通訊多媒體核心設計 (Multimedia Communication IP Design)

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Block Type	Flexibility vs. predictability	Design flow	Represen- tation	Libraries	Process technology	Porta- bility	Pro- tecting
Soft	Very flexible, unpredictable	System design	Behavioral	Not applicable	Independent	Unlimited	Week
		RTL design	RTL				
Firm	Flexible, predictable	Floorplaning synthesis	RTL, blocks	Reference	Generic	Library mapping	Medium
		Placement	Netlist	Footprint, timing model, wiring model			
Hard	Inflexible,very predictable	Routing, verification	Polygon data	Process- specific library and design rules	Fixed	Process mapping	Good





Functiona	of Cores Classified by ality
Core category	Product examples
Processor:	
RISC	LSI Logic CW4K, ARM 71DMI, PPC
CISC	680x0, x86
DSP	TI TMS320C80, DSP Group Pine
BIST	MemBIST-IC, PLL BIST, ADC BIST
Encryption	PkuP, DES
Controllers	USB, PCI, UART
Multimedia	JPEG compression, MPEG decoder, DAC
Networking	ATM SAR, Ethernet
	Specialized memories: high speed, low nowe
































































Verilog-	Mode	
<pre>module example (/+=UTDIRD=/); input 1; output 0; /==UTDIRDIFUT=/ /==UTDIRDIFUT=/ /==UTDIRDIFUT=/1; alaage o = 1; endmodule</pre>	<pre>> module compute (rem.NOOPEGA/</pre>	<pre>Prim invased adjustment (reports)</pre>
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Module Tedium?	
nodule tedium (i1,i2,o1,o2)	Argument list is same as input/output statements.
wire interl; Wires needed for our	puts or interconnections.
<pre>always @(il or i2 or interl); ol = il i2 interl; subl subl (.il (il). iii (i2).</pre>	Sensitivity lists.
.02 (02), .interl (interl)); sub2 sub2 (.i1 (i1),	Named based instantiations mostly replicate input/outputs from the sub module.
.interl (interl)); endmodule	

Converse connected in verificable DT				
olwaya	alaa	initial	naramata	
always	erse	incut	parameter	
basign	enu	inout	poseuge	
begin	endcase	input	reg	
case	endfunction	module	wire	
casez	endmodule	negedge		
default	function	or		
	if	output		



































































































































