



ifi ZEN Blue V2 Tech Lowdown Instructions

[Home](#) » [ifi](#) » ifi ZEN Blue V2 Tech Lowdown Instructions 



Contents

- 1 Tech Lowdown
 - 1.1 HIGH RESOLUTION BLUETOOTH DAC
 - 1.2 BLUETOOTH CODEC LEDS
 - 1.3 BREATHTAKING BLUETOOTH
 - 1.4 INSPIRING IMPLEMENTATION
 - 1.5 THE TECHNOLOGY BEHIND BREATHTAKING BLUETOOTH
 - 1.6 UPGRADED GMT
 - 1.7 BALANCED ANALOGUE STAGE
 - 1.8 BEST OF BOTH WORLDS
 - 1.9 SPECIFICATIONS
- 2 Documents / Resources
- 3 Related Posts

Tech Lowdown



HIGH RESOLUTION BLUETOOTH DAC

The ZEN Blue is the world's first Bluetooth receiver to support all the latest hi-res codecs to deliver the best-quality music streaming from smartphones, tablets, PCs and Macs to any audio system.

Now we present our V2 with a new antenna for even greater reach and the very latest crystal clock system for low jitter.

BLUETOOTH CODEC LEDS

Codec

The colour of the 'iFi' logo in the centre of the front display represents the file format received:


Format	LED
SBC	Off
AAC	Yellow
aptX	Blue
aptX HD	Magenta
aptX Adaptive	Green
aptX LL	Red
LDAC	Cyan
LHDC/HWA	White



BREATHTAKING BLUETOOTH

- Supports all the latest 24-bit/96kHz capable Bluetooth audio formats
- iFi Bluetooth implementation avoids typical 40% quality drop found with standard Bluetooth
- Future codecs can be added 'over the air'
- 'Remembers' up to eight paired Bluetooth source devices
- New aerial gives increased coverage up to 70-80%
- New and improved low jitter clock gives a >20dB better performance

Qualcomm aptX 

Qualcomm aptX HD 





INSPIRING IMPLEMENTATION

- A state-of-the-art Qualcomm QCC5100 chip processes the incoming data
- The Qualcomm QCC5100 is a 'system-on-a-chip' Bluetooth solution, with all functions covered including D-to-A conversion as used by others BUT...
- ...the ZEN Blue only uses the QCC5100 to 'receive' the signal...
- ...thereafter the signal is sent to the ESS Sabre DAC chip and its Hyperstream architecture with Time Domain Jitter Eliminator deliver vanishingly low distortion and high dynamic range, which is then...
- ...fed to the iFi analogue amplifier stage.
- Combined, Bluetooth audio sounds far better than the norm.

THE TECHNOLOGY BEHIND BREATHTAKING BLUETOOTH



UPGRADED GMT

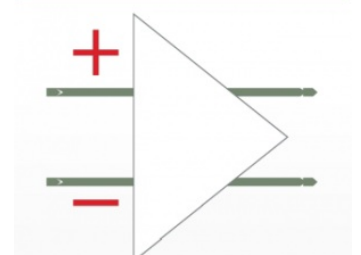
- NEW! Upgraded Global Master Timing (GMT) clock circuitry
- Even lower jitter performance
- Improved sonics

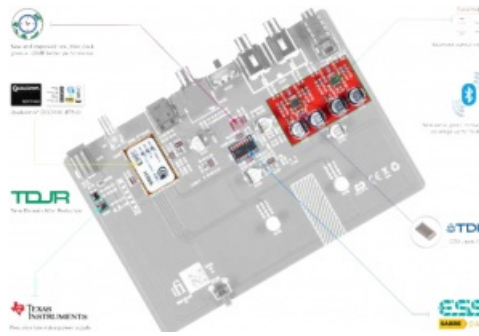


BALANCED ANALOGUE STAGE

- Balanced analogue circuitry design
- Outstanding components including C0G capacitors from TDK and a precision low-noise power supply IC from Texas Instruments

Balanced





BEST OF BOTH WORLDS

Add high-quality Bluetooth reception to any audio system via user-selectable analogue or digital cable connections.

Analogue connections

- RCA stereo outputs connect to amplifiers, active speakers etc
- 4.4mm Pentaconn output enables balanced signal transfer to amps/speakers equipped with a balanced input -- either a 4.4mm input, or XLR input via a 4.4mm-to-XLR cable

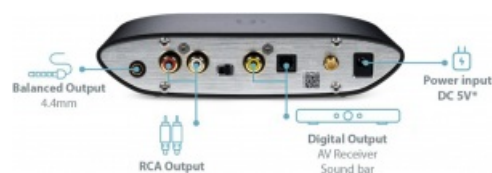
Digital connections

- Optical & Coaxial outputs connect to any external DAC, such as an external hi-fi DAC or an AV amp.



ZEN Blue V2

CONNECTION GUIDE




*Do not use a power supply higher than 5V

Power	DC 5V
Input	Bluetooth 5.0TM with AAC, aptX, aptX HD, AptX Adaptive, LDAC, HWA Codec
Output	Optical / Coaxial
	Audio RCA L/R
	4.4 Balanced Lineout
Frequency Response	20Hz – 20kHz <+0/-0.5dB (44.1kHz)
	1Hz – 44khz <+0/-3.0dB (>= 88.2kHz)
Output Voltage @ 0dBFS	2.05V (+/-0.05V)
Dynamic Range	109dB (A)
Signal/Noise ratio	109dB (A) @ 0dBFS
THD & N @ 0dBFS	< 0.0015% 10k Load
Output Impedance	< 50Ω

Power Consumption	< 2.5W
Dimensions	158 (l) x 100 (w) x 35 (h) mm
Weight	476g (1.05 lbs)



Documents / Resources

	iFi ZEN Blue V2 Tech Lowdown [pdf] Instructions ZEN Blue V2 Tech Lowdown, SBC, AAC, aptX, aptX HD, aptX Adaptive, aptX LL, LDAC, LHDC, HWA
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