

Subject: Student and Pro edition specifications

Date: Revision: 10 March 2023

Specification differences between the Free Student and Pro editions:

- Free-Student is the default edition after installation.
- Student Free has limitations on functionalities, see the table below.

Main Topic	Window	Student edition	Pro edition
Antenna Gain	Antenna Gain	✓	✓
Filters	Butterworth and Chebyshev filters	2 nd order filters max	✓ Up to the 9 th order, full functionality
General RF	Cascaded Noise, IM and IP3	Up to 2 stages	✓ 6 stages max, full functionality
All	All	No graph zoom	✓ Double click on graph for zoom and un-zoom.
All	All	Wikipedia menu shortcut disabled	✓ Wikipedia menu shortcut.
DSP	FIR Designer	<ul style="list-style-type: none"> • Only high pass • Limited filter length • Fixed Sampling Freq • Only open file 	✓ Full functionality
All	All	No 'On-Top' possibility	✓ Windows can be set 'On Top' to be always visible.
Unit Converters	Power Unit Conversions	Base impedance fixed to 50 Ohms	✓ Base impedance variable
RF Mixer spurious	RF Mixer spurious	<ul style="list-style-type: none"> • RF 1st harmonic • LO 1st and 2nd harmonics • LO Isolation -50dB fixed • No spurs list • NO LO-RF coupling 	✓ <ul style="list-style-type: none"> • RF harmonics up to 3, LO harmonics to 7 max. LO isolation selectable. • Spurs list with IM-levels • LO and RF can be coupled.
General RF	Frequency – Wavelength converter	<ul style="list-style-type: none"> • Frequency scale = kHz • Wavelength scale = mm 	✓ <ul style="list-style-type: none"> • Frequency scale = kHz, MHz, GHz • Wavelength scale = mm, cm, m
EMC	Rf Conducted Immunity System design	<ul style="list-style-type: none"> • Fixed current 100mA • Line impedance 50Ohms • 2 or 5 frequency points 	✓ Full functional edition, line impedance 50 and 150 ohms, current setting variable.
EMC	Skin depth	Two materials <ul style="list-style-type: none"> • Copper • Aluminium 	✓ <ul style="list-style-type: none"> • Copper • Aluminium • Gold • Silver • Nickel • Zinc • Brass • Iron • Tin • Mild Steel • Lead

					<ul style="list-style-type: none"> Stainless Steel 316 Stainless Steel 17-7 PH
All	Main window		No favorites shortcut possible	✓	Define and use a favourites shortcut window
All	Main window		Favorites bar with one favorite calculator. Fixed position on screen, Top Left	✓	Up to 8 favourites programmable, position on screen flexible
General RF	Improve VSWR		VSWR value is fixed, attenuation can be changed	✓	VSWR can be set from 1 to 100
General RF	Attenuation		In and output impedances fixed to 50 Ohms	✓	Zin and Zout between 1Ω and 1000 Ω
General	Decimal to Bin, Octal, Hex converter.		Decimal to Bin, Octal, Hex conversion max. 4 digits	✓	No limitations
Basic Electrical	Power factor		Compensation calculation not possible.	✓	Includes compensation of the power factor.
EMC	Radiated Immunity system design		5 frequency points Test distance only 1 meter Not available: file Open and Save, On-top, Feedback	✓	Full functionality
Radar	Radar range and simulator calc.		No band-presets Target distance limited to 10km Frequency and RCS fixed Simulator fixed ant. gain Radar fixed ant. Gain Wikipedia menu link off Help menu link off	✓	Full functionality
EMC	Strip line field generation		Strip line impedance fixed Strip line height fixed	✓	Full functionality
General RF	Time vs. Frequency		Two time domain signals, Dirac and Sine	✓	Dirac pulse(Single infinite Short pulse) Sine wave Cosine wave Square wave Damped sine Damped cosine
Shielding	Waveguide Cut-Off		Sizes between 1 and 20 mm	✓	Size can change full range from 1 to 500 mm.
General RF	VSWR		VSWR range 1 to 2	✓	VSWR range 1 to 50