

TxACE Equipment List

Equipment	Model Name	Operation Range	# of Equip.
PNA Vector Network Analyzer	Agilent E8361A	10MHz ~ 67GHz	1
PNA Vector Network Analyzer	Agilent E8361C	10MHz ~ 67GHz	1
Millimeter Head Controller	Agilent N5260A		2
PSA Spectrum Analyzer	Agilent E4446A	3Hz ~ 44GHz	1
PSA Spectrum Analyzer	Agilent E4440A	3Hz ~ 26.5GHz	1
Infinium Sampling Oscilloscope	Agilent MSO8104A	4Gs/s	1
Infinium Sampling Oscilloscope	Agilent DSO8124B	40Gs/s	1
MXG Vector signal generator	Agilent N5182A	100kHz ~ 6Ghz	2
PSG Analog Sig Generator	Agilent E8257D	250kHz ~ 67GHz	2
Digital Communication Analyzer	Agilent 86100C	~40GHz(Optic)/~ 80GHz(Electrical)	1
Semiconductor Parameter Analyzer	Agilent 4155C		1
Pulse/Pattern Generator	Agilent 81110A	~330MHz	1
Probe Station & Probe Arms & Stand & Air/Vacuum pump & Microscope	Cascade	RF/Millimeter wave meas.	2
Probe Station & Probe Arms	Bucker & Kolls	1/f noise measurement	1
Temperature Regulator for Probe Station	Tempronc TP03000		1
Digital DC Power Supply	Agilent E3646A		4
Olympus Microscope with Camera	SZ-CTU	Die photo capture	1

TxACE Computing Resources

Equipment	Model Name	Technical Specifications	# of Equip.
Compute Blades	Sun Blade X6270	Intel Xeon X5560 2.8 GHz Quad-Core Hyper-Threaded	8
Virtual Center Blades	Sun Blade X6240	2 AMD Opteron 2384 2.7 GHz Quad-Core	2
Sun Ray Blades	Sun Blade X6240	2 AMD Opteron 2384 2.7 GHz Quad-Core	2
Sun Ray Thin Clients	Sun Ray 2	1600 X 1200 resolution, DVI, B 2.0	50

TxACE Software Resources

Vendor	Category	Software	Version
Synopsys	Synthesis	Design Compiler: dc_shell, design vision	2009.06-SP5
		Library Compiler: lc_shell	2009.06-SP5
	Transistor Level Circuit Simulation	Hspice	2009.09-SP1
		nanosim	2009.06-SP2
		hsim	2010.03
	Waveform viewers	Cosmos Scope: cscope	2009-0.6
		Custom Explorer: sx	2009.09-SP1
	Static Timing Analysis	NanoTime (transistor level)	2009.12-SP1
		PrimeTime	2009.12-SP1
	Verilog Simulator	vcs	2009.12
	Library Characterization	ncx	2009.12-SP1
	Design Equivalence Checker	formality	2009.06-SP1
	Automatic Test Generation	tetraMAX	2009.06-SP5
	Place & route	ICC	2009.06-SP4

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Vendor	Category	Software	Version
Synopsys	TCAD	Sentaurus	2010.03
		Taurus	
		Raphael_NX	
Cadence	Layout	IC: icfb, virtuoso	Ic6.14.005 ic5.141.usr5
	Analog Simulation	MMSIM: spectre, ultraSim	6.21.431
	Verilog Simulator	IUS	8.2
	Extraction	Assura	5.141
	Place & Route	SOCE	8.10.004
Mentor Graphics	Extraction	Calibre	2009.4.16.13
Agilent Technologies	RF, microwave and high speed Digital Design Simulation	ADS	2009U1
	Device Characterization	ICCP	2009
Ansys	3D EM simulation	HFSS	12