

DRAM

U1: DRAM IS41C16256

Address: A[0..17] (A0-A17) to AD0-AD15

Data: D[0..15] (D0-D15) to AD0-AD15

Control: /RAS0, /CAS, /UCAS, /WR, /RD, /OE, /WE, /OE

Power: VCC, GND

Decoupling: C3, C4, C5 (0.1uF) connected to VCC and GND.

FLASH ROM

U2: AM29F004B

Address: A[0..18] (A0-A18) to AD0-AD15

Data: D[0..7] (D0-D7) to AD0-AD15

Control: /WR, /RD, /UCS, /WE, /OE, /CE

Power: VCC, GND

Decoupling: C6 (0.1uF) connected to VCC and GND.

DAMPING

RP1 (27R): AD0, AD8, AD9, AD10, AD11, AD12, AD13, AD14, AD15, AD16, AD17, AD18, AD19, AD20, AD21, AD22, AD23, AD24, AD25, AD26, AD27, AD28, AD29, AD30, AD31, AD32, AD33, AD34, AD35, AD36, AD37, AD38, AD39, AD40, AD41, AD42, AD43, AD44, AD45, AD46, AD47, AD48, AD49, AD50, AD51, AD52, AD53, AD54, AD55, AD56, AD57, AD58, AD59, AD60, AD61, AD62, AD63, AD64, AD65, AD66, AD67, AD68, AD69, AD70, AD71, AD72, AD73, AD74, AD75, AD76, AD77, AD78, AD79, AD80, AD81, AD82, AD83, AD84, AD85, AD86, AD87, AD88, AD89, AD90, AD91, AD92, AD93, AD94, AD95, AD96, AD97, AD98, AD99, AD100, AD101, AD102, AD103, AD104, AD105, AD106, AD107, AD108, AD109, AD110, AD111, AD112, AD113, AD114, AD115, AD116, AD117, AD118, AD119, AD120, AD121, AD122, AD123, AD124, AD125, AD126, AD127, AD128, AD129, AD130, AD131, AD132, AD133, AD134, AD135, AD136, AD137, AD138, AD139, AD140, AD141, AD142, AD143, AD144, AD145, AD146, AD147, AD148, AD149, AD150, AD151, AD152, AD153, AD154, AD155, AD156, AD157, AD158, AD159, AD160, AD161, AD162, AD163, AD164, AD165, AD166, AD167, AD168, AD169, AD170, AD171, AD172, AD173, AD174, AD175, AD176, AD177, AD178, AD179, AD180, AD181, AD182, AD183, AD184, AD185, AD186, AD187, AD188, AD189, AD190, AD191, AD192, AD193, AD194, AD195, AD196, AD197, AD198, AD199, AD200, AD201, AD202, AD203, AD204, AD205, AD206, AD207, AD208, AD209, AD210, AD211, AD212, AD213, AD214, AD215, AD216, AD217, AD218, AD219, AD220, AD221, AD222, AD223, AD224, AD225, AD226, AD227, AD228, AD229, AD230, AD231, AD232, AD233, AD234, AD235, AD236, AD237, AD238, AD239, AD240, AD241, AD242, AD243, AD244, AD245, AD246, AD247, AD248, AD249, AD250, AD251, AD252, AD253, AD254, AD255, AD256, AD257, AD258, AD259, AD260, AD261, AD262, AD263, AD264, AD265, AD266, AD267, AD268, AD269, AD270, AD271, AD272, AD273, AD274, AD275, AD276, AD277, AD278, AD279, AD280, AD281, AD282, AD283, AD284, AD285, AD286, AD287, AD288, AD289, AD290, AD291, AD292, AD293, AD294, AD295, AD296, AD297, AD298, AD299, AD300, AD301, AD302, AD303, AD304, AD305, AD306, AD307, AD308, AD309, AD310, AD311, AD312, AD313, AD314, AD315, AD316, AD317, AD318, AD319, AD320, AD321, AD322, AD323, AD324, AD325, AD326, AD327, AD328, AD329, AD330, AD331, AD332, AD333, AD334, AD335, AD336, AD337, AD338, AD339, AD340, AD341, AD342, AD343, AD344, AD345, AD346, AD347, AD348, AD349, AD350, AD351, AD352, AD353, AD354, AD355, AD356, AD357, AD358, AD359, AD360, AD361, AD362, AD363, AD364, AD365, AD366, AD367, AD368, AD369, AD370, AD371, AD372, AD373, AD374, AD375, AD376, AD377, AD378, AD379, AD380, AD381, AD382, AD383, AD384, AD385, AD386, AD387, AD388, AD389, AD390, AD391, AD392, AD393, AD394, AD395, AD396, AD397, AD398, AD399, AD400, AD401, AD402, AD403, AD404, AD405, AD406, AD407, AD408, AD409, AD410, AD411, AD412, AD413, AD414, AD415, AD416, AD417, AD418, AD419, AD420, AD421, AD422, AD423, AD424, AD425, AD426, AD427, AD428, AD429, AD430, AD431, AD432, AD433, AD434, AD435, AD436, AD437, AD438, AD439, AD440, AD441, AD442, AD443, AD444, AD445, AD446, AD447, AD448, AD449, AD450, AD451, AD452, AD453, AD454, AD455, AD456, AD457, AD458, AD459, AD460, AD461, AD462, AD463, AD464, AD465, AD466, AD467, AD468, AD469, AD470, AD471, AD472, AD473, AD474, AD475, AD476, AD477, AD478, AD479, AD480, AD481, AD482, AD483, AD484, AD485, AD486, AD487, AD488, AD489, AD490, AD491, AD492, AD493, AD494, AD495, AD496, AD497, AD498, AD499, AD500, AD501, AD502, AD503, AD504, AD505, AD506, AD507, AD508, AD509, AD510, AD511, AD512, AD513, AD514, AD515, AD516, AD517, AD518, AD519, AD520, AD521, AD522, AD523, AD524, AD525, AD526, AD527, AD528, AD529, AD530, AD531, AD532, AD533, AD534, AD535, AD536, AD537, AD538, AD539, AD540, AD541, AD542, AD543, AD544, AD545, AD546, AD547, AD548, AD549, AD550, AD551, AD552, AD553, AD554, AD555, AD556, AD557, AD558, AD559, AD560, AD561, AD562, AD563, AD564, AD565, AD566, AD567, AD568, AD569, AD570, AD571, AD572, AD573, AD574, AD575, AD576, AD577, AD578, AD579, AD580, AD581, AD582, AD583, AD584, AD585, AD586, AD587, AD588, AD589, AD590, AD591, AD592, AD593, AD594, AD595, AD596, AD597, AD598, AD599, AD600, AD601, AD602, AD603, AD604, AD605, AD606, AD607, AD608, AD609, AD610, AD611, AD612, AD613, AD614, AD615, AD616, AD617, AD618, AD619, AD620, AD621, AD622, AD623, AD624, AD625, AD626, AD627, AD628, AD629, AD630, AD631, AD632, AD633, AD634, AD635, AD636, AD637, AD638, AD639, AD640, AD641, AD642, AD643, AD644, AD645, AD646, AD647, AD648, AD649, AD650, AD651, AD652, AD653, AD654, AD655, AD656, AD657, AD658, AD659, AD660, AD661, AD662, AD663, AD664, AD665, AD666, AD667, AD668, AD669, AD670, AD671, AD672, AD673, AD674, AD675, AD676, AD677, AD678, AD679, AD680, AD681, AD682, AD683, AD684, AD685, AD686, AD687, AD688, AD689, AD690, AD691, AD692, AD693, AD694, AD695, AD696, AD697, AD698, AD699, AD700, AD701, AD702, AD703, AD704, AD705, AD706, AD707, AD708, AD709, AD710, AD711, AD712, AD713, AD714, AD715, AD716, AD717, AD718, AD719, AD720, AD721, AD722, AD723, AD724, AD725, AD726, AD727, AD

FLASH ROM

Diagram illustrating the FLASH ROM configuration. The memory chip (U2, AM29F004B) is connected to the address bus (A[0..18]) and data bus (AD[0..7]). The chip's control signals (WR, RD, UCS) are connected to the microcontroller's control lines. The chip is powered by VCC and GND. A 0.1uF capacitor is connected between VCC and GND.

DRAM

U1: DRAM IS41C16256

Address: A[0..17] (A0-A17), AD[0..15] (AD0-AD15)

Data: D[0..15] (D0-D15)

Control: /RAS0, /CAS, /UCAS, /WR, /RD, /OE, /WE, /OE

Power: VCC, GND

Decoupling: C3, C4, C5 (0.1uF)

FLASH ROM

U2: AM29F004B

Address: A[0..18] (A0-A18), AD[0..7] (AD0-AD7)

Data: D[0..7] (D0-D7)

Control: /WR, /RD, /UCS, /WE, /OE, /CE

Power: VCC, GND

Decoupling: C6 (0.1uF)

DAMPING

RP1 (27R): AD0, AD8, AD9, AD10, AD11, AD12, AD13, AD14, AD15, AD16, AD17, AD18, AD19, AD20, AD21, AD22, AD23, AD24, AD25, AD26, AD27, AD28, AD29, AD30, AD31, AD32, AD33, AD34, AD35, AD36, AD37, AD38, AD39, AD40, AD41, AD42, AD43, AD44, AD45, AD46, AD47, AD48, AD49, AD50, AD51, AD52, AD53, AD54, AD55, AD56, AD57, AD58, AD59, AD60, AD61, AD62, AD63, AD64, AD65, AD66, AD67, AD68, AD69, AD70, AD71, AD72, AD73, AD74, AD75, AD76, AD77, AD78, AD79, AD80, AD81, AD82, AD83, AD84, AD85, AD86, AD87, AD88, AD89, AD90, AD91, AD92, AD93, AD94, AD95, AD96, AD97, AD98, AD99, AD100, AD101, AD102, AD103, AD104, AD105, AD106, AD107, AD108, AD109, AD110, AD111, AD112, AD113, AD114, AD115, AD116, AD117, AD118, AD119, AD120, AD121, AD122, AD123, AD124, AD125, AD126, AD127, AD128, AD129, AD130, AD131, AD132, AD133, AD134, AD135, AD136, AD137, AD138, AD139, AD140, AD141, AD142, AD143, AD144, AD145, AD146, AD147, AD148, AD149, AD150, AD151, AD152, AD153, AD154, AD155, AD156, AD157, AD158, AD159, AD160, AD161, AD162, AD163, AD164, AD165, AD166, AD167, AD168, AD169, AD170, AD171, AD172, AD173, AD174, AD175, AD176, AD177, AD178, AD179, AD180, AD181, AD182, AD183, AD184, AD185, AD186, AD187, AD188, AD189, AD190, AD191, AD192, AD193, AD194, AD195, AD196, AD197, AD198, AD199, AD200, AD201, AD202, AD203, AD204, AD205, AD206, AD207, AD208, AD209, AD210, AD211, AD212, AD213, AD214, AD215, AD216, AD217, AD218, AD219, AD220, AD221, AD222, AD223, AD224, AD225, AD226, AD227, AD228, AD229, AD230, AD231, AD232, AD233, AD234, AD235, AD236, AD237, AD238, AD239, AD240, AD241, AD242, AD243, AD244, AD245, AD246, AD247, AD248, AD249, AD250, AD251, AD252, AD253, AD254, AD255, AD256, AD257, AD258, AD259, AD260, AD261, AD262, AD263, AD264, AD265, AD266, AD267, AD268, AD269, AD270, AD271, AD272, AD273, AD274, AD275, AD276, AD277, AD278, AD279, AD280, AD281, AD282, AD283, AD284, AD285, AD286, AD287, AD288, AD289, AD290, AD291, AD292, AD293, AD294, AD295, AD296, AD297, AD298, AD299, AD300, AD301, AD302, AD303, AD304, AD305, AD306, AD307, AD308, AD309, AD310, AD311, AD312, AD313, AD314, AD315, AD316, AD317, AD318, AD319, AD320, AD321, AD322, AD323, AD324, AD325, AD326, AD327, AD328, AD329, AD330, AD331, AD332, AD333, AD334, AD335, AD336, AD337, AD338, AD339, AD340, AD341, AD342, AD343, AD344, AD345, AD346, AD347, AD348, AD349, AD350, AD351, AD352, AD353, AD354, AD355, AD356, AD357, AD358, AD359, AD360, AD361, AD362, AD363, AD364, AD365, AD366, AD367, AD368, AD369, AD370, AD371, AD372, AD373, AD374, AD375, AD376, AD377, AD378, AD379, AD380, AD381, AD382, AD383, AD384, AD385, AD386, AD387, AD388, AD389, AD390, AD391, AD392, AD393, AD394, AD395, AD396, AD397, AD398, AD399, AD400, AD401, AD402, AD403, AD404, AD405, AD406, AD407, AD408, AD409, AD410, AD411, AD412, AD413, AD414, AD415, AD416, AD417, AD418, AD419, AD420, AD421, AD422, AD423, AD424, AD425, AD426, AD427, AD428, AD429, AD430, AD431, AD432, AD433, AD434, AD435, AD436, AD437, AD438, AD439, AD440, AD441, AD442, AD443, AD444, AD445, AD446, AD447, AD448, AD449, AD450, AD451, AD452, AD453, AD454, AD455, AD456, AD457, AD458, AD459, AD460, AD461, AD462, AD463, AD464, AD465, AD466, AD467, AD468, AD469, AD470, AD471, AD472, AD473, AD474, AD475, AD476, AD477, AD478, AD479, AD480, AD481, AD482, AD483, AD484, AD485, AD486, AD487, AD488, AD489, AD490, AD491, AD492, AD493, AD494, AD495, AD496, AD497, AD498, AD499, AD500, AD501, AD502, AD503, AD504, AD505, AD506, AD507, AD508, AD509, AD510, AD511, AD512, AD513, AD514, AD515, AD516, AD517, AD518, AD519, AD520, AD521, AD522, AD523, AD524, AD525, AD526, AD527, AD528, AD529, AD530, AD531, AD532, AD533, AD534, AD535, AD536, AD537, AD538, AD539, AD540, AD541, AD542, AD543, AD544, AD545, AD546, AD547, AD548, AD549, AD550, AD551, AD552, AD553, AD554, AD555, AD556, AD557, AD558, AD559, AD560, AD561, AD562, AD563, AD564, AD565, AD566, AD567, AD568, AD569, AD570, AD571, AD572, AD573, AD574, AD575, AD576, AD577, AD578, AD579, AD580, AD581, AD582, AD583, AD584, AD585, AD586, AD587, AD588, AD589, AD590, AD591, AD592, AD593, AD594, AD595, AD596, AD597, AD598, AD599, AD600, AD601, AD602, AD603, AD604, AD605, AD606, AD607, AD608, AD609, AD610, AD611, AD612, AD613, AD614, AD615, AD616, AD617, AD618, AD619, AD620, AD621, AD622, AD623, AD624, AD625, AD626, AD627, AD628, AD629, AD630, AD631, AD632, AD633, AD634, AD635, AD636, AD637, AD638, AD639, AD640, AD641, AD642, AD643, AD644, AD645, AD646, AD647, AD648, AD649, AD650, AD651, AD652, AD653, AD654, AD655, AD656, AD657, AD658, AD659, AD660, AD661, AD662, AD663, AD664, AD665, AD666, AD667, AD668, AD669, AD670, AD671, AD672, AD673, AD674, AD675, AD676, AD677, AD678, AD679, AD680, AD681, AD682, AD683, AD684, AD685, AD686, AD687, AD688, AD689, AD690, AD691, AD692, AD693, AD694, AD695, AD696, AD697, AD698, AD699, AD700, AD701, AD702, AD703, AD704, AD705, AD706, AD707, AD708, AD709, AD710, AD711, AD712, AD713, AD714, AD715, AD716, AD717, AD718, AD719, AD720, AD721, AD722, AD723, AD724, AD725, AD726, AD727, AD728, AD729, AD730, AD731, AD

DRAM

A[0..17]

U1
DRAM IS41C16256

VCC

GND

C3 0.1u
C4 0.1u
C5 0.1u

FLASH ROM

A[0..18]

U2
AM29F004B

VCC

GND

C6 0.1u

DAMPING

RP1 27R
RP2 27R
RP3 27R
RP4 27R
RP5 27R
RP6 27R
RP7 27R
RP8 27R
RP9 27R

COM PORT

BEAD & C near DB9

P1
DB9

PWRGND

RESET

VCC

GND

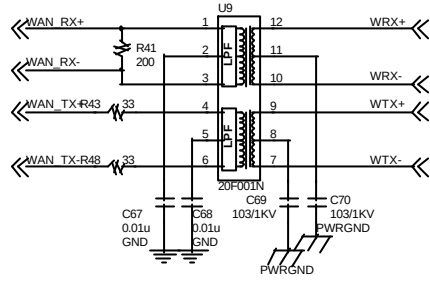
D1 1N4148
R6 100K
C17 10uF
U5A 74HC14
U5B 74HC14
U5D 74HC14
R5

FLASH ROM

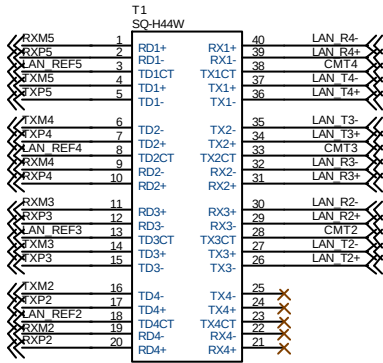
RESET

The diagram illustrates the electrical connections for the AM29F004B Flash ROM. The top portion shows the ROM chip (U2) with its address (A[0..18]) and data (AD[0..7]) buses. Control signals /WR (31), /RD (24), and /UCS (22) are connected to the chip's control pins. Power is provided to VCC (pin 32) and GND (pin 16), with a 0.1uF capacitor (C6) for decoupling. The bottom portion details the RESET circuit, featuring a pull-up resistor R6 (100K) and a capacitor C17 (10uF) connected to VCC. The RESET signal is derived from the /RST D (R96) and /RST D (R95) signals, which are connected to the /RESET pin of the ROM. The RESET signal is also connected to the PR CS pin of the ROM. The bottom section also shows the /RD signal connected to the /RD pin of the ROM.

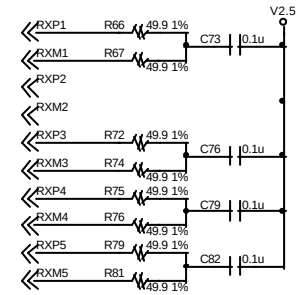
WAN PORT



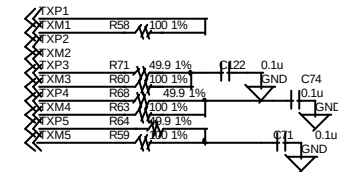
LAN TRANSFORMER



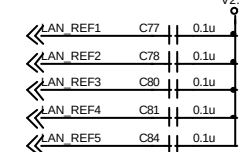
RX* resistor



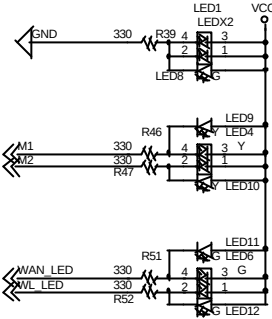
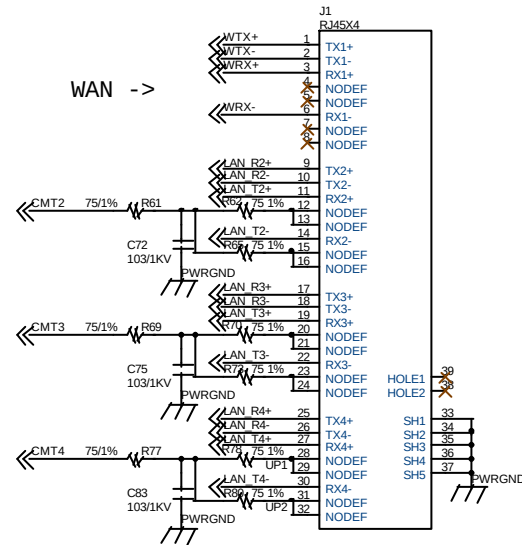
TX* resistor



REFERENCE



WAN ->

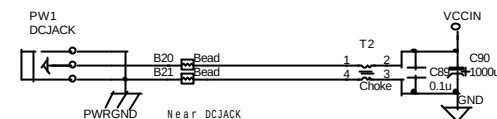
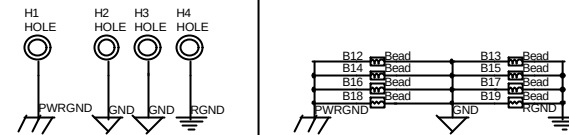


FOR DUAL LED

R39, R46, , R47, R51, R52, R44, R45, R49, R50, R53, R54
LED1, LED4, LED6, LED3, LED5, LED7

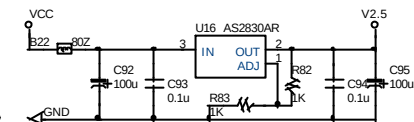
FOR SINGLE LED

R39, R46, R47, R51, R52, R44, R45, R50, R56, R53, R55
LED8, LED9, LED10, LED11, LED12, LED16, LED17, LED15, LED13, LED14

[illegible]

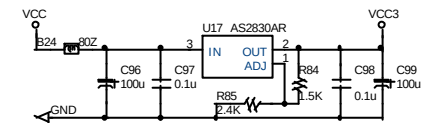
5V TO 2.5V

The diagram shows a voltage divider circuit using an AS2830AR op-amp. The op-amp is configured as a voltage follower. The non-inverting input (pin 3, labeled 'IN') is connected to a voltage divider consisting of a 100uF capacitor (C92) and a 0.1uF capacitor (C93) in series, connected to VCC (B22) and GND. The output (pin 2, labeled 'OUT ADJ') is connected to the inverting input (pin 1) through a 1k resistor (R82). The output is also connected to a 1k resistor (R83) and a 0.1uF capacitor (C94) in series, which is connected to V2.5. A 100uF capacitor (C95) is connected between V2.5 and GND. The op-amp is labeled U16 AS2830AR.

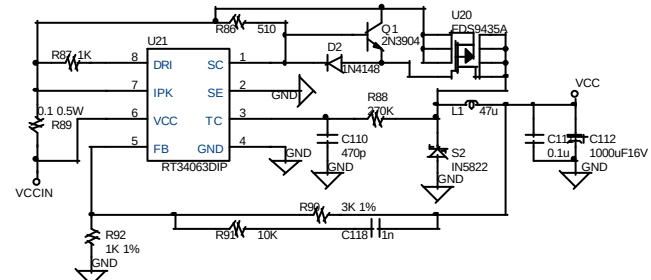


5V TO 3.3V

The diagram shows a voltage divider circuit using the AS2830AR IC. The input is VCC, which is connected to pin 3 (IN) of the IC. Pin 1 (OUT) is connected to the output VCC3. Pin 2 (ADJ) is connected to a 2.4K resistor (R85) to ground and a 0.1uF capacitor (C97) to the input. A 60Ω resistor is connected between VCC and pin 3. A 0.1uF capacitor (C96) is connected between VCC and ground. A 0.1uF capacitor (C98) is connected between VCC3 and ground. A 100uF capacitor (C99) is connected between VCC3 and ground. A 0.5K resistor (R84) is connected between pin 2 and ground.



POWER : DC12V TO DC5V



BASE:The base system(CPU,DRAM,Flash)
NET:WAN,LAN and Switch
UTIL:PCMCIA,power and printer
XFORMER:Transformer, reference for WAN and LAN

Title		
WIP-300		
Size	Document Number	Rev
B	34-WIP300	A0
Date:	Monday, March 26, 2001	Sheet 1 of 1

