

Product Data

Audio Analyzer — Type 2012 — Added Features (VP 7405)

FEATURES:

- Expanded Auto Sequence functionality:
 - Conditional and unconditional loops
 - Branching
 - Cursor values can be transferred to, added to or subtracted from setup parameter values
 - Entry of IEEE commands and Auto Sequence commands via the keyboard
 - Insert comments to document Auto Sequences. Messages and warnings to prompt the user during execution
 - Choice between Single Task or Multitasking operation
 - Execution controlled by built-in timer
- Reset and Manual Generator commands in Auto Sequences
- Expanded Graph functionality:
 - Curve Edit facility can create user-defined curves
 - Graph text can contain coded references to curve values (X, Y or Z-values), text strings and Special Calculation values (Type 7661 only). The text is automatically updated when new measurements are made or new values are calculated
- The Auxiliary pin on the Remote Control output socket can be set low or high

The 2012 main program has been revised and a number of new features have been included. These features are available to all 2012 users.

The expanded Auto Sequence functionality allows you to set up conditional and unconditional loops, to use branching and to implement your applications more efficiently and more simply than previously.

Measured or calculated data can be integrated in the graph text which is automatically updated when a new measurement is performed or new values are calculated.

The Curve Edit facility allows you to create a curve for use as a reference, weighting or tolerance.

Introduction

With the introduction of the 7661 Special Calculation Software, a number of features have been added to the basic 2012 program. The 7661 software is an option that requires a hardware key, but the new features in the basic program are available to all 2012 users by simply loading the new program version.

Expanded Auto Sequence Functionality

Several new Auto Sequence commands have been included in the menu. You can now set up conditional and unconditional loops in your Auto Sequences and use branching.

Branching can be performed using the “If - Then” and “Else” commands that make sequence execution dependent upon various conditions, such as “Timer”, “Measurement Finished”, “Service Request” (IEEE-488) or “Passed/Failed” (Type 7661 only).

Looped execution can be established using the “Do” command. This command has options to specify a fixed number of executions and/or to continue execution as long as a certain condition is fulfilled.

Special Command

All relevant IEEE-488 commands that do not have an equivalent front panel function can now be used in Auto Sequences. The command is simply keyed in from the external keyboard. The cursor control (see below) is an example of this functionality.

Cursor Values

You can transfer cursor values (and Special Calculation values) to parameter fields or you can add them to, or subtract them from, the existing parameter values.

Cursor Control

The cursor can now be positioned from an Auto Sequence. You can position the cursor absolutely or relatively by specifying the X-coordinate, the line number, the Z-coordinate and/or the curve number.

Comments/Messages/Warnings

Comments can be inserted into an Auto Sequence to document its performance without affecting its execution.

Auto Sequences can now contain messages to prompt the operator during execution. Messages appear in the status line at the bottom of the screen when running the Auto Sequence. Messages can be used, for example, to give hints about setting up the instrumentation for a measurement that requires manual action from the operator.

Similarly, warnings can be inserted into an Auto Sequence. Warnings appear in a different colour than messages, and a service request is generated on the IEEE-488 bus.

Single Task/Multitasking

You can select between Single Task or Multitasking execution when setting up an Auto Sequence. Single Task execution causes an Auto Sequence to perform its commands in exact sequential order. It is simpler to set up an Auto Sequence in Single Task and it is therefore advantageous when the execution time is not critical. If it is desired to optimize the execution time, for example for quality control purposes, Multitasking execution should be selected. Multitasking mode allows the separate measurement, post-processing and interface operations to be run in parallel.

For controlling the execution of Auto Sequences, a timer facility has been included. The analyzer can also be set up to wait for a "Keystroke".

Reset/Manual Generator commands

All the commands in the Reset and Manual Generator menus can now be used in Auto Sequences.

Graph Function Enhancements

The Curve Edit facility enables you to edit single values on an existing curve, to edit or key in a section of a curve by interpolation or to key in a complete new curve, for example for setting up tolerance fields or weight-curves.

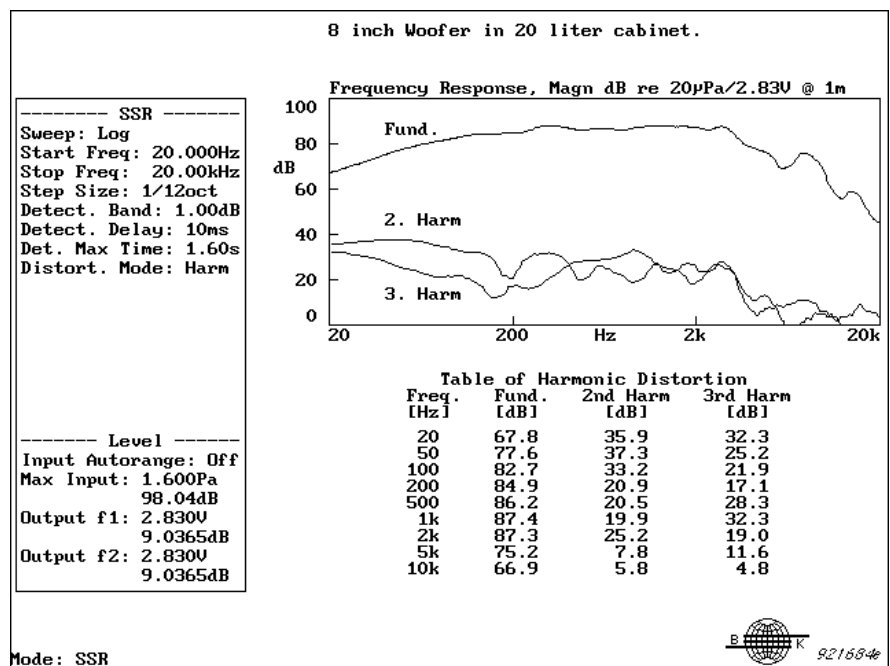


Fig.1 Curve References can be used for setting up a complete table in a graph text. The table above lists the harmonic distortion in dB at selected frequencies

A powerful new feature is the "dynamic" graph text facility enabling curve values and text strings to be automatically updated, see Fig.1. This is accomplished by inserting coded references (Curve References) in the text. X, Y and Z values, Special Calculation values (Type 7661 only) and text strings are then automatically transferred to the display. This is particularly useful for making report-ready documentation. For example, you can set up the analyzer to make individual specification sheets with a general text, and all the relevant values will be automatically in-

serted in the text (e.g., set up as a table) when the actual measurements are made.

Interface Menu

The Remote Control, TTL compatible output (Auxiliary Output on the rear panel) can now be set from the menu. This can be used for quality assurance where a test is run from an Auto Sequence and the Remote Control output is used to control an external sorting device or a simple switch.