

# HARVEY®

The central control unit for audio,  
lighting and media technology



audio

lighting

media



# HARVEY®

**HARVEY** is a family of flexible audio and media control matrices and key component for PA and conference systems. The HARVEY family is equipped with up to 32 analog audio input or output channels as well as a large number of different control interfaces. The unit has extensive audio processing functions that can be configured in a way that is tailored precisely to the respective application. These settings can also be saved in presets and retrieved at the press of a button so that you can change quickly between different installation options. Due to the varied control interfaces HARVEY can connect to very different devices and act as the central control unit for audio, lighting and media.

## FAMILY MEMBERS

HARVEY is available in different configurations regarding the number of analog IO channels. The table shows the current offering. Variants 0xN and Nx0 require the Dante option. Until further notice, the configurations 12x16 and 16x16 are supported by HARVEY mx.16. Other configurations and AES/EBU IO capability will follow.

technology. It converts the data between the interfaces and eliminates the need for additional converters. All established media control systems from Crestron, AMX, and Cue are suitable for controlling HARVEY and all other devices connected to it. Furthermore HARVEY features the ability to be controlled by modern web browsers. For that purpose the web interface can be generated with a single click and adjusted by the user without any programming knowledge.

As such, HARVEY is the ideal audio and media control matrix for conference rooms, theatres, museums, home cinemas, educational facilities, and multipurpose rooms.

HARVEY		Outputs		
		0	8	16
Inputs	0	0x0	0x8	0x16
	4	4x0	4x8	4x16
	8	8x0	8x8	8x16
	12	12x0	12x8	mx.16
	16	16x0	16x8	mx.16



Rear panel of HARVEY 8x8

## INTERFACES

**Audio Inputs:** Each input can be configured by software as line level input or as microphone level input. Inputs are equipped with software controllable 48 V phantom power (P48).

**Audio Outputs:** Analog balanced line level outputs, e.g. for driving amplifiers inputs.

**Dante:** Optionally available; for connecting several HARVEY units and exchanging digital audio streams among the units and other Dante devices via an Ethernet network.

**Ethernet:** Connection to configuration PC as well as other controlling devices or devices to be controlled.

**RS232, RS485/DMX512:** Interfaces for remote control and exchange of control commands of HARVEY units and external devices, e.g. lighting installations, PA systems, media technology or operating panels.

**Digital Control Inputs:** 4 logic inputs for switching and controlling presets and binary parameters, e.g. muting channels with external tactile switches.

**Analog Control Inputs:** 2 analog inputs to externally control HARVEY parameters, e.g. level by potentiometer.

**Digital Control Outputs:** 4 logic outputs for the control of external devices, e.g. relays or LEDs.

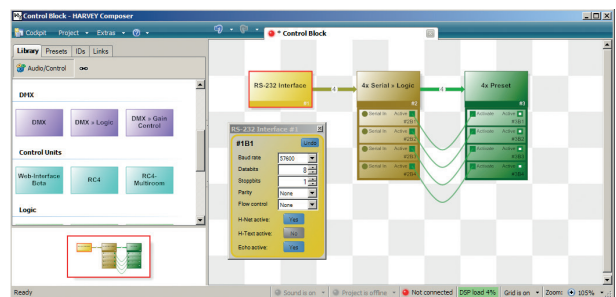
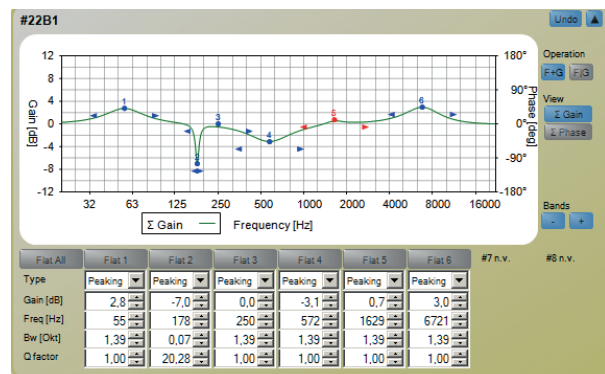
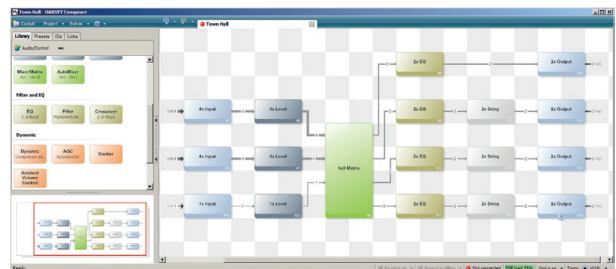
**Relay Outputs:** 2 outputs for galvanically isolated control output of external devices.

## SOFTWARE

HARVEY Composer, the user interface of the HARVEY family, has a very user-friendly design and allows you to configure complex projects with only a few mouse clicks. Blocks, that represent the audio signal processing and control functions, are positioned on the worksheet using drag & drop. With only one movement of your mouse multiple channels can be connected, while the number of channels is adjusted automatically. Independent of the number of physical connections, individual connections are combined into clear bundles.

Signal processing functions such as EQ, level display or ducker and many others can be added to the installation simply by drag & drop and configured online. Mixing and switching matrices are also available and can be parameterized freely.

In addition to the audio layer, there is also a control layer. Incoming control signals are evaluated here, linked logically and brought to the audio block control inputs. Presets allow you to switch conveniently between very different use cases. HARVEY fades softly between the presets with configurable fade time per parameter.



## AUDIO PROCESSING

- Level, Mixer:
- Mixing matrix
  - Mixing matrix with crosspoint delay
  - Automatic mixer
  - Level control
  - Level meter
  - Mute
  - Ducker
- Equalizer:
- 8-Band parametric equalizer
  - Filter (highpass, lowpass, hi-shelf, lo-shelf)
- Dynamics:
- Compressor
  - Limiter
  - Expander
  - Noise Gate
  - Automatic Volume Control (AVC)
  - Automatic Gain Control (AGC)
- Delay:
- Delay-up to 1000 ms for each delay block

## CONTROL

- I/O Interfaces:
- RS 485 DMX, RS 232
  - TCP/IP, UDP/IP
  - Contacts, Voltage
- Protocols:
- Proprietary (binary, text based)
  - User defined messages
- Control Events: (triggered by)
- Presets
  - Thresholds (Level, DMX)
  - Input Contacts, Messages
  - Block states (e.g. Ducker)
  - Flip-flops
- Control Events: (can trigger)
- Presets
  - User-defined messages
  - Block states (e.g. Level mute)
  - Output Contacts
  - Flip-flops
- Gain control:
- Input Voltage mapping
  - DMX value mapping

# HARVEY®

## SPECIFICATION

### Audio Inputs:

Analog balanced mic/line inputs  
24 bit Delta-Sigma high-end low latency  
A/D converters  
Digitally controlled analog gain and 48 V  
phantom power per input  
Input level (full scale):  
Line: +24 dBu, +18 dBu, +15 dBu, +9 dBu switchable  
Mic: down to -36 dBu in steps of 3 dB

### Audio Outputs:

Analog balanced line outputs  
24 bit Delta-Sigma high-end low latency  
D/A converters  
Digitally controlled analog gain  
Output level (full scale):  
+24 dBu, +18 dBu, +15 dBu, +9 dBu switchable

### Analog Input to Output Performance:

Dynamic range > 110 dBA  
THD+N < 0.001%  
Latency < 0.75 ms

### DSP Performance:

ADI SHARC ADSP-21469  
with 450 MHz / 2.700 MFLOPS

### Dante (optional):

64 input / 64 output channels,  
2 x RJ45 redundant mode

### Ethernet:

10 / 100 BaseT, RJ-45, link and activity LED

### RS 485 / DMX:

Galvanically isolated, 2 x 3-pin terminal block  
external 120 Ohm termination  
max. 460 kbps / DMX512

### RS 232:

max. 460 kbps, RTS/CTS hardware flow control  
available, 1 x DSub 9-pin female

### Digital Control Inputs:

4 negative logic inputs activated by connection to  
GND, max. 5 V

### Analog Control Inputs:

2 analog control inputs 0 - 5 V, 5 V /  
GND externally available (max. 15 mA)

### Digital Control Outputs:

4 logic outputs, drive capability max. 5V / 50 mA,  
sink capability max. 30V / 50 mA  
2 relay outputs, max. 125 VAC at 300 mA / 30 VDC  
at 1000 mA

### Power Supply:

95 to 250 VAC at 50 to 60 Hz, IEC C14 inlet

### Dimensions:

19" / 1 RU, 432 mm x 44 mm x 191 mm (W x H x D)

### Weight:

3 kg / (6.6 lbs)

## CONTACT

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