

Re: How can I subtract one frequency from another ???

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Source: <http://sci.tech-archive.net/Archive/sci.electronics.basics/2006-01/msg00282.html>

- *From:* "Frank" <technician@xxxxxxx>
 - *Date:* Sun, 08 Jan 2006 23:28:46 GMT
-

Hi,

What is cross posting? I'm kinda new to newsgroups, I'm assuming you mean posting in another group as well as this one?

Sorry ;(

A bit more info on the application, the input will be either sound such as music, (well within the human hearing range) or pure tones (sine waves). I will be squaring up the output with an LM339 comparitor to drive a logic level input IGBT.

If the 565 needs a square in, I could figure something out, but would rather have the input to the comparitor reasonably "preserved".

Thanks again, and sorry if I've ruffled any feathers.

;)

"Andrew Holme" <andrew@xxxxxxxxxxx> wrote in message [news:dps66c\\$gph\\$1\\$8300dec7@xxxxxxxxxxxxxxxxxxxxxx](mailto:news:dps66cgph1$8300dec7@xxxxxxxxxxxxxxxxxxxxxx)

> Frank wrote:

>> So, the next question is (now that I know what "kind" of device to use) what is the best mixer for this application.

>>

>> Is this a one IC solution, or do I have to design a circuit to my specification?

>> Can I use the internal mixer of a max038, an XR2206, or even a 565

>> PLL?

>>

>> What do you suggest for a simple low cost readily available mixer?

>> Can they be designed with op amps?

>

> Looking at the MAX038 datasheet, I don't see a mixer in there. The XR2206 has an amplitude modulation facility, so you could probably use that. The NE565 contains a Gilbert Cell switching mixer, and pin 5 must be driven with

> a square wave. You didn't say if your signals were sine or square. Two

> square waves can simply be mixed using an XOR gate. For sine waves, you can

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- > use a four-quadrant multiplier. I see someone in s.e.d mentioned the AD633.
- > I can second that recommendation. BTW you shouldn't use cross-posting.
- > It's better to multi-post, then everybody gets to see everybody else's
- > responses.
- >
- >

• **Follow-Ups:**

- ◆ **[Re: How can I subtract one frequency from another ???](#)**
 ◇ From: JeffM
- ◆ **[Re: How can I subtract one frequency from another ???](#)**
 ◇ From: Bob Masta

• **References:**

- ◆ **[How can I subtract one frequency from another ???](#)**
 ◇ From: Frank
- ◆ **[Re: How can I subtract one frequency from another ???](#)**
 ◇ From: Andrew Holme
- ◆ **[Re: How can I subtract one frequency from another ???](#)**
 ◇ From: Frank
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