

The complete electronics lab

TINA

TINA and TINA design suite version 9 comparison	TINA industrial	TINA educational	TINA classic	TINA student	TINA basic
Circuit entry	+	+	+	+	+
Schematic editor	+	+	+	+	+
Undo	+	+	+	+	+
Redo	+	+	+	+	+
Automatic / manual wire routing and drag support	+	+	+	+	+
Instruments as standard schematic symbols	+	+	+	+	+
Subcircuits	+	+	+	+	+
BOM	+	+	+	+	+
Bus	+	+	+	+	+
Integrated schematic symbol editor	+	+	+	+	+
Integrated netlist editor	+	+	+	+	+
Component toolbar editor	+	+	+	+	+
Excitation editor for arbitrary waveforms	+	+	+	+	+
PCB export to major packages	+	+	+	+	+
Hierarchical and team design with version control	+	+	-	-	-
Parameter extractor / model maker	+	+	-	-	-
PCB design (in design suite only)					
Number of pads	Unlimited	1000	1000	100	100
Analyses					
Max. number of external nodes and nodes in macros	Unlimited	Unlimited	Unlimited	100	100
DC, AC, transient, digital, mixed mode simulation	+	+	+	+	+
Steady state solver (SMPS analysis)	+	-	-	-	-
RF simulation	+	+	+	+	+
RF models given by s-parameters	+	+	-	-	-
Network analysis	+	+	-	-	-
Number of components and models	20000	20000	10000	10000	10000
Digital simulation	+	+	+	+	+
VHDL simulation	+	+	+	+	+
VHDL external debugger	+	+	-	-	-
MCU simulation and debugging	+	+	+	+	+
Interactive mode	+	+	+	+	+
Circuit changes while a simulation is running	+	+	+	+	+
Symbolic analysis (closed formulas)	+	+	+	+	+
Fourier analysis (harmonics)	+	+	+	+	+

Fourier analysis (spectrum)	+	+	+	+	+
Noise, Monte Carlo, Worst Case	+	+	+	+	+
Stress (smoke) analysis	+	-	-	-	-
Group delay	+	+	+	+	+
Number of optimization targets and parameters	Any	1	1	1	1
Number of parameters in parameter stepping	Any	1	1	1	1
Parameter sweeping	+	+	+	+	+
Analysis directly from Netlist	+	+	+	+	+
Output capabilities					
Scaled diagrams	+	+	+	+	+
Multiple axes	+	+	+	+	+
Full scaled smith diagram	+	+	-	-	-
Nyquist diagram	+	+	+	+	+
Pole-zero diagram	+	+	+	+	+
Drawing tools to enhance diagrams	+	+	+	+	+
Post processing tools	+	+	+	+	+
Built in DTP tools	+	+	+	+	+
MathCAD and Excel export	+	+	+	+	+
Virtual instruments					
XY recorder	+	+	+	+	+
Oscilloscope	+	+	+	+	+
Function generator	+	+	+	+	+
Multimeter	+	+	+	+	+
Signal analyser / bode plotter (note 2)	+	+	+	+	+
Network analyser	+	+	-	-	-
Spectrum analyser (note 3)	+	+	+	+	+
Logic analyser	+	+	+	+	+
Digital signal generator	+	+	+	+	+
Spectrum analyser	+	+	+	+	+
Window functions for spectrum analyser	+	+	+	+	+
Real-time test and measurement					
Analog and digital data acquisition	+	+	-	-	-
Analog and digital signal generator	+	+	-	-	-
Educational features					
Software fault simulation	+	+	+	+	+
Real-time (hardware) fault simulation	+	+	-	-	-
Experiment modules	+	+	-	-	-
Problem solver tool with simulation checking	+	+	+	+	+
Teacher utilities for problem construction	+	+	+	+	-
Class and student evaluation	+	+	+	+	-
Training and examination mode	+	+	+	+	-

Note 2: The bode plot is just one of the functions of TINA's modern signal analyser

Note 3: The spectrum analyser is part of TINA's signal analyser

For more details, UK pricing and educational discounts contact Matrix at:

sales@matrixtsl.com

Tel: 01422 252383