

How to edit bios:

Make sure your device is on bios 323 (Currently the latest and the one used for these APCB blocks)

Neoprogrammer -> Detect IC -> Read IC -> Save to dump ->Verify IC

Once your bios is dumped and verified (You must select verify IC After reading), **save the file and make a copy as a backup (Store on the cloud if you can to always have it safe)**

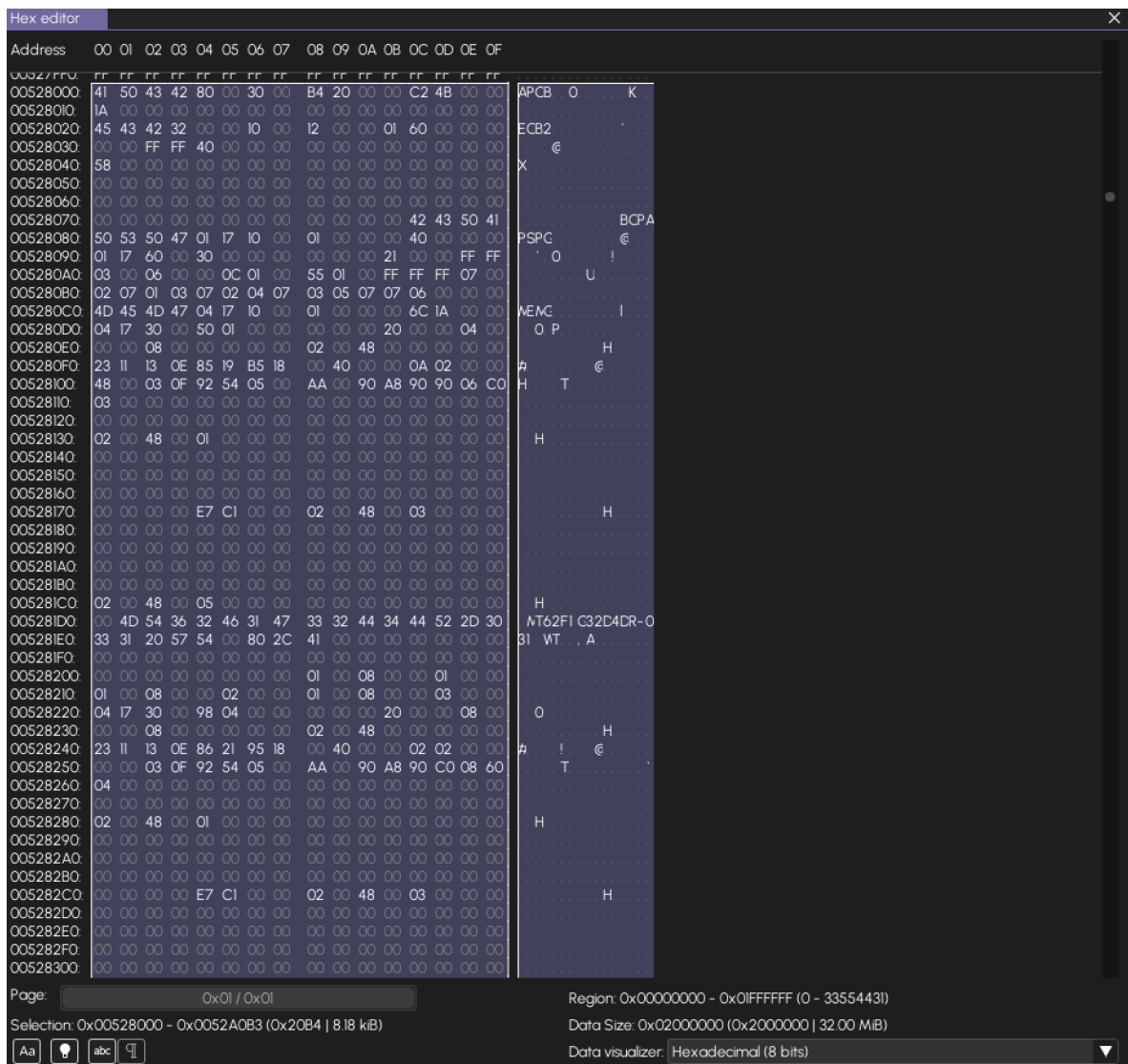
Then do this step again (You can never be too safe and if you lose your bios you will have a brick) and make a second backup

Incase of emergency you can flash the old bios back.

Once you have your bios, open up your hex editor and open your dumped bios and the APCB block you need (**Make sure you're using the right file based on your old RAM**)

In this tutorial i'm using imhex, which will highlight the changes made to your block, in my case red.

Scroll to the block 00528000 and highlight till 0052A0B0 (The end of the block ends with a lot of FF)



Once highlighted the selection on imHex at the bottom should say **0x00528000 - 0x0052A0B3 (0x20B4 | 8.18kiB)**

Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00529F00:	00	00	00	00	63	39	3F	14	FF	00	00	00	95	52	B3	1F
00529F10:	02	00	00	00	2F	B9	B3	1F	12	00	00	00	29	33	47	24
00529F20:	2A	00	00	00	2E	C4	06	26	07	00	00	00	D7	8C	BF	29
00529F30:	01	00	00	00	AF	B4	61	2D	01	00	00	00	19	44	E0	34
00529F40:	00	00	00	00	FD	23	F3	3B	0F	00	00	00	D2	CB	67	43
00529F50:	01	00	00	00	73	94	95	48	01	00	00	00	FC	F4	67	49
00529F60:	01	00	00	00	58	FA	11	4C	AA	00	00	00	A3	A2	BE	4D
00529F70:	02	00	00	00	F2	E0	5B	5D	10	00	00	00	00	36	F9	6E
00529F80:	00	00	00	00	8F	66	24	76	01	00	00	00	93	67	60	76
00529F90:	02	00	00	00	23	46	34	80	00	00	00	00	F6	41	57	84
00529FA0:	01	00	00	00	42	04	EE	87	01	00	00	00	29	85	B9	8F
00529FB0:	A0	00	00	00	39	BA	2B	9F	01	00	00	00	98	3F	90	AC
00529FC0:	00	00	00	00	4C	E3	4E	A1	01	00	00	00	6F	3A	6D	AF
00529FD0:	FF	00	00	00	33	80	64	B1	0F	00	00	00	DF	87	8D	B8

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00529FE0: FF 00 00 00 EF 76 01 CE 07 00 00 00 E2 85 EB CF
00529FF0: FF 00 00 00 C2 E8 85 D0 00 00 00 00 D6 C3 DB D3
0052A000: 10 00 00 00 DA 59 B7 DD 00 00 00 00 D5 8E DB E5
0052A010: 0A 00 00 00 78 A0 F6 E6 00 00 00 00 4D F3 F9 FF
0052A020: 00 00 00 00 00 30 02 00 28 00 00 00 02 01 08 20
0052A030: 04 00 FF FF 00 00 00 00 FF FF 00 00 9D 00 99 19
0052A040: 66 06 00 00 4A 1C 5C AA 62 06 00 00 00 30 04 00
0052A050: 68 00 00 00 02 01 08 20 04 00 FF FF 7B E7 62 27
0052A060: 01 00 00 00 3C 0A 97 34 A6 0E 00 00 CF F8 B1 37
0052A070: 20 00 00 00 7B 7D 9B 3D 00 00 00 10 12 F5 DD 57
0052A080: 00 F8 FF 00 AC 63 66 59 1B 00 00 00 ED A9 4F 7A
0052A090: 00 00 00 E0 53 37 C3 A7 01 00 00 00 5F F6 83 C0
0052A0A0: 40 06 00 00 BF 15 B9 F6 00 00 00 00 7D 0D 56 FC
0052A0B0: 00 00 00 00 FF FF FF FF FF FF FF FF FF FF FF
0052A0C0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A0D0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A0E0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A0F0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A100: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A110: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A120: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A130: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A140: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A150: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A160: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A170: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A180: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A190: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A1A0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A1B0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A1C0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A1D0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A1E0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A1F0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0052A200: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

Page: 0x01 / 0x01
Selection: 0x00528000 - 0x0052A0B3 (0x20B4 | 8.18 kiB)
Aa [lightbulb] abc [text icon]
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Select the APCB file and highlight and copy it all, the section size should be the same (0x20B4 | 8.18kiB) if it's not stop as you could be doing something wrong

00528000:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528020:	45 43 42 32 00 00 10 00 12 00 00 01 60 00 00 00	ECB2
00528030:	00 00 FF FF 40 00 00 00 00 00 00 00 00 00 00 00	@
00528040:	58 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	X
00528050:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528060:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528070:	00 00 00 00 00 00 00 00 00 00 00 00 42 43 50 41	BCPA
00528080:	50 53 50 47 01 17 10 00 01 00 00 00 40 00 00 00	PSPC @
00528090:	01 17 60 00 30 00 00 00 00 00 00 21 00 00 FF FF	' O !
005280A0:	03 00 06 00 00 0C 01 00 55 01 00 FF FF FF 07 00	U
005280B0:	02 07 01 03 07 02 04 07 03 05 07 07 06 00 00 00	
005280C0:	4D 45 4D 47 04 17 10 00 01 00 00 00 6C 1A 00 00	MEMC I
005280D0:	04 17 30 00 50 01 00 00 00 00 00 20 00 00 04 00	O P
005280E0:	00 00 08 00 00 00 00 00 02 00 48 00 00 00 00 00	H
005280F0:	23 11 13 0E 85 19 B5 18 00 40 00 00 0A 02 00 00	# @
00528100:	48 00 03 0F 92 54 05 00 AA 00 90 A8 90 90 06 C0	H T
00528110:	03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528120:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528130:	02 00 48 00 01 00 00 00 00 00 00 00 00 00 00 00	H
00528140:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528150:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528160:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528170:	00 00 00 00 E7 C1 00 00 02 00 48 00 03 00 00 00	H
00528180:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528190:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005281A0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005281B0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005281C0:	02 00 48 00 05 00 00 00 00 00 00 00 00 00 00 00	H
005281D0:	00 4D 54 36 32 46 31 47 33 32 44 34 44 52 2D 30	MT62F1 C32D4DR-0
005281E0:	33 31 20 57 54 00 80 2C 41 00 00 00 00 00 00 00	31 WT , A
005281F0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528200:	00 00 00 00 00 00 00 00 01 00 08 00 00 01 00 00	
00528210:	01 00 08 00 00 02 00 00 01 00 08 00 00 03 00 00	
00528220:	04 17 30 00 98 04 00 00 00 00 00 20 00 00 08 00	O
00528230:	00 00 08 00 00 00 00 00 02 00 48 00 00 00 00 00	H
00528240:	23 11 13 0E 86 21 B5 18 00 40 00 00 0A 02 00 00	# ! @
00528250:	00 00 03 00 00 00 00 00 2B 00 90 A8 90 C0 08 60	+
00528260:	04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528270:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528280:	02 00 48 00 01 00 00 00 00 00 00 00 00 00 00 00	H
00528290:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282A0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282B0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282C0:	00 00 00 00 E7 C1 00 00 02 00 48 00 03 00 00 00	H
005282D0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282E0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282F0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	

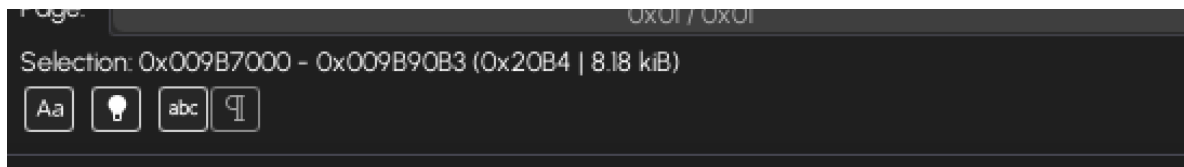
Selection: 0x00528000 - 0x0052A0B3 (0x20B4 | 8.18 kiB)

005281C0:	02 00 48 00 05 00 00 00 00 00 00 00 00 00 00 00	H
005281D0:	00 4D 54 36 32 46 31 47 33 32 44 34 44 52 2D 30	MT62FI C32D4DR-0
005281E0:	33 31 20 57 54 00 80 2C 41 00 00 00 00 00 00 00	31 WT , A
005281F0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528200:	00 00 00 00 00 00 00 00 01 00 08 00 00 01 00 00	
00528210:	01 00 08 00 00 02 00 00 01 00 08 00 00 03 00 00	
00528220:	04 17 30 00 98 04 00 00 00 00 00 20 00 00 08 00	O
00528230:	00 00 08 00 00 00 00 00 02 00 48 00 00 00 00 00	H
00528240:	23 11 13 0E 86 21 B5 18 00 40 00 00 OA 02 00 00	# ! @
00528250:	00 00 03 00 00 00 00 00 2B 00 90 A8 90 C0 08 60	+
00528260:	04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528270:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528280:	02 00 48 00 01 00 00 00 00 00 00 00 00 00 00 00	H
00528290:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282A0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282B0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282C0:	00 00 00 00 E7 C1 00 00 02 00 48 00 03 00 00 00	H
005282D0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282E0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005282F0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528300:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528310:	02 00 48 00 05 00 00 00 00 00 00 00 00 00 00 00	H
00528320:	00 4B 33 4C 4B 42 4B 42 30 42 4D 2D 4D 47 43 50	K3LKBKBOBM- M CCP
00528330:	20 20 20 20 20 00 80 CE 4D 00 00 00 00 00 00 00	N
00528340:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528350:	00 00 00 00 00 00 00 00 02 00 48 00 00 01 00 00	H
00528360:	23 11 13 0E 86 21 B5 18 00 40 00 00 OA 02 00 00	# ! @
00528370:	00 00 03 00 00 00 00 00 2B 00 90 A8 90 C0 08 60	+
00528380:	04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528390:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005283A0:	02 00 48 00 01 01 00 00 00 00 00 00 00 00 00 00	H
005283B0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005283C0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005283D0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005283E0:	00 00 00 00 E7 C1 00 00 02 00 48 00 03 01 00 00	H
005283F0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528400:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528410:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528420:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528430:	02 00 48 00 05 01 00 00 00 00 00 00 00 00 00 00	H
00528440:	00 4B 33 4C 4B 42 4B 42 30 42 4D 2D 4D 47 43 50	K3LKBKBOBM- M CCP
00528450:	20 20 20 20 20 00 80 CE 4D 00 00 00 00 00 00 00	N
00528460:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
00528470:	00 00 00 00 00 00 00 00 02 00 48 00 00 02 00 00	H
00528480:	23 11 13 0E 86 21 B5 18 00 40 00 00 OA 02 00 00	# ! @
00528490:	00 00 03 00 00 00 00 00 2B 00 90 A8 90 C0 08 60	+
005284A0:	04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005284B0:	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
005284C0:	02 00 48 00 01 02 00 00 00 00 00 00 00 00 00 00	H
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00		
00 00 00 00 00 00 00 00 02 00 48 00 00 01 00 00	H	
23 11 13 0E 86 21 B5 18 00 40 00 00 OA 02 00 00	# ! @	
00 00 03 00 00 00 00 00 2B 00 90 A8 90 C0 08 60	+	
04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00		
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00		

02 00 48 00 01 01 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	H
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 E7 C1 00 00	02 00 48 00 03 01 00 00	00 00 00 00 00 00 00 00	H
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
02 00 48 00 05 01 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	H
00 4B 33 4B 4C 38 4C 38	30 43 4D 2D 4D 47 43 54	00 00 00 00 00 00 00 00	K3KL8L80CM- MCCT
20 20 20 20 20 00 80 CE	43 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	C
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	02 00 48 00 00 02 00 00	00 00 00 00 00 00 00 00	H
23 11 13 0E 86 21 B5 18	00 40 00 00 0A 02 00 00	00 00 00 00 00 00 00 00	# ! @
00 00 03 00 00 00 00 00	2B 00 90 A8 90 C0 08 60	00 00 00 00 00 00 00 00	+
04 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
02 00 48 00 01 02 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	H
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 E7 C1 00 00	02 00 48 00 03 02 00 00	00 00 00 00 00 00 00 00	H
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
02 00 48 00 05 02 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	H
00 4B 33 4B 4C 38 4C 38	30 43 4D 2D 4D 47 43 54	00 00 00 00 00 00 00 00	K3KL8L80CM- MCCT
20 20 20 20 20 00 80 CE	43 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	C
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	02 00 48 00 00 03 00 00	00 00 00 00 00 00 00 00	H
23 11 13 0E 86 21 B5 18	00 40 00 00 0A 02 00 00	00 00 00 00 00 00 00 00	# ! @
00 00 03 00 00 00 00 00	2B 00 90 A8 90 C0 08 60	00 00 00 00 00 00 00 00	+
04 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
02 00 48 00 01 03 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	H
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 E7 C1 00 00	02 00 48 00 03 03 00 00	00 00 00 00 00 00 00 00	H
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	
00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00	

This is the first APCB Block edit.

This then will need to be repeated for the block 009B7000 -009B90B0



Save your file as something like RCL71A_modified.bin

On neoprogrammer wipe your IC and open RCL71A_modified.bin, write it to IC.

Congrats, your bios is now changed.