

PRODUCT DATA

**Data Recorder — Type 7701
Throughput-to-Disk Option — UL0112
for PULSE, the Multi-analyzer System Type 3560**



Type 7701 adds a time data recorder to the tools available for PULSE™. By allowing you to record time data in real-time and recall it for analysis later, the data recorder can be especially useful:

- when working in the field
- when working in harsh environments
- when time is limited
- when real-time demands are excessive

Used with a Throughput-to-disk Option UL0112, the data recorder allows gap-free recording of up to 32 channels direct to a dedicated hard disk.

The Throughput-to-disk Option also lets you store multi-buffer data as files on the hard disk. Used, for example, with Order Analysis Type 7702, this allows you to make a series of run-up/down measurements and leave analysis till later.

7701, UL0112

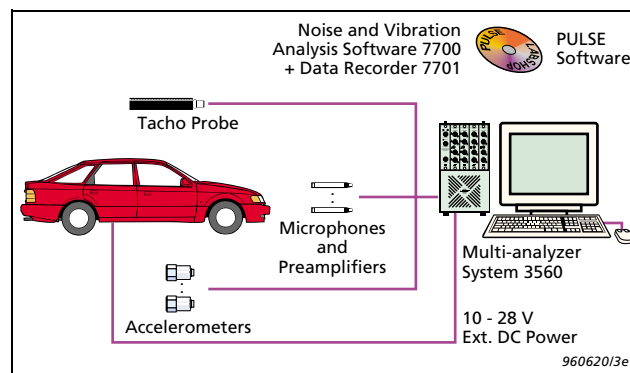
Uses and Features

- USES**
- Recording of time data direct to disk for later analysis using PULSE software
 - Recording of multi-buffer spectral data as files for further post-processing later

- FEATURES**
- Simultaneous throughput-to-disk and analysis, allowing verification of recorded data
 - Recording rate independent of PC performance, eliminating problems with real-time rate
 - Gap-free recording of up to 32 channels with 300 kHz channel × bandwidth product, for example:
 - 12 channels to 25.6 kHz
 - 24 channels to 12.8 kHz
 - 32 channels to 6.4 kHz
 - Single or repetitive triggering of recording
 - File Mover tool for managing data files
 - Variable replay speed allows data transfer rates to be matched to requirements for real-time analysis
 - Read out of data as WAV files with selectable sampling frequency, for example for use with Sound Quality Program Type 7698, or in Universal File Format or Standard Data Format

Data Recorder

Fig. 1 A data recording system configuration



The data recorder is an instrument that can be used in measurement templates to record data from up to 32 channels direct to disk.

The disk used is a separate, dedicated hard disk connected directly to

a DSP card in the PC. It is available as Throughput-to-disk Option¹ UL0112-00x (see [page 4](#)). Data recorded to disk can be simultaneously analysed while recording, or replayed later for analysis.

The recording rate allows a maximum channel times bandwidth product for gap-free recording of data of 300 kHz, for example, 12 channels to 25.6 kHz or 24 channels to 12.8 kHz.

Type 7701 is useful for automatic data gathering; for example, it can be set to record 2 seconds of data every 2 hours.

¹. TTD option

Portability

For use in the field or testing in vehicles, a 10–28V DC version of Acquisition Front-end Type 2825 is available. When used in conjunction with a portable, battery powered PC, this allows you to record time signals on up to 16 channels.

Setup Information

When you analyse recorded data, it is important that the same setup is used. Therefore, when data are stored on disk, full information on front-end configuration, transducers, calibration and measurement set-up are also stored.

File Mover

When Type 7701 is installed, a File Mover tool is available in PULSE to assist in the management of data files. The file mover allows you to copy, move and delete files and to create directories. For example, you can copy files from the TTD option disk (DSP disk) to the PC disk or network.

Since the DSP disk is connected directly to the PULSE DSP card(s) and operates independently of Microsoft® Windows NT®¹, it is invisible to the general operating system. The File Mover is thus the tool designed to access and (re)organise the DSP disk.

The normal drives accessible in file managers, like Windows Explorer, are also available using the file mover. An entire directory containing the recorder files can be copied from the DSP disk to local or network drives in order to share data with other users or for archiving purposes.

Data can also be copied from local or network drives to the DSP disk for further analysis. From local or network drives it is possible to use the file mover to export, copy or move the individual files in the following formats:

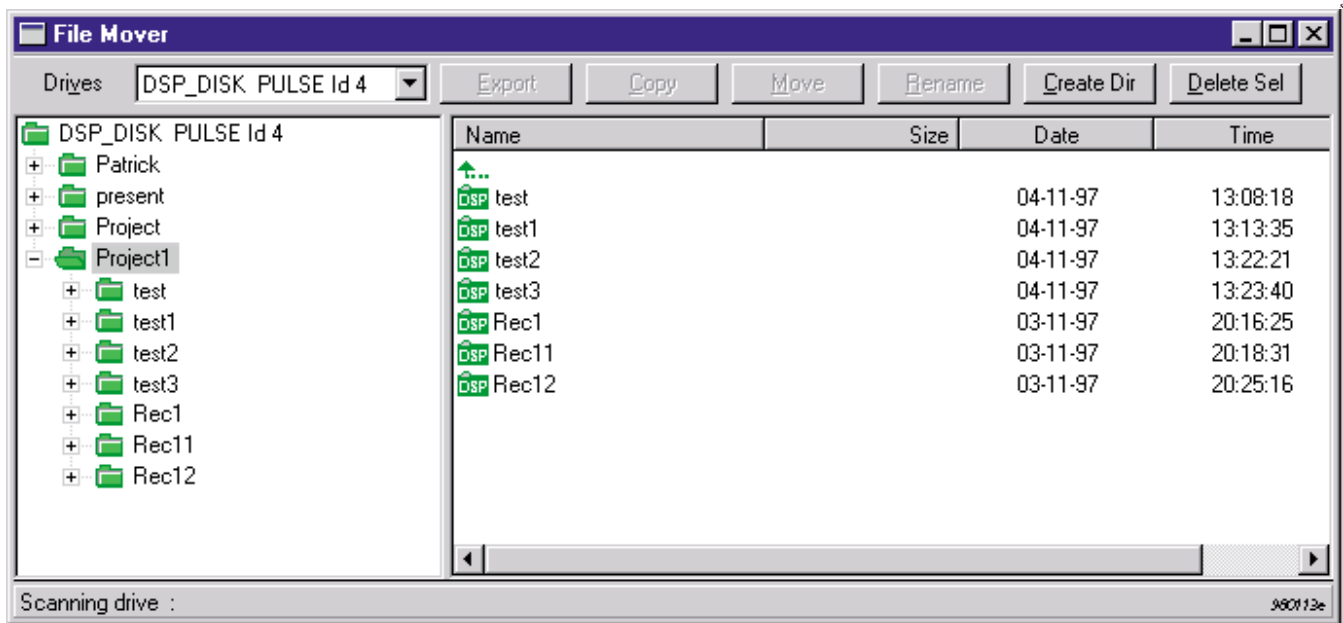
Data Recorder

- Universal File ASCII (UFF)
- Universal File Binary (BUNV)
- Standard Data Format (TIM)
- Wave Data (WAV)

Multi-buffer Files

- Measurement Template (MBS)
- Multi-buffer (MBF)

Fig. 2 The File Mover



¹. Microsoft and Windows NT are registered trademarks of Microsoft Corporation.

Throughput-to-disk Options

*Throughput-to-Disk Options
UL0112–00x allow high speed real-time data transfer to a dedicated hard disk.*

A TTD option UL0112 consists of a SCSI–2 interface module and a SCSI–2 hard disk with a recording rate to disk corresponding to a maximum channels times bandwidth product equal to 300 kHz.

UL0112–002, which has a 9 GB hard disk, is capable of recording, for example, more than 75 minutes of data from 12 channels to 25.6 kHz.

A TTD option also allows storage of multi-buffer data as files, reducing measurement time and allowing data to be analysed later.

When you store a multi-buffer as a file on the hard disk, you also store the measurement template. At a later stage you can use the Measurement Organiser to load the measurement template and the multi-buffer data, which is then available for analysis in the usual way.

Specifications – Data Recorder Type 7701

PULSE software for use with Multi-analyzer System Type 3560

PERFORMANCE

Frequency Span: Max. 102.4 kHz per channel

Channel × Bandwidth: 300 kHz

BASEBAND FREQUENCY SPAN

102.4, 51.2, 25.6, 12.8, 6.4 kHz

TRIGGERING

A recording session can be started manually or using a trigger. If triggering is used, this can be a single or repetitive trigger. Each time a trigger occurs, a new data track is recorded for a specified length of time

ANALYSIS AND DISPLAY

- Replay of recorded data

- Recall of measurement template and multi-buffer file for analysis and post-processing

DATA EXPORT

From local or network drives, the file mover can export data in the following formats:

- Universal File ASCII (UFF)
- Universal File Binary (BUNV)
- Standard Data Format (TIM)
- Wave Data (WAV)
- Measurement Template (MBS)
- Multi-buffer Data (MBF)

Type 7700 Version 5.0 or later is required for operation of Type 7701 according to the specifications above

Specifications – Throughput-to-Disk Option UL0112–00x

UL0112–002

Hard Disk Type: SCSI–2

Interface: SCSI–2 Interface Module

PERFORMANCE

Channel × Bandwidth: 300 kHz for gap-free recording of data

MAXIMUM CAPACITY

Hard Disk Size: 9 GB

Max. Size of Single File: 4 GB

Recording Time:

- 1 ch. × 25.6 kHz >270 min. (with Types 3015 and 3016)
> 180 min. (with Types 3022 and 3028)
- 12 ch. × 25.6 kHz > 75 min. (all modules)

Brüel & Kjær reserves the right to change specifications and accessories without notice