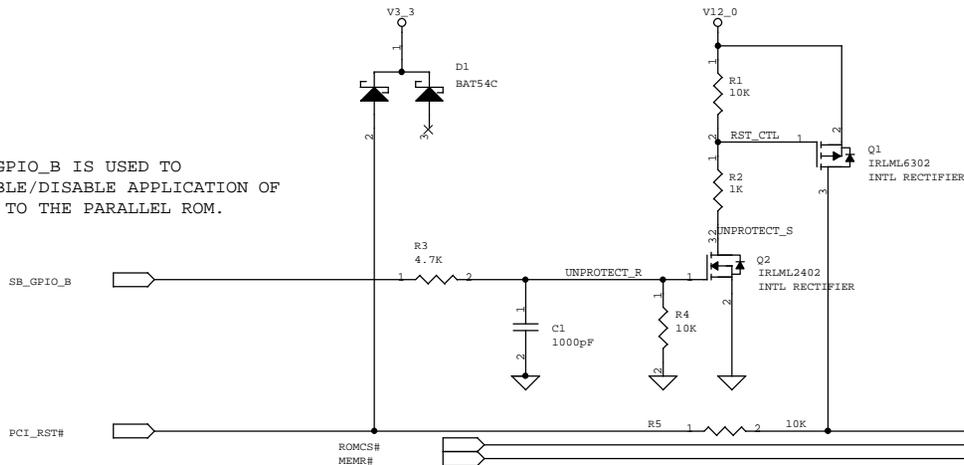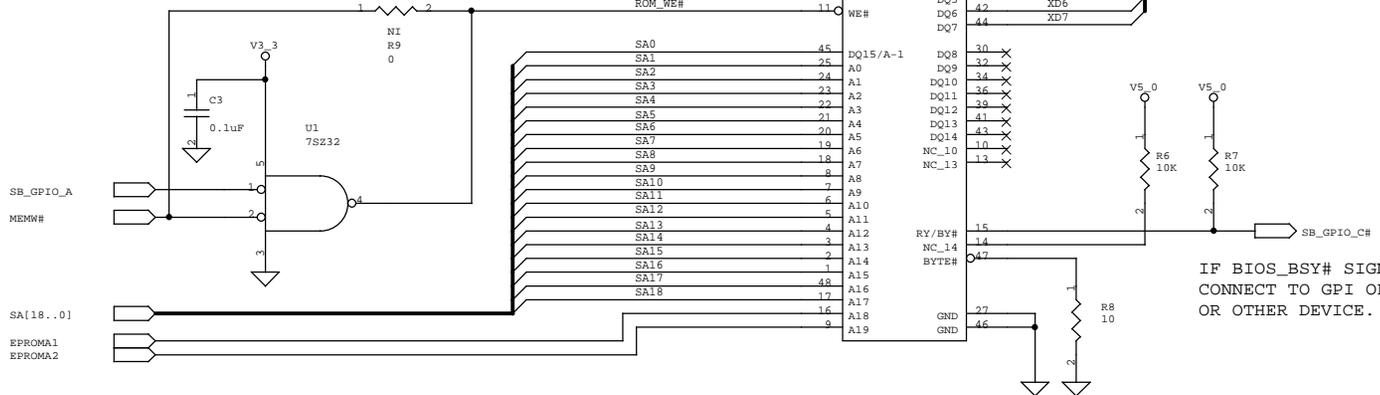SB_GPIO_B IS USED TO
ENABLE/DISABLE APPLICATION OF
12V TO THE PARALLEL ROM.

SB_GPIO_A CAN BE USED TO ALLOW
BIOS TO GATE WRITES TO THE
PARALLEL ROM.

V3_3

D1
BAT54C

V12_0

R1
10K

RST_CTL

Q1
IRLML6302
INTL RECTIFIER

R2
1K

UNPROTECT_S

Q2
IRLML2402
INTL RECTIFIER

R3
4.7K

SB_GPIO_B

UNPROTECT_R

C1
1000pF

R4
10K

V5_0

C2
0.1uF

X1
29F160TP-70PFTN
FUJITSU

PCI_RST#

R5   10K

BIOS_RST#

ROMCS#
MEMR#

37 VCC
12 RESET#
26 CE#
28 OE#

29 DQ0   XD0
31 DQ1   XD1
33 DQ2   XD2
35 DQ3   XD3
38 DQ4   XD4
40 DQ5   XD5
42 DQ6   XD6
44 DQ7   XD7

XD[7..0]

ROM_WE#

11 WE#

NI
R9
0

V3_3

C3
0.1uF

U1
7SZ32

SB_GPIO_A

MEMW#

SA0   45 DQ15/A-1   DQ8   30
SA1   25 A0   DQ9   32
SA2   24 A1   DQ10 34
SA3   23 A2   DQ11 36
SA4   22 A3   DQ12 39
SA5   21 A4   DQ13 41
SA6   20 A5   DQ14 43
SA7   19 A6   NC_10 10
SA8   18 A7   NC_13 13
SA9   8 A8
SA10   7 A9
SA11   6 A10
SA12   5 A11
SA13   4 A12   RY/BY# 15
SA14   3 A13   NC_14 14
SA15   2 A14   BYTE# 47
SA16   1 A15
SA17 48 A16
SA18 17 A17
      16 A18   GND   27
       9 A19   GND   46

V5_0   V5_0

R6   R7
10K   10K

SB_GPIO_C#

R8
10

SA[18..0]

EPROMA1
EPROMA2

IF BIOS_BSY# SIGNAL IS USED,
CONNECT TO GPI OF SOUTHBRIDGE
OR OTHER DEVICE.

If used for System BIOS only, install 512K (or 256K).
If used for System BIOS and CMS, install 2M.
In TM5X00 systems, the lower 3/4 of the ROM are protected and unable to be erased (i.e. by an 'erase all' command to the ROM). The unprotect
circuit allows CMS to reprogram protected sectors during a CMS upgrade (TM5X00 only). Note how EPROMA[2..1] signals are connected to the 2MB ROM.
These signals act as bank selects to select either CMS sectors or BIOS. When CMS has decompressed and is ready to run x86 code, these signals
select the highest bank (11) to allow access to the BIOS code.

Project: TM5800 Design Guide
Title: Parallel ROM with CMS Option
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