



miniDSP Flex HT Digital Audio Processor Owner's Manual

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Flex HT

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Flex HT Digital Audio Processor

Features

- Floating point SHARC DSP
- USB/HDMI/SPDIF/Optical inputs
- Wireless Audio outputs via WISA
- Dirac Live 3.x upgrade option

Hardware

- ADI ADSP21489 @400MHz
- Multichannel USB audio (8ch)
- EARC/ARC HDMI input (8ch PCM)
- 8ch DAC with audiophile specs SNR (125dB) & THD+N (0.0003%)

- OLED front panel with IR control
- 12V trigger output

Software Control

- Real time live control
- Win & Mac compatible
- Firmware upgradeable
- 4 preset memory
- CEC control from TV

Applications

- Home theater
- PC based multichannel audio
- WISA speaker tuning
- Low latency gaming
- Subwoofer integration

The Flex HT is miniDSP's answer to our customers looking for a pocket sized multichannel processor with HDMI ARC/eARC capabilities . Our team was able to cram a full eight channels of DSP power and a wide range of I/O into the unbelievably compact enclosure. Eight-channel audio input is via eARC linear PCM over HDMI 1 , or USB Audio.

Additional stereo input is supported over SPDIF and TOSLINK optical. Internally, we've provided a full suite of miniDSP flexible's routing and audio processing features:

bass management, parametric EQ, crossovers, advanced biquad programming and delay/gain adjustments.

In addition, the miniDSP Flex HT is software-upgradable with full-frequency Dirac Live®, the world's premiere room correction system. The eight-channel analog RCA outputs feature class-leading low noise and distortion figures. In addition, wireless digital output to WiSA wireless speakers and subwoofers is provided as standard. An OLED front panel display and volume control/encoder knob provides easy control. The miniDSP Flex HT is the perfect solution for a modern compact processor for home theater and multichannel sound. You just need to let your creativity do the rest!



1. **DIRAC** The Flex HT does not support bitstream (e.g. Dolby/DTS) decoding. The audio source must be able to output linear PCM (LPCM) for multichannel support over HDMI. Please check your device user manual.



TYPICAL APPLICATION



TECHNICAL SPECIFICATIONS

	Description
Digital Signal Processing Engine	Analog Devices Floating point SHARC DSP: ADSP21489 IF 400MHZ
Processing resolution / Sample rate	32 bit/48 kHz
USB Audio support	UAC2 Audio – ASIO driver provided (Windows) – Plug&Play (Mac/Linux) Multichannel USB Audio interface (8ch) for up to 7.1 configurations

Input/Output DSP structure	8ch IN (USB/HDMI) or 2ch IN (TOSLINK/SPDIF)=> DSP => 8 channels OUT(Analog & WISA outputs)
Digital Stereo Audio Input Connectivity	1 x SPOIF (stereo) on RCA connector, 1 x OPTICAL (stereo) on Toslink connector Supported sample rates: 20 – 216 kHz / Stereo source will be automatically assigned to Input 1&2
HDMI connectivity	ARC/EARC compliant for up to 8ch of LPCM audio streaming Supported sample rates: 20 – 216 kHz WARNING: No onboard Dolby/DTS decoding. Use your source (E.g. TV) to output in KM mode.
\WISA (Wireless Audio)	8 channels outputs via low latency, uncompressed & tightly synchronized audio via WISA protocol 240it/48kHz, 5.2ms Fixed latency, 4./-21.6 synchronization, 5G Hz spectrum
Digital Audio Output Connectivity	Not Applicable
Analog Audio Output Connectivity	8 x Unbalanced RCA
Analog Audio Output Impedance	200 Ω
Analog Output Max Level	2 V RMS
Frequency Response	20 Hz – 20 kHz \pm 0.05 dB
SNR (Digital to Analog)	125 dB(A) with DRE enabled
THD+N (Digital to Analog)	-111 dB (0.0003 %)
Crosstalk (Digital to Analog)	-120 dB
Filtering Technology	miniDSP DSP toolbox (routing, bass management, parametric EQ, crossover, gain/delay). Optional soft-ware upgrade to multichannel Dirac Live' 3.x Full Range correction (20 Hz – 20 kHz)

DSP Presets	Up to 4 presets
Dimensions	150x180x41 mm
Accessories	IR Remote
Power Supply	Included external switching PSU 12V/1.6A (US/UK/EU/AU plugs)
Trigger out	12V trigger out controls external ON/OFF powering of amplifiers
CEC control	HDMI CEC command for MuteNolume/Standby
Power Consumption	4.8 W (idle, Wise OFF), 6.5W (idle, WISA ON) 2.9 W (standby)



Features and specifications are subject to change without prior notice



Documents / Resources

	<p>miniDSP Flex HT Digital Audio Processor [pdf] Owner's Manual Flex HT Digital Audio Processor, Digital Audio Processor, Audio Processor</p>
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