

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.

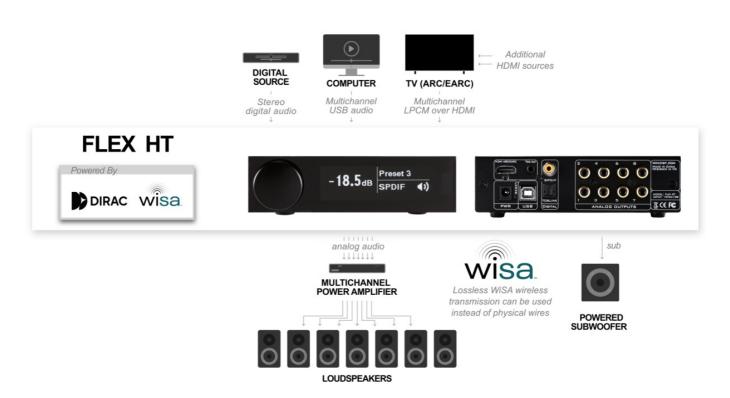
Additional stereo input is supported over SPDIF and TOSLINK optical. Internally, we've provided a full suite of miniDSP flexible's routing and audio processing features:

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 E ngine	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) Multich annel 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(Ana log & WISA outputs)
Digital Stereo Audio Input C onnectivity	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 outp ut in KM mode.
\VISA (Wireless Audio)	8 channels outputs via low latency, uncompressed & tightly synchronized audio vi a WISA protocol 240it/48kHz, 5.2ms Fixed latency, 4./-21.6 synchronization, 5G Hz spectrum
Digital Audio Output Conne ctivity	Not Applicable
Analog Audio Output Connectivity	8 x Unbalanced RCA
Analog Audio Output Imped ance	200 Ω
Analog Output Max Level	2 V RMS
Frequency Response	20 Hz – 20 kHz ± 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, gai n/delay). Optional soft-ware upgrade to multichannel Dirac Live' 3.x Full Range c orrection (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



miniDSP Flex HT Digital Audio Processor [pdf] Owner's Manual Flex HT Digital Audio Processor, Digital Audio Processor, Audio Processor