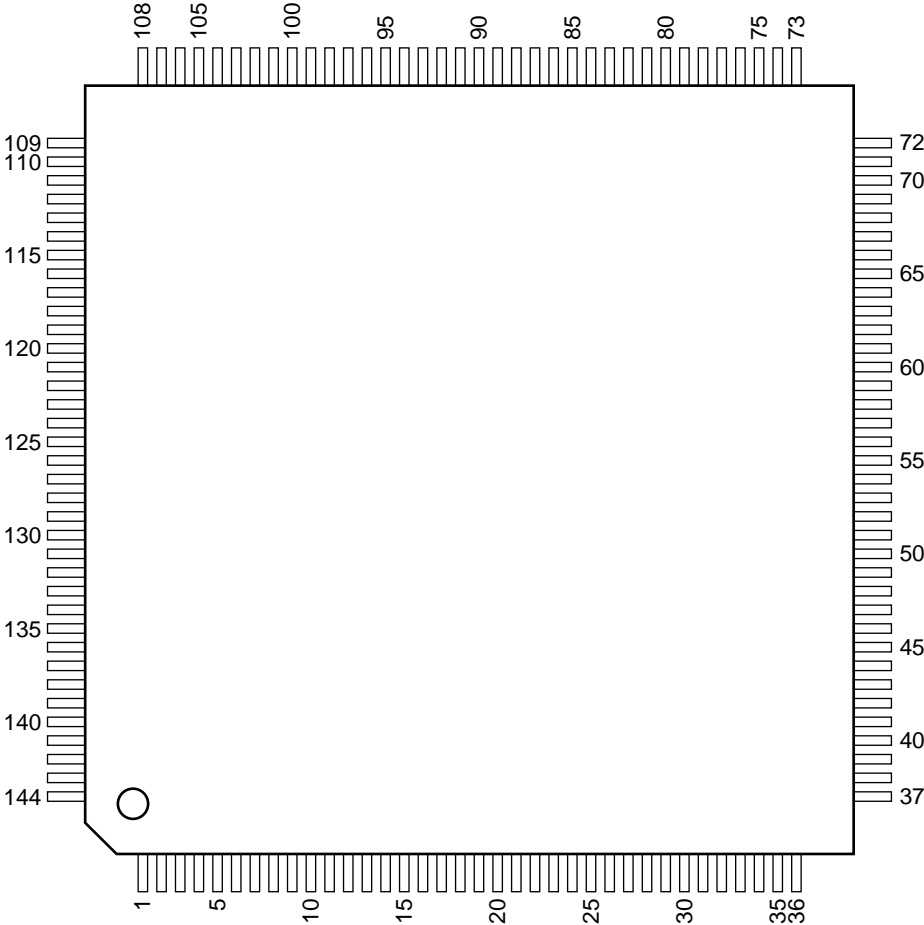


IEEE 1394 LINK-LAYER CONTROLLER CHIP

—TOP VIEW—



| PIN NO. | I/O | SIGNAL | PIN NO. | I/O | SIGNAL | PIN NO. | I/O | SIGNAL | PIN NO. | I/O | SIGNAL |
|---------|-----|----------|---------|-----|---------------------------|---------|-----|---------|---------|-----|----------|
| 1 | — | GND | 37 | — | GND | 73 | I/O | PDATA0 | 109 | I/O | PDATA27 |
| 2 | — | NC | 38 | I/O | D13 | 74 | I/O | PDATA1 | 110 | I/O | PDATA28 |
| 3 | — | NC | 39 | I/O | D14 | 75 | I/O | PDATA2 | 111 | — | Vcc1 |
| 4 | — | GND | 40 | I/O | D15 | 76 | — | Vcc2 | 112 | I/O | PDATA29 |
| 5 | O | CCLKOUT | 41 | I | $\overline{\text{CS}}$ | 77 | I/O | PDATA3 | 113 | I/O | PDATA30 |
| 6 | O | BCLKOUT | 42 | I | $\overline{\text{WR}}$ | 78 | I/O | PDATA4 | 114 | I/O | PDATA31 |
| 7 | — | GND | 43 | I | $\overline{\text{RD}}$ | 79 | I/O | PDATA5 | 115 | I | ACLOCK |
| 8 | I | DLYMODE | 44 | — | GND | 80 | I/O | PDATA6 | 116 | — | GND |
| 9 | I | ENBCKLO | 45 | — | Vcc1 | 81 | — | GND | 117 | I | SCANIN |
| 10 | I | MSDLY | 46 | O | $\overline{\text{INT}}$ | 82 | I/O | PDATA7 | 118 | O | SCANOUT |
| 11 | I | TESTMODE | 47 | I | $\overline{\text{RESET}}$ | 83 | I/O | PDATA8 | 119 | — | Vcc1 |
| 12 | — | GND | 48 | O | PDPWR | 84 | — | Vcc1 | 120 | I | TPSEL0 |
| 13 | I | A1 | 49 | O | PDPRD | 85 | I/O | PDATA9 | 121 | I | TPSEL1 |
| 14 | I | A2 | 50 | O | RCVDATA | 86 | I/O | PDATA10 | 122 | I | TPSEL2 |
| 15 | I | A3 | 51 | O | SNDDATA | 87 | I/O | PDATA11 | 123 | I | TPSEL3 |
| 16 | I | A4 | 52 | O | SISO/ASY | 88 | I/O | PDATA12 | 124 | I | DIRECT |
| 17 | I | A5 | 53 | O | RISO/ASY | 89 | — | GND | 125 | I/O | PHYDATA0 |
| 18 | — | Vcc2 | 54 | — | Vcc1 | 90 | — | Vcc1 | 126 | I/O | PHYDATA1 |
| 19 | — | GND | 55 | — | GND | 91 | I/O | PDATA13 | 127 | — | Vcc2 |
| 20 | I | A6 | 56 | I | SISOCH0 | 92 | I/O | PDATA14 | 128 | — | GND |
| 21 | I | A7 | 57 | I | SISOCH1 | 93 | I/O | PDATA15 | 129 | I/O | PHYDATA2 |
| 22 | I/O | D0 | 58 | O | RISOCH0 | 94 | I/O | PDATA16 | 130 | I/O | PHYDATA3 |
| 23 | I/O | D1 | 59 | O | RISOCH1 | 95 | — | GND | 131 | I/O | PHYDATA4 |
| 24 | I/O | D2 | 60 | O | CYCTIME | 96 | I/O | PDATA17 | 132 | — | GND |
| 25 | I/O | D3 | 61 | O | CYCSTRT | 97 | I/O | PDATA18 | 133 | I/O | PHYDATA5 |
| 26 | I/O | D4 | 62 | O | BUSRST | 98 | I/O | PDATA19 | 134 | I/O | PHYDATA6 |
| 27 | I/O | D5 | 63 | I | SNDRDY | 99 | I/O | PDATA20 | 135 | I/O | PHYDATA7 |
| 28 | I/O | D6 | 64 | — | GND | 100 | I/O | PDATA21 | 136 | — | GND |
| 29 | — | Vcc1 | 65 | I | ISOREQ | 101 | — | Vcc1 | 137 | O | LREQ |
| 30 | — | GND | 66 | I | ASYBUSY | 102 | — | GND | 138 | I/O | PHYCTL0 |
| 31 | I/O | D7 | 67 | O | TAG0 | 103 | I/O | PDATA22 | 139 | I/O | PHYCTL1 |
| 32 | I/O | D8 | 68 | O | TAG1 | 104 | I/O | PDATA23 | 140 | — | Vcc2 |
| 33 | I/O | D9 | 69 | O | HDCRC | 105 | I/O | PDATA24 | 141 | — | GND |
| 34 | I/O | D10 | 70 | O | DATCRC | 106 | I/O | PDATA25 | 142 | I | SCLK |
| 35 | I/O | D11 | 71 | O | CRCERR | 107 | I/O | PDATA26 | 143 | — | GND |
| 36 | I/O | D12 | 72 | — | GND | 108 | — | GND | 144 | — | Vcc1 |

INPUTS

| | |
|---------------------------|----------------------------|
| A1 - A7 | : ADDRESS |
| ACLOCK | : A-CLOCK |
| ASYBUSY | : ASYNCHRONOUS BUSY |
| $\overline{\text{CS}}$ | : CHIP SELECT |
| DIRECT | : DIRECT |
| DLYMODE | : DELAY MODE |
| ENBCLKO | : ENABLE CLOCK |
| ISOREQ | : ISOCHRONOUS REQUEST |
| MSDLY | : MEASURE DELAY |
| $\overline{\text{RESET}}$ | : RESET |
| $\overline{\text{RD}}$ | : READ |
| SCANIN | : SCAN IN |
| SCLK | : SYSTEM CLOCK |
| SISOCH0, SISOCH1 | : SEND ISOCHRONOUS CHANNEL |
| SNDRDY | : SEND READY |
| TESTMODE | : TEST MODE |
| TPSEL0 - TPSEL3 | : TEST POINT SELECT |
| $\overline{\text{WR}}$ | : WRITE |

OUTPUTS

| | |
|--|---|
| BCLKOUT | : B-CLOCK |
| BUSRST | : BUS RESET |
| CCLKOUT | : C-CLOCK |
| CRCERR | : CRC ERROR |
| CYCSTRT | : CYCLE START |
| CYCTIME | : CYCLE TIME |
| DATCRC | : DATA CRC |
| HDCRC | : HEADER CRC |
| $\overline{\text{INT}}$ | : INTERRUPT |
| LREQ | : LINK REQUEST |
| PDPRD | : PACKET DATA PORT READ |
| PDPWR | : PACKET DATA PORT WRITE |
| RCVDATA | : RECEIVE DATA |
| $\overline{\text{RISO}}/\overline{\text{ASY}}$ | : RECEIVE ISOCHRONOUS/ $\overline{\text{ASYNCHRONOUS}}$ |
| RISOCH0, RISOCH1 | : RECEIVE ISOCHRONOUS CHANNEL |
| SCANOUT | : SCAN OUT |
| $\overline{\text{SISO}}/\overline{\text{ASY}}$ | : SEND ISOCHRONOUS/ $\overline{\text{ASYNCHRONOUS}}$ |
| SNDDATA | : SEND DATA |
| TAG0, TAG1 | : TAG |

INPUTS/OUTPUTS

| | |
|---------------------|---------------|
| D0 - D15 | : DATA |
| PDATA0 - PDATA31 | : PACKET DATA |
| PHYCTL0, PHYCTL1 | : PHY CONTROL |
| PHYDATA0 - PHYDATA7 | : PHY DATA |

