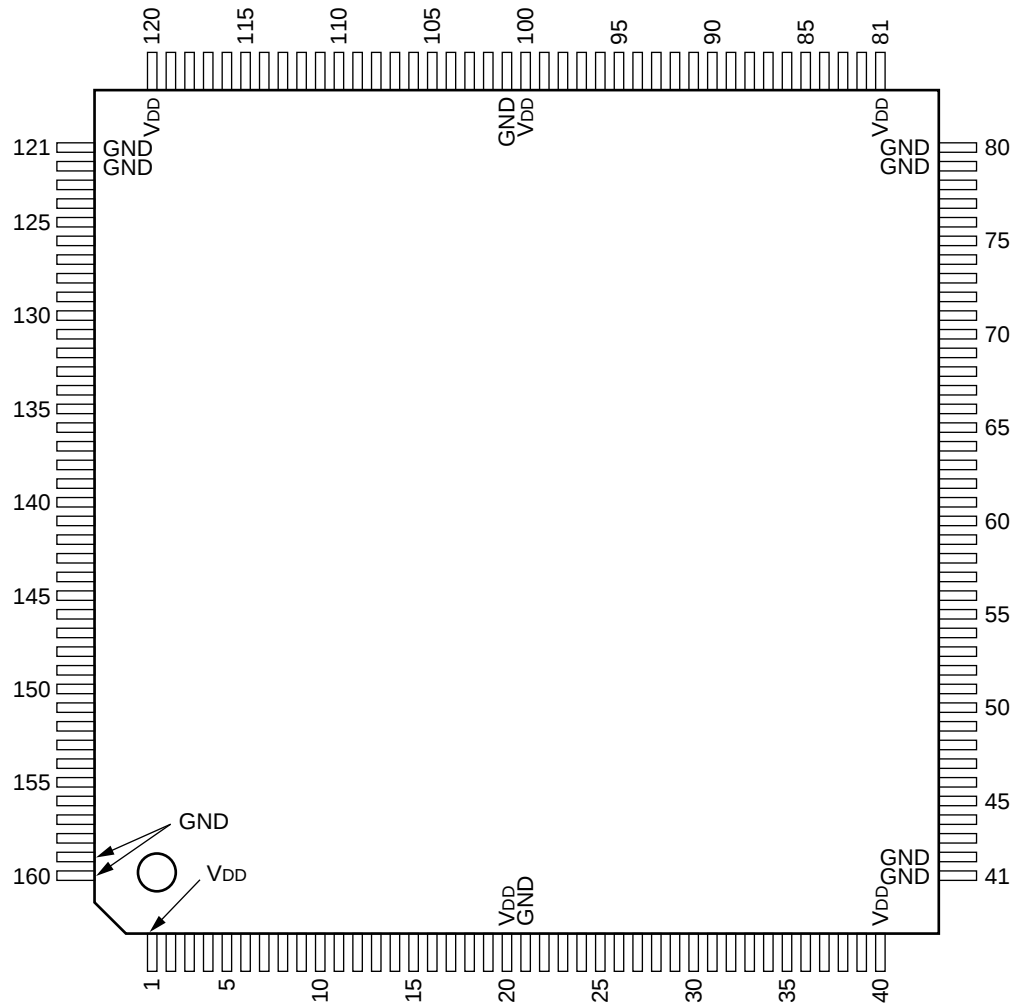


## C-MOS ECC ENCODER

—TOP VIEW—



| PIN NO. | I/O | SIGNAL                      | PIN NO. | I/O | SIGNAL | PIN NO. | I/O | SIGNAL                     | PIN NO. | I/O | SIGNAL                        |
|---------|-----|-----------------------------|---------|-----|--------|---------|-----|----------------------------|---------|-----|-------------------------------|
| 1       | —   | V <sub>DD</sub>             | 41      | —   | GND    | 81      | —   | V <sub>DD</sub>            | 121     | —   | GND                           |
| 2       | O   | RECDC                       | 42      | —   | GND    | 82      | I/O | MDQ6                       | 122     | —   | GND                           |
| 3       | O   | RECDC $\overline{\text{C}}$ | 43      | I   | CK27   | 83      | I/O | MDQ5                       | 123     | O   | IENCSTP                       |
| 4       | O   | RECDD                       | 44      | I   | SMC    | 84      | I/O | MDQ4                       | 124     | O   | IENCO7                        |
| 5       | O   | RECDC $\overline{\text{D}}$ | 45      | I   | SYSCS  | 85      | I/O | MDQ3                       | 125     | O   | IENCO6                        |
| 6       | O   | RECPTY                      | 46      | O   | SYSOEO | 86      | I/O | MDQ2                       | 126     | O   | IENCO5                        |
| 7       | I   | FFI7                        | 47      | I   | SCK    | 87      | I/O | MDQ1                       | 127     | O   | IENCO4                        |
| 8       | I   | FFI6                        | 48      | I   | SYSOEI | 88      | I/O | MDQ0                       | 128     | O   | IENCO3                        |
| 9       | I   | FFI5                        | 49      | I/O | SYSIO7 | 89      | I   | MDTES4                     | 129     | O   | IENCO2                        |
| 10      | I   | FFI4                        | 50      | I/O | SYSIO6 | 90      | I   | MDTES3                     | 130     | O   | IENCO1                        |
| 11      | I   | FFI3                        | 51      | I/O | SYSIO5 | 91      | I   | MDTES2                     | 131     | O   | IENCO0                        |
| 12      | I   | FFI2                        | 52      | I/O | SYSIO4 | 92      | I   | MDTES1                     | 132     | O   | TESTO7                        |
| 13      | I   | FFI1                        | 53      | I/O | SYSIO3 | 93      | I   | MDTES0                     | 133     | O   | TESTO6                        |
| 14      | I   | FFI0                        | 54      | I/O | SYSIO2 | 94      | O   | MLDQM                      | 134     | O   | TESTO5                        |
| 15      | O   | FFAWE                       | 55      | I/O | SYSIO1 | 95      | O   | MUDQM                      | 135     | O   | TESTO4                        |
| 16      | O   | FFARE                       | 56      | I/O | SYSIO0 | 96      | O   | M $\overline{\text{W}}$ E  | 136     | O   | TESTO3                        |
| 17      | O   | FFARST                      | 57      | I   | SSTAT1 | 97      | O   | M $\overline{\text{C}}$ AS | 137     | O   | TESTO2                        |
| 18      | I   | FS                          | 58      | I   | SSTAT0 | 98      | O   | M $\overline{\text{R}}$ AS | 138     | O   | TESTO1                        |
| 19      | I   | FS256                       | 59      | I   | SSTRB  | 99      | O   | MCKE                       | 139     | O   | TESTO0                        |
| 20      | —   | V <sub>DD</sub>             | 60      | I   | SXPRTY | 100     | —   | V <sub>DD</sub>            | 140     | I   | ASIN1                         |
| 21      | —   | GND                         | 61      | I   | SXIN7  | 101     | —   | GND                        | 141     | I   | ASIN2                         |
| 22      | I   | CK54                        | 62      | I   | SXIN6  | 102     | O   | MA11                       | 142     | I   | AREFV                         |
| 23      | O   | FFO0                        | 63      | I   | SXIN5  | 103     | O   | MA10                       | 143     | I   | ENCGOP                        |
| 24      | O   | FFO1                        | 64      | I   | SXIN4  | 104     | O   | MA9                        | 144     | I   | SCTST                         |
| 25      | O   | FFO2                        | 65      | I   | SXIN3  | 105     | O   | MA8                        | 145     | I   | TRKST                         |
| 26      | O   | FFO3                        | 66      | I   | SXIN2  | 106     | O   | MA7                        | 146     | I   | RFMD1                         |
| 27      | O   | FFO4                        | 67      | I   | SXIN1  | 107     | O   | MA6                        | 147     | I   | RFMD0                         |
| 28      | O   | FFO5                        | 68      | I   | SXIN0  | 108     | O   | MA5                        | 148     | I   | BUNRI                         |
| 29      | O   | FFO6                        | 69      | I   | SXSYNC | 109     | O   | MA4                        | 149     | I   | TMC1                          |
| 30      | O   | FFO7                        | 70      | I/O | MDQ15  | 110     | I   | APBID2                     | 150     | I   | TMC2                          |
| 31      | O   | RFCK20                      | 71      | I/O | MDQ14  | 111     | I   | APBID1                     | 151     | O   | RECENA                        |
| 32      | O   | RFCK40                      | 72      | I/O | MDQ13  | 112     | I   | APBID0                     | 152     | O   | RECENB                        |
| 33      | I   | DTCK                        | 73      | I/O | MDQ12  | 113     | I   | AREFID2                    | 153     | O   | RECENC                        |
| 34      | I   | AMC                         | 74      | I/O | MDQ11  | 114     | I   | AREFID1                    | 154     | O   | RECEND                        |
| 35      | O   | FFBWE                       | 75      | I/O | MDQ10  | 115     | I   | AREFID0                    | 155     | O   | RECDA                         |
| 36      | O   | FFBRE                       | 76      | I/O | MDQ9   | 116     | O   | MA3                        | 156     | O   | RECDC $\overline{\text{X}}$ A |
| 37      | O   | FFBRST                      | 77      | I/O | MDQ8   | 117     | O   | MA2                        | 157     | O   | RECDB                         |
| 38      | I   | RFCK                        | 78      | I/O | MDQ7   | 118     | O   | MA1                        | 158     | O   | RECDC $\overline{\text{X}}$ B |
| 39      | I   | RESET                       | 79      | —   | GND    | 119     | O   | MA0                        | 159     | —   | GND                           |
| 40      | —   | V <sub>DD</sub>             | 80      | —   | GND    | 120     | —   | V <sub>DD</sub>            | 160     | —   | GND                           |

**INPUT**

|                   |                                          |
|-------------------|------------------------------------------|
| AMC               | ; ATG MODE CONTROL                       |
| APBID0 - APBID2   | ; AUDIO PB ID                            |
| AREFID0 - AREFID2 | ; AUDIO REFERENCE ID                     |
| AREFV             | ; AUDIO REFERENCE V START PULSE          |
| ASIN1, ASIN2      | ; AUDIO SERIAL DATA                      |
| BUNRI             | ; RAM TEST MODE                          |
| CK27              | ; SYSTEM CLOCK FOR PACK AND OUTER BLOCKS |
| CK54              | ; SYSTEM CLOCK FOR SDRAM INTERFACE BLOCK |
| DTCK              | ; SYSTEM CLOCK FOR INNER BLOCK           |
| ENCGOP            | ; GOP FOR SX ENC                         |
| FFI0 - FFI7       | ; EXTERNAL FIFO A/B DATA                 |
| FS                | ; AUDIO SAMPLING CLOCK                   |
| FS256             | ; AUDIO SAMPLING CLOCK × 256             |
| MDTES0 - MDTES4   | ; TEST MODE                              |
| RESET             | ; SYSTEM RESET (L : RESET)               |
| RFCK              | ; SYSTEM CLOCK FOR RF BLOCK              |
| RFMD0, RFMD1      | ; RF MODE                                |
| SCK               | ; SCAN CLOCK                             |
| SCTST             | ; SECTOR START PULSE                     |
| SMC               | ; SCAN MODE CONTROL                      |
| SSTAT0, SSTAT1    | ; SYSTEM CONTROL STATUS                  |
| SSTRB             | ; SYSTEM CONTROL DATA LATCH TIMING       |
| SXIN0 - SXIN7     | ; SX VIDEO DATA                          |
| SXPRTY            | ; SX PARITY                              |
| SXSYNC            | ; SX SYNC                                |
| SYSCS             | ; SYSTEM CONTROL CHIP SELECT             |
| YSOEI             | ; SYSTEM CONTROL DATA OUTPUT ENABLE      |
| TMC1, TMC2        | ; TEST MODE CONTROL                      |
| TRKST             | ; TRACK START PULSE                      |

**OUTPUT**

|                 |                                        |
|-----------------|----------------------------------------|
| FFARE           | ; EXTERNAL FIFO A READ ENABLE          |
| FFARST          | ; EXTERNAL FIFO A WRITE/READ RESET     |
| FFAWE           | ; EXTERNAL FIFO A WRITE ENABLE         |
| FFBRE           | ; EXTERNAL FIFO B READ ENABLE          |
| FFBRST          | ; EXTERNAL FIFO B WRITE/READ RESET     |
| FFBWE           | ; EXTERNAL FIFO B WRITE ENABLE         |
| FFO0 - FFO7     | ; EXTERNAL FIFO A/B DATA               |
| IENCO0 - IENCO7 | ; INNER ENC OUTPUT FOR E-E MODE        |
| IENCSTP         | ; INNER ENC OUTPUT START PULSE         |
| MA0 - MA11      | ; EXTERNAL SDRAM ADDRESS               |
| MCAS            | ; EXTERNAL SDRAM COLUMN ADDRESS STROBE |
| MCKE            | ; EXTERNAL SDRAM CLOCK ENABLE          |
| MLDQM           | ; EXTERNAL SDRAM LOWER DATA MASK       |
| MRAS            | ; EXTERNAL SDRAM RAW ADDRESS STROBE    |
| MUDQM           | ; EXTERNAL SDRAM UPPER DATA MASK       |
| MWE             | ; EXTERNAL SDRAM WRITE ENABLE          |
| RECDA           | ; REC SERIAL DATA FOR A HEAD           |
| RECDB           | ; REC SERIAL DATA FOR B HEAD           |
| REDC            | ; REC SERIAL DATA FOR C HEAD           |
| RECD            | ; REC SERIAL DATA FOR D HEAD           |
| RECDXA          | ; INVERTED REC SERIAL DATA FOR A HEAD  |
| RECDXB          | ; INVERTED REC SERIAL DATA FOR B HEAD  |
| RECDXC          | ; INVERTED REC SERIAL DATA FOR C HEAD  |
| RECDXD          | ; INVERTED REC SERIAL DATA FOR D HEAD  |
| RECENA          | ; REC ENABLE FOR A HEAD                |
| RECENB          | ; REC ENABLE FOR B HEAD                |
| RECENC          | ; REC ENABLE FOR C HEAD                |
| RECEND          | ; REC ENABLE FOR D HEAD                |
| RECPRTY         | ; PARITY BIT FOR REC SERIAL DATA       |
| RFCK20          | ; 1/2 RFCK                             |
| RFCK40          | ; 1/4 RFCK                             |
| YSOE0           | ; SYSTEM CONTROL DATA OUTPUT ENABLE    |
| TEST00 - TEST07 | ; TEST DATA                            |

**INPUT/OUTPUT**

|                 |                           |
|-----------------|---------------------------|
| MDQ0 - MDQ15    | ; EXTERNAL SDRAM DATA     |
| SYSIO0 - SYSIO7 | ; SYSTEM CONTROL DATA BUS |

