



|                                  |      |      |      |   |    |     |
|----------------------------------|------|------|------|---|----|-----|
| ATSC                             | 776  | 1476 | 960  | 2 | 37 | 144 |
| IEEE 802.16-2004 WirelessMAN SCA | 912  | 1746 | 1252 | 2 | 51 | 145 |
| IEEE 802.16-2004 WirelessMAN SC  | 1067 | 2031 | 1493 | 2 | 52 | 142 |

1. Performance and utilization data are generated using an LFE3-95E-8FN672CES device with with Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP3 family.

LatticeECP2M<sup>1</sup>

| IPexpress User-Configurable Mode | SLICES | LUTs | Registers | sysMEM EBRs | I/Os | f <sub>MAX</sub> (MHz) |
|----------------------------------|--------|------|-----------|-------------|------|------------------------|
| OC-192                           | 562    | 1117 | 791       | 2           | 37   | 169                    |
| CCSDS                            | 963    | 1917 | 1322      | 2           | 38   | 163                    |
| DVB                              | 591    | 1173 | 792       | 2           | 37   | 178                    |
| ATSC                             | 756    | 1500 | 960       | 2           | 37   | 160                    |
| IEEE 802.16-2004 WirelessMAN SCA | 917    | 1818 | 1252      | 3           | 51   | 151                    |
| IEEE 802.16-2004 WirelessMAN SC  | 1037   | 2056 | 1493      | 3           | 52   | 145                    |

1. Performance and utilization data are generated using an LFE2M35E/SE-7F484C device with with Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP2M/S family.

LatticeECP2<sup>1</sup>

| IPexpress User-Configurable Mode | SLICES | LUTs | Registers | sysMEM EBRs | I/Os | f <sub>MAX</sub> (MHz) |
|----------------------------------|--------|------|-----------|-------------|------|------------------------|
| OC-192                           | 562    | 1117 | 791       | 2           | 37   | 175                    |
| CCSDS                            | 963    | 1917 | 1322      | 2           | 38   | 157                    |
| DVB                              | 591    | 1173 | 792       | 2           | 37   | 150                    |
| ATSC                             | 756    | 1500 | 960       | 2           | 37   | 166                    |
| IEEE 802.16-2004 WirelessMAN SCA | 917    | 1818 | 1252      | 3           | 51   | 152                    |
| IEEE 802.16-2004 WirelessMAN SC  | 1037   | 2056 | 1493      | 3           | 52   | 137                    |

1. Performance and utilization data are generated using an LFE2-50E/S-7F672C device with with Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP2/S family.

LatticeECP/EC<sup>1</sup>

| IPexpress User-Configurable Mode | SLICES | LUTs | Registers | sysMEM EBRs | I/Os | f <sub>MAX</sub> (MHz) |
|----------------------------------|--------|------|-----------|-------------|------|------------------------|
| OC-192                           | 588    | 1171 | 795       | 2           | 37   | 123                    |
| CCSDS                            | 980    | 1947 | 1349      | 2           | 38   | 114                    |
| DVB                              | 604    | 1196 | 802       | 2           | 37   | 124                    |
| ATSC                             | 766    | 1520 | 969       | 2           | 37   | 113                    |
| IEEE 802.16-2004 WirelessMAN SCA | 927    | 1835 | 1279      | 3           | 51   | 116                    |
| IEEE 802.16-2004 WirelessMAN SC  | 1044   | 2066 | 1486      | 3           | 52   | 104                    |

1. Performance and utilization data are generated using an LFEC/P20E-5F672C device with Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeECP/EC family.

LatticeSC/M<sup>1</sup>

| IPexpress User-Configurable Mode | SLICES | LUTs | Registers | sysMEM EBRs | I/Os | f <sub>MAX</sub> (MHz) |
|----------------------------------|--------|------|-----------|-------------|------|------------------------|
| OC-192                           | 591    | 1113 | 803       | 2           | 37   | 267                    |
| CCSDS                            | 1033   | 1958 | 1348      | 2           | 38   | 245                    |
| DVB                              | 642    | 1219 | 804       | 2           | 37   | 287                    |
| ATSC                             | 804    | 1537 | 970       | 2           | 37   | 253                    |
| IEEE 802.16-2004 WirelessMAN SCA | 965    | 1833 | 1276      | 2           | 51   | 240                    |
| IEEE 802.16-2004 WirelessMAN SC  | 1107   | 2101 | 1501      | 2           | 52   | 238                    |

1. Performance and utilization data are generated using an LFSC/M3GA25E-7F900C device with with Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeSC/M family.

LatticeXP2<sup>1</sup>

| IPexpress User-Configurable Mode | SLICES | LUTs | Registers | sysMEM EBRs | I/Os | f <sub>MAX</sub> (MHz) |
|----------------------------------|--------|------|-----------|-------------|------|------------------------|
| OC-192                           | 562    | 1117 | 791       | 2           | 37   | 140                    |
| CCSDS                            | 963    | 1917 | 1322      | 2           | 38   | 128                    |
| DVB                              | 591    | 1173 | 792       | 2           | 37   | 157                    |
| ATSC                             | 756    | 1500 | 960       | 2           | 37   | 128                    |
| IEEE 802.16-2004 WirelessMAN SCA | 917    | 1818 | 1252      | 2           | 51   | 126                    |

|                                 |      |      |      |   |    |     |
|---------------------------------|------|------|------|---|----|-----|
| IEEE 802.16-2004 WirelessMAN SC | 1037 | 2056 | 1493 | 2 | 52 | 127 |
|---------------------------------|------|------|------|---|----|-----|

1. Performance and utilization data are generated using an LFXP2-30E-7F484C device with with Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeXP2 family.

LatticeXP<sup>1</sup>

| IPexpress User-Configurable Mode | SLICES | LUTs | Registers | sysMEM EBRs | I/Os | f <sub>MAX</sub> (MHz) |
|----------------------------------|--------|------|-----------|-------------|------|------------------------|
| OC-192                           | 588    | 1171 | 795       | 2           | 37   | 110                    |
| CCSDS                            | 980    | 1947 | 1349      | 2           | 38   | 108                    |
| DVB                              | 604    | 1196 | 802       | 2           | 37   | 111                    |
| ATSC                             | 766    | 1520 | 969       | 2           | 37   | 103                    |
| IEEE 802.16-2004 WirelessMAN SCa | 928    | 1837 | 1279      | 2           | 51   | 109                    |
| IEEE 802.16-2004 WirelessMAN SC  | 1044   | 2066 | 1486      | 2           | 52   | 85                     |

1. Performance and utilization data are generated using an LFXP20E-5F484C device with with Lattice Diamond 1.0 and Synplify Pro for Lattice D-2009.12L-1 software. Performance may vary when using a different software version or targeting a different device density or speed grade within the LatticeXP family.

Ordering Information

| Family        | Part Number      |
|---------------|------------------|
| LatticeECP3   | RSDEC-DBLK-E3-U3 |
| LatticeECP2M  | RSDEC-DBLK-PM-U3 |
| LatticeECP2   | RSDEC-DBLK-P2-U3 |
| LatticeECP/EC | RSDEC-DBLK-E2-U3 |
| LatticeSC/M   | RSDEC-DBLK-SC-U3 |
| LatticeXP2    | RSDEC-DBLK-X2-U3 |
| LatticeXP     | RSDEC-DBLK-XM-U3 |

IP Express Version: 3.4

**Evaluate:** To download a full evaluation version of this IP, go to the IPexpress tool and click the IP Server button in the toolbar. All LatticeCORE IP cores and modules available for download will be visible. For more information on viewing/downloading IP please read the [IP Express Quick Start Guide](#).

**Purchase:** To find out how to purchase the IP Core, please contact your [local Lattice Sales Office](#).