

LX-100 Series Specification																			
Input Amp Type		DC Input Amp (AR-LXDC100)						PA Input Amp (AR-LXPA100)						Strain Input Amp (AR-LXST100)					
I/O Type		Input		Input and Output				Input		Input and Output				Input		Input and Output			
Channels		8ch	16ch	32ch	8ch	16ch	32ch	8ch	16ch	32ch	8ch	16ch	32ch	8ch	16ch	32ch			
Main body	Weight	LX-110	3/67.9	3/98.6	6.1/13.4	3/98.6		6.1/13.4		3/67.9	3/98.6	6.1/13.4	3/98.6		6.1/13.4				
	Approx (kg/lb)	LX-120	3/78.1	4/8	6.2/13.6	4/8		6.2/13.6		3/78.1	4/8	6.2/13.6	4/8		6.2/13.6				
	Power	LX-110	30	36	48	36		48		35	46	66	46		66				
	Consumption(W)	LX-120	36	42	56	42		56		41	52	76	52		76				
Sampling Frequencies		96 / 48 / 24 / 12 / 6 / 3 / 1.5 kHz ( Common to each Channel )																	
LX-110		Low speed sampling		Cutoff Frequency		Attenuation													
LX-120		1kHz		400Hz		-80dB ( at 500Hz )													
		500Hz		200Hz		-80dB ( at 250Hz )													
		200Hz		80Hz		-80dB ( at 100Hz )													
		100Hz		40Hz		-80dB ( at 50Hz )													
		50Hz		20Hz		-80dB ( at 25Hz )													
		20Hz		8Hz		-80dB ( at 10Hz )													
		10/5/2/1Hz		4Hz		-80dB ( at 5Hz )													
		2/5/10/30/60s (cycle)		4Hz		-80dB ( at 5Hz )													
Sampling Frequencies		102.4 / 51.2 / 25.6 / 12.8 / 5.12 / 2.56 / 1.28 kHz																	
LX-110 only		65.536 / 32.768 / 16.384 / 8.192 / 4.096 / 2.048 / 1.024 kHz																	
		100 / 50 / 20 / 10 / 5 / 2 / 1 kHz ( Common to each Channel )																	
Tachometer Pulse Input		Num. of Input Channels : 12 x 16 bit Channels, 2 x 32 bit Channels (Highest sampling frequency settings support the moving average only at one(1))(Cannot be used simultaneously with generator output )																	
LX-120 only		Use the lowest 1bit for tachometer pulse timing bit.																	
		Input Format : Threshold level selections +0.5/1/2.5/10/20 V ( Max allowable input voltage is 50V )																	
		Input Connector : BNC																	
		Frequency Division Ratio Setting : 1 to 255																	
		Moving Average Measurement : 1 to 16																	
		Measurement Mode : Pulse count mode(Count of number of pulses within the gate time; Conunt of the total number from start to stop), Cycle count mode, Frequency measurement mode, RPM mode																	
Generator Output		( Cannot be used simultaneously with tachometer pulse input )																	
		Num. of Output Channels : 1																	
		Output signal : Sine wave, Sweep Sine wave, Pulse, Pink noise, White noise																	
		</																	



LX-100 series accepts the needs of customers.

LX-100 Series data acquisition and recording system was designed for reliable use in the lab and the field, and quick data processing. Following the convenience of TEAC DAT technology, the LX-100 Series enables a wider recording bandwidth. The connectivity to a transducer and PC are enhanced to meet the customer needs and offer cost-efficient data acquisition.

- Select 1

Choice of Main Body  
LX-110 / LX-120
- Select 2

Choice of Number of Channels \*  
8 / 16 / 32
- Select 3

Choice of Amplifier \*  
DC / PA / Strain / Output
- Select 4

Choice of Recording Devices \*  
Internal Memory / PC card
- Select 5

Choice of Interface \*  
Ethernet / Firewire(IEEE1394)
- Select 6

Choice of Control Unit  
Remote Control Unit / PC

\*Specify number of channels when you order

Records voltage, sound, vibration and strain from DC to 40kHz bandwidth

It achieves 100dB dynamic range by 24 bits AD  
\*PA amp 3.16V range.

Up to 128 channels of synchronous recording  
Up to 32 data channels can be recorded using an expansion unit.  
Up to four LX-100 units can be synchronized to achieve as much as 128 recording channels.  
(Recording synchronization is an optional function)

The wideband multi channel recording 20kHz x 8channels.  
It's twice the bandwidth as a DAT recorder provides.  
\* 16 bits AD mode

Up to 8GB recording  
FAT32 file system for large capacity card  
Up to 8GB card can be used at the moment.

The analog monitor output is available during recording.  
Time base conversion is possible in playback.

Recording format is TAFFmat, which is supported by many popular analysis software applications.

Through a remote control unit (stand-alone) or PC (LX Navi software), the LX-100 Series can be fully controlled



Acquired data also can be transmitted to the PC while media recording.

OPTION :  
Wave data display software  
LX View (PL-S1001)

Trigger recording  
Voice Memo recording  
A voice memo can be recorded, which simplifies the future data searches. Trigger recording offers the pre-trigger, level-trigger, the repeat and interval recording.

DC power supply and AC adapter  
OPTION : Battery Unit

Select 1

Choice of Main Body  
LX-110

Standard Model

The LX-110 provides superior recording and playback performance with selectable recording media and input/output configurations.

LX-120

High Specification Model

In addition to all recording and playback features of the LX-110, LX-120 provides the selection of additional sampling rate and Tachometer pulse inputs.

Various sampling frequencies from high speed to low speed for extended time recording are available as selection.

96kHz,102.4kHz,65.536kHz,100kHz and lower sampling are (from 1kHz to 1/60Hz).

LX-110 96kHz, lower sampling

LX-120 96, 102.4, 65.536, 100kHz , lower sampling

Select 4

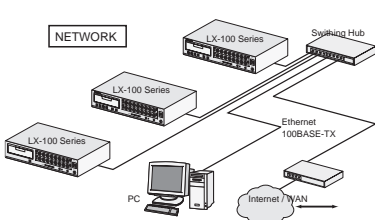
Choice of Recording Devices  
Internal Memory & PC card

Memory - From standard 64MB to 576MB of internal memory achieving the maximum recording rate.  
PC card - Supports up to 8GB PCMCIA Type II or Compact Flash enabling the recording in harsh environments.

Select 5

Choice of Interface  
Ethernet / Firewire(IEEE1394)

Simultaneous recording to media and PC with a selection of interfaces. A Firewire(IEEE1394) or 100BASE-TX Ethernet interface are available for the connection to the PC. The data can be transferred to a PC in real-time and displayed, processed and stored in the PC HDD.



Select 2

Choice of Number of Channels  
Up to 32 channels

8 or 16 recording channels with a main unit or 32 channels using an expansion unit.



Select 3

Choice of Amplifier  
Expandable amplifier with 8 channels per unit.

Various sensor amplifiers are available.

Three types of input amplifier cards are available :  
A DC input amp card with lower sampling (from 1kHz to 1/60Hz), a selectable DC/IEPE(\*) accelerometer input amp card, and a selectable DC/IEPE(\*) accelerometer input amp card. The output amplifier card outputs the analog voltage during recording and plays-back the analog voltage.

\* IEPE : Integrated Electronics Piezoelectric.

DC	DC input amplifier	[ AR-LXDC100 ]
PA	PA input amplifier	[ AR-LXPA100 ] With TEDS
Strain	Strain amplifier	[ AR-LXST100 ] Common use DC input
Output	Output amplifier	[ AR-LXAO100 ] lower sampling will be available in the near future.

Select 6

Choice of Control Unit  
Remote Control Unit or PC

Through a remote control unit (stand-alone) or PC (LX Navi software), the LX-100 Series can be fully controlled.

LX Navi



An example Amplifier board & number. of channels

DC Input Type	PA Input Type	Strain Input Type
8ch Input/Output	8ch Input/Output	8ch Input/Output
16ch Input	16ch Input	16ch Input
16ch Input/Output	16ch Input/Output	16ch Input/Output
32ch Input	32ch Input	32ch Input

Data Recording and Acquisition Unit LX-100 Series LX-110 / LX-120

Frequency Bandwidth vs. Recording Time

Internal memory recording An example ) Nom. of 8 Channels , 576MB Memory		Recording Time	
Frequency Bandwidth (Sampling Frequencies)		16bit	24bit
DC to 40 kHz (96 kHz )		Approx 6 minute	-
DC to 20 kHz (48 kHz )		Approx 12 minute	Approx 6 minute
DC to 10 kHz (24 kHz )		Approx 24 minute	Approx 12 minute
DC to 5 kHz (12 kHz )		Approx 48 minute	Approx 24 minute
DC to 2.5 kHz (6 kHz )		Approx 1 h 36 min	Approx 48 minute
DC to 1.25 kHz (3 kHz )		Approx 3 h 12 min	Approx 1 h 36 min
DC to 675 Hz (1.5 kHz )		Approx 6 h 24 min	Approx 3 h 12 min
DC to 400 Hz (1 kHz )		Approx 9 h 36 min	Approx 4 h 48 min
DC to 80 Hz (200 Hz )		Approx 48 hour	Approx 24 hour

Note : Recording rate is approx 1.6MB/sec ( DC to 40 kHz bandwidth x 8ch )

PC card recording An example ) Nom. of 8 Channels , 4GB PC card		Recording Time	
Frequency Bandwidth (Sampling Frequencies)		16bit	24bit
DC to 20 kHz (48 kHz )		Approx 1 h 20 min	-
DC to 10 kHz (24 kHz )		Approx 2 h 40 min	Approx 1 h 20 min
DC to 5 kHz (12 kHz )		Approx 5 h 20 min	Approx 2 h 40 min
DC to 2.5 kHz (6 kHz )		Approx 10 h 40 min	Approx 5 h 20 min
DC to 1.25 kHz (3 kHz )		Approx 21 h 20 min	Approx 10 h 40 min
DC to 675 Hz (1.5 kHz )		Approx 42 h 40 min	Approx 21 h 20 min
DC to 400 Hz (1 kHz )		Approx 64 hour	Approx 32 hour
DC to 80 Hz (200 Hz )		Approx 320 hour	Approx 160 hour

Note : Recording rate is approx 0.8MB/sec ( DC to 20 kHz bandwidth x 8ch )

Synchronous video and data recording

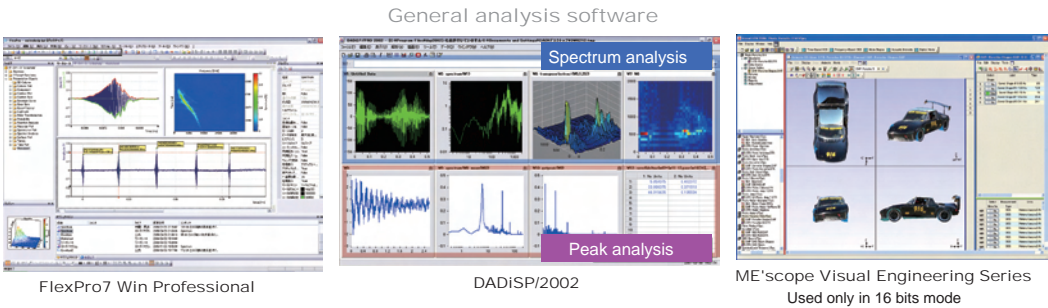
AQ-VU is a visual data recorder with which 4-channels of video and analog signals can be synchronously recorded and played back. By synchronizing LX-100 series data recorder with AQ-VU, a variety of data measurements are possible.



Connecting to Data Analysis Software

The recording format is TAFFmat which is compatible with Windows file system and it is commonly used by TEAC Digital Data Recorders. The TAFFmat data file can be read by LX View software and by many other popular analytical software applications.

A real-time front-end software (Windows DLL) is also available for a system integrator for direct control of LX Series recorders. Contact TEAC for detail.



Options

Remote Control Unit ( ER-LXRC100 )  
Display : Color LCD 320x240 pixels  
Functions :  
Bar meter display  
Main-unit control (setting recording reproducing)  
Microphone input  
External Dimension ( W x H x D ) :  
Approx 170 x 30 x 100 mm (excluding protruding Parts)  
Weight :  
Approx 0.65 kg (excluding cables)

Battery Unit ( BU-81 )  
Internal Battery Pack : HP-30L from Paco Electronics Industry Inc.  
Num. of Internal Battery Packs : 3 (battery packs described below)  
External Dimension ( W x H x D ) :  
Approx 300 x 27.5 x 200 mm 11 13/16" x 1 1/16" x 7 7/8" (excluding protruding Parts)  
Weight :  
Approx 1.5 kg/3 lb (excluding the battery pack and mounting brackets)

Battery Pack ( HP-30L )  
(Paco Electronics Industry Inc.)  
Supply voltage :13.2V  
Capacity : 3.3 Ah  
Weight : Approx 700 g /1.5lb  
Size : NP1type  
Battery charger for Battery Pack (KH-2S from Paco Electronics Industry Inc.)  
Power Supply : 100V AC (200V AC Automatic reshuffling)  
Slot for Battery Pack : 4



Vehicle Mount Adapter