

ARIC MODEM MODULE (AMM)
REV 2.2

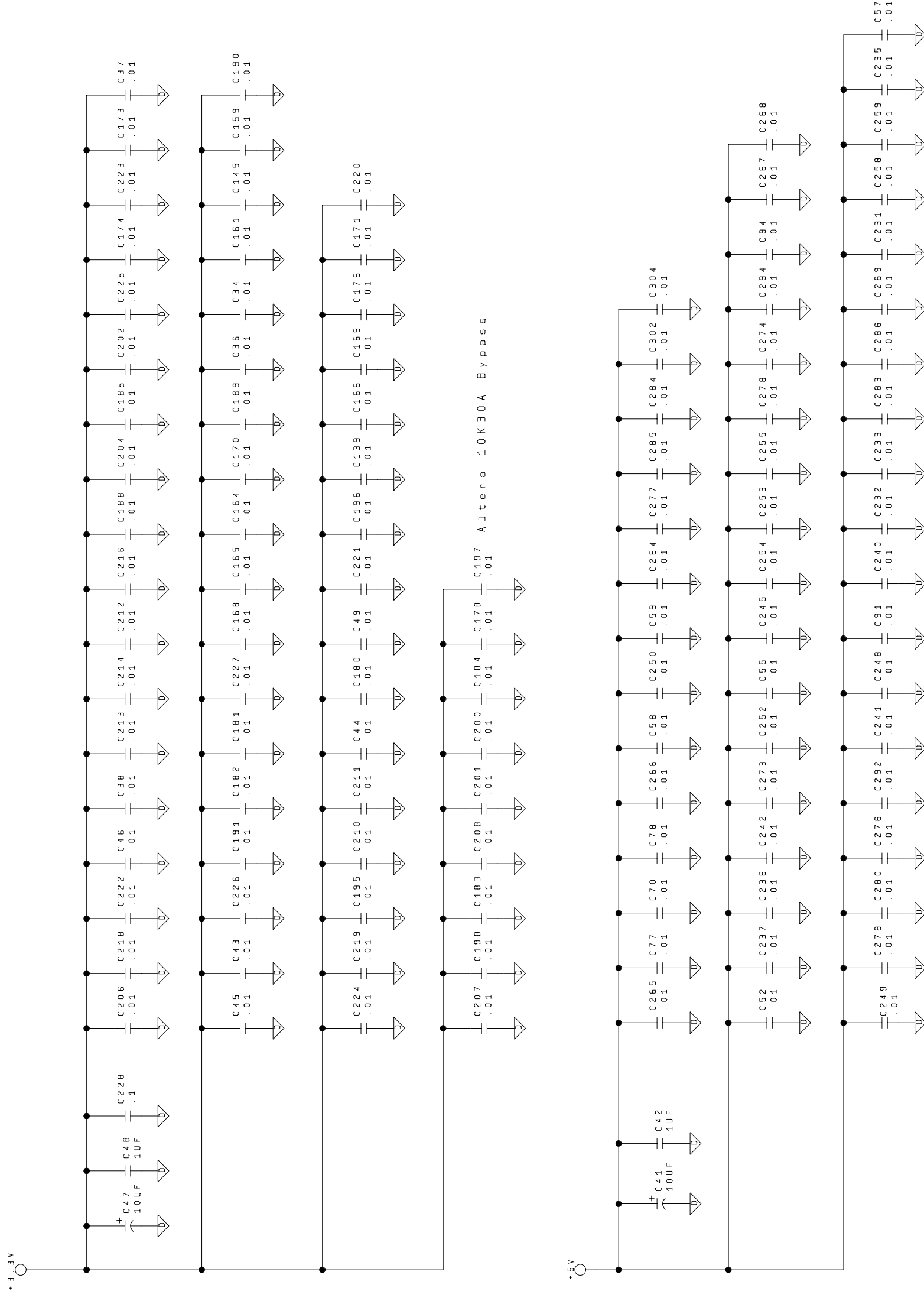
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| Available Gates | | |
|-----------------|------------|-----|
| Device | Part # | QTY |
| Inverter | 74HC05 | 5 |
| Transceiver | 74ALB16245 | 4 |
| Pull Resistor | 10k ohm | 8 |

| Last Refdes Used |
|------------------|
| C309 |
| D5 |
| FL3 |
| J34 |
| L64 |
| MS2 |
| R279 |
| RN4 |
| S2 |
| T1 |
| TP11 |
| U67 |

STEL Proprietary
CONTENTS

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|-------------------|------------------|------------|-----|
| ARIC Modem Module | | | |
| SIZE | CAGE CODE | DWG. NO. | REV |
| D | | 007-140691 | 2.2 |
| SCALE | DATE | SHEET | OF |
| | 11-16-1998-15-38 | 1 | 2.1 |



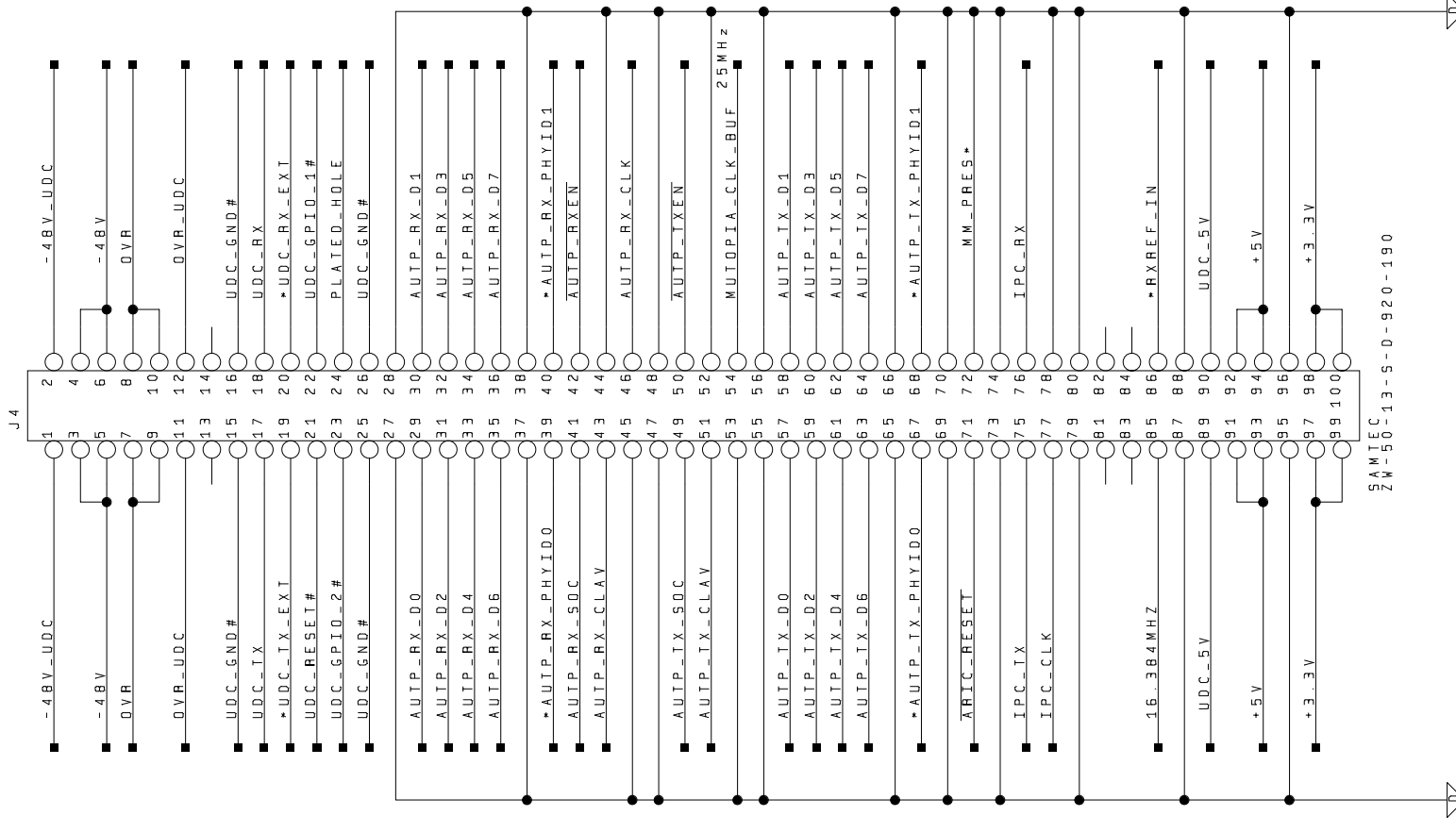
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Bypass Caps

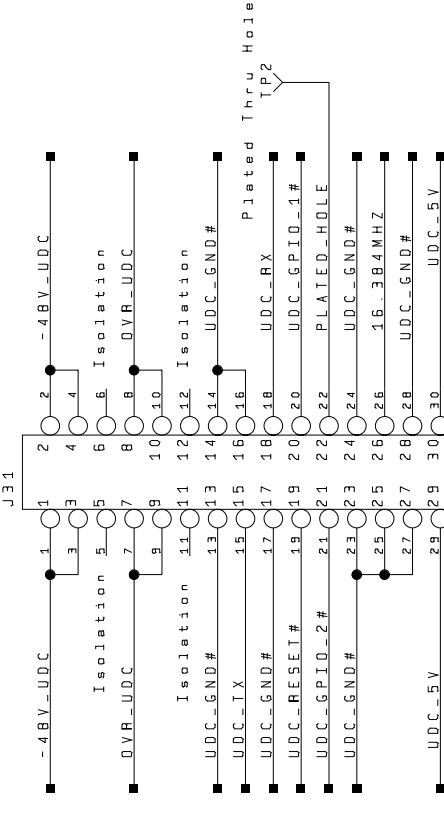
ARIC Modem Module

| | | | |
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| DATE | 11-16-1998 | REV | 2.2 |
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| CHECKED | | DATE | 11-16-1998 |
| SCALE | | SHEET | 2 |

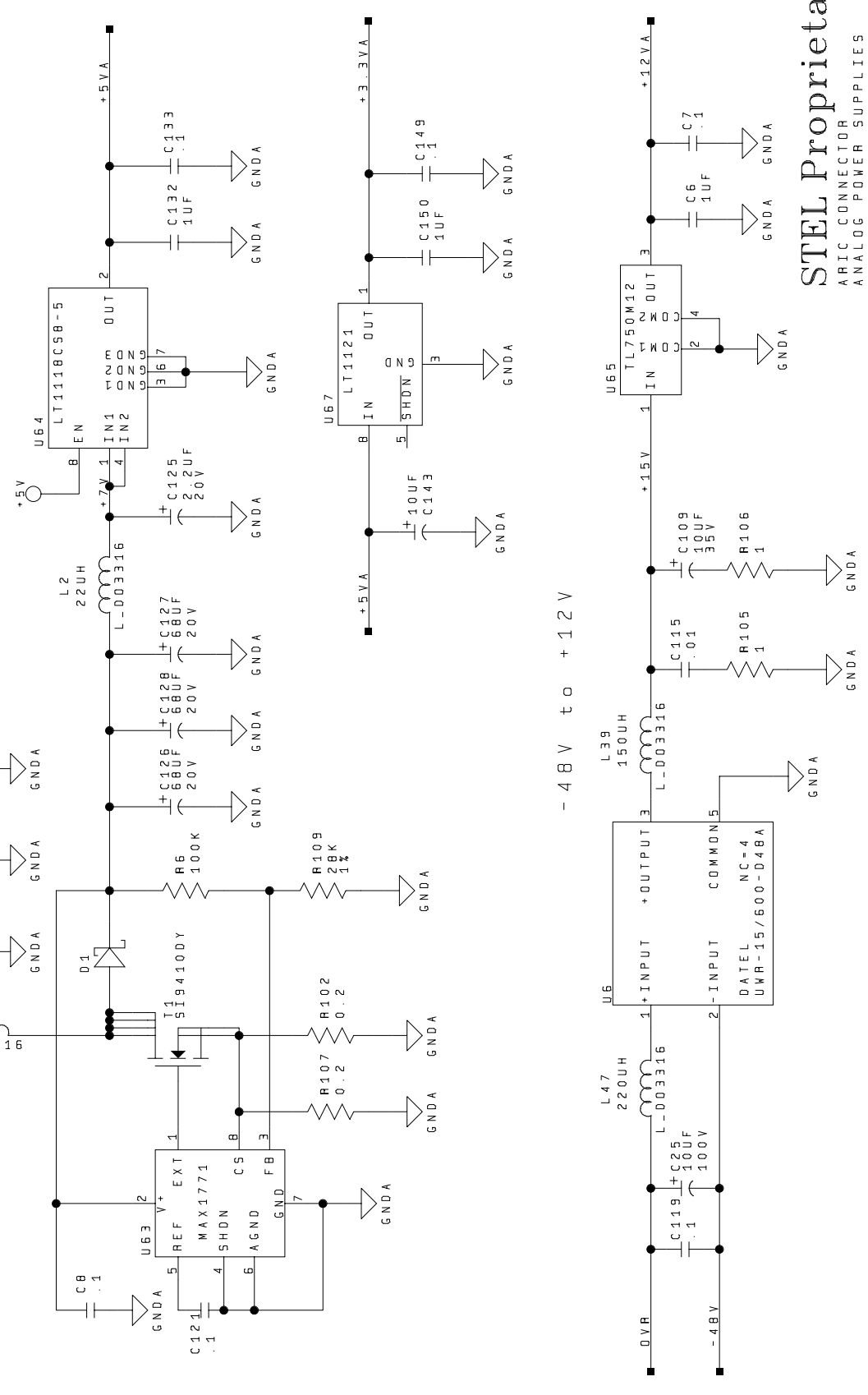
ARIC/AMM Interboard Connector



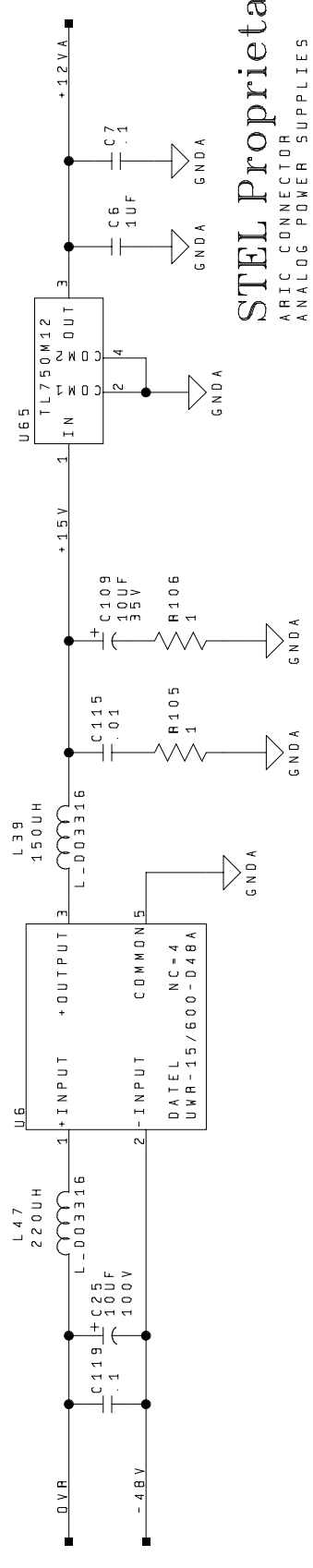
Tuner Connector



Digital 5V to Analog 5V

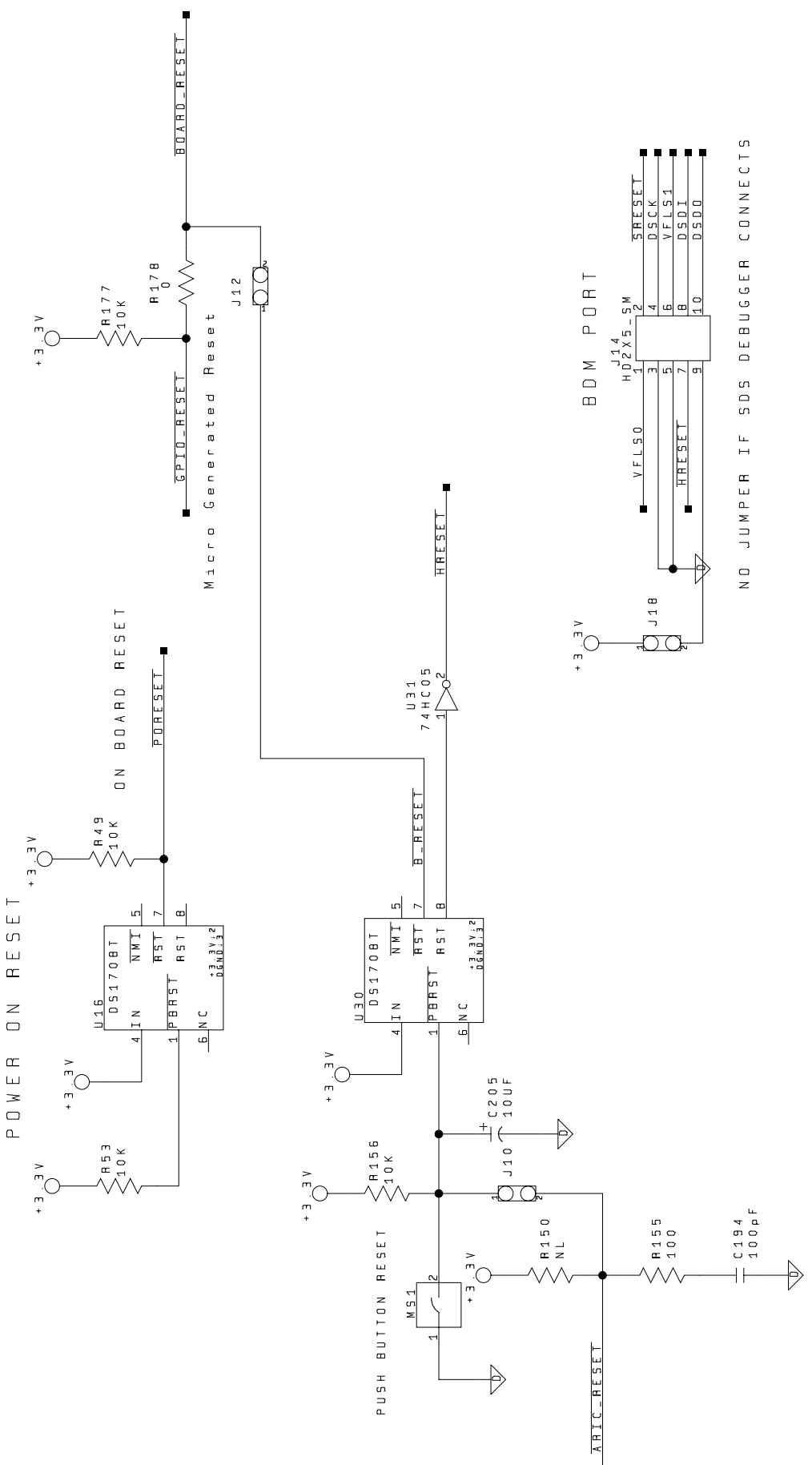


-48V to +12V



Note: Direction of signals are relative to the ARIC.
 Note: Signals reserved for future use are preceded by *.
 Note: Signals route transparently through AMM to UDC end with #.

ARIC/AMM HDLC Interface Buffer
ARIC/AMM Utopia Interface Buffer

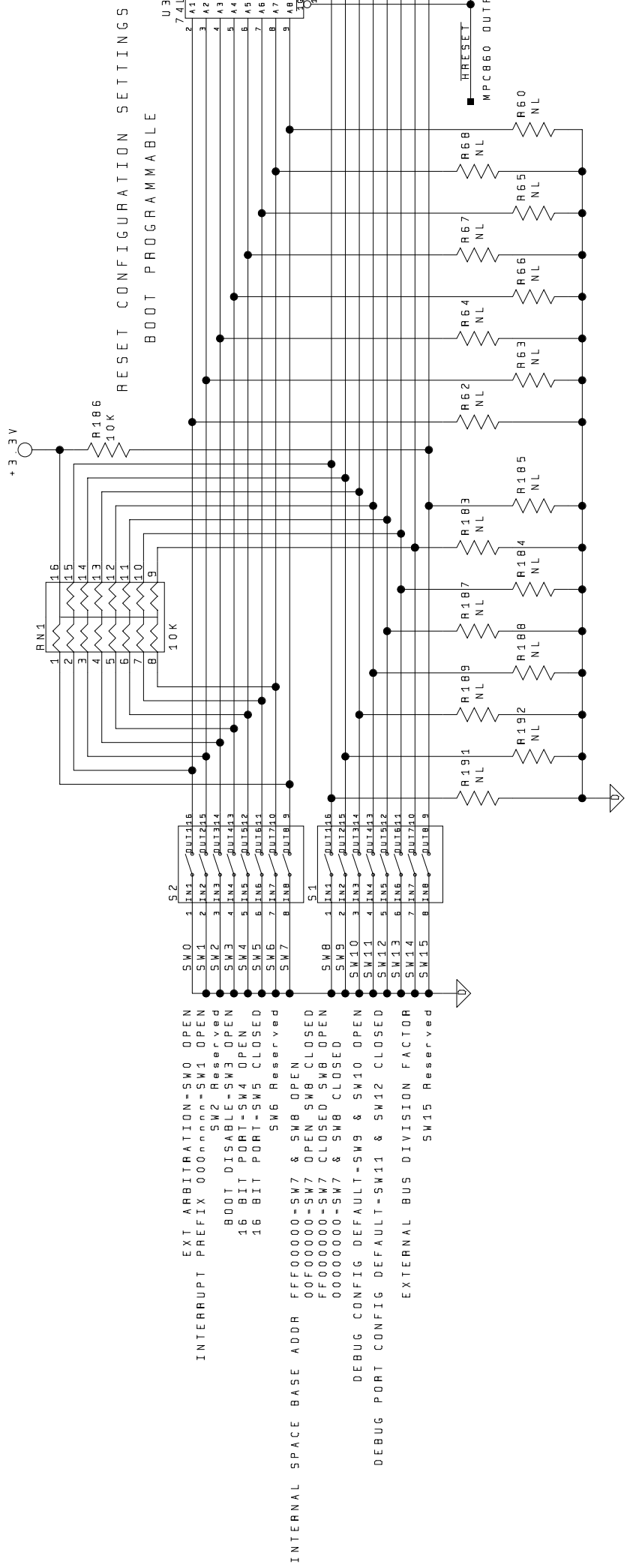


| | | |
|-----|-----------------|-------|
| 180 | AUTP_RX_D0 | 471A0 |
| 181 | AUTP_RX_D1 | 461A1 |
| 182 | AUTP_RX_CLK_BUF | 441A2 |
| 183 | AUTP_RX_D2 | 431A3 |
| 184 | AUTP_RX_D3 | 401A4 |
| 185 | AUTP_RX_D4 | 381A5 |
| 186 | AUTP_RX_D5 | 371A6 |
| 187 | AUTP_RX_D6 | 362A0 |
| 188 | AUTP_RX_D7 | 352A1 |
| 189 | AUTP_RX_D8 | 332A2 |
| 190 | AUTP_RX_D9 | 322A3 |
| 191 | AUTP_RXEN_BUF | 302A4 |
| 192 | AUTP_RX_CLK | 292A5 |
| 193 | AUTP_RXEN_BUF | 272A6 |
| 194 | AUTP_RX_CLK | 262A7 |

Note: Direction of signals are relative to the ARIC.

| | | |
|-----|---------------|-------|
| 180 | AUTP_TX_D0 | 471A0 |
| 181 | AUTP_TX_D1 | 461A1 |
| 182 | AUTP_TX_D2 | 431A3 |
| 183 | AUTP_TX_D3 | 401A4 |
| 184 | AUTP_TX_D4 | 381A5 |
| 185 | AUTP_TX_D5 | 362A0 |
| 186 | AUTP_TX_D6 | 352A1 |
| 187 | AUTP_TX_D7 | 332A2 |
| 188 | AUTP_TX_D8 | 322A3 |
| 189 | AUTP_TX_D9 | 302A4 |
| 190 | AUTP_TXEN_BUF | 292A5 |
| 191 | AUTP_TX_CLK | 272A6 |
| 192 | AUTP_TXEN_BUF | 262A7 |
| 193 | AUTP_TX_CLK | 262A7 |

NO JUMPER IF SDS DEBUGGER CONNECTS



| | | |
|-----|-----------------|----|
| 180 | MPC860 DATA BUS | D0 |
| 181 | MPC860 DATA BUS | D1 |
| 182 | MPC860 DATA BUS | D2 |
| 183 | MPC860 DATA BUS | D3 |
| 184 | MPC860 DATA BUS | D4 |
| 185 | MPC860 DATA BUS | D5 |
| 186 | MPC860 DATA BUS | D6 |
| 187 | MPC860 DATA BUS | D7 |

**** means single net

- SCC1 - ARIC HDLC IPC Interface
- SCC2 - ARIC RS-422 Interface
- SCC3 - ARIC RS-422 Interface
- SCC4 - MAC FPGA UTOPIA Interface
- SMC1 - Used by MAC FPGA UTOPIA
- SMC2 - Monitor Port RS-232

- PA0/CLK8 U18
- PA1/CLK7 I19
- PA2/CLK6 R1B
- PA3/CLK5 P17
- PA4/CLK4 P19
- PA5/CLK3 N18
- PA6/CLK2 M17
- PA7/L1RCLKM19
- PA8/L1RXDA L17
- PA9/L1TXDA K18
- PA10/IXD3 J17
- PA11/RXD3 L16
- PA12/IXD2 F17
- PA13/RXD2 E17
- PA14/IXD1 D17
- PA15/RXD1 C18

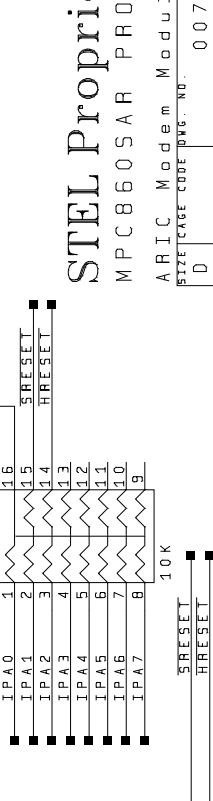
- ERXCLK2 HDLC IPC CLOCK
- IOL or GCI INTERFACE
- IXD3 RS-422
- RXD3 RS-422
- IXD2 RS-422
- RXD2 RS-422
- IXD1 HDLC IPC
- RXD1 HDLC IPC

- GPIO-RESET For Resetting Board
- PB16 PB15
- PB17/R1S3 N18
- PB18/R1S2 N17
- PB19/R1S1 N19
- SCC 1.2&3 RTS
- SMRXD2
- SMTXD2
- SMYD2
- SMYD1
- SMYD0
- SMYD1
- SMYD0
- I2C5CL
- I2C5DA
- SPIM150
- SPIMDS1
- SPICLK
- SPISEL

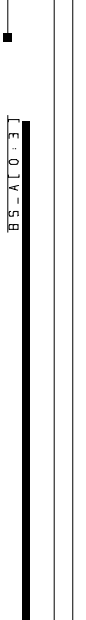
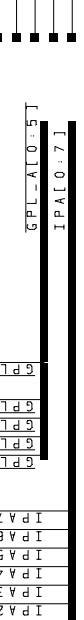
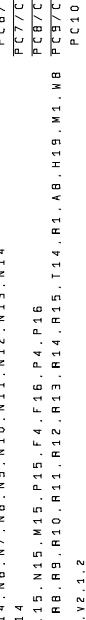
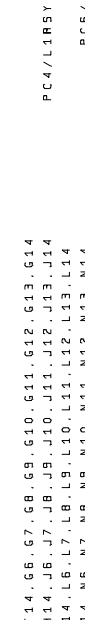
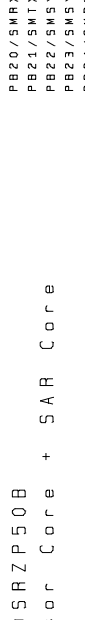
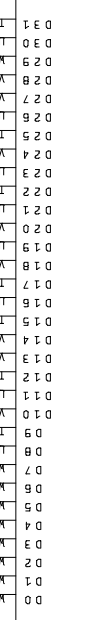
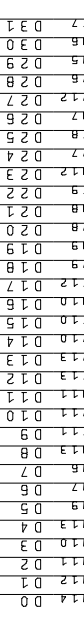
- L1RSYNCA
- L1TSYNCA
- CG3
- CT53
- CT52
- CG1
- CT51
- L1514
- L1513
- L1512
- MUTOPIA_RXCAV
- MUTOPIA_TXCAV
- MUTOPIA_S0C
- MUTOPIA_D7
- MUTOPIA_D6
- MUTOPIA_D5
- MUTOPIA_D4
- MUTOPIA_CLK
- MUTOPIA_TXEN
- MUTOPIA_RXEN
- MUTOPIA_D3
- MUTOPIA_D2
- MUTOPIA_D1
- MUTOPIA_D0

- PC4/L1RSYNCA I17
- PC5 I18
- PC6/CG3 R19
- PC7/CT53 M18
- PC8/CT52 M18
- PC9/CT52 L18
- PC10/CG1 R19
- PC11/CT51 J19
- PC12 F18
- PC13 E18
- PC14 D18
- PC15/RXCAY D16
- PC16/TXCAY R17
- PC17/S0C M16
- PC18/UTPB7 U16
- PC19/UTPB6 U15
- PC20/UTPB5 U16
- PC21/UTPB4 I15
- PC22/NOCHANGE I17
- PC23/UTPC1 K17
- PC24/IXENB M18
- PC25/RXENB I16
- PC26/UTPB3 R16
- PC27/UTPB2 V18
- PC28/UTPB1 V19
- PC29/UTPB0 U17

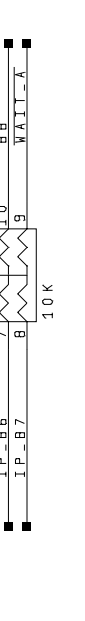
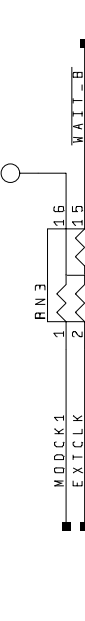
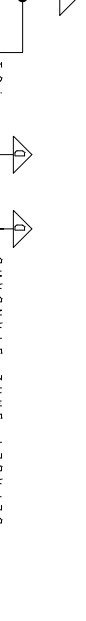
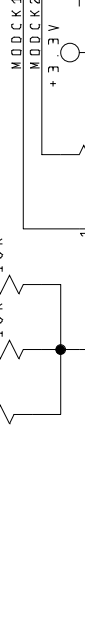
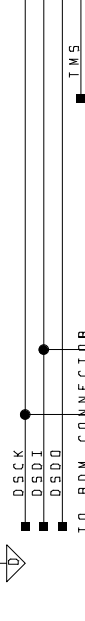
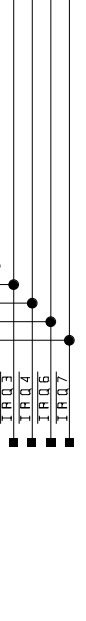
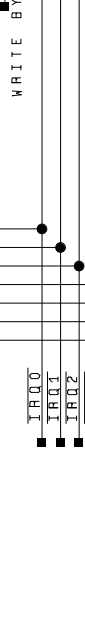
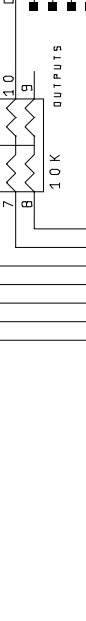
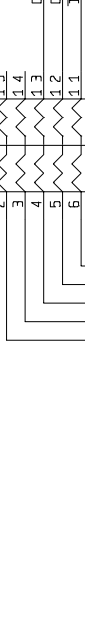
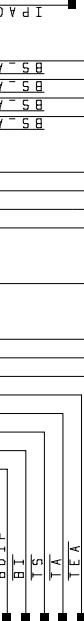
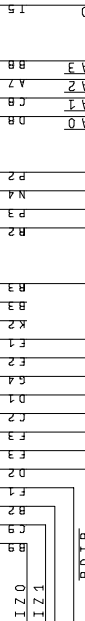
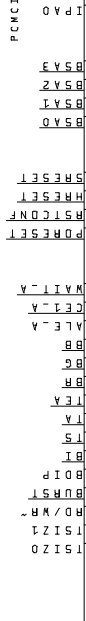
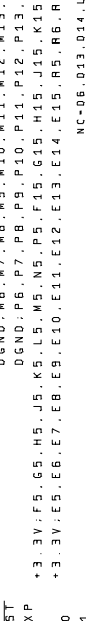
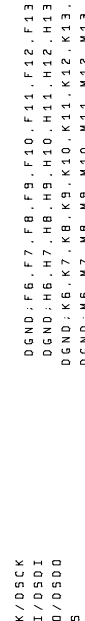
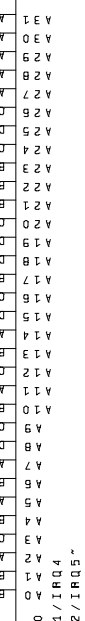
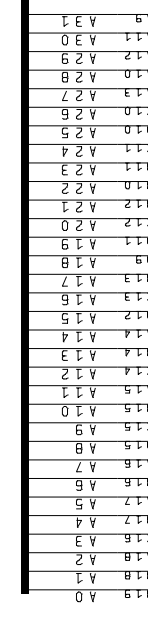
- UTOPIA HALF DUPLEX BUS TO AAL5 MAC FPGA
- IPAO
- IPAI
- IPAJ
- IPAK
- IPAL
- IPAM
- IPAN
- IPAO
- IPAI
- IPAJ
- IPAK
- IPAL
- IPAM
- IPAN
- IPAO
- IPAI
- IPAJ
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- IPAL
- IPAM
- IPAN



A[0..31]
D[0..31]



U12 XPC860SRZP50B PC Microprocessor Core + SAR Core

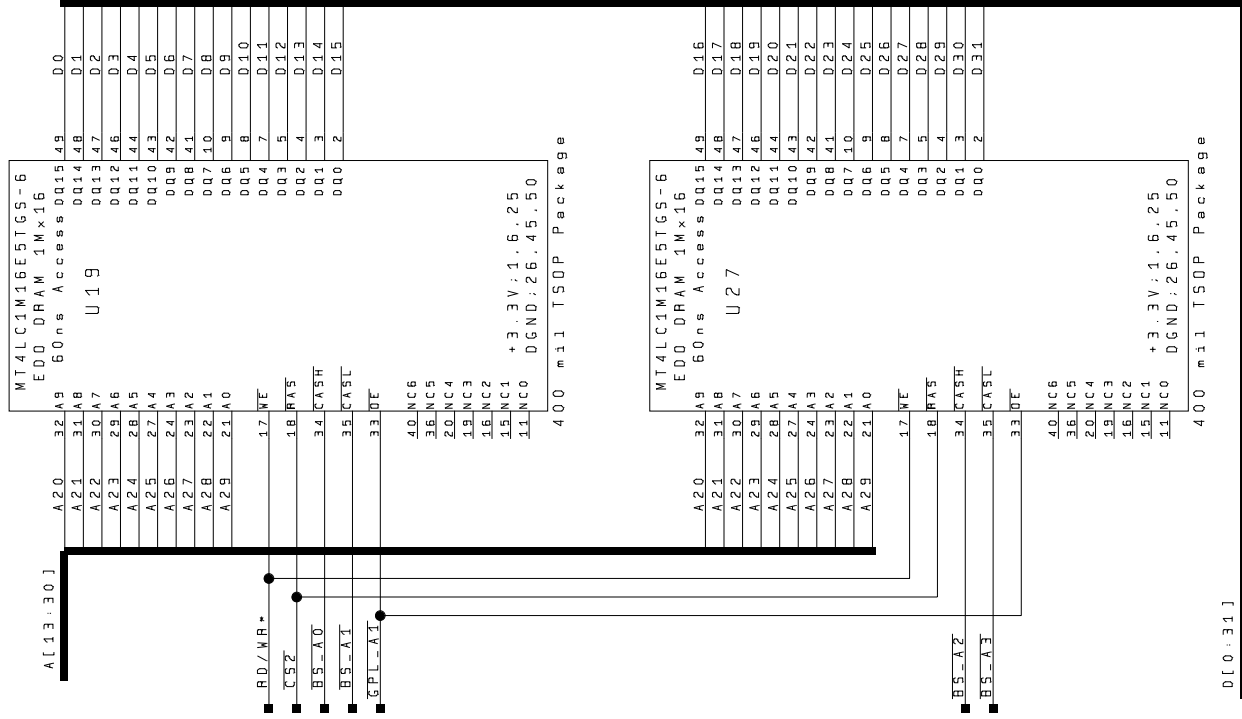


STEL Proprietary MPC860SAR PROCESSOR

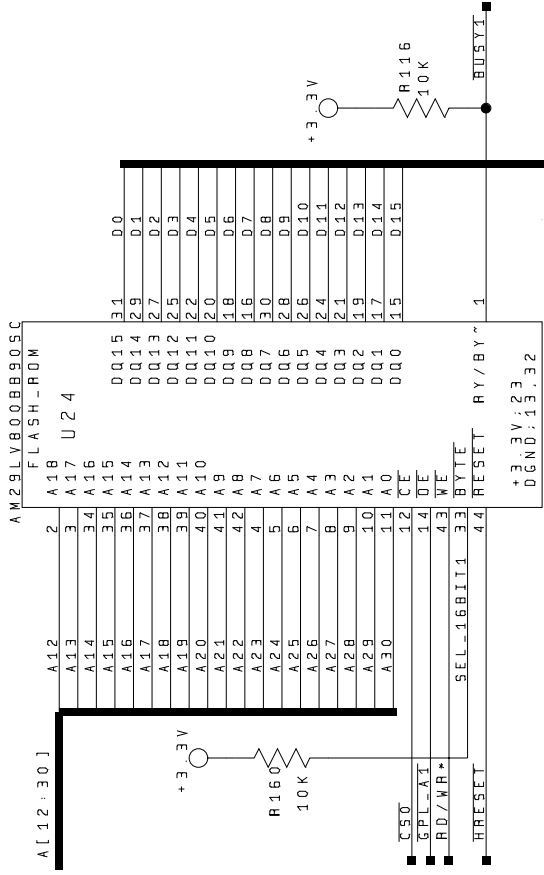
ARIC Modem Module
REV 007-140691
SCALE PART 11-16-1998-15:39 SHEET 5 OF 21

MPC860SAR EDO DRAM / SRAM / FLASH EPROM MEMORY

Note: A12=MSB, A29=LSB

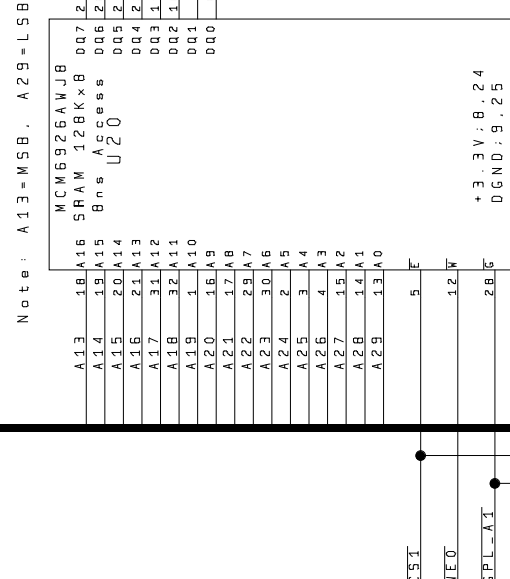


Note: D0=MSB & D31=LSB

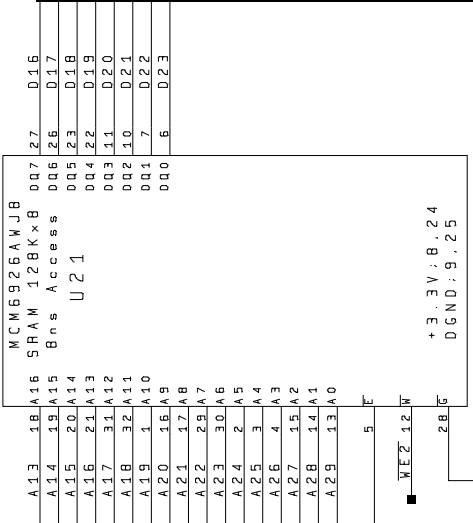


SRAM for Lab Use Only

A[13:29]



Note: D0=MSB, D31=LSB



CS1

WE0

SPL-A1

WE2

WE0

SPL-A1

WE2

WE0

SPL-A1

D[0:31]

D[0:31]

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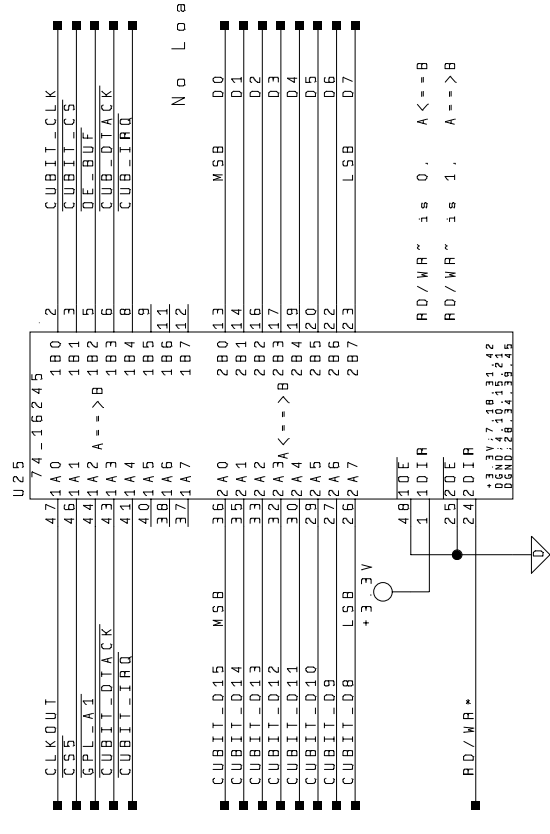
Microprocessor Memory

ARIC Modem Module

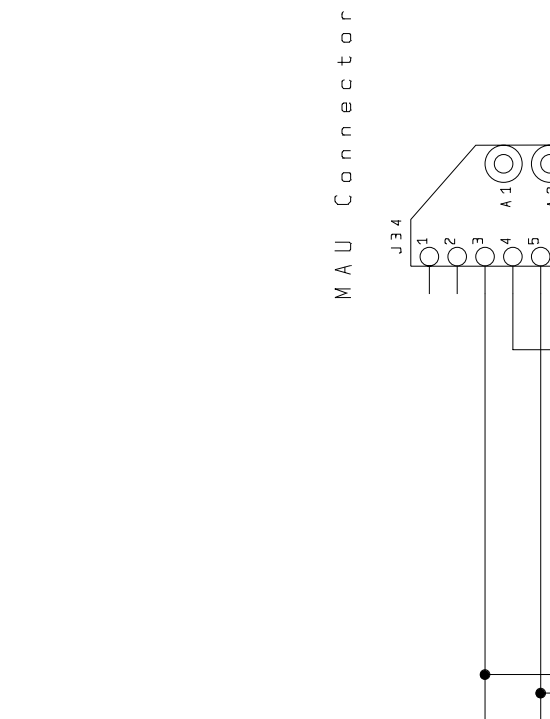
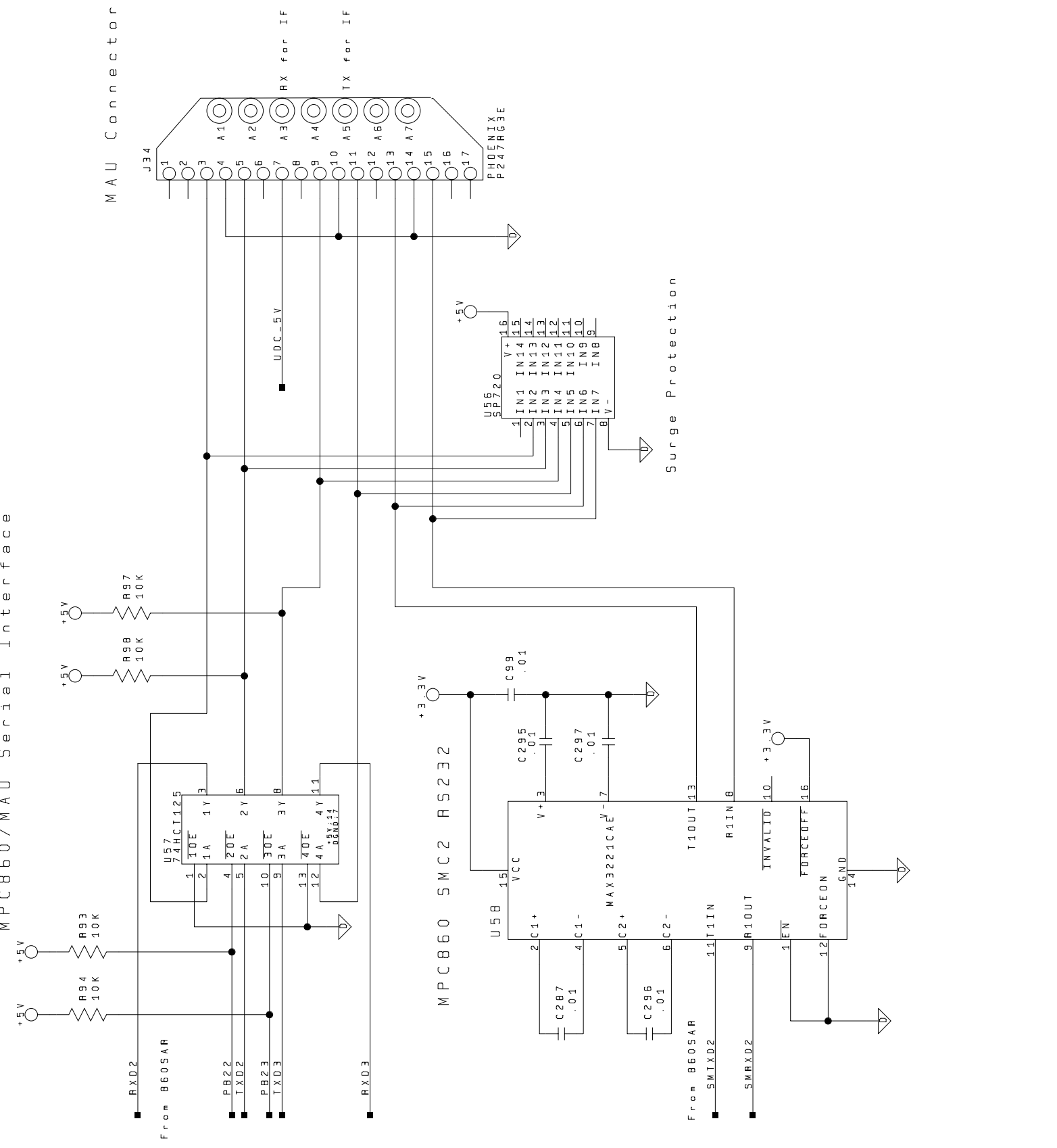
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U20 U21 U28 U29

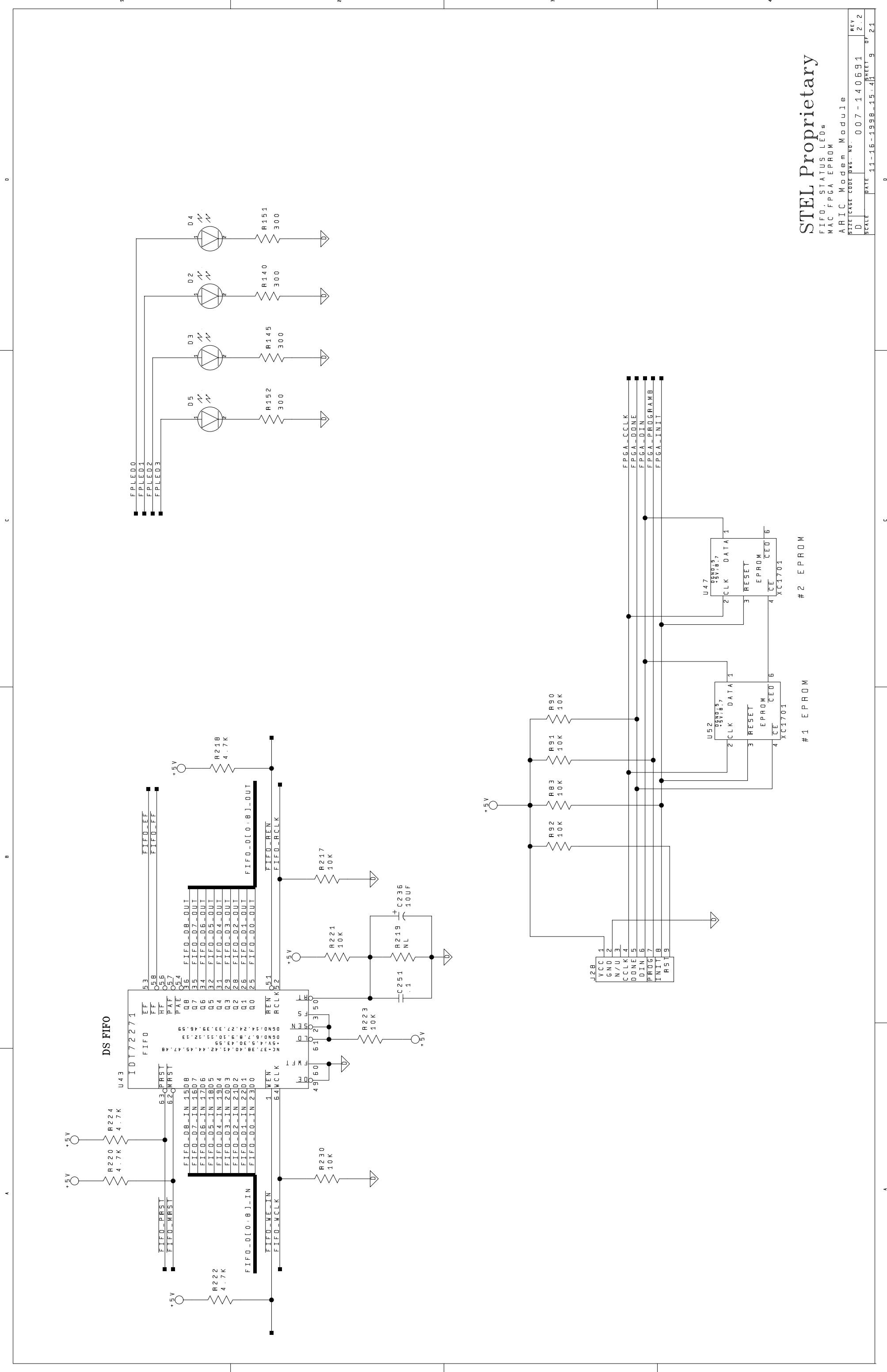
Cubit Interface (AIM Configuration)



MPC860/MAU Serial Interface



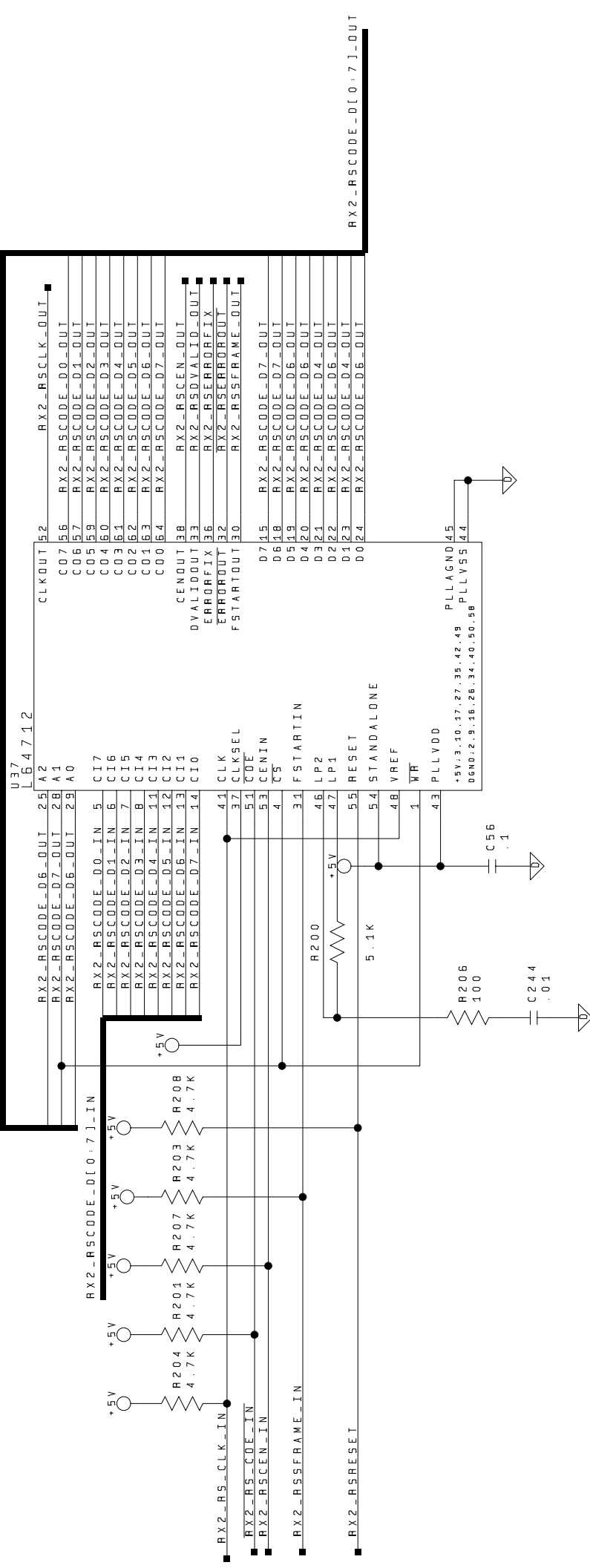
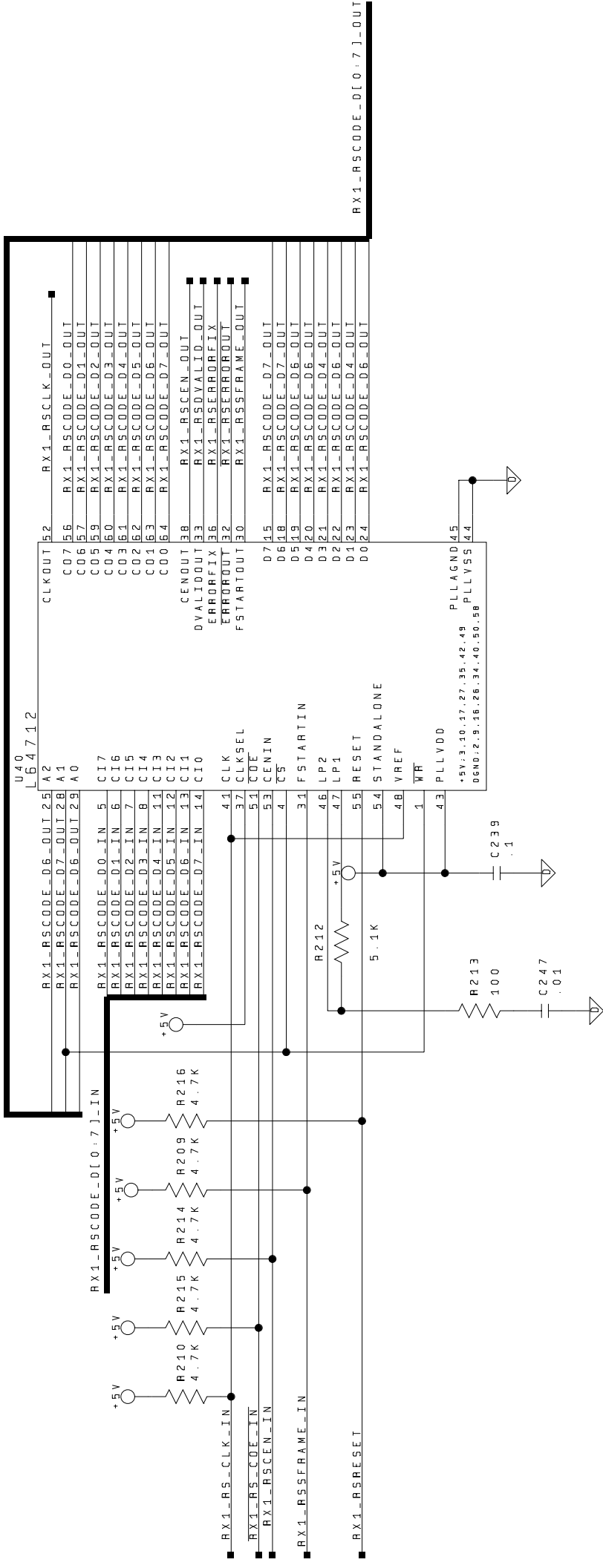
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MAU Serial and RS-232 Interface
Cubit Interface
ARIC Modem Module
D
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FIFO STATUS LEDs
 MAC FPGA EPROM
 ARIC Modem Module

| | | |
|--------------|------------|---------|
| SCALE | DATE | REV |
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| STZCASE CODE | 007-140691 | OF 21 |
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REED SOLOMON DECODERS
ARIC Modem Module

| | | |
|-------|------------|------------|
| SCALE | DATE | REV |
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| | | 21 |