Function List for Hypersignal Block Diagram and Hypersignal RIDE

Block Functions contained in Block Diagram Academic Edition, Block Diagram Standard Edition, RIDE Academic Edition, RIDE Standard Edition

Datel Library

Datel PC-420 Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
PC-420 DAC Function	☑	☑	☑	☑

Datel PCI-416 Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
PCI-416 A/D Conversion	☑	☑	☑	☑
PCI-416 A/D using Bus Mastering	☑	☑	☑	☑
PCI-416 A/D with File Write	☑	☑	☑	☑
PCI-416 Board Information	☑	☑	☑	☑
PCI-416 Board Master Control	☑	☑	☑	☑
PCI-416 DAC Analog Output	☑	☑	☑	☑
PCI-416 Digital Input (Octal)	☑	☑	☑	☑
PCI-416 Digital Input (Single)	☑	☑	☑	☑
PCI-416 Digital Output (Octal)	☑	☑	☑	☑
PCI-416 Digital Output (Single)	☑	☑	☑	☑
PCI-416 Digital Output Toggle	☑	☑	☑	☑
PCI-416 LED Control	☑	☑	☑	☑
PCI-416 LED Toggle	☑	☑	☑	☑
PCI-416 Raw A/D Conversion	☑	☑	☑	☑
PCI-416 Recorder	☑	☑	☑	☑
PCI-416 Software Trigger	☑	☑	☑	☑

RT PCI431 Hardware Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
ADW-12A 1-channel A/D	☐	☐	☑	☑
ADW-12A A/D Analog Module	☐	☐	☑	☑
ADW-12A BusMaster A/D	☐	☐	☑	☑

Image Processing Library

Displays *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
RGB Display	☐	☑	☐	☑

File I\O Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
BMP Read	☐	☑	☐	☑

Image Generators *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
Color Pattern Generator	☐	☑	☐	☑

Instrumentaion Library

Indicators *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
LED	☐	☑	☐	☑

Instrumentation Library

Front Panels

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Bitmap Display	☐	☑	☐	☑
Function Generator	☐	☑	☐	☑

Indicators

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Horizontal Bar Graph	☐	☑	☐	☑
LED Meter	☐	☑	☐	☑
Numeric Indicator	☐	☑	☐	☑
Vertical Bar Graph	☐	☑	☐	☑

Input Devices

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
DTMF Keypad	☐	☑	☐	☑
LED Button	☐	☑	☐	☑

Knobs

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
CD Knob	☑	☑	☑	☑
General Knob	☐	☑	☐	☑
Time Sweep Control Knob	☐	☑	☐	☑
Vertical Scaling Knob	☐	☑	☐	☑

Switches

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Command Switch	☐	☑	☐	☑
Five Position Toggle Switch	☐	☑	☐	☑
Three Position Toggle Switch	☐	☑	☐	☑
Two Position Toggle Switch	☐	☑	☐	☑

Matrix Library

Conversion Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
1D to Matrix Converter	☐	☑	☐	☑
Matrix to 1D Converter	☐	☑	☐	☑

Matrix Arithmetic

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Matrix Addition	☐	☑	☐	☑
Matrix Invert	☐	☑	☐	☑
Matrix Multiply	☐	☑	☐	☑
Matrix Scale	☐	☑	☐	☑
Matrix Subtraction	☐	☑	☐	☑

Matrix Generators

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Matrix Generator by manual entry	☐	☑	☐	☑

Matrix Information

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Matrix Order	☐	☑	☐	☑

Real-time Drivers

TI DSP-based Drivers *Menu Name*	*Block Diagram* *Academic Edition*	*Block Diagram* *Standard Edition*	*RIDE* *Academic Edition*	*RIDE* *Standard Edition*
Innovative Integration PC32 Driver	☐	☐	☑	☑

Real-time Library

RT Arithmetic Functions *Menu Name*	*Block Diagram* *Academic Edition*	*Block Diagram* *Standard Edition*	*RIDE* *Academic Edition*	*RIDE* *Standard Edition*
RT Absolute Value	☐	☐	☑	☑
RT Add	☐	☐	☑	☑
RT Complex to Real	☐	☐	☑	☑
RT Differentiate	☐	☐	☑	☑
RT Divide	☐	☐	☑	☑
RT Exponential	☐	☐	☑	☑
RT Five Input Add	☐	☐	☑	☑
RT Four Input Add	☐	☐	☑	☑
RT Integrate	☐	☐	☑	☑
RT Invert	☐	☐	☑	☑
RT Log	☐	☐	☑	☑
RT Log 10	☐	☐	☑	☑
RT Modulus	☐	☐	☑	☑
RT Multiply	☐	☐	☑	☑
RT Raise to Power	☐	☐	☑	☑
RT Reciprocal	☐	☐	☑	☑
RT Six Input Add	☐	☐	☑	☑
RT Square	☐	☐	☑	☑
RT Square Root	☐	☐	☑	☑
RT Subtract	☐	☐	☑	☑
RT Sum	☐	☐	☑	☑
RT Three Input Add	☐	☐	☑	☑

RT Communications Functions *Menu Name*	*Block Diagram* *Academic Edition*	*Block Diagram* *Standard Edition*	*RIDE* *Academic Edition*	*RIDE* *Standard Edition*
RT AGC	☐	☐	☑	☑
RT dB Amplitude	☐	☐	☐	☑
RT dB Power	☐	☐	☐	☑
RT Fixed Offset	☐	☐	☑	☑
RT Gain	☐	☐	☑	☑
RT Gate Inverter	☐	☐	☐	☑
RT Loop Filter	☐	☐	☐	☑
RT NCO	☐	☐	☐	☑
RT Rectify	☐	☐	☐	☑
RT Spectral Inversion	☐	☐	☑	☑
RT Strobe	☐	☐	☑	☑

RT Companding *Menu Name*	*Block Diagram* *Academic Edition*	*Block Diagram* *Standard Edition*	*RIDE* *Academic Edition*	*RIDE* *Standard Edition*
RT A-87.6 Decode	☐	☐	☐	☑
RT A-87.6 Encode	☐	☐	☐	☑
RT u-255 Decode	☐	☐	☐	☑
RT u-255 Encode	☐	☐	☐	☑

RT Comparison Functions *Menu Name*	*Block Diagram* *Academic Edition*	*Block Diagram* *Standard Edition*	*RIDE* *Academic Edition*	*RIDE* *Standard Edition*
RT Equal	☐	☐	☐	☑
RT Frame Threshold Counter	☐	☐	☐	☑
RT Global Threshold Counter	☐	☐	☐	☑
RT Greater	☐	☐	☐	☑

	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Greater or Equal	☐	☐	☐	☑
RT In Range	☐	☐	☐	☑
RT Less	☐	☐	☐	☑
RT Less Or Equal	☐	☐	☐	☑
RT Not Equal	☐	☐	☐	☑
RT Out Range	☐	☐	☐	☑
RT Threshold	☐	☐	☐	☑

RT Data Transfers

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT DSP to PC Upload	☐	☐	☑	☑
RT Memory Dump	☐	☐	☑	☑
RT PC to DSP Download	☐	☐	☑	☑

RT Digital Logic

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT 1 to 2 Demultiplexer	☐	☐	☐	☑
RT 1 to 4 Demultiplexer	☐	☐	☐	☑
RT 2 to 1 Multiplexer	☐	☐	☐	☑
RT 4 to 1 Multiplexer	☐	☐	☐	☑

RT DSP Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Accumulate	☐	☐	☑	☑
RT Autocorrelation	☐	☐	☑	☑
RT Biquad	☐	☐	☑	☑
RT Center Clip	☐	☐	☐	☑
RT Clip	☐	☐	☑	☑
RT Correlation	☐	☐	☑	☑
RT Decimate	☐	☐	☐	☑
RT Double-Sided Magnitude	☐	☐	☐	☑
RT Double-Sided Phase	☐	☐	☐	☑
RT FIR Filter	☐	☐	☑	☑
RT Fixed HPF	☐	☐	☑	☑
RT Fixed LPF	☐	☐	☑	☑
RT Frequency Zoom	☐	☐	☑	☑
RT IIR Filter	☐	☐	☑	☑
RT Interpolate	☐	☐	☐	☑
RT Magnitude	☐	☐	☑	☑
RT Magnitude Optimized for C3x	☐	☐	☐	☑
RT Phase	☐	☐	☑	☑
RT Power Spectrum	☐	☐	☑	☑
RT Scale	☐	☐	☑	☑

RT Effects

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Notch Filter	☐	☐	☐	☑
RT Variable Notch Filter	☐	☐	☐	☑

RT Execution Control

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Stop on Frame Count	☐	☐	☑	☑

RT Frame Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Buffer	☐	☐	☑	☑
RT Concatenate	☐	☐	☑	☑
RT Dynamic Frame Pad	☐	☐	☑	☑
RT Extract Sample	☐	☐	☑	☑

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Frame Count	☐	☐	☑	☑
RT Frame Delay	☐	☐	☑	☑
RT Pad	☐	☐	☑	☑
RT Replace Sample	☐	☐	☑	☑
RT Reverse	☐	☐	☑	☑
RT Rotate	☐	☐	☑	☑
RT Search	☐	☐	☑	☑
RT Shift	☐	☐	☑	☑
RT Split	☐	☐	☑	☑
RT Spool	☐	☐	☑	☑
RT Subset	☐	☐	☑	☑
RT Triggered Buffer	☐	☐	☑	☑

RT General Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Delay	☐	☐	☑	☑
RT Delay (w/Initial Value)	☐	☐	☑	☑
RT Variable Delay	☐	☐	☑	☑

RT Logical Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT 4 Input AND	☐	☐	☐	☑
RT 4 Input OR	☐	☐	☐	☑
RT Decimal to Binary	☐	☐	☐	☑
RT Logical AND	☐	☐	☐	☑
RT Logical NAND	☐	☐	☐	☑
RT Logical NOR	☐	☐	☐	☑
RT Logical NOT	☐	☐	☐	☑
RT Logical OR	☐	☐	☐	☑
RT Logical XOR	☐	☐	☐	☑

RT Multi Channel

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Interleave 2 Channels	☐	☐	☐	☑
RT Interleave 3 Channels	☐	☐	☐	☑
RT Interleave 4 Channels	☐	☐	☐	☑
RT Interleave 5 Channels	☐	☐	☐	☑
RT Separate 2 Channels	☐	☐	☐	☑
RT Separate 3 Channels	☐	☐	☐	☑
RT Separate 4 Channels	☐	☐	☐	☑
RT Separate 5 Channels	☐	☐	☐	☑

RT PCI44 Hardware Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
IP DAC	☐	☐	☐	☑

RT Signal Generators

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Constant Generator	☐	☐	☑	☑
RT Cosine Generator	☐	☐	☑	☑
RT Gaussian Noise Generator	☐	☐	☑	☑
RT Gen. Gauss. Noise Generator	☐	☐	☑	☑
RT Impulse Noise Generator	☐	☐	☐	☑
RT Noise Generator	☐	☐	☑	☑
RT Pulse Train Generator	☐	☐	☑	☑
RT Quadrature Oscillator	☐	☐	☑	☑
RT Ramp Generator	☐	☐	☑	☑
RT Sine Generator	☐	☐	☑	☑
RT Square Wave Generator	☐	☐	☑	☑

RT Sweep Generator	☐	☐	☑	☑
RT Triangle Generator	☐	☐	☑	☑
RT Unit Impulse Generator	☐	☐	☑	☑
RT Variable Sine Generator	☐	☐	☑	☑

RT Speech Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT ADPCM Decoder	☐	☐	☐	☑
RT ADPCM Encoder	☐	☐	☐	☑
RT Linear Predictive Coding	☐	☐	☐	☑

RT Statistical Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Covariance	☐	☐	☑	☑
RT Event Counter	☐	☐	☑	☑
RT Frame Maximum	☐	☐	☑	☑
RT Frame Minimum	☐	☐	☑	☑
RT Frame Standard Deviation	☐	☐	☑	☑
RT Frame Variance	☐	☐	☑	☑
RT Frame Zero Crossings	☐	☐	☑	☑
RT Global Maximum	☐	☐	☑	☑
RT Global Mean	☐	☐	☑	☑
RT Global Minimum	☐	☐	☑	☑
RT Global Variance	☐	☐	☑	☑
RT Global Zero Crossings	☐	☐	☑	☑
RT Mean	☐	☐	☑	☑
RT Peak Extractor	☐	☐	☐	☑
RT Peak Hold	☐	☐	☑	☑
RT Root Mean Square	☐	☐	☑	☑
RT Sort	☐	☐	☑	☑

RT Transforms

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT DFT	☐	☐	☑	☑
RT FFT	☐	☐	☑	☑
RT FFT Optimized for C3x	☐	☐	☐	☑
RT Four Freq. Goertzel	☐	☐	☐	☑
RT Goertzel Algorithm	☐	☐	☐	☑
RT Inverse FFT	☐	☐	☑	☑

RT Trig Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT ArcCos(x)	☐	☐	☑	☑
RT ArcSin(x)	☐	☐	☑	☑
RT ArcTan(x)	☐	☐	☑	☑
RT Arctanq(x)	☐	☐	☑	☑
RT Cos(x)	☐	☐	☑	☑
RT Cosh(x)	☐	☐	☑	☑
RT Cot(x)	☐	☐	☑	☑
RT Sin(x)	☐	☐	☑	☑
RT Sinc(x)	☐	☐	☑	☑
RT Sinh(x)	☐	☐	☑	☑
RT Tan(x)	☐	☐	☑	☑
RT Tanh(x)	☐	☐	☑	☑

RT Wavelet Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Daub4	☐	☐	☐	☑
RT Daub6	☐	☐	☐	☑

RT Window Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
RT Bartlett Window	☐	☐	☐	☑
RT Blackman Window	☐	☐	☐	☑
RT Gauss Window	☐	☐	☐	☑
RT Hamming Window	☐	☐	☑	☑
RT Kaiser Window	☐	☐	☐	☑
RT Welch Window	☐	☐	☐	☑

Simulation Library

(Filter Design)

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
BUTWTH.DLL	☑	☑	☑	☑
CHEBYI.DLL	☑	☑	☑	☑
CHEBYII.DLL	☑	☑	☑	☑
ELLIPTIC.DLL	☑	☑	☑	☑
FILTER.EXE	☑	☑	☑	☑
FKAISER.DLL	☑	☑	☑	☑
MCCLELLN.DLL	☑	☑	☑	☑

(Help System)

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
BDTUTOR.HLP	☑	☑	☑	☑
BLKFUNC.HLP	☑	☑	☑	☑
BLOCK.HLP	☑	☑	☑	☑
PRODINFO.HLP	☑	☑	☑	☑

(System DLL)

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
ANAMETER.DLL	☑	☑	☐	☑
BDDK.DLL	☑	☑	☑	☑
FADER.DLL	☐	☑	☑	☑
HDISP1.DLL	☑	☑	☑	☑
HDISPLAY.DLL	☑	☑	☑	☑
KNOB.DLL	☑	☑	☐	☑
METER.DLL	☐	☑	☐	☑

(System Files)

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
FILEIO.INI	☑	☑	☑	☑

(System Functions)

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
ASCHEX.FIO	☑	☑	☑	☑
ASCII.FIO	☑	☑	☑	☑
BINDBL.FIO	☑	☑	☑	☑
BINFLT.FIO	☑	☑	☑	☑
BININT.FIO	☑	☑	☑	☑
BINSWP.FIO	☑	☑	☑	☑
HSW.FIO	☑	☑	☑	☑
WAVE.FIO	☑	☑	☑	☑
WAVEPACK.FIO	☑	☑	☑	☑

Arithmetic Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Absolute Value	☑	☑	☑	☑
Add	☑	☑	☑	☑

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Complex Conjugate	☐	☑	☐	☑
Complex to Real	☑	☑	☐	☑
dB Amplitude	☐	☑	☐	☑
dB Power	☐	☑	☐	☑
Difference Equation	☐	☑	☐	☑
Differentiate	☑	☑	☐	☑
Divide	☑	☑	☐	☑
Exponential	☑	☑	☐	☑
Five Input Add	☐	☑	☐	☑
Four Input Add	☐	☑	☐	☑
Global Variable	☑	☑	☑	☑
Integrate	☑	☑	☐	☑
Log	☑	☑	☐	☑
Log10	☑	☑	☐	☑
Logx(y)	☑	☑	☐	☑
Modulus	☑	☑	☐	☑
Multiply	☑	☑	☐	☑
Polar to Rectangular	☐	☑	☐	☑
Pow	☑	☑	☐	☑
Product	☐	☑	☐	☑
Real to Complex	☑	☑	☐	☑
Reciprocal	☑	☑	☐	☑
Rectangular to Polar	☐	☑	☐	☑
Square	☑	☑	☐	☑
Square Root	☑	☑	☐	☑
Static Array (buffer)	☐	☑	☐	☑
Subtract	☑	☑	☐	☑
Sum	☑	☑	☐	☑
Three Input Add	☐	☑	☐	☑

Bit Conversion Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Bit Mask	☐	☑	☐	☑
Bit Reverse	☐	☑	☐	☑
Ones Complement	☑	☑	☐	☑
Pack - Incomplete	☐	☑	☐	☑
Shift Left	☑	☑	☐	☑
Shift Right	☑	☑	☐	☑
Unpack - Incomplete	☐	☑	☐	☑

Character Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Convert Character to String	☐	☑	☐	☑
Convert Number to Character String	☐	☑	☐	☑
Find Substring	☐	☑	☐	☑
Generate Character String	☐	☑	☐	☑

Communications Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
1st Order Butterworth Filter	☐	☑	☐	☑
AGC	☑	☑	☐	☑
Averaged Periodogram	☐	☑	☐	☑
BER	☐	☑	☐	☑
Channel Perturber	☐	☑	☐	☑
Fixed Offset	☑	☑	☐	☑
Gain	☑	☑	☐	☑
Integrate and Dump	☐	☑	☐	☑
Leaky LMS Adaptive Filter	☐	☑	☐	☑

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
LMS Adaptive Filter	☐	☑	☐	☑
Loop Filter	☐	☑	☐	☑
NCO	☐	☑	☐	☑
Periodogram	☐	☑	☐	☑
Phase Decoder	☐	☑	☐	☑
Phase Locked Loop	☐	☑	☐	☑
Rectify	☑	☑	☐	☑
Spectral Inversion	☑	☑	☐	☑
Strobe	☐	☑	☐	☑

Companding

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
A-87.6 Decode	☐	☑	☐	☑
A-87.6 Encode	☐	☑	☐	☑
u-255 Decode	☐	☑	☐	☑
u-255 Encode	☐	☑	☐	☑

Conditional Operators

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Equal	☐	☑	☐	☑
Greater Than	☐	☑	☐	☑
Greater Than / Equal	☐	☑	☐	☑
IF-ELSE/COUNTER	☐	☑	☐	☑
In Range	☐	☑	☐	☑
Less Than	☐	☑	☐	☑
Less Than / Equal	☐	☑	☐	☑
Loop Counter	☐	☑	☐	☑
Not	☐	☑	☐	☑
Not Equal	☐	☑	☐	☑

Digital Logic

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
1 to 2 Demultiplexer	☑	☑	☐	☑
1 to 4 Demultiplexer	☐	☑	☐	☑
2 to 1 Multiplexer	☑	☑	☐	☑
2 to 4 Decoder	☐	☑	☐	☑
4 to 1 Multiplexer	☐	☑	☐	☑
Schmidt Trigger	☐	☑	☐	☑

Displays

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
1 Channel X Display	☐	☑	☐	☑
2 Channel X Display	☐	☑	☐	☑
2-Channel Display	☑	☑	☑	☑
Character Display - Incomplete	☐	☑	☐	☑
Digital Display	☑	☑	☑	☑
Single Channel Display	☑	☑	☑	☑
Spectrogram	☐	☑	☐	☑
Text Display	☑	☑	☑	☑
Waveform Editor	☐	☑	☐	☑
XY Display	☑	☑	☐	☑
XY Display with Intensity	☐	☑	☐	☑

DSP Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
1/3 Octave Band Analyzer	☐	☑	☐	☑
2-Sided Magnitude	☐	☑	☐	☑
2-Sided Phase	☐	☑	☐	☑
Accumulate	☑	☑	☐	☑

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Autocorrelation	☑	☑	☐	☑
Biquad	☐	☑	☐	☑
Center Clip	☑	☑	☐	☑
Clip	☑	☑	☐	☑
Convolution	☑	☑	☐	☑
Correlation	☑	☑	☐	☑
Dead Band	☐	☑	☐	☑
Decimate	☑	☑	☐	☑
FIR Filter	☑	☑	☐	☑
IIR Filter	☑	☑	☐	☑
Interpolate	☑	☑	☐	☑
Magnitude	☑	☑	☑	☑
Median Filter	☐	☑	☐	☑
Octave Band Analyzer	☐	☑	☐	☑
Offset	☑	☑	☐	☑
Peak Extractor	☐	☑	☐	☑
Phase	☑	☑	☐	☑
Power Spectrum	☑	☑	☐	☑
Quantizer	☐	☑	☐	☑
Scale	☐	☑	☐	☑
Tap Weight Buffer	☐	☑	☐	☑
Threshold	☑	☑	☐	☑
Transfer Function	☐	☑	☐	☑
Zero Crossing	☑	☑	☐	☑

Effects

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Notch Filter	☐	☑	☐	☑
Variable Bandpass Filter	☐	☑	☐	☑

File I/O Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
File Write	☑	☑	☑	☑
Super File Read	☑	☑	☑	☑
Super File Write	☑	☑	☑	☑

Frame Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Buffer	☑	☑	☑	☑
Concatenate	☑	☑	☐	☑
Dynamic Frame Pad	☐	☑	☐	☑
Extract Sample	☑	☑	☐	☑
Frame Count	☑	☑	☐	☑
Frame Deinterleaver	☐	☑	☐	☑
Frame Shift	☐	☑	☐	☑
Frame Size	☐	☑	☐	☑
Framesize Conversion	☐	☑	☐	☑
Framesize Expander or Compressor	☐	☑	☐	☑
Pad	☑	☑	☐	☑
Peak Hold	☐	☑	☐	☑
Replace Sample	☑	☑	☐	☑
Replace Subset	☐	☑	☐	☑
Reverse	☑	☑	☐	☑
Rotate	☐	☑	☐	☑
Sample Rate	☑	☑	☐	☑
Scrolling Buffer	☐	☑	☐	☑
Search	☐	☑	☐	☑
Sort	☐	☑	☐	☑

	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Split	☑	☑	☐	☑
Subset	☑	☑	☐	☑
Triggered Buffer	☐	☑	☐	☑

General Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Channel Information	☐	☑	☐	☑
Convert	☑	☑	☐	☑
Create Color	☐	☑	☐	☑
Delay	☑	☑	☐	☑
Keyboard Receiver	☐	☑	☐	☑
Read Com Port	☐	☑	☐	☑
Sample-and-Hold	☐	☑	☐	☑
Serial Command Receiver	☐	☑	☐	☑
Table Lookup	☐	☑	☐	☑
Terminate Block Diagram	☑	☑	☐	☑
Write Com Port	☐	☑	☐	☑

Logical Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
4 Input AND	☐	☑	☐	☑
4 Input OR	☐	☑	☐	☑
Decimal to Binary	☐	☑	☐	☑
Logical AND	☑	☑	☐	☑
Logical NAND	☑	☑	☐	☑
Logical NOR	☑	☑	☐	☑
Logical NOT	☑	☑	☐	☑
Logical OR	☑	☑	☐	☑
Logical XOR	☑	☑	☐	☑

Multi-channel

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
De-interleave 2 Channels	☑	☑	☐	☑
De-interleave 3 Channels	☐	☑	☐	☑
De-interleave 4 Channels	☐	☑	☐	☑
De-interleave 5 Channels	☐	☑	☐	☑
De-Interleave 8 Channels	☐	☑	☐	☑
Interleave 2 Channels	☑	☑	☐	☑
Interleave 3 Channels	☐	☑	☐	☑
Interleave 4 Channels	☐	☑	☐	☑
Interleave 5 Channels	☐	☑	☐	☑
Interleave 8 channels	☐	☑	☐	☑

Network Utilities

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Internet Receiver	☐	☑	☐	☑
Internet Transceiver	☐	☑	☐	☑
Internet Transmitter	☐	☑	☐	☑

Signal Generators

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Arbitrary Signal Generator	☐	☑	☐	☑
Complex Exponential Generator	☐	☑	☐	☑
Constant Generator	☑	☑	☑	☑
Cosine Generator	☑	☑	☐	☑
Gaussian Generator	☐	☑	☐	☑
General Gaussian Generator	☐	☑	☐	☑
Impulse Generator	☐	☑	☐	☑
Impulsive Noise Generator	☑	☑	☐	☑

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Noise Generator	☐	✓	✓	✓
PRN Generator	☐	✓	☐	✓
Pulse Train Generator	☐	✓	☐	✓
Ramp Generator	✓	✓	☐	✓
Sine Generator	✓	✓	✓	✓
Square Wave Generator	✓	✓	☐	✓
Sweep (Chirp) Generator	✓	✓	✓	✓
Triangle Wave Generator	✓	✓	☐	✓
Variable Signal Generator	☐	✓	☐	✓

Sound Card

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Sound Card A/D	✓	✓	✓	✓

Speech Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
ADPCM Decoder	☐	✓	☐	✓
ADPCM Encoder	☐	✓	☐	✓
Linear Predictive Coding	☐	✓	☐	✓

Statistical Functions

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
4 Input Max	☐	✓	☐	✓
Covariance	☐	✓	☐	✓
Event Counter	☐	✓	☐	✓
Exponential Fit	☐	✓	☐	✓
Frame Cumulative	☐	✓	☐	✓
Frame Maximum	✓	✓	☐	✓
Frame Mean	✓	✓	☐	✓
Frame Minimum	✓	✓	☐	✓
Frame Range	✓	✓	☐	✓
Frame Standard Deviation	✓	✓	☐	✓
Frame Variance	✓	✓	☐	✓
Global Cumulative	☐	✓	☐	✓
Global Frame Mean	☐	✓	☐	✓
Global Maximum	✓	✓	☐	✓
Global Mean	✓	✓	☐	✓
Global Minimum	✓	✓	☐	✓
Global Range	✓	✓	☐	✓
Global Standard Deviation	✓	✓	☐	✓
Global Variance	✓	✓	☐	✓
Histogram	☐	✓	☐	✓
Linear Fit	✓	✓	☐	✓
Polynomial Fit	☐	✓	☐	✓
Root Mean Square	✓	✓	☐	✓

Transforms

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Cepstrum	☐	✓	☐	✓
Chirp z-Transform	☐	✓	☐	✓
Complex Cepstrum	☐	✓	☐	✓
DCT	☐	✓	☐	✓
DFT	✓	✓	☐	✓
Fast Hartley Transform	☐	✓	☐	✓
FFT	✓	✓	✓	✓
Four Freq. Goertzel Algorithm	☐	✓	☐	✓
Frequency Zoom	✓	✓	☐	✓
Goertzel Algorithm	☐	✓	☐	✓
Hilbert Transform	☐	✓	☐	✓

	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Inverse DCT	☐	✓	☐	✓
Inverse DFT	✓	✓	☐	✓
Inverse Fast Hartley Transform	☐	✓	☐	✓
Inverse FFT	✓	✓	☐	✓
Inverse Hilbert Transform	☐	✓	☐	✓

Trigonometric Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
ArcCosine(x)	✓	✓	☐	✓
ArcSine(x)	✓	✓	☐	✓
ArcTangent(x)	✓	✓	☐	✓
Arctangent(y/x)	☐	✓	☐	✓
Cosine(X)	✓	✓	☐	✓
Hyperbolic Cos(x)	✓	✓	☐	✓
Hyperbolic Sin(x)	✓	✓	☐	✓
Hyperbolic Tan(x)	✓	✓	☐	✓
Sinc(x)	✓	✓	☐	✓
Sine(x)	✓	✓	☐	✓
Tangent(x)	✓	✓	☐	✓

Wave I/O Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
Wave Player	✓	✓	☐	✓

Wavelet Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
Daub4	☐	✓	☐	✓
Daub6	☐	✓	☐	✓

Window Functions *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
Bartlett Window	✓	✓	☐	✓
Blackman Window	✓	✓	☐	✓
Boxcar Window	✓	✓	☐	✓
Gaussian Window	☐	✓	☐	✓
Hamming Window	✓	✓	✓	✓
Hanning Window	✓	✓	☐	✓
Kaiser Window	☐	✓	☐	✓
Saramaki Window	☐	✓	☐	✓
Welch Window	☐	✓	☐	✓

User Control Library

Clocks and Timers *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
Alarm Clock	☐	✓	☐	✓
Timer	☐	✓	☐	✓

Input Devices *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
Keypad	☐	✓	✓	✓

Output Devices *Menu Name*	*Block Diagram Academic Edition*	*Block Diagram Standard Edition*	*RIDE Academic Edition*	*RIDE Standard Edition*
Annunciator	☐	✓	☐	✓
Data Display	✓	✓	☐	✓
LED	☐	✓	☐	✓

Pushbutton Input Devices

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Momentary Button	☐	☑	☐	☑
Toggle Button	☐	☑	☐	☑

Variable Input Devices

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Horizontal Slider	☐	☑	☐	☑
Knob	☑	☑	☐	☑
Vertical Slider	☐	☑	☐	☑

Variable Output Devices

Menu Name	Block Diagram Academic Edition	Block Diagram Standard Edition	RIDE Academic Edition	RIDE Standard Edition
Analog Meter	☑	☑	☐	☑
Horizontal Bar Chart	☐	☑	☐	☑
LED Meter	☐	☑	☐	☑
Vertical Bar Chart	☐	☑	☐	☑