Rockchip Solutions DDR SDRAM Support List 2019/1/21

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Ver 2.36 2019/1/21

• Revision History

Revision No.	History	Date
2.00	ORG.	2012.12.24
2.01	Add some supporting messages	2013.01.28
2.02	Add some supporting messages	2013.05.17
2.03	Add some supporting messages	2013.10.07
2.04	Add some supporting messages	2014.01.08
2.05	Add some supporting messages	2014.03.21
2.06	Add some supporting messages	2014.05.09
2.07	Add some supporting messages	2014.06.10
2.08	Add some supporting messages	2014.09.16
2.09	Add some supporting messages	2015.03.16
2.10	Add some supporting messages	2015.04.13
2.11	Add some supporting messages	2015.05.06
2.12	Add some supporting messages	2015.07.17
2.13	Add some supporting messages	2015.10.10
2.14	Add some supporting messages	2015.12.17
2.15	Add some supporting messages	2016.03.01
2.16	Add some supporting messages	2016.03.31
2.17	Add some supporting messages	2016.06.24
2.18	Add some supporting messages	2016.07.29
2.19	Add some supporting messages	2016.08.31
2.20	Add some supporting messages	2016.10.20
2.21	Add some supporting messages	2016.11.07
2.22	Add some supporting messages	2016.12.05
2.23	Add some supporting messages	2016.12.09
2.24	Add some supporting messages	2016.12.29
2.25	Add some supporting messages	2017.03.30
2.26	Add some supporting messages	2017.05.24
2.27	Add some supporting messages	2017.07.05
2.28	Add some supporting messages	2017.08.24
2.29	Add some supporting messages	2017.11.24
2.30	Add some supporting messages	2018.01.24
2.31	Add some supporting messages	2018.03.26
2.32	Add some supporting messages	2018.05.25
2.34	Add some supporting messages	2018.10.17
2.35	Add some supporting messages	2018.12.11
2.36	Add some supporting messages	2019.01.21

• Symbol

Symbol	Description
√	Fully Tested and Mass production
T/A	Fully Tested and Applicable
N/A	Not Applicable

***The Latest Reference Circuits Version**

Chip	DRAM Support Type	RK Reference Circuit Version
RK281x	DDR2	RK2818_REF_V1.3
RK2906	DDR2/DDR3/DDR3L	RK2906_PMIC_REF_V20_0418
RK2918	DDR2/DDR3/DDR3L	RK2918_REF_V13_20110517
RK2926/RK3026	DDR3/DDR3L	2926_86v_v1.2_20121109
RK2928/RK3028/RK3028A	DDR3/DDR3L	RK2928-DDR3P208SD4-V10-20120712LX.pcb
RK3066	DDR3/DDR3L/LPDDR2	RK3066_REF_TPS659102_V12_20121024_1CELL
PX2	DDR3/DDR3L/LPDDR2	PX2_CAR_V11.pcb
RK3168/RK3188	DDR3/DDR3L/LPDDR2	RK3188-DDR3P416SS4-V10-20130607WF.pcb
RK3126	DDR3/DDR3L	2926_86v_v1.2_20121109
RK3128	DDR3/DDR3L/LPDDR2	RK3128-DDR3P216SD4-V10-20140912HJH.pcb
RK3288	DDR3/DDR3L/LPDDR2/LPDDR3	RK3288-DDR3P416SD6-V11-20140305HJH
RK3368	DDR3/DDR3L/LPDDR2/LPDDR3	R88(RK3368)_V01_20150313
RK3036	DDR3/DDR3L	RK3036_SDK_ V1.0_20140528
RK3036G	DDR3/DDR3L	DONGLE_RK3036-G_20150408J.pcb
RK3228A/RK3228B/RK3229	DDR3/DDR3L/LPDDR2/LPDDR3	RK3228A_BOX_R88_DISCRETEPOWER_DDR3P216SD4_V1.0_20151129.pcb
PX3	DDR3/DDR3L/LPDDR2	RK_SDK_MAIN_PX3_CAR_V10_20160607
RK3399	DDR3/DDR3L/LPDDR3/LPDDR4	RK3399_VR&Tablet_V10_20160620
PX5	DDR3/DDR3L/LPDDR2/LPDDR3	RK_SDK_MAIN_PX5_CAR_V10_20160714_CGC
RK3228H	DDR3/DDR3L/DDR4/LPDDR3	RK_Demo_RK3228H_BOX_RK805-1_DDR3P216SD2_V02_20161128
RK3328	DDR3/DDR3L/DDR4/LPDDR3	RK EVB RK3328 BOX RK805-1 DDR3P416DD6 V11 20161116
RV1108	DDR3/DDR3L/DDR2/LPDDR2	RK_EVB_MAINBOARD_RV1108_V12_20160930
PX3-SE	DDR3/DDR3L/LPDDR2	RK SDK MAIN PX3SE CAR V11
RK3326	DDR3/DDR3L/DDR4/LPDDR2	RK_EVB_RK3326_LP3S178P132SD4_V11_20180301FZB
PX30	DDR3/DDR3L/DDR4/LPDDR2	RK EVB PX30 DDR4P416DD6 V10 20180301 FZB
RK3308	DDR3/DDR3L/DDR2/LPDDR2	RK_EVB_RK3308_DDR3P116SD4_V10_20180301
RK3399PRO	DDR3/DDR3L/LPDDR2/LPDDR3/LPDDR4	RK3399Pro_Layout_Template_LP3S178P232_LP3S178P132_SD8_V10_20181120

Application Note:

[1] Because lack of Address pin A15 in package, following SoCs do not support the 512M*8 DDR3:

RK2906-6,RK2906-8,RK3066.

[2]The DRAM Part Number usually consists of two parts divided by '-', which the first part contains memory type, density, organization, package, and the second part usually means data rate.

[2] Ine DRAM Part Number usually consists of two parts divided by '-, which the first part contains memory type, density, organization, package, and the second part.

[3] RockChip platform can support all the chips that match the first part of Part Number which marks 'V' or 'T/A', and do not need to care the second part. If you want your system running more effective, you may need to find out the exact data rate in DRAM datasheet and config in kernel menuconfig.

[4] Please copy the Rockchip reference design model of DRAM area PCB Layout directly without any modification and follow the PCB layout rules from Rockchip.

Contact information: fae@nock-chips.com

[5]Only support for RK3128.

[6]The maximums frequency of H9CCNNNBJTMLAR run on the RK3399 is 800Mhz.

[7] The DRAM's VDD and VDDQ should powered by 1.5V when it used on these SoCs.



Manufacturer	Part Number	Density	Organization	Туре	package	RK290x		RK2926/RK3026/ RK3036/RK3036G	RK3066/RK3066A/PX2	RK3288	RK3368/RK3228A/ RK3228B/RK3229/		DK3330H	DN 3 3 0 0	DV2220	RK3326/	RK339		与RK兼容情况	
Manufacturei	rat Number	Delisity	Organization	Туре		RK2918	PX3-SE	/RK3126	RK3168/RK3188/PX3	KKJ200	PX5	8	RRJZZOII	KKJJJJ	KKJJ20	PX30	CPU_RAM	NPU_RA M	为和来各种	
	E1116AEBG-8E-F	1G bit	64M×16	DDR2	84ball	√														
	EDJ1108DJBG	1G bit	128M x 8	DDR3	78ball	~														
	EDJ2108DEBG	2G bit	256M×8	DDR3	78ball	√	T/A	T/A	√	- √										
	EDJ2108BDBG	2G bit	256M×8	DDR3	78ball	√	T/A	N/A	√	- √										
	EDJ2108EDBG	2G bit	256M×8	DDR3L	78ball				T/A	T/A										
	EDJ2116DEBG	2G bit	128M×16	DDR3	96ball	√														
	EDJ2116EEBG	2G bit	128M×16	DDR3L	96ball	T/A														
	EDJ4208BBBG	4G bit	512M×8	DDR3	78ball		T/A	T/A	T/A [1]	T/A										
	EDJ4208EFBG	4G bit	512M×8	DDR3L	78ball		T/A	T/A	T/A ^[1]	T/A										
	EDJ4208EBBG	4G bit	512M×8	DDR3L	78ball		T/A	N/A	T/A [1]	T/A									除个别老款颗粒如:	
Elpida	EDJ4216BASE	4G bit	256M×16	DDR3	96ball	√	.,,,	11/71	1/A	-,,									EDJ2108BDBG对pcb要求	
Lipida	EDJ4216BBBG	4G bit	256M×16	DDR3	96ball	1			√	√									偏高外总体兼容情况	
	EDJ4216EBBG	4G bit	256M×16	DDR3L	96ball	T/A			T/A	T/A									良好	
	EDJ4216EFBG	4G bit	256M×16	DDR3L	96ball	T/A	T/A	T/A	T/A	T/A									74.74	
	EDB4032B2MA	4Gb/2CS	64M×32×2pcs	LPDDR2	134ball	.,,,	.,,,	.,,,	T/A	T/A										
	EDB8132B3MA	8Gb/2CS	128M×32×2pcs	LPDDR2	134ball				T/A	T/A										
	EDBM164B1PD-1D-I	12Gb/2channel	256Mx32+128Mx32	LPDDR2	220ball				N/A	T/A										
	EDF8132A3MA-GD-F-D	8Gb	256Mx32	LPDDR3	178ball					T/A										
	EDF8132A1MC-GD-F-D	8Gb	256Mx32	LPDDR3	178ball					T/A										
	FA232A1MA-GD-F	16Gb	512M×32	LPDDR3	178ball					T/A										
	EDFA232A2MA-GD-F-D	16Gb	512M×32	LPDDR3	178ball					T/A										
	MT47H64M16HR-25	1G bit	64M×16	DDR2	84ball	√														
	MT41J128M8JP-15E:G(D9MNL)	1G bit	128M x 8	DDR3	78ball	√														
	MT41K128M8DA-107:J(D9RDJ)	1G bit	128M x 8	DDR3L	78ball				T/A											
	MT41K64M16TW-107:J (D9SFT)	1G bit	64M×16	DDR3L	96ball							T/A								
	MT41J128M16HA-15E:D(D9LGQ)	2G bit	128M×16	DDR3	96ball	√														
	MT41J256M8HX-15E:D(D9LGK)	2G bit	256M×8	DDR3	78ball	✓	T/A	T/A	T/A	T/A										
	MT41K256M8DA-125:K(D9PSH)	2G bit	256M×8	DDR3L	78ball	√	T/A	T/A	T/A	T/A										
	MT41K256M8DA-125:M(D9PFJ)	2G bit	256M×8	DDR3L	78ball	T/A	T/A	T/A	T/A	T/A										
	MT41K128M16HA-15E:D(D9LJM)	2G bit	128M×16	DDR3L	96ball	√														
	MT41K128M16JT-125:K(D9PTK)	2G bit	128M×16	DDR3L	96ball	✓	T/A	T/A	T/A	T/A	T/A	T/A								
	MT41K128M16JT-107:K (D9PSZ)	2G bit	128M×16	DDR3L	96ball													T/A		
	MT41K512M8RH-125:E(D9QBJ)	4G bit	512M×8	DDR3L	78ball		T/A	T/A	T/A (1)	T/A										
	MT41K512M8RG-107:N(D9RVX)	4G bit	512M×8	DDR3L	78ball				T/A											
	MT41K512M8DA-107:P(D9SGQ)	4G bit	512M×8	DDR3L	78ball				T/A											
	MT41K256M16RE-15E:D(D9PBF)	4G bit	256M×16	DDR3L	96ball	√														
	MT41K256M16HA-125:E(D9PXV)	4G bit	256M×16	DDR3L	96ball	✓	T/A	T/A	T/A	T/A										
Micron	MT41K256M16LY-107:N(D9SDD)	4G bit	256Mx16	DDR3L	96ball		T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		兼容性好	
	MT41K256M16TW-107:P(D9SHD)	4G bit	256Mx16	DDR3L	96ball				T/A	T/A	T/A	T/A	T/A	T/A	T/A		T/A			
	MT41K256M16TW-107 IT:P(D9SHG)	4G bit	256Mx16	DDR3L	96ball									T/A			T/A			
	MT41K512M16HA-125:A(D9STQ)	8G bit	512Mx16	DDR3L	96ball									√			T/A			
	MT41K512M16HA-107:A(D9SDQ)	8G bit	512Mx16	DDR3L	96ball				T/A	T/A										
	MT40A256M16GE-083E:B(D9TGQ)	4G bit	256Mx16	DDR4	96ball								T/A		T/A					
	MT40A512M16JY-083E:B(D9TBK)	8G bit	512Mx16	DDR4	96ball								T/A		T/A					
	MT40A1G16WBU-083E:B(D9TPH)	16G bit	1Gx16	DDR4	96ball								T/A		T/A					
	MT42L128M32D1GU-25 WT:A(Z9QHG)	4G bit	128Mx32	LPDDR2	134ball				T/A	T/A										
	MT42L256M16D1GU-18 WT:A(D9RLT)	4G bit	256M×16	LPDDR2	134ball							T/A								
	MT42L128M64D2LL-25 WT:A(D9QQG)	8G bit	128Mx32x2Ch	LPDDR2	216ball				N/A	T/A										
	MT52L256M32D1PF-107 WT:B(D9SRZ)	8G bit	256Mx32	LPDDR3	178ball					T/A			T/A	T/A	T/A	T/A	T/A	T/A		
	MT52L512M32D2PF-107 WT:B(D9SSF)	16G bit	512Mx32	LPDDR3	178ball					T/A	T/A	N/A	T/A	T/A	T/A	T/A	T/A			
	MT53B256M32D1NP-062 WT:C(D9TFT)	8G bit	256Mx32	LPDDR4	200ball									T/A			T/A			
	MT53B512M32D2NP-062 WT:C(D9TFW)	16G bit	512M×32	LPDDR4	200ball									T/A			T/A			
	MT53D512M32D2DS-053 WT:D(D9WHZ)	16G bit	512M×32	LPDDR4	200ball									T/A			T/A			
	MT53B512M64D4NK-053 WT:C(D9TGF)	32G bit	512M×64	LPDDR4	366ball									T/A			T/A			



•						RK290x	RK2928/RK3	0 RK2926/RK3026,	RK3066/RK3066A/PX2		RK3368/RK3228A/					RK3326/	RK33	99PRO	
Manufacturer	Part Number	Density	Organization	Туре	package	RK2918	28A/RK3128 PX3-SE	/ RK3036/RK30360 /RK3126	RK3066/RK3066A/PX2 RK3168/RK3188/PX3	RK3288	RK3228B/RK3229/ PX5	/RK330 8	RK3228H	RK3399	RK3328	PX30	CPU_RAM	NPU_RA	与RK兼容情况
	H5PS1G63CFP	1G bit	64M×16	DDR2	84ball	√	FAJ-JL	/KK3120			FAJ					_		IVI	
	H5PS1G63EFR	1G bit	64M×16	DDR2	84ball	 				-									
	H5TQ1G83DFR	1G bit	128M×8	DDR3	78ball	V			T/A	T/A						-			
	H5TQ1G83TFR	1G bit	128M×8	DDR3	78ball	V			.,	-,									
	H5TQ2G83CFR	2G bit	256M×8	DDR3	78ball	V	√	✓	√	√						-			
	H5TQ2G83BFR	2G bit	256M×8	DDR3	78ball	T/A	T/A	T/A	√	V									
	H5TQ2G83EFR	2G bit	256Mx8	DDR3	78ball	T/A	T/A	T/A	T/A	T/A						-			
	H5TQ2G83FFR	2G bit	256Mx8	DDR3	78ball	-,,	T/A	T/A	.,	-,									
	H5TQ2G83GFR	2G bit	256Mx8	DDR3	78ball			,	T/A	T/A									
	H5TQ2G63BFR	2G bit	128M×16	DDR3	96ball	V			.,,.	.,									
	H5TQ2G63FFR	2G bit	128M×16	DDR3	96ball		T/A	T/A											
	H5TO2G63GFR	2G bit	128M×16	DDR3	96ball	1	T/A	T/A	T/A	T/A	T/A	T/A	T/A		T/A	T/A			
	H5TC2G63GFR	2G bit	128M×16	DDR3L	96ball		-,	.,	.,	-,	T/A	T/A	.,		-,			T/A	
	H5TO2G63DFR	2G bit	128M×16	DDR3	96ball	■			T/A	T/A	-,	-,				_			
	H5TQ4G83AFR	4G bit	512M×8	DDR3	78ball	<u> </u>	T/A	T/A	T/A [1]	T/A						-			
	H5TC4G83AFR	4G bit	512M×8	DDR3L	78ball		-,,	-,,	T/A ⁽¹⁾	T/A						+			
	H5TQ4G83MFR	4G bit	512Mx8	DDR3	78ball		T/A	T/A	T/A [1]	T/A									
	H5TC4G83BFR	4G bit	512Mx8	DDR3L	78ball		T/A	T/A											
	H5TQ4G63MFR	4G bit	256M×16	DDR3	96ball	√	T/A	T/A	T/A	T/A									
Hynix	H5TQ4G63AFR	4G bit	256Mx16	DDR3	96ball	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		兼容性好
	H5TC4G63AFR	4G bit	256Mx16	DDR3L	96ball		T/A	T/A	T/A	T/A									
	H5TC4G63CFR	4G bit	256Mx16	DDR3L	96ball				T/A	T/A	T/A	T/A	T/A		T/A				
	H5TC4G63EFR	4G bit	256Mx16	DDR3L	96ball				T/A	T/A	T/A	T/A	T/A				T/A		
	H5TQ4G63EFR	4G bit	256Mx16	DDR3	96ball					T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		
	H5TQ4G63CFR	4G bit	256Mx16	DDR3	96ball		T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		
	H5TC8G63AMR	8G bit	512M×16	DDR3L	96ball									T/A			T/A		
	H5TC8G63CMR	8G bit	512M×16	DDR3L	96ball					T/A									
	H5AN4G6NAFR	4G bit	256Mx16	DDR4	96ball								T/A		T/A				
	H5AN4G6NBJR	4G bit	256Mx16	DDR4	96ball								T/A		T/A	4			
	H5AN8G6NAFR	8G bit	512Mx16	DDR4	96ball								T/A		T/A				
	H9TCNNN8JDMMPR	8Gb/2CS	256M×32	LPDDR2	134ball				T/A	T/A						4			
	H8TJR00X0MLR	8Gb/2CS	256M×32	LPDDR2	168ball				T/A	T/A									
	H9TKNNN8KDMPQR	8Gb/2Channel	128Mx32x2Ch	LPDDR2	216ball		T/A [5]												
	H9TKNNNBPDMRAR	16Gb/2Channel	256Mx32x2Ch	LPDDR2	220ball				N/A	T/A									
	H9CCNNN8JTALAR	8Gb	256Mx32	LPDDR3	178ball					T/A									
	H9CCNNN8GTMLAR	8Gb	256Mx32	LPDDR3	178ball					T/A			T/A	T/A	T/A	T/A	T/A		
	H9CCNNN8JTMLAR	8Gb	256Mx32	LPDDR3	178ball									T/A			T/A		
	H9CCNNNBJTALAR	16Gb	512M×32	LPDDR3	178ball								T/A	T/A	T/A	T/A	T/A		
	H9CCNNNBLTALAR	16Gb	512M×32	LPDDR3	178ball					T/A			T/A		T/A	T/A			
	H9CCNNNBJTMLAR	16Gb	512M×32	LPDDR3	178ball					T/A				T/A [6]					
	H9HCNNN8KUMLHR	8Gb	256M×32	LPDDR4	200ball									T/A			T/A		
	H9HCNNNBPUMLHR	16Gb	512M×32	LPDDR4	200ball									T/A			T/A		
	H9HKNNNDBUMUBR	24Gb	384M×64	LPDDR4	366ball									T/A			T/A		
	H9HKNNNCUUMUBR	32Gb	512M×64	LPDDR4	366ball									T/A			T/A		
	H9HKNNNCTUMUBR	32Gb	512M×64	LPDDR4	366ball									T/A			T/A		
																T			
																T			



						RK290x		RK2926/RK3026			RK3368/RK3228A/					RK3326/	RK33	99PRO	
Manufacturer	Part Number	Density	Organization	Type	package	RK2918		RK3036/RK30360	RK3168/RK3188/PX3	RK3288	RK3228B/RK3229/		RK3228H	RK3399	RK3328		CPU RAM	NPU_RA	与RK兼容情况
	NITETURNAL MEGGO DE	5421413	2214 45	0000	241 11		PX3-SE	/RK3126			PX5	8					Ci O_itotini	М	
	NT5TU32M16CG-3C NT5TU64M16HG	512M bit 1G bit	32M×16 64M×16	DDR2 DDR2	84ball 84ball	- √													
												T/A							
	NT5CB64M16GP NT5CB128M8DN	1G bit	64M×16 128M×8	DDR3	96ball 96ball	.		T/A			T/A	T/A							
		1G bit		DDR3		√													
	NT5CC128M8DN	1G bit	128M×8	DDR3L	78ball	- √			T/A	T/A									
	NT5CB128M8FN	1G bit	128Mx8	DDR3	78ball				T/A	T/A									
	NT5CC128M8GN	1G bit	128Mx8	DDR3L	78ball				T/A	<u> </u>									
	NT5CB256M8GN	2G bit	256M×8	DDR3	78ball	√	T/A	T/A	T/A	T/A									
	NT5CB256M8BN	2G bit	256M×8	DDR3	78ball	√	T/A	T/A	T/A	T/A									
	NT5CB256M8FN	2G bit	256M×8	DDR3	78ball	√	T/A	T/A	T/A	T/A									
	NT5CB256M8IN	2G bit	256M×8	DDR3	78ball						T/A	T/A				T/A			
	NT5CC256M8IN	2G bit	256M×8	DDR3L	78ball				T/A		T/A	T/A	T/A		T/A	T/A			
	NT5CB128M16BP	2G bit	128M×16	DDR3	96ball	√	T/A	T/A	T/A	T/A									
	NT5CB128M16HP	2G bit	128M×16	DDR3	96ball	T/A	1	1	T/A	T/A									
	NT5CC128M16BP	2G bit	128M×16	DDR3L	96ball	√													
	NT5CB128M16FP	2G bit	128M×16	DDR3	96ball	√	T/A	T/A	T/A	T/A									
	NT5CC128M16IP	2G bit	128M×16	DDR3L	96ball		T/A	T/A	T/A	T/A	T/A	T/A							
	NT5CB128M16IP	2G bit	128M×16	DDR3	96ball		T/A	T/A	T/A	T/A	T/A	T/A							
	NT5CC128M16JR	2G bit	128M×16	DDR3L	96ball					T/A	T/A	T/A	T/A			T/A		T/A	
	NT5CB512M8DN	4G bit	512M×8	DDR3	78ball						T/A	T/A	T/A		T/A	T/A			
	NT5CB512M8BN	4G bit	512M×8	DDR3	78ball		T/A	T/A	T/A [1]	T/A									
Nanya	NT5CC512M8CN	4G bit	512M×8	DDR3L	78ball		T/A	T/A	T/A ^[1]	T/A									兼容性好
ivaliya	NT5CC512M8DN	4G bit	512M×8	DDR3L	78ball				T/A		T/A	T/A	T/A		T/A	T/A			
	NT5CC512M8EN	4G bit	512M×8	DDR3L	78ball				,		T/A	T/A							1
	NT5CB256M16BP	4G bit	256M×16	DDR3	96ball	√	T/A	T/A	T/A	T/A	,								
	NT5CB256M16CP	4G bit	256M×16	DDR3	96ball		T/A	T/A	T/A	T/A									
	NT5CB256M16DP	4G bit	256M×16	DDR3	96ball		.,	.,	.,	T/A									
	NT5CB256M16EP	4G bit	256M×16	DDR3	96ball	1				-,	T/A	T/A	T/A	T/A	T/A	T/A	T/A		
	NT5CC256M16CP	4G bit	256M×16	DDR3L	96ball	T/A	T/A	T/A	T/A	T/A	.,	-,,	.,	-,,	.,	-,,	-,		
	NT5CC256M16DP	4G bit	256M×16	DDR3L	96ball	-,	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		
	NT5CC256M16EP	4G bit	256M×16	DDR3L	96ball		T/A	.,	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		
	NT5CC256M16ER	4G bit	256M×16	DDR3L	96ball		.,		-,	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		1
	NT5CC256M16ER-EKI	4G bit	256M×16	DDR3L	96ball					T	.,		-,	T/A	-,	-,	T/A		1
	NT6TL128M32AO	4G bit	128Mx32	LPDDR2	168ball				T/A	T/A							T		1
	NT6TL256F32AI	8G bit	256M×32	LPDDR2	134ball				T/A	T/A									1
	NT6TL256T32AI	8G bit	256M×32	LPDDR2	134ball				T/A	T/A									1
	NT6TL256T32AO	8G bit	256M×32	LPDDR2	168ball				T/A	T/A									1
	NT6CL128M32BM	4G bit	128Mx32	LPDDR3	178ball	1			-//	T/A									1
	NT6CL128M32CM	4G bit	128Mx32	LPDDR3	178ball	+				-//				T/A			T/A		
	NT6CL256T32CM	8G bit	256M×32	LPDDR3	178ball								T/A	T/A	T/A	T/Δ	T/A	T/A	
	NT6CL256T32BM	8G bit	256M×32	LPDDR3	178ball	+				T/A	T/A	N/A			T/A			T/A	
	NT6CL256T32AQ	8G bit	256M×32	LPDDR3	168ball					-/^	T/A	N/A	./^	-//	-//	-//	-//	-//	
	NT5AD256M16B2	4G bit	256M×16	DDR4	96ball	+				+	-/-	/.	T/A	-	T/A				
	NT5AD256M16D4	4G bit	256M×16	DDR4	96ball								T/A			T/A			
		70 Dit	ZJUINATU	DUNT	Jobali	+	1	1	1	+	1	1	1/0	+	1/6	1/5	+	 	
						-	1	+	-		1	-		1					



Manufacturer	Part Number	Density	Organization	Type	package	RK290x	RK2928/RK30	RK2926/RK3026/	RK3066/RK3066A/PX2 RK3168/RK3188/PX3	DV2200	RK3368/RK3228A/ RK3228B/RK3229/	RV1108	RK3228H	DK3300	DV2220	RK3326/	RK33	99PRO	上DV 美索美切							
wanuracturer			•	Туре		RK2918	PX3-SE	/RK3126	RK3168/RK3188/PX3	KK3200	PX5	/KK330 8	KK3220H	KKSSSS	RR3326	PX30	CPU_RAM	M NPU_RA	与RK兼容情况							
	K4T1G164QE K4B1G0846G	1G bit 1G bit	64M×16 128M×8	DDR2 DDR3	84ball 78ball	√			T/A	T/A						-	4									
	K4B1G1646I-xCxx	1G bit	120IVI×0 64M×16	DDR3	96ball	V			1/A	I/A		T/A				-	_									
	K4B2G0846C	2G bit	256M×8	DDR3	78ball	√						.,,					1									
	K4B2G0846F-xYxx	2G bit	256M×8	DDR3L	78ball				T/A	T/A																
	K4B2G1646C K4B2G1646E	2G bit 2G bit	128M×16 128Mx16	DDR3 DDR3	96ball 96ball	√ T/A																				
	K4B2G16460	2G bit	128MX16	DDR3	96ball	T/A	T/A T/A	T/A T/A	T/A T/A	T/A		T/Δ	T/A		T/A	T/A	+									
	K4B2G1646F-xYxx	2G bit	128Mx16	DDR3L	96ball	1//	T/A	T/A	T/A	T/A			T/A		T/A	T/A										
	K4B4G0846E-xCxx	4G bit	512M×8	DDR3	78ball						T/A	T/A			T/A	T/A										
	K4B4G1646B-xCxx	4G bit	256M×16	DDR3	96ball	√	T/A	T/A	T/A	T/A																
	K4B4G1646Q-xYxx	4G bit	256M×16	DDR3L	96ball		T/A	T/A	T/A	T/A		T/A			T/A	T/A										
	K4B4G1646D-xYxx K4B4G1646D-xCxx	4G bit 4G bit	256M×16 256M×16	DDR3L DDR3	96ball 96ball		T/A T/A	T/A T/A	T/A T/A	T/A T/A	T/A	T/A	T/A		T/A	T/A	₩									
	K4W4G1646Q-xCxx	4G bit	256M×16	DDR3	96ball		1/6	1/6	T/A	T/A						-	_									
	K4B4G1646E-xYxx	4G bit	256M×16	DDR3L	96ball		T/A	T/A	T/A	T/A	T/A	T/A				T/A			Alberta Int. 100							
	K4B4G1646E-xCxx	4G bit	256M×16	DDR3	96ball		T/A		T/A	T/A	T/A	T/A		T/A			T/A	T/A	兼容性好							
	K4B4G1646E-BMMA K4B8G1646D-xYxx	4G bit 8G bit	256M×16 512Mx16	DDR3L DDR3L	96ball 96ball					T/A			T/A	T/A √	T/A	T/A	T/A T/A		K3PE0E000M RZQ需要で 为150ohm							
Samsung	K4A4G165WF-xCxx	4G bit	256M×16	DDR4	96ball					1/A			T/A		T/A	T/A	1/A		K3PE0E000A-XGC2 RZQ							
	K4A8G165WB-xCxx	8G bit	512Mx16	DDR4	96ball								T/A		T/A		1		需要改为NC							
	K3PE0E000A-XGC2	16Gb/2Channel	256Mx32x2Ch	LPDDR2	220ball				N/A	T/A																
	K3PE0E000M-XGC2	16Gb/2Channel	256Mx32x2Ch	LPDDR2	216ball				N/A	T/A		N/A														
	K4E8E304ED-EGCC K4E8E304EE-EGCE	8Gb 8Gb	256Mx32 256Mx32	LPDDR3 LPDDR3	178ball 178ball					T/A T/A	T/A	N/A		T/A		+	T/A									
	K4E8E324EB-AGCF	8Gb	256Mx32	LPDDR3	168ball						T/A	N/A														
	K4E8E324EB-EGCF	8Gb	256Mx32	LPDDR3	178ball					T/A	T/A	N/A	T/A	T/A	T/A	T/A	T/A									
	K3QF1F10DM-AGCE	8Gb/2Channel	128Mx32x2Ch	LPDDR3	253ball	_				T/A						4	4									
	K3QF1F10EM-BGCF K4E6E304EE-EGCE	8Gb 16Gb	128Mx32x2Ch 512M×32	LPDDR3 LPDDR3	216ball 178ball					T/A T/A	T/A	N/A	T/A		T/A	T/A	_									
	K4E6E304ED-EGCE	16Gb	512M×32 512M×32	LPDDR3	178ball					T/A	1/A	IV/A	1/A		1/A	1/A	+									
	K4E6E304EB-EGCF	16Gb	512M×32	LPDDR3	178ball					T/A	T/A	N/A	T/A				T/A	T/A								
	K4E6E304EC-EGCF	16Gb	512M×32	LPDDR3	178ball								T/A	T/A	T/A		T/A									
	K4EBE304EC-EGCF	32Gb	1024M×32	LPDDR3	178ball								T/A		T/A	T/A	4									
	K3QF3F30BM-QGCF K3QF3F30BM-BGCF	16Gb 16Gb	256M×32x2Ch 256M×32x2Ch	LPDDR3 LPDDR3	216ball 216ball					T/A						_	_									
	K4F8E304HB-MGxx	8G bit	256M×32	LPDDR4	200ball					.,,,,				T/A			T/A									
	K4F6E3S4HM-MGxx	16Gb	512M×32	LPDDR4	200ball									T/A			T/A									
																-										
	PE918-15E (PRN256M8V79DG8GQF-15E)	2G bit	256M×8	DDR3	78ball	T/A	T/A	T/A	T/A	T/A																
	PE936-15E (PRN256M8V89CG8GQF-15E)	2G bit	256Mx8	DDR3	78ball	T/A	T/A	T/A	N/A	N/A																
	PEB08-15E (PRN512M8V80AG8RHF-15E)	4G bit	512M×8	DDR3	78ball		T/A	T/A	T/A ⁽¹⁾	T/A																
	PEB15-15E (PRN256M16V80AG8GPF-15E)	4G bit	256Mx16	DDR3	96ball	T/A	T/A	T/A	T/A	T/A																
	PEB16-15E (PRM256M16V80AG8GPF-15E)	4G bit	256Mx16	DDR3	96ball		T/A	T/A	T/A	T/A																
	PE017 (SUU256M16V90BG8LY-125TP)	4G bit	256Mx16	DDR3	96ball			T/A											MICRON子品牌,							
SPECTEK	PE039 (SUU256M16V90BG8LY-125TP)	4G bit	256Mx16	DDR3	96ball						T/A	T/A							兼容性良好							
	Z9QHG (SM128MX32U80MD1LGU-25FT)	4G bit	128Mx32	LPDDR2	134ball				T/A	T/A							<u> </u>									
	(SS256M32V01MD1LPF-107BT) PB008	8G bit	256Mx32 256Mx32	LPDDR3	178ball								N/A	N/A T/A	N/A	N/A	T/A									
	(SM512M322E0FD4LHL) PS007	8G bit	256Mx32 512M×32	LPDDR3	1/8ball 200ball									T/A			T/A									
	(SU512M32Z01MD2BNP) PS004	32Gbit	512M×64	LPDDR4	366ball									T/A			T/A									
	(SM512M64Z91MD4BNK) PS035 (SU512M64Z01MD4BNK)	32Gbit	512M×64	LPDDR4	366ball									T/A			T/A									
	PS013 (SM512M64Z01MD4BNK)	32Gbit	512M×64	LPDDR4	366ball									T/A			T/A									
								1	-		1					+	 									
	N2TU1G16GG-AC	1G bit	64M×16	DDR2	84hall	V					1					_	_	好,特供户使用。	NANYA子品牌, 兼容性的							
	N2TUIGI6GG-AC N2CB1G80GN-CG	1G bit	128M×8	DDR3	78ball	V V											+		好,特供指定渠道及零							
	N2CB1G80GN-CG N2CB2G80GN	2G bit	256M×8	DDR3	78ball	V			√	√						_	-		户使用。南亚科技指定 经销商:彩虹奥特姆							
	N2CB2G86GN N2CB2G16BP-CG	2G bit	128M×16	DDR3	96ball	V			•	<u> </u>						+-	+-		空钥冏:杉虹奧符姆 (Aotom)、AVT、富鸿							
Elixir	N2CB2G16FP-DI	2G bit	128Mx16	DDR3	96ball		T/A	T/A	T/A	T/A									(FHL)、芯智(SMC)、自							
	N2CB4G08DN-CG	4G bit	512M×8	DDR3	78ball		T/A	T/A	T/A [1]	T/A									世科技(WEISHI)、世刊							
	N2CB4G16BP-DI	4G bit	256Mx16	DDR3	96ball		T/A	T/A	T/A	T/A									(WPI),提供正品保固及							
	N2CC4G16DP	4G bit	256Mx16	DDR3L	96ball		T/A	T/A	T/A	T/A						\perp	\perp		售后服务							
													1		ļ	+	—									



							DV2029/DV20	DV2026/DV2026	RK3066/RK3066A/PX2 RK3168/RK3188/PX3		RK3368/RK3228A/	DV/1109		1		1	RK33	99PRO						
Manufacturer	Part Number	Density	Organization	Туре	package	RK290x RK2918	28A/RK3128/	RK3036/RK30360	RK3066/RK3066A/PX2	RK3288		/RK330	RK3228H	RK3399	RK3328	RK3326/ PX30			与RK兼容情况					
		,	•			RK2918	PX3-SE	/RK3126	RK3168/RK3188/PX3		PX5	8				PX30	CPU_RAM	M	1					
	EM47DM1688SBA	2G bit	128M×16	DDR3	96ball	N/A																		
	EM47EM0888SBA-150	2G bit	256Mx8	DDR3	78ball	T/A	N/A	N/A	T/A	T/A									i					
	EM47EM1688SBA-150	4G bit	256Mx16	DDR3	96ball	T/A													i					
Eorex	EM47EM1688SBB-150A	4G bit	256Mx16	DDR3	96ball		T/A	T/A	T/A	T/A									台湾颗粒厂商,					
	EM47FM0888SBA-150	4G bit	512Mx8	DDR3	78ball		T/A	T/A											兼容性较好					
	EM47FM0888SBA-150A	4G bit	512Mx8	DDR3	78ball		T/A	T/A											4					
	EM47EM3288MBA-125	8G bit	256Mx32	DDR3 LPDDR2	136ball				T/A	T/A									ii					
	EM45FM3288LBA-187F	16Gb/2Channel	256Mx32x2Ch	LPDDKZ	220ball				N/A	T/A														
						+								-		-								
	EM68B16CWPA-25H	512M bit	32M×16	DDR2	84ball	√																		
	EM6GC16EWKG-12H	1G bit	64Mx16	DDR3	96ball	<u> </u>					T/A	T/A							ii.					
	EM6GD16EWKG-12H	2G bit	128Mx16	DDR3	96ball						T/A	T/A							İ					
	EM6GD16EWXF-12H	2G bit	128Mx16	DDR3	96ball						T/A	T/A							İ					
Etron Tech	EM6GD16EWBH-12H	2G bit	128Mx16	DDR3	96ball													T/A	台湾颗粒厂商,兼容性					
Etron Tecn	EM6GE16EW5B-15H	4G bit	256M×16	DDR3	96ball	T/A	T/A	T/A	T/A	T/A									较好					
	EM6GE08EW8C-12H	4G bit	512Mx8	DDR3	78ball		T/A	T/A											İ					
	EM6GE16EWXC-12H	4G bit	256M×16	DDR3	96ball		T/A	T/A	T/A	T/A									ii					
	EM6HE16EWXD-12H	4G bit	256M×16	DDR3L	96ball						T/A	T/A	T/A		T/A			T/A	i					
	EM6GE16EWXD-12H	4G bit	256M×16	DDR3	96ball		T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A	T/A		i .					
						1	1			1				1		1			i					
	M15T1G1664A-DEBG2C	1G bit	64Mx16	DDR3	96ball							T/A							ii					
FC7	M15T1G1664A-DEBG2CS	1G bit	64Mx16	DDR3	96ball	1	1	T/A											ii					
ESMT	M15T2G16128A-DEBG2L	2G bit	128Mx16	DDR3	96ball						T/A	T/A							İ					
	M15T4G16256A-DEBG2L	4G bit	256M×16	DDR3	96ball								T/A			T/A			ii.					
	M15F4G16256A-DEBG2L	4G bit	256M×16	DDR3	96ball						T/A	T/A	T/A		T/A	T/A								
						-										-								
	P3R1GE4CFF-G8E	1G bit	64M×16	DDR2	84ball	√													256M16在RK3066,					
	P3R1GE3FGF-G8E	1G bit	128M×8	DDR2	84ball	V √													RK31xx平台上需要添加					
MIRA	P2P2GF4ALF-GGN	2G bit	128X16	DDR2 DDR3	96ball	<u> </u>					T/A	T/A							定频相关补丁。并且对					
	P3P4GF3BLF-GGN	4G bit	512M×8	DDR3	78ball		T/A	N/A	N/A	N/A	1/8	1/1							参考层完整性要求较					
	P3P4GF4BLF-GGN	4G bit	256Mx16	DDR3	96ball		T/A	14/15	T/A	T/A	T/A	T/A	T/A		T/A	T/A			高,需要严格遵照我们					
	TOTAL CON	10 5/1	LJOHALO	5515	Joban		-//		1/1	-,,,,	.,,.	-,,,,	.,,,		.,,,	-,,			的布板要求布板。					
																			i					
	SCB15H1G160CF-13K	1G bit	64M×16	DDR3	96ball							T/A							i					
	SCN13H2G160AF-13K	2G bit	128M×16	DDR3	96ball		T/A												i					
UniIC	SCB13H2G160AF-11M	2G bit	128M×16	DDR3L	96ball						T/A	T/A							İ					
Onic	SCB13H4G160AF-11M	4G bit	256Mx16	DDR3L	96ball					T/A	T/A	T/A	T/A		T/A	T/A			İ					
	HXB15H4G800AF-13K	4G bit	512M×8	DDR3	78ball						T/A	T/A							i					
	HXB13H4G160AF-13KT	4G bit	256Mx16	DDR3	96ball		T/A	T/A		T/A	T/A	T/A							I .					
	HXB18T1G160AF-25D	1G bit	64M×16	DDR2	84ball	√													256M16在RK3066,					
	HXB18T2G160AF-25D	2G bit	128M×16	DDR2	84ball	√	I			l									RK31xx平台上需要添加					
SCSemicon	HXB15H2G800BF-15H	2G bit	256M×8	DDR3	78ball	N/A	T/A	N/A	T/A	T/A						-			定频相关补丁。并且对					
	HXB15H2G160CF-13K	2G bit	128M×16	DDR3	96ball	N 00 (1)	T/A	N1/A	Tre III	T/4						-			参考层完整性要求较					
	HXB15H4G800BF-15H	4G bit	512M×8	DDR3	78ball	N/T ^[1]	T/A	N/A	T/A [1]	T/A						-			高,需要严格遵照我们					
	HXB15H4G160BF-15H	4G bit	256Mx16	DDR3	96ball	T/A	1		T/A	T/A	1			1		1	l	-	的布板要求布板。					
		+					1			+	+			+	<u> </u>			-						
	3CCD-1211A EL1250V	2G bit	256Mx8	DDR3	78ball	N/A	T/A	N/A	T/A	T/A									使用Elpida品圆兼容性					
ADATA	D2ND-1211A EL1345V	4G bit	256Mx16	DDR3	96ball		T/A	T/A	T/A	T/A									一般。PCB不允许有参					
	D2ND-1211A NA1518V	4G bit	256Mx16	DDR3L	96ball		T/A	T/A	T/A	T/A									考层有割断的现象。					
																			i					
																			I					
ANOR	AM43Q2G08AFP-150C	2G bit	256Mx8	DDR3	78ball	N/A	T/A	N/A	T/A	T/A									使用Elpida品圆兼容性					
AHUK	AM43Q4G08AFP-150C	4G bit	512Mx8	DDR3	78ball		T/A	N/A											一般。PCB不允许有参考					
																			层有割断的现象。					
							1												<u> </u>					
	A3R12E40DBF-AH	512M bit	32M×16	DDR2	84ball							T/A							i					
Zentel	A3T1GF40CBF-HP	1G bit	64M×16	DDR3	96ball														ı					
	A3T1GF40CBF-GM	1G bit	64M×16	DDR3	96ball														1					
							1																	
	V59C1G01168QBASXJ25	1G bit	64M×16	DDR2	84ball	√	1									1			i					
ProMOS	V73CAG01808RA JI9	1G bit	128M×8	DDR3	78ball	√													ii					
	V59C1G02168QB	2G bit	128M×16	DDR2	84ball	√	1			1				ļ		1	L		1					
						1	1			1				ļ		1	L		1					
	I .					1	1	1	1	1		1		1	1	1	1	1	i					



						RK290x	RK2928/RK30	RK2926/RK3026	RK3066/RK3066A/PX2		RK3368/RK3228A/ RV11	08			RK3326/	. RK33	99PRO	
Manufacturer	Part Number	Density	Organization	Туре	package	RK290X RK2918	28A/RK3128/ PX3-SE	RK3036/RK30366 /RK3126	RK3066/RK3066A/PX2 RK3168/RK3188/PX3	RK3288	RK3228B/RK3229/ /RK3 PX5 8	30 RK3228H	RK3399	RK3328	PX30	CPU_RAM	AIDII DA	与RK兼容情况
SMART	S4B2G0846C-HYH9	2G bit	256Mx8	DDR3	78ball				T/A	T/A								巴西颗粒,国内用的不
Simplify	S4B2G0846D-HYK0	2G bit	256M×8	DDR3	78ball				T/A	T/A								多
	PMF510816ABR-G8DN	1G bit	64M×16	DDR3	96ball	V												
	PMF511816ABR-G8DN	2G bit	128M×16	DDR3	96ball	V V												
	PMF511816ABR-G8DN PMF511816DBR-KADN	2G bit	128M×16	DDR3	96ball	V			T/A	T/A								
πΡΜ	PMF512816BBR-KADN	4G bit	256Mx16	DDR3	96ball				T/A	T/A			+					
	PMF512816DBR-KADN	4G bit	256Mx16	DDR3	96ball		T/A	T/A	T/A	T/A								
	PMF412816FBR-KADN	4G bit	256M×16	DDR3L	96ball		1/6	1/6	1/4	T/A								
	F WII 4120101 BIC-KADIV	40 010	230W1^10	DDIGE	Joban					1/4								
MT.MOSET	ED3E25608CE-P9	2G bit	256M×8	DDR3	78ball	T/A	T/A	N/A	T/A	T/A								
	VP5TQ1G0835-F9	1G bit	128M×8	DDR3	78ball	V				1				-				
WINS	VP5TQ2G1635FFP-F9	2G bit	128M×16	DDR3	96ball	· ·	N/A	N/A										
	VP5TQ2G0835L-F9	2G bit	256M×8	DDR3	78ball	√	1,,	.,,										
	DE LOGETTOR CON L	4617	54214.0	0000	701 "		7/0	T/A	7/4	T//								
	D5128EETBPGGBU	4G bit	512Mx8	DDR3	78ball		T/A	T/A	T/A	T/A		_			-			
	D2516EC4BXGGB	4G bit	256Mx16	DDR3L	96ball		T/A [7]	T/A [7]	T/A [7]	T/A [7]	T/A [7]	7]						256M16在RK3066,
	D2516ECMDXGJD	4G bit	256Mx16	DDR3L	96ball		1/8	1/A	1/8	1/A	1/A 1/A	T/A		T/0	T/0			RK31xx平台上需要添加
Kingston	D2516JC4BXGJD	4G bit	256Mx16	DDR3L DDR3	96ball					T/A		I/A		I/A	T/A			定频相关补丁。并且对
•			256Mx32	LPDDR3						I/A		T/A		T/A	T/A			参考层完整性要求较
	D2532LA6MLGJA KB23AADL3E08G	8G bit 8G bit	256MX32 512M×16	LPDDR3	178ball 178ball					T/A		I/A		I/A	1/A			高,需要严格遵照我们
	D2516PC1CDGPLR	8G bit	256Mx32	LPDDR4	200ball					I/A			T/A			T/A		的布板要求布板。
	Q5116PH1MDGPAR	16G bit	512M×32	LPDDR4	200ball								T/A			T/A		
	Q3110 H1MDOFFIC	100 010	5221111152	LIDDIN	2000011								.,			-,		
ISSI	IS43TR16640B-125KBL	1G bit	64M×16	DDR3	96ball						T/A							
	IS43TR1612BC-125KBL	2G bit	128M×16	DDR3	96ball					-	T/A T/	١			-			
	H2A301G1656BC6C	1G bit	64M×16	DDR2	84ball						T/A							
	H2A401G1666BFBC	1G bit	64M×16	DDR3	96ball						T/.							
axeme	H2A402G1666BFBC	2G bit	128M×16	DDR3	96ball		T/A	T/A										
	H2A404G1666CFMC	4G bit	256M×16	DDR3	96ball		,	•				T/A		T/A	T/A			
	H2A404G0866CD8C	4G bit	512Mx8	DDR3	78ball				T/A	T/A								
ISDT	IL2BR20E8H	16G bit/2Channel	256Mx32x2Ch	LPDDR2	220ball					T/A		_						
ISDI	ILZBRZUESH	10G DIQ2Channel	ZSOWIXSZXZCII	LPDDR2	ZZUDali	+				I/A		_			+			
	W971GG6SB-18	1G bit	64M×16	DDR2	84ball						T/							
	W631GG6KB-12	1G bit	64M×16	DDR3	96ball						T/A T/.							
Winbond	W631GG6MB-12	1G bit	64M×16	DDR3	96ball						T/A	١ .						
	W632GG6KB-15 W632GG6NB-12	2G bit 2G bit	128M×16 128M×16	DDR3 DDR3	96ball 96ball		T/A	T/A	T/A	T/A		T/A		T/A	T/A			
	W632GG6NB-12	2G DIL	120W1×10	DDK3	900411							1/A		1/A	1/A			
Goldkey	GH4061600HRL-1833	4G bit	256M×16	DDR3L	96ball							T/A		T/A	T/A			
	DWEST ETSMOSDSDE	100 his	512M×32	LDDDD	170k "	1				1	T/A			1	1			
BIWIN	BW52L512M32D2PF BWMD4X32H2A-16Gb	16G bit 16G bit	512M×32 512M×32	LPDDR3 LPDDR4	178ball 200ball						I/A		T/A			T/A		
	D.I.MOTAGZI IZA-1000	100 Dit	JIZIVIA JZ	LI DONA	ZUUDAII								1/A			1/4		
	NCLD3B2256M32	8G bit/ 2cs	256M×32	LPDDR3	178ball					T/A			T/A			T/A		
FORSEE	NCLD4C1MA256M32	8G bit	256M×32	LPDDR4	200ball								T/A			T/A		
	NCLD4C2MA512M32	16G bit	512M×32	LPDDR4	200ball	1				1			T/A	1	1	T/A		
						+	1			1			1	1	1	1		
Essencore	ISTQ4G63EFR	4G bit	256M×16	DDR3	96ball	1				 		T/A	1	T/A	T/A	_		
=33encore	ISTQ TOOSETR	40 UIC	2301810-10	DDIG	Jobali							178		17.4	1/4			
тмтс	TM8G32MD4LSA1-I4	8G bit	256M×32	LPDDR4	200ball								T/A			T/A		
	TH16G32MD4LQM1-I4	16G bit	512M×32	LPDDR4	200ball								T/A			T/A		
	1			1	1		1			1					1	1	1	