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hi, considering this [https://en.wikipedia.org/wiki/Yamaha\\_YM2151###](https://en.wikipedia.org/wiki/Yamaha_YM2151###), how compatible is YM3438 or to what exact chip?



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The Yamaha YM3438, also known as the OPN2C, is an updated and CMOS-compatible version of the Yamaha YM2612 (OPN2) sound chip. The YM2612 was used in the Sega Genesis/Mega Drive game console, and the YM3438 was implemented in later revisions of the console.

The YM2151, also known as OPM, is a different FM synthesis chip, used in arcade systems and some home computers. While the YM2151 and YM3438 (YM2612) are both FM synthesis chips from Yamaha, they have different architectures and are not directly compatible with each other.

The YM2151 uses 4 operators per voice and has 8 FM channels, while the YM3438 (YM2612) has 6 FM channels, each with 4 operators as well. However, the algorithms used for FM synthesis and other internal parameters are different between these chips. Additionally, the YM3438 (YM2612) also has a 7th channel with a built-in DAC for PCM samples.

In summary, the YM3438 is most compatible with the YM2612, as they are nearly identical chips with some improvements in the YM3438. The YM2151 is not directly compatible with the YM3438 or YM2612, as they have different architectures and features.

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