

## KLIPPEL Analyzer System Package Examples

Examples only. Please check components for your application with the specifications or send a request to KLIPPEL.

Effective from March 15, 2020. Currency: EURO. All prices net, EXW (tax, duty, transportation, support extra).

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<b>System for Transducer Parameter Measurement (Linear)</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.170 €
Modules	TRF Standard - Transfer Function Measurement <sup>3</sup>	950 €
	LPM - Linear Parameter Measurement	950 €
total:		<b>8.070 €</b>

<b>Minimal System for Large Signal Woofer Measurement</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.170 €
Modules	LSI3 Woofer - Identification of linear and nonlinear parameters of woofers	5.600 €
total:		<b>11.770 €</b>

Without laser electrical information available only, no mechanical. The shape of nonlinear curves is exact.

To have axis calibrated in absolute terms (N/A or mm) LSI3 needs information from the mechanics.

Importing parameters: BI(x=0) and/or MMS (moving mass) are recommended.

<b>Typical System for Woofer + Tweeter Measurement</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.170 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	1.950 €
	LPM - Linear Parameter Measurement	950 €
	LSI3 Woofer - Identification of linear and nonlinear parameters of woofers	5.600 €
	LSI3 Micro-Speaker - identification of linear and nonlinear parameters of micro-speakers	5.600 €
	DIS - 3D Distortion Measurement Standard	3.300 €
	TBM - Tone Burst Measurement (CEA2010)	1.900 €
Accessory <sup>4</sup>	Laser Set LK-H052 (all purpose) or Laser Set LK-H082	7.600 €
	Translation stage (incl. Micrometer)	720 €
	Professional Driver Stand	3.240 €
total:		<b>37.030 €</b>

<b>Typical System for Small Speaker Measurement (Micro-Speaker, Multimedia Speaker, Tweeter)</b>		
Hardware <sup>2</sup>	Klippel Analyzer 3 (ALSX) - including internal amplifier	7.170 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	1.950 €
	LPM - Linear Parameter Measurement	950 €
	LSI3 Micro-Speaker - identification of linear and nonlinear parameters of micro-speakers	5.600 €
	DIS - 3D Distortion Measurement Standard	3.300 €
Accessory <sup>4</sup>	Laser Set LK-H052 (all purpose)	7.600 €
	Translation stage (incl. Micrometer)	720 €
	Micro-speaker Clamping	1.360 €
total:		<b>28.650 €</b>

<b>Scanning Vibrometer System (minimal)</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.170 €
Modules	TRF Standard - Transfer Function Measurement	950 €
SCN	SCN Vibrometer Set (incl. hardware and software)	27.400 €
Accessory <sup>4</sup>	Laser Set LK-H052 <b>(for SCN only)</b>	7.100 €
	<b>total:</b>	<b>41.620 €</b>

<b>Typical System for Woofer + Tweeter Measurement with Scanning Vibrometer</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.170 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	1.950 €
	LPM - Linear Parameter Measurement	950 €
	LSI3 Woofer - Identification of linear and nonlinear parameters of woofers	5.600 €
	LSI3 Micro-Speaker - Identification of linear and nonlinear parameters of micro-speakers	5.600 €
	DIS - 3D Distortion Measurement Standard	3.300 €
	TBM - Tone Burst Measurement (CEA2010)	1.900 €
Accessory <sup>4</sup>	Laser Set LK-H052 (for SCN only)	7.100 €
	Laser Set LK-H082 (all-purpose)	7.600 €
	Translation stage (incl. Micrometer)	720 €
	Microphone Mic 255 IEPE 1/2" Set	1.000 €
	Professional Driver Stand	3.240 €
SCN	SCN Vibrometer Set (incl. hardware and software)	27.400 €
SCN optional modules	RMA - Rocking Mode Analysis	3.900 €
	Radiation Area SD	1.050 €
	Sound Power/Directivity	1.050 €
	<b>total:</b>	<b>78.530 €</b>

<b>Typical System for Micro-Speaker Measurement with Scanning Vibrometer</b>		
Hardware <sup>2</sup>	Klippel Analyzer 3 (ALSX) - including internal amplifier	7.170 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	1.950 €
	LPM - Linear Parameter Measurement	950 €
	MMT - Microspeaker Multipoint Tool	2.800 €
	LSI3 Micro-Speaker - Identification of linear and nonlinear parameters of micro-speakers	5.600 €
	DIS - 3D Distortion Measurement Standard	3.300 €
Accessory <sup>4</sup>	Laser Set LK-H052 (for SCN only)	7.100 €
	Vacuum Measurement Kit	2.990 €
	Vacuum Stand	940 €
	Microphone Mic 255 IEPE 1/2" Set	1.000 €
	Mic Gooseneck	63 €
	Mic Clamping Adapter; Swivel Head / Ball Joint	39 €
SCN	SCN Vibrometer Set (incl. hardware and software)	27.400 €
SCN optional modules	RMA - Rocking Mode Analysis	3.900 €
	Radiation Area SD	1.050 €
	Sound Power/Directivity	1.050 €
	<b>total:</b>	<b>67.302 €</b>

<b>System for Measurement of Balanced Armature Transducer with Scanning Vibrometer</b>		
Hardware <sup>2</sup>	Klippel Analyzer 3 (ALSX) - including internal amplifier	7.170 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	1.950 €
	LPM - Linear Parameter Measurement	950 €
	BAC - Balanced Armature Check	5.200 €
	DIS - 3D Distortion Measurement Standard	3.300 €
Accessory <sup>4</sup>	Laser Set LK-H052 (for SCN only)	7.100 €
	Vacuum Stand (Micro-Speaker fixture on SCN turntable)	1.020 €
	Microphone Mic 255 IEPE 1/2" Set	1.000 €
	Mic Gooseneck	63 €
	Mic Clamping Adapter; Swivel Head / Ball Joint	39 €
SCN	SCN Vibrometer Set (incl. hardware and software)	27.400 €
SCN optional modules	Radiation Area SD	1.050 €
	<b>total:</b>	<b>56.242 €</b>

**Typical Simulation Tools - for typical systems for Woofer, Tweeter or Micro Speaker Measurements**

Modules	SIM - Simulation <sup>5</sup>	3.570	€
	SIM-AUR - Simulation and Auralization of large signal speaker perform. (with music) <sup>6</sup>	4.300	€
	total:	<b>7.870</b>	<b>€</b>

<sup>1</sup>also required: Computer and Amplifier or Klippel Analyzer 3 with Amp Card: 7.170 €

<sup>2</sup>also required: Computer

<sup>3</sup>Measurement Microphone required

<sup>4</sup>other laser may be required in addition

<sup>5</sup>DIS required

<sup>6</sup>LPM and/or LSI and/or SIM2 required