Capacitive height sensor

Reply

cnc_freak · Oct 7, 2015

Watch

#1

Thread Starter
cnc_freak
Joined Oct 7, 2015 · 13
Oct 7, 2015

Hello everybody.
I'm trying to make a capacitive sensor to measure the distance of from sensor to a metal plate.
I found an old schematic of an 13Mhz oscillator, but i cant found any information for the L1 transformer.
Can anybody help me out here? At the "HF" connector is connected the sensor, which is a metal ring, like in the picture.

Any help will be appreciated.

Attachments

13MHZ_OSC.jpg
993.7 KB · Views: 26

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#2

Dodgydave
Joined Jun 23, 2012 · 8,983
Oct 7, 2015

It maybe one of the tuned IF coils found in fm radios, is there any other information about the circuit used, web site etc, going off the 470pf cap a resonance inductor at 13.56mhz, would be 290pico henrys, (0.290uH)

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#3

Thread Starter
cnc_freak
Joined Oct 7, 2015 · 13
Oct 7, 2015

It must be something like that, but where can i find it, and what should i look for.
I googled for HF transformer 13Mhz, and i looked also at digikey, they have a big selection of variable coils but i have no clue about the inductance i must look for. The only think i know that the in the parts list of the schematic it says HF coil 13Mhz. N02/98, nothing else.
Im trying to find a picture of the complete board with all the parts on it, but i don't think this will help.

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#4

Thread Starter
cnc_freak
Joined Oct 7, 2015 · 13
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Here is the picture, i find it.

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#5

Thread Starter
cnc_freak
Joined Oct 7, 2015 · 13
Oct 7, 2015

The board...

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#6

Dodgydave
Joined Jun 23, 2012 · 8,983
Oct 11, 2015

Looks like a 1st or 2nd IF transformer 10.7mhz

http://www.minikits.com.au/components/passive/inductors/if-transformers/KACSK3892A

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#7

Thread Starter
cnc_freak
Joined Oct 7, 2015 · 13
Oct 11, 2015

Thank you very much for the reply.
I managed to borrow the board and measure the inductance of the coil in question.
I has a primary winding of approximately 150µH and a secondary of 12µH and no capacitor in.
Here is a picture of the coil.
The question is now, how can i reproduce this coil. Can i buy somewhere empty plastic reels ,with ferrite core to wind my own coils?

Attachments

DSCF2755.JPG
780.2 KB · Views: 15

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It is very likely that it does not need any further discussion and thus bumping it serves no purpose. It may be more appropriate to create a new thread with your question, and provide a link to this thread. If you feel it is necessary to make a new reply, you can still do so though. Your post will be reviewed and possibly be deleted.

I

Remember the human - Be courteous when replying to others.

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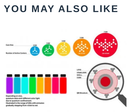

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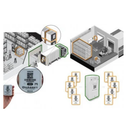

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