

# ST-105 Class 1 Integrating Sound Analyzer Meter



## 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)
- USB and RS-232 interface
- Real time clock with calendar
- Sampling frequency :20.8 $\mu$ s (48KHz)
- Wide frequency range:10Hz~20KHz
- Wide measurement range:25dB~140dB
- Wide dynamic range:90dB
- Fast,Slow,Impulse,PeakC+,PeakC-
- Measurement function:Lxyp,LAFmax,LAF5,LAF10,LAF10,LAF50,LAF90,LAF95,LAFmin  
SD,LAeq1s,LAeqT,LAE,LAfeqT,LD,LDN,LDN,Lxyi,Lxeq1s,LxeqT,LAE,E,Cpeak+,Cpeak-,LAFmax,LAFmin,LAFeq  
T,LASeqT,LALeqT,Lfmeq1s,LfmeqT,Lxyp,Lxyi,Lxeq1s,LxeqT,LAE,E,Cpeak

Analysis frequency range:

1/1 Octave (11 bands)	16Hz,31.5Hz,63Hz,125Hz,250Hz, 500Hz,1KHz, 2KHz, 4KHz,
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)
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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 Pa<sup>2</sup>h.

### 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,LAfeqT,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 any noise spectrum analyzer		Environmental noise measurement	Machine's noise analysis Noise spectrum analyzer
Display	LCD with back light (240x160 dots)			
Statistic analysis	V	V	V	
24h measurement	V	V	V	
Integrating	V	V	V	V
1/1 OCT	V	V		
1/3 OCT	V	V		V
128 records storage		V	V	V

12288 records storage	V			
Auto storage setup	V			
Auto start/ Auto measuring	V			
IEC 61672-1:2002 class 1 ANSI S1.4 Type1 CNS NO.7129 Type 1 JJG-188:2002 class 1	V	V	V	V
IEC 61260-1995 class 1	V	V		V
Display refresh	10Hz 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 peakC 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	$\leq 0.1\text{dB}$
Self-generated noise voltage	$< 4\mu\text{V}$ (1Hz~23KHz)
Measuring voltage range	15 $\mu\text{V}$ ~10Vrms
Sampling frequency	20.8 $\mu\text{s}$ (48KHz)
Analog output	AC
Starting time	$< 10$ second
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 1.5Vx4Alkaline batteries
External power	AC 100~240V to DC 5V
Dimension	285x90x39mm (LxWxH)
Weight	500g (including batteries);2.5kgs (including package)

## PRODUCTS