3200/2666	V	V	X	1.2V	78-ball	20nm
DDR4	8Gb	x16	EM6OF16NWBD	62,07	3200/2666	V	V	X	1.2V	96-ball	20nm
DDR4	16Gb	x16	EM6OG16NWXA	62	3200	V	X	X	1.2V	96-ball	1anm
LPDDR4	2Gb	x16	EM6LD16MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V	200-ball	25nm
LPDDR4	2Gb	x16	EM6LD16MGDA	62,08	3200/2400	V	V	V	1.8V/1.1V	KGD	25nm
LPDDR4	4Gb	x16	EM6LE16MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V	200-ball	25nm
LPDDR4	4Gb	x16	EM6LE16MGDA	62,08	3200/2400	V	V	V	1.8V/1.1V	KGD	25nm
LPDDR4	4Gb	x32	EM6LE32MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V	200-ball	25nm
LPDDR4	4Gb	x32	EM6LE32MGDA	62,08	3200/2400	V	V	V	1.8V/1.1V	KGD	25nm
LPDDR4	8Gb	x32	EM6LF32MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V	200-ball	25nm
LPDDR4x	2Gb	x16	EM6PD16MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V/0.6V	200-ball	25nm
LPDDR4x	2Gb	x16	EM6PD16MGDA	62,08	3200/2400	V	V	V	1.8V/1.1V/0.6V	KGD	25nm
LPDDR4x	4Gb	x16	EM6PE16MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V/0.6V	200-ball	25nm
LPDDR4x	4Gb	x16	EM6PE16MGDA	62,08	3200/2400	V	V	V	1.8V/1.1V/0.6V	KGD	25nm
LPDDR4x	4Gb	x32	EM6PE32MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V/0.6V	200-ball	25nm
LPDDR4x	4Gb	x32	EM6PE32MGDA	62,08	3200/2400	V	V	V	1.8V/1.1V/0.6V	KGD	25nm
LPDDR4x	8Gb	x32	EM6PF32MVAJA	62,08	3200/2400	V	V	V	1.8V/1.1V/0.6V	200-ball	25nm