

**ST-105S ST-105 ST-105D ST-105L**


L<sub>Aeq</sub>  
20Hz~200Hz

**Class 1 comply with IEC – 61672-2013 Class 1  
IEC – 61260-1995 Class 1**

**Features**

- Statistic analysis
- 24hr measurement
- Integral measurement
- Real time analyzer in 1/1 and 1/3 octave band
- It simultaneously measures A, C, Z and Fast, Slow, Impulse
- Data logging function (ST-105D)
- Auto start/Auto measuring/Auto end (ST-105D)
- Real time clock with calendar
- Sampling frequency : 20.8μs (48KHz)
- Wide dynamic range:90dB
- Wide frequency range: 10Hz~20KHz
- Wide measurement range: 25dB~140dB
- Measurement function: L<sub>xyp</sub>, LAFmax, LAF5, LAF10, LAF50, LAF90, LAF95, LAFmin SD, L<sub>Aeq1s</sub>, L<sub>AeqT</sub>, L<sub>AE</sub>, L<sub>AfeqT</sub>, L<sub>D</sub>, L<sub>N</sub>, L<sub>DN</sub>, L<sub>xyi</sub>, L<sub>xeq1s</sub>, L<sub>xeqT</sub>, L<sub>AE</sub>, E, Cpeak+, Cpeak-, LAFmax, LAFmin, LAFeqT, LASeqT, LAleqT, Lfmeq1s, LfmeqT, L<sub>xyp</sub>, L<sub>xyi</sub>, L<sub>xeq1s</sub>, L<sub>xeqT</sub>, L<sub>AE</sub>, E, Cpeak



Microphone build in preamplifier

**Analysis frequency range**

1/1 Octave (11 bands)	16Hz, 31.5Hz, 63Hz, 125Hz, 250Hz, 500Hz, 1KHz, 2KHz, 4KHz, 8KHz, 16KHz,
1/3 Octave (34 bands)	10Hz (ST-105D), 12.5Hz, 16Hz, 20Hz, 25Hz, 31.5Hz, 40Hz, 50Hz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200KHz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1KHz, 1.25KHz, 1.6KHz, 2KHz, 2.5KHz, 3.15KHz, 4KHz, 5KHz, 6.3KHz, 8KHz, 10KHz, 12.5KHz, 16KHz, 20KHz (ST-105D)

**ST-105 ST-105D ST-105L:**
**Parameters and performance of octave and 1/3 octave**

- Function: noise's real-time octave and 1/3 octave spectral analysis and integrating measurement
- Frequency weighting: parallel (simultaneous) A,C,Z. The spectral analysis interface is composed by the frequency spectrum. The total analysis interface is realized by digital filtering.
- Filter type: parallel (real-time) octave and 1/3 octave band filter, G=2,digital filter. The noise exposure (E)'s measuring range is 0-65.535 Pa2h.

## Specifications

Model	ST-105D	ST-105	ST-105S	ST-105L
Measurement Parameter	LXYP, LAFp, LAFmax, LAFmin, LAF5, LAF10, LAF50, LAF90, LAF95, SD, LAeq1s, LAeqT, LAE, LAeqT, LD, LN, LDn, Lxyi, Lxeq1s, LxeqT, LAE, E, Cpeak+, Cpeak-, LAFmax			
	Lfmeq1s, LFmeqT, Lxyp, Lxyi, Lxeq1s, LxeqT, LAE, E, CPeak			Lfmeq1s, LFmeqT, Lxyp, Lxyi, Lxeq1s, LxeqT, LAE, E, CPeak
Applications	Environmental noise measurement, machine's noise analyses and noise spectrum analyzer	Environmental noise measurement	Environmental noise measurement	Machine's noise analysis and noise spectrum analyzer
Display	LCD with Back Light(240X160 dots)			
Statistic Analysis	✓	✓	✓	
24H Measurement	✓	✓	✓	
Integrating	✓	✓	✓	✓
1/1 OCT	✓	✓		
1/3 OCT	✓	✓		✓
128 records Storage		✓	✓	✓
12288 records Storage	✓			
Auto Storage setup	✓			
Auto Start/Auto measuring	✓			
IEC 61672-1:2002 CLASS 1 ANSI SI.4 Type1 CNS NO.7129 Type1 JJG-188 :2002 CLASS 1	✓	✓	✓	✓
IEC 61260-1995 CLASS 1	✓	✓		✓
Display refresh	10 Hz for value ; 1Hz for graph			
Microphone	1/2" pre-polarized condenser microphone build in preamplifier, sensitivity : 50mV/Pa, frequency range :10Hz~20kHz, heat noise : <16dB(A)			
Measurement Range	25dB~140dB (A) 30dB~140dB (C) 35dB~140dB (Z)			
Dynamic Range	>90dB			
Instrument Background Noise	<13dB(A), 15dB(C), 25dB(Z)			
Maximum Peak C SoundLevel Measurement	50dB~143dB			
Time Weighting	Fast, Slow, Impulse, PeakC+, PeakC-			
Frequency Weighting	A/C/Z			
Integrating Time	1 second~24hour, set in a given range or randomly			
Frequency Range	10Hz~20KHz			
Range Gain	-10dB, 0dB, 10dB, 20dB, 30dB, 40dB			
Range Error	≤0.1dB			
Self-generated Noise Voltage	<4 μV(1Hz~23KHz)			
Measuring Voltage Range	15 μV ~ 10 Vrms			
Sampling Frequency	20.8 μs(48KHz)			
Analog output	AC			
Starting Time	<10 Seconds			
Interface	USB interface, mini B type. Complying with USB 1.1,compatible with USB 2.0, which can transfer the measuring result to PC, and transfer the data to the Flash disk up to 8G			
Power	LR6 1.5V x4 Alkaline batteries			
External Power	AC 100~240V to DC 5V			
Dimension	285x90x39xmm.(LxWxH)			
Weight	500g (including Batteries); 2.5kgs (including package)			