

R400 Area Estimate (0.13)

| Block | Pre Route Logic Area | Utilizati on | Post Route Logic Unit Area | Macro Area | Total Unit Area | R400 Qty | R400 Total | RV400 Qty | RV400 Total | | |
|-----------------------------------|-------------------------|-----------------|-------------------------------|---------------|--------------------|----------|--------------------|--------------------|-------------|--------------------------------------|--|
| BIF (Bus Interface) | 1,488,869 | 0.70 | 2,126,956 | 0 | 2,126,956 | 1 | 2,126,956 | 1.00 | 2,126,956 | 1% BIF (Bus Interface) | |
| DC (Display Controller) | 2,677,800 | 0.70 | 3,825,429 | 1,779,948 | 5,605,377 | 1 | 5,605,377 | 1.00 | 5,605,377 | 4% DC (Display Control) | |
| VIP (Video In Port) | 518,369 | 0.70 | 740,527 | 47,892 | 788,419 | 1 | 788,419 | 1.00 | 788,419 | 1% VIP (Video In Port) | |
| CG (Clock Gen) | 340,700 | 0.70 | 486,714 | 224,000 | 710,714 | 1 | 710,714 | 1.00 | 710,714 | 0% CG (Clock Gen) | |
| ROM (ROM and debug controller) | 193,104 | 0.70 | 275,863 | 0 | 275,863 | 1 | 275,863 | 1.00 | 275,863 | 0% ROM (ROM and debug) | |
| TSTC (Test Controller) | 9,600 | 0.70 | 13,714 | 0 | 13,714 | 1 | 13,714 | 1.00 | 13,714 | 1% VIP (Video In Port) | |
| CP (Control Processor) | 3,366,639 | 0.70 | 4,809,484 | 1,497,341 | 6,306,825 | 1 | 6,306,825 | 1.00 | 6,306,825 | 4% CP (Control Processor) | |
| RBBM (Register Backbone Manager) | 221,702 | 0.70 | 316,717 | 0 | 316,717 | 1 | 316,717 | 1.00 | 316,717 | 0% RBBM (Register Backbone) | |
| MH (Memory Hub) | 3,834,949 | 0.70 | 5,478,499 | 675,232 | 6,153,731 | 1 | 6,153,731 | 0.75 | 4,615,298 | 4% MH (Memory Hub) | |
| IDCT | 847,452 | 0.70 | 1,210,646 | 84,403 | 1,295,049 | 1 | 1,295,049 | 1.00 | 1,295,049 | 1% IDCT | |
| VGT (Vertex Group and Tessellate) | 816,990 | 0.70 | 1,167,129 | 331,693 | 1,498,822 | 1 | 1,498,822 | 1.00 | 1,498,822 | 1% VGT (Vertex Group and Tessellate) | |
| PA(Viewport Xform,Clip and Setup) | 2,979,377 | 0.70 | 4,256,253 | 580,018 | 4,836,271 | 1 | 4,836,271 | 1.00 | 4,836,271 | 3% PA(Viewport Xform,Clip and Setup) | |
| SC (Scan Converter) | 6,558,352 | 0.70 | 9,369,074 | 568,187 | 9,937,261 | 1 | 9,937,261 | 0.60 | 5,962,357 | 6% SC (Scan Converter) | |
| SP (Shader Pipe) | 3,992,400 | 0.70 | 5,703,429 | 2,613,709 | 8,317,138 | 4 | 33,268,552 | 2.00 | 16,634,276 | 21% SP (Shader Pipe) | |
| SQ (Sequencer) | 1,648,958 | 0.70 | 2,355,654 | 2,333,798 | 4,689,452 | 1 | 4,689,452 | 1.00 | 4,689,452 | 3% SQ (Sequencer) | |
| TP (Texture Pipe) | 2,305,274 | 0.70 | 3,293,249 | 596,989 | 3,890,238 | 4 | 15,560,950 | 2.00 | 7,780,475 | 10% TP (Texture Pipe) | |
| TC (Texture Cache) | 11,382,899 | 0.70 | 16,261,285 | 3,755,397 | 20,016,682 | 1 | 20,016,682 | 0.60 | 12,010,009 | 13% TC (Texture Cache) | |
| RB (Render Backend) | 3,584,000 | 0.70 | 5,120,000 | 1,233,000 | 6,353,000 | 4 | 25,412,000 | 2.00 | 12,706,000 | 16% RB (Render Backend) | |
| RC (Render Central) | 40,000 | 0.70 | 57,143 | 200,000 | 257,143 | 1 | 257,143 | 1.00 | 257,143 | 0% RC (Render Central) | |
| SX (Shader Export) | 524,928 | 0.70 | 749,897 | 1,516,000 | 2,265,897 | 2 | 4,531,794 | 1.00 | 2,265,897 | 3% SX (Shader Export) | |
| MC (Memory Controller) | 543,312 | 0.70 | 776,160 | 426,757 | 1,202,917 | 4 | 4,811,668 | 2.00 | 2,405,834 | 3% MC (Memory Controller) | |
| Analog | | | | | | | 6,545,540 | | 8,154,400 | 4% Analog | |
| Total Core (um2) | | | | | | | 154,959,500 | 101,255,868 | | | |

16,272,354

Current Pad separation (um) 80
 Current Pad height (um) 350
 Scribe 0.18
 Core mm/side
 Total mm/side

12.45 10.06
 13.33 10.94