

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 de	
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 Proces	
RBBM (Register Backbone Manager)	221,702	0.70	316,717	0	316,717	1	316,717	1.00	316,717	0% RBBM (Register B	
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	
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	
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 Converte	
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 Backe	
RC (Render Central)	40,000	0.70	57,143	200,000	257,143	1	257,143	1.00	257,143	0% RC (Render Centra	
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 Cont	
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