

## KLIPPEL Analyzer System Package Examples

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

Effective from September 01, 2020. Currency: EURO. All prices net, EXW (tax, duty, transportation, support extra).  
 Klippel GmbH, Germany, Tel.: +49-351-501 939 0, Fax.: +49-351-501 939 10, E-Mail: info@klippel.de, Web: www.klippel.de

<b>System for Transducer Parameter Measurement (Linear)</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.780 €
Modules	TRF Standard - Transfer Function Measurement <sup>3</sup>	1.040 €
	LPM - Linear Parameter Measurement	1.040 €
total:		<b>8.860 €</b>

<b>Minimal System for Large Signal Woofer Measurement</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.780 €
Modules	LSI3 Woofer - Identification of linear and nonlinear parameters of woofers	6.160 €
total:		<b>12.940 €</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)	6.780 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	2.140 €
	LPM - Linear Parameter Measurement	1.040 €
	LSI3 Woofer - Identification of linear and nonlinear parameters of woofers	6.160 €
	LSI3 Micro-Speaker - identification of linear and nonlinear parameters of micro-speakers	6.160 €
	DIS - 3D Distortion Measurement Standard	3.630 €
	TBM - Tone Burst Measurement (CEA2010)	2.090 €
Accessory <sup>4</sup>	Laser Set LK-H052 (all purpose) or Laser Set LK-H082	7.980 €
	Translation stage (incl. Micrometer)	780 €
	Professional Driver Stand	3.560 €
total:		<b>40.320 €</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	7.880 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	2.140 €
	LPM - Linear Parameter Measurement	1.040 €
	LSI3 Micro-Speaker - identification of linear and nonlinear parameters of micro-speakers	6.160 €
	DIS - 3D Distortion Measurement Standard	3.630 €
Accessory <sup>4</sup>	Laser Set LK-H052 (all purpose)	7.980 €
	Translation stage (incl. Micrometer)	750 €
	Micro-speaker Clamping	1.490 €
total:		<b>31.070 €</b>

<b>Scanning Vibrometer System (minimal)</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.780 €
Modules	TRF Standard - Transfer Function Measurement	1.040 €
SCN	SCN Vibrometer Set (incl. hardware and software)	28.770 €
Accessory <sup>4</sup>	Laser Set LK-H052 <b>(for SCN only)</b>	7.450 €
	<b>total:</b>	<b>44.040 €</b>

<b>Typical System for Woofer + Tweeter Measurement with Scanning Vibrometer</b>		
Hardware <sup>1</sup>	Klippel Analyzer 3 (LSX)	6.780 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	2.140 €
	LPM - Linear Parameter Measurement	1.040 €
	LSI3 Woofer - Identification of linear and nonlinear parameters of woofers	6.160 €
	LSI3 Micro-Speaker - Identification of linear and nonlinear parameters of micro-speakers	6.160 €
	DIS - 3D Distortion Measurement Standard	3.630 €
	TBM - Tone Burst Measurement (CEA2010)	2.090 €
Accessory <sup>4</sup>	Laser Set LK-H052 (for SCN only)	7.450 €
	Laser Set LK-H082 (all-purpose)	7.980 €
	Translation stage (incl. Micrometer)	750 €
	Microphone Mic 255 IEPE 1/2" Set	1.100 €
	Professional Driver Stand	3.560 €
SCN	SCN Vibrometer Set (incl. hardware and software)	28.770 €
SCN optional modules	RMA - Rocking Mode Analysis	4.290 €
	Radiation Area SD	1.150 €
	Sound Power/Directivity	1.150 €
	<b>total:</b>	<b>84.200 €</b>

<b>Typical System for Micro-Speaker Measurement with Scanning Vibrometer</b>		
Hardware <sup>2</sup>	Klippel Analyzer 3 (ALSX) - including internal amplifier	7.880 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	2.140 €
	LPM - Linear Parameter Measurement	1.040 €
	MMT - Microspeaker Multipoint Tool	3.080 €
	LSI3 Micro-Speaker - Identification of linear and nonlinear parameters of micro-speakers	6.160 €
	DIS - 3D Distortion Measurement Standard	3.630 €
Accessory <sup>4</sup>	Laser Set LK-H052 (for SCN only)	7.450 €
	Vacuum Measurement Kit	3.280 €
	Vacuum Stand	1.120 €
	Microphone Mic 255 IEPE 1/2" Set	1.100 €
	Mic Gooseneck	70 €
	Mic Clamping Adapter; Swivel Head / Ball Joint	40 €
SCN	SCN Vibrometer Set (incl. hardware and software)	28.770 €
SCN optional modules	RMA - Rocking Mode Analysis	4.290 €
	Radiation Area SD	1.150 €
	Sound Power/Directivity	1.150 €
	<b>total:</b>	<b>72.350 €</b>

<b>System for Measurement of Balanced Armature Transducer with Scanning Vibrometer</b>		
Hardware <sup>2</sup>	Klippel Analyzer 3 (ALSX) - including internal amplifier	7.880 €
Modules	TRF Pro - Transfer Function Measurement + rub & buzz <sup>3</sup>	2.140 €
	LPM - Linear Parameter Measurement	1.040 €
	BAC - Balanced Armature Check	5.720 €
	DIS - 3D Distortion Measurement Standard	3.630 €
Accessory <sup>4</sup>	Laser Set LK-H052 (for SCN only)	7.450 €
	Vacuum Stand (Micro-Speaker fixture on SCN turntable)	1.120 €
	Microphone Mic 255 IEPE 1/2" Set	1.100 €
	Mic Gooseneck	70 €
	Mic Clamping Adapter; Swivel Head / Ball Joint	70 €
SCN	SCN Vibrometer Set (incl. hardware and software)	28.770 €
SCN optional modules	Radiation Area SD	1.150 €
	<b>total:</b>	<b>60.140 €</b>

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

Modules	SIM - Simulation <sup>5</sup>	3.920	€
	SIM-AUR - Simulation and Auralization of large signal speaker perform. (with music) <sup>6</sup>	4.730	€
	total:	<b>8.650</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