

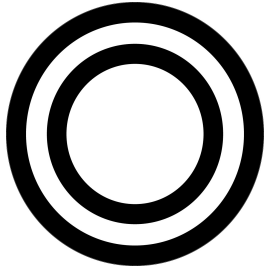
# IOSONO inside specification sheet

March | 2020

Feature	Function	Parameter
Loudspeaker Setup Designer	Integrated tool to define loudspeaker positions in a configuration file as the basis of the IOSONO processing	create, edit, import & export loudspeaker files define spaces to render on multiple audience areas
I/O control services	Edit: Select hardware configuration	Autodetect Available configurations: 1x MADI (64 channels), 2x MADI (128 channels), 16x AES (32 channels)
	Edit: Synchronization settings	Available sync settings: Internal, Syncln, Wordclock, LTC, Video or Signal
	Status: Display of level metering and sync status	Input, Processing, Outputs level meters for all available soundcards
Processing services	Edit: General	Buffer Size: 64 – 4096 Samples (main parameter to determine system latency) Number of Live Inputs: up to 128 Available Processing modules: Renderer, Player, Render+, Noise
	Edit: Renderer	Activate, Auto configuration (creates a number of Render Slots based on loudspeaker file) Render Slot settings for optimization, such as Algorithm types, Latency, Gain settings and many more...
	Edit: Player	Wave (mono, stereo, up to 64 multichannel) IOSONO MASTER FILE (imf), Standalone & LTC slave playback
	Edit: Render+ - upmix standard multichannel audio (add. license required)	5.1 & 7.1 Input Useful parameters available for customized settings
	Edit: Noise	Selection of Signal Types: Pink Noise in full-bandwidth and band-limited Settings for Duration, Sequence and Volume
	Status: CPU load monitoring	Underrun detection, CPU monitoring per Core and overall Peak
	Status: Player functions	Single / loop / tracklist playback state, Play / pause / stop, Add / delete / order tracklist / Volume of individual titles Scene scaling
	Scene Designer service	Integrated service to creates internal scene data in real-time.
Main parameters for one source: Position (polar/cartesian), unique layer approach (Vertical Pan), Type (Plane/Point), Min. Latency, Volume, LFE, Spread, Delay		
up to 8 Snapshots to recall scenes instantaneously for multiple sources		
up to 3 Source Traits for exclusive group assignment		

Created: 10. Mar. 2020. Technical specifications are subject to change without prior notice.

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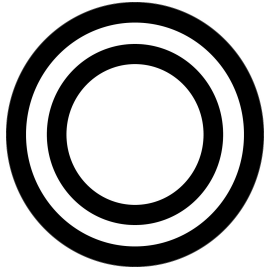
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Feature	Function	Parameter
Remote Control Extension	Send & receive remote control commands for preset and playback handling	Connection Type: UDP/IP, TCP/IP
		EoL ASCII Sequence: CR, CR/LF, LF
		Activation
System Tuning Extension	Measurement	Loudspeaker file selection, Import/Export
		individual Loudspeaker Group measurements
		flexible Number of Microphones Positions (more than physically available)
		Mic Input Level Metering
		Start/Stop/Delay measurements
		comprehensive Filter comparison and Measurement / Result reviewing
	Filter Creation	Add/Delete/Import Filter Creation Kits,
		flexible assignment of Filter Kits to individual loudspeaker groups
		Individual Target Curve & Relevance Scope definition
		Kit Parameters for Smoothing and Frequency Range
		White List for pre-selection of valid measurements
		Automatic Preprocess - convolution from time to frequency domain of averaged multipoint IR measurements
		Automatic Filters Design for each loudspeaker on averaged multipoint measurements
	Apply Filters to Global Filter library or individual presets	
	Settings	Sample Rate: 44.1, 48 & 96 kHz
		flexible Number of Simultaneous Microphones
		flexible Frequency Range of Signal Type
		flexible SNR (INR)
flexible Subwoofer Attenuation		
Scene Display Extension	overview and monitoring of scene data	separate I/O Routing and Soundcard Synchronization
		graphical representation and list view

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Feature	Function	Parameter
Preset based software structure	Main Overview	basic control of all available presets: Run/stop, new/delete/copy/revert/rename/save
	Preset Details	General: Sample Rate: 44.1 / 48 / 96 kHz Frame Rate: 24 to 30 fps Loudspeaker File assignment Individual Scene Port settings
		Filtering: Filter Assignment to Global Filter Library or individual speakers FIR Filter from System Tuning Extension with multipoint IR measurements IIR Filter as Parametric EQs
		Services: I/O Control, Processing, Scene Designer as described above
Filter Library	Global assignment of FIR and IIR tuning filters to multiple presets	Create/Copy/Delete Filter Configurations
		Select Loudspeaker Setup file
		Switch Loudspeaker Group view
		Filter Assignment to individual speakers
		FIR (based on System Tuning IR measurement) & IIR (Parametric EQ) Filter

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