

wwwMatLab2009.txt

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NOTES for MatLab programs distributed to www.picosecond.com requests

Each program contains a lot of explanatory notes on how to use it.

Some programs also include technical references.

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| PulseMeasV31.m (8/31/09) either NEW in determine | performs Pulse Parameter Analysis of a pulse waveform. plots waveform and gives a table of results. Measures step-like or impulsive waveforms or measures all pulses in a multiple pulse train. Uses histogram method to 0% baseline and 100% topline levels. |
| SpecAnalysisV21.m (9/7/09) | Spectrum Analyzer program for periodic or transient waveforms measured by a digital oscilloscope. For details see PSPL app.note AN-16a -- minor mod from 2004 version 2.0 |
| TDVNAv21.m S11 (9/7/09) | Time Domain Vector Network Analyzer program to determine & S21 parameters from digital oscilloscope TDR & TDT measurements. For details, see PSPL app. note, AN-16a --- minor mod from 2004 version 2.0 |
| HdeconV3.m response, (9/7/09) digital NEW | Deconvolution program. Determines system impulse h(t) from input & output TDT waveforms measured by a oscilloscope. See PSPL app.note, AN-18 Includes a selection of decon filters, plus a NEW Noise Floor filter. |
| VinDeconV31.m (t) (9/6/09) response, NEW points | Deconvolution program. Determines input waveform, vin from output waveform, vout(t) and system impulse h(t). General purpose program for most waveforms. h(t) must have a time window of 2*Tw and have 2*N data For details, see PSPL app.note, AN-18 Includes a selection of decon filters, plus a NEW Noise Floor filter. |

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| JitterDeconV1.m from (8/28/09) NEW | Jitter Deconvolution program. Deconvolution of $v_{in}(t)$ $v_{out}(t)$ & jitter Gaussian impulse response $h_j(t)$. Uses NEW Noise Floor Filter technique. See PSPL app. note, AN-23 |
| Plot4Waveforms.m must be (9/7/09) | Waveform plotting program for 1 to 4 waveforms. All for same time window and have same # of data points. |
| WaveModifyV1.m reducing (11/8/04) | program allows user to modify a waveform array, by # of data points, time shifting and zero padding. |
| WaveModifyV2.m (11/10/04) altering | program allows user to modify a waveform array, by time shifting, and selecting a smaller time window and the # of data points (more or less) using interpolation. |