

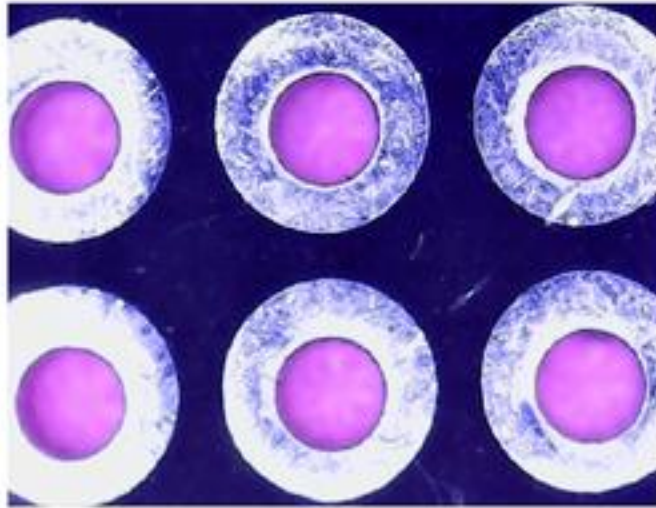
# Izdelava VF vezij na prototipnih ploščicah

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RIS 2016 Ljubljana

# Kaksna prototipna ploščica je primerna za VF?

Spodaj:



Zgoraj:



- luknje so 1mm (pred metalizacijo) raster 2.54 x 2.54, metalizirane
- zgoraj cela masa, 1.9mm brez bakra okrog lukenj, **nic padov**
- spodaj padi 2.23 mm
- material FR4 1.5mm
- baker 35um, pocinjen
- velikost platke 100x160, luknje do roba

Padi na zgornji strani poslabšajo lastnosti!



Nad 2GHz cca 10dB slabša prilagoditev

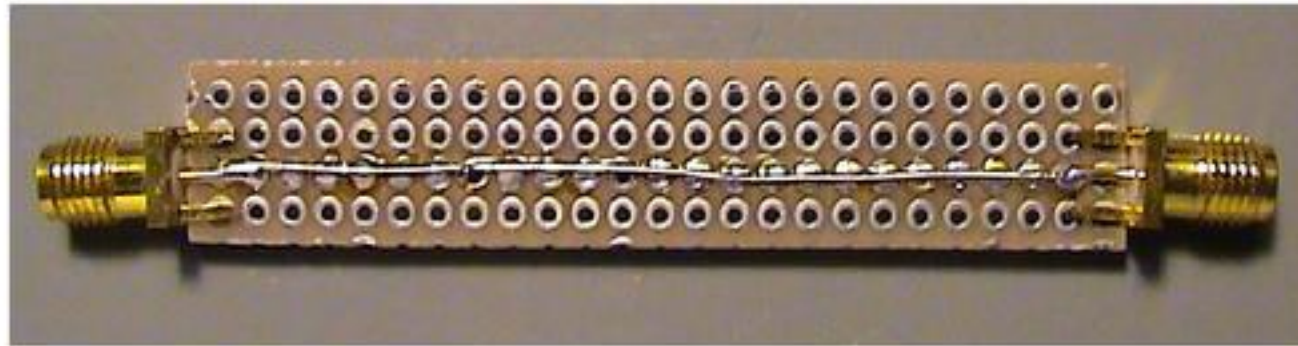
Fileti:

<http://lea.hamradio.si/~s57uuu/mischam/proto/proto1.pcb> (PCAD)

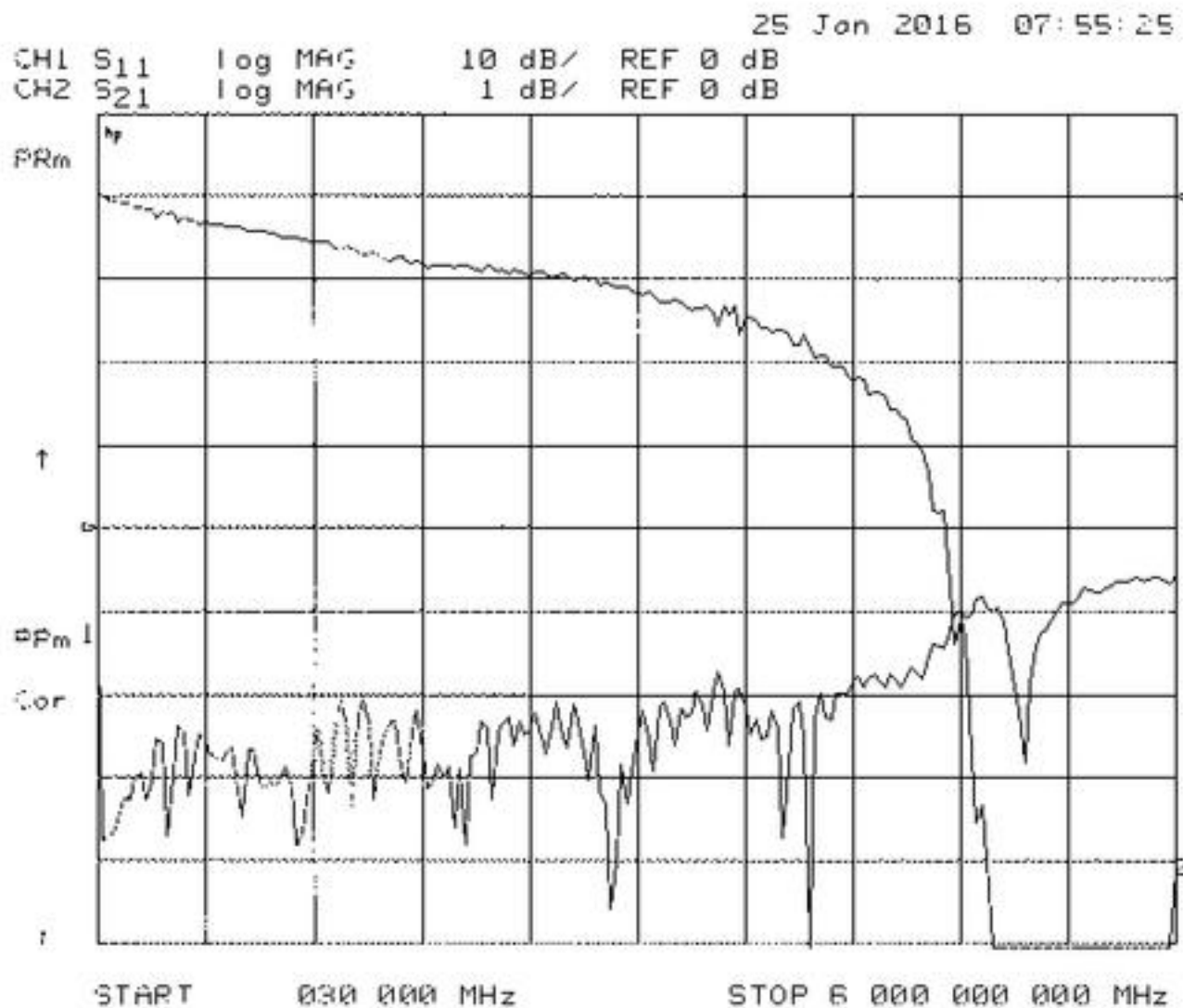
[http://lea.hamradio.si/~s57uuu/mischam/proto/proto2\\_E.tar](http://lea.hamradio.si/~s57uuu/mischam/proto/proto2_E.tar) (EAGLE)

[http://lea.hamradio.si/~s57uuu/mischam/proto/proto2\\_EG.zip](http://lea.hamradio.si/~s57uuu/mischam/proto/proto2_EG.zip) (Gerbere)

# Preizkusna linija



Dolzina = 25 luknjic = 62.5mm



Prilagoditev >20dB do ~4GHz

Izgube:

0.016 dB/cm na 144MHz

0.045 dB/cm na 432MHz

0.08 dB/cm na 1GHz

0.19 dB/cm na 3GHz

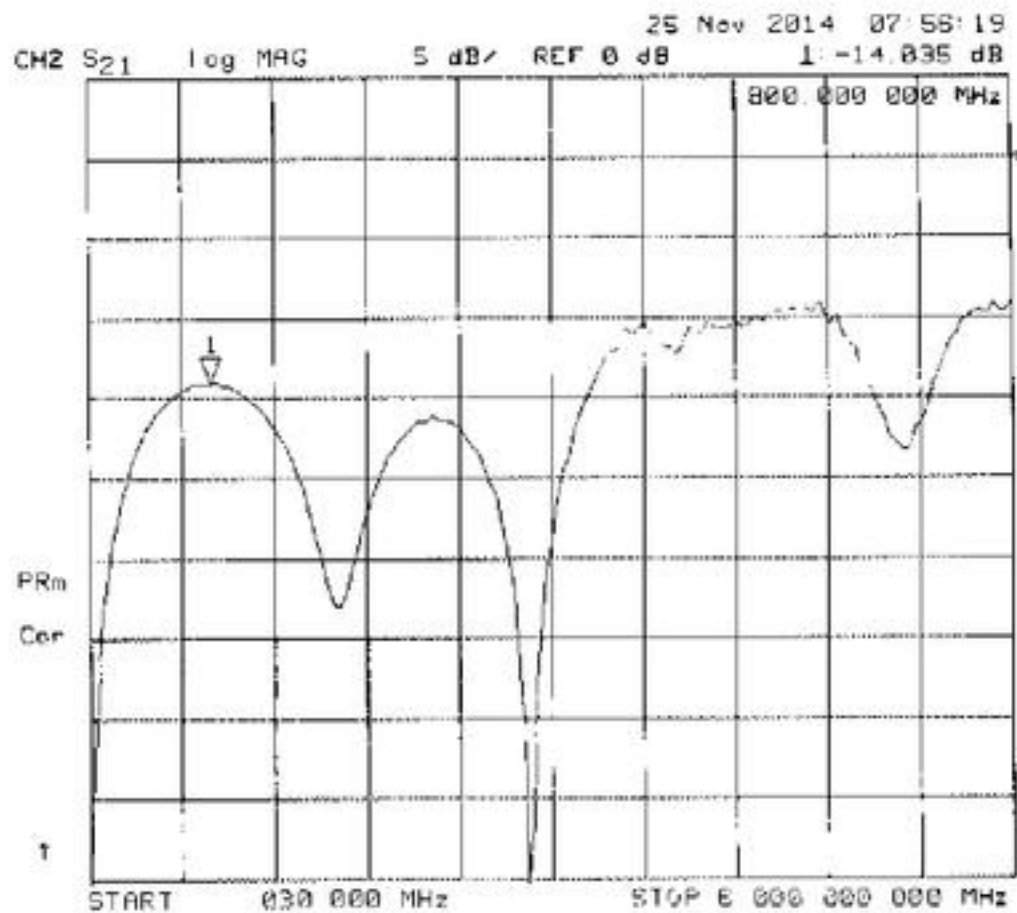
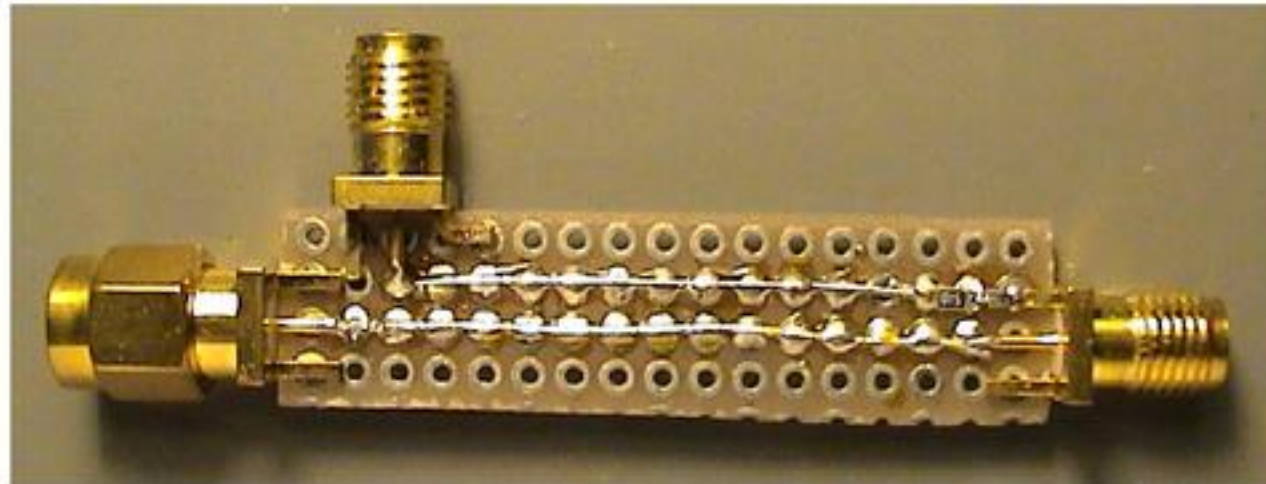
0.32 dB/cm na 4GHz

Elektricna dolzina:

180 stopinj pri cca 812MHz

$k = 0.34$  !!!

# Sklopnik?



Dolzina = 12 lukenj = 30mm

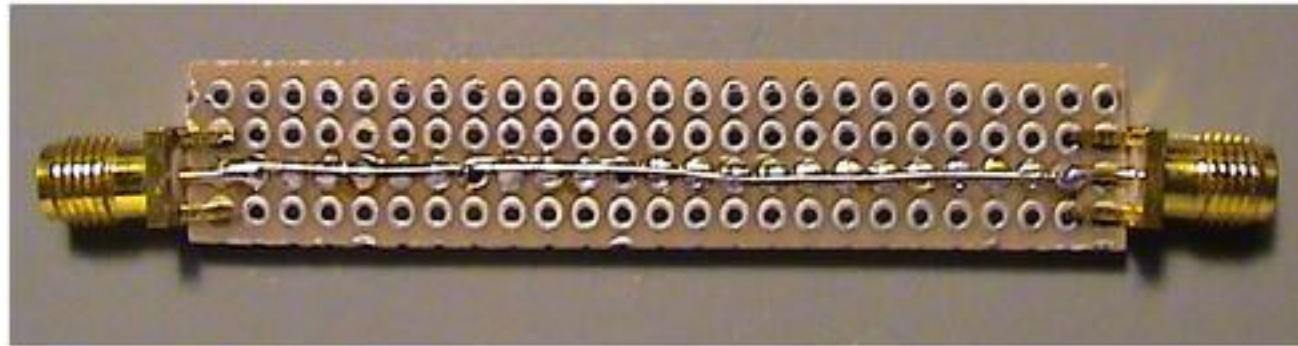
$\lambda/4$  pri cca 800MHz, sklop 14dB

144MHz naprej -24dB nazaj -35dB

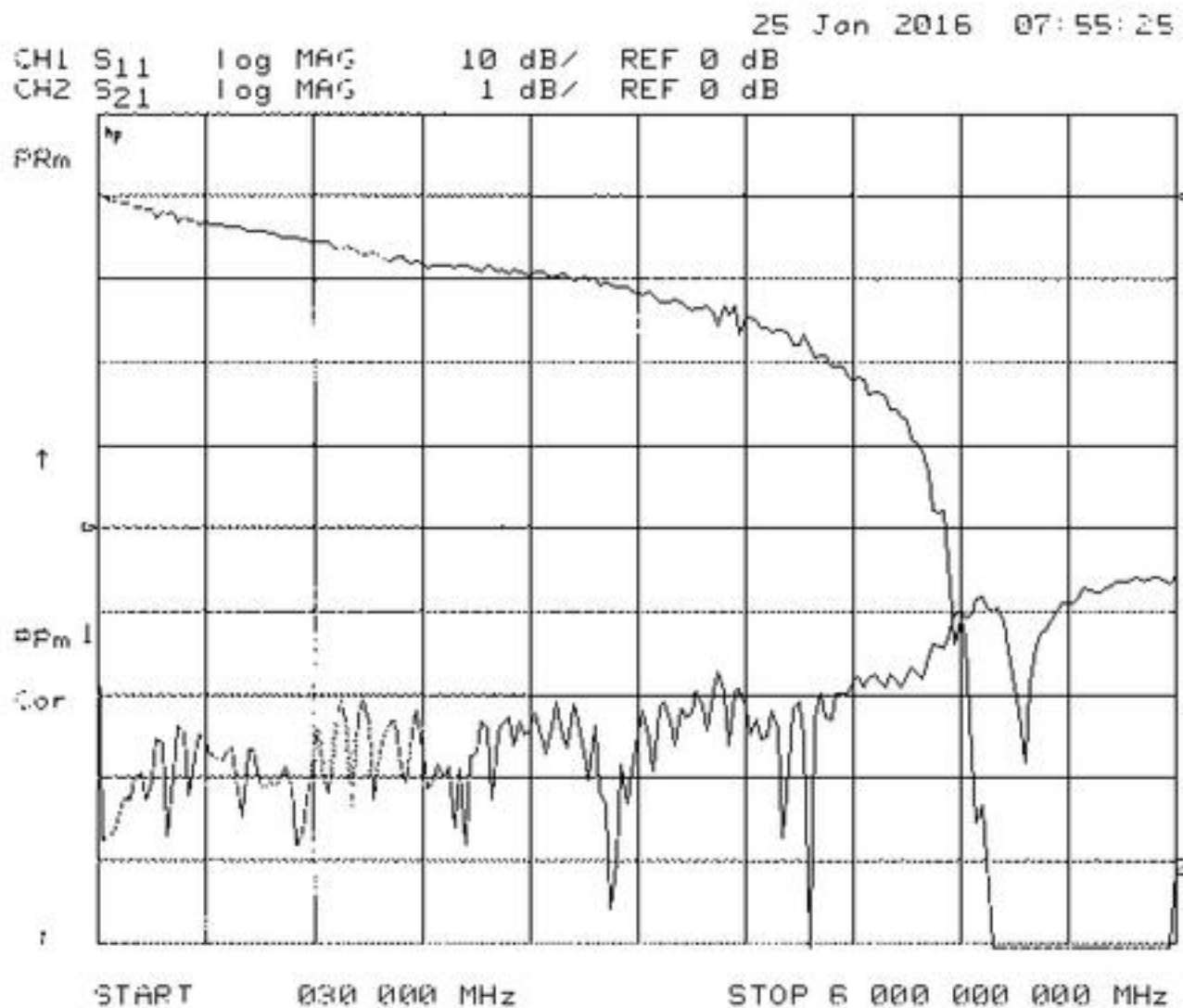
432MHz naprej -16dB nazaj -26dB

1.3GHz naprej -18dB nazaj -15dB

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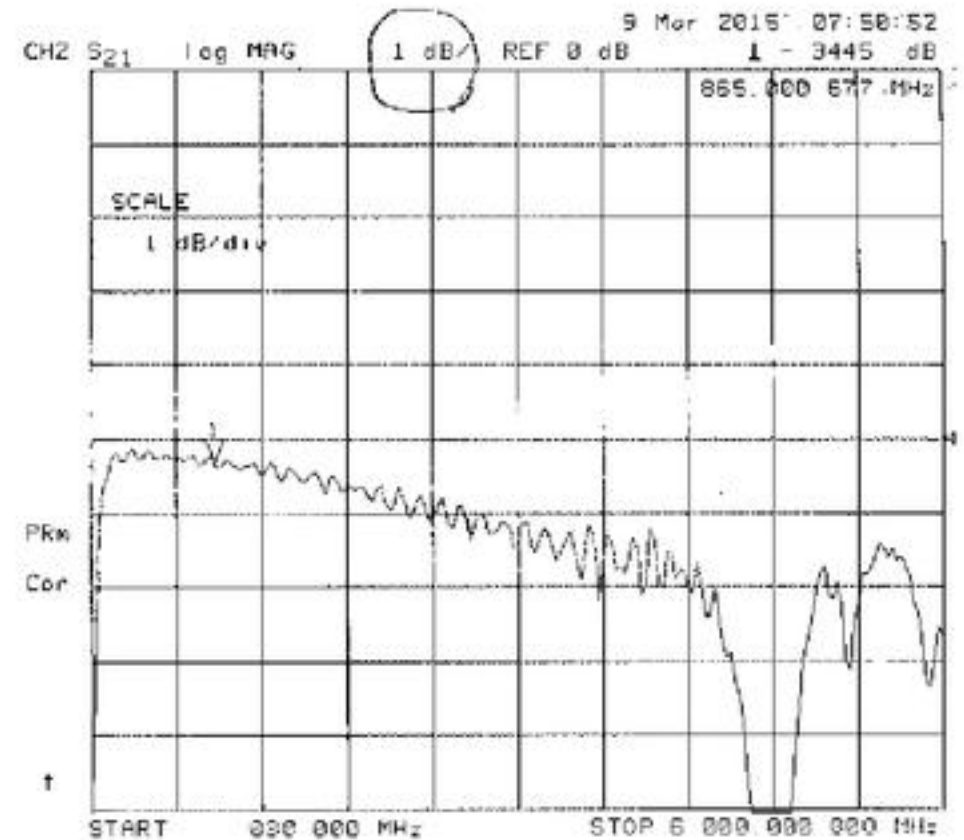
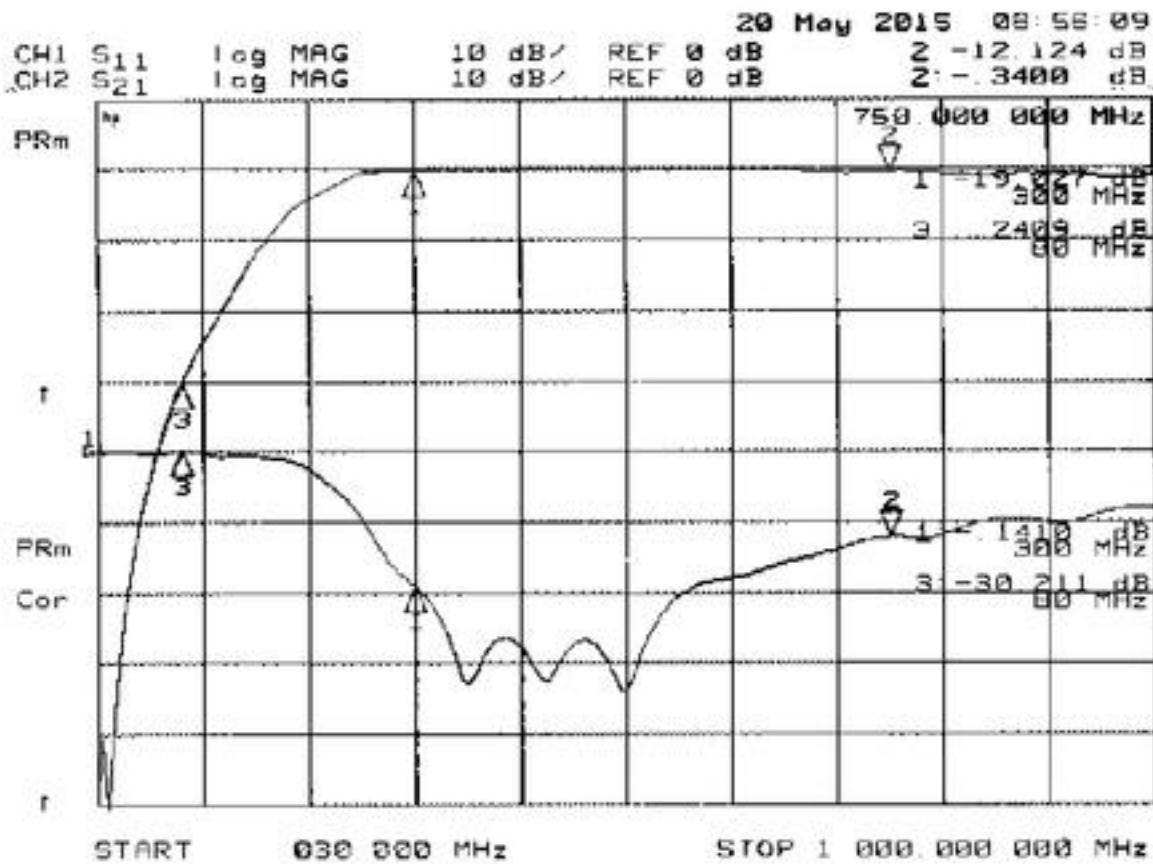
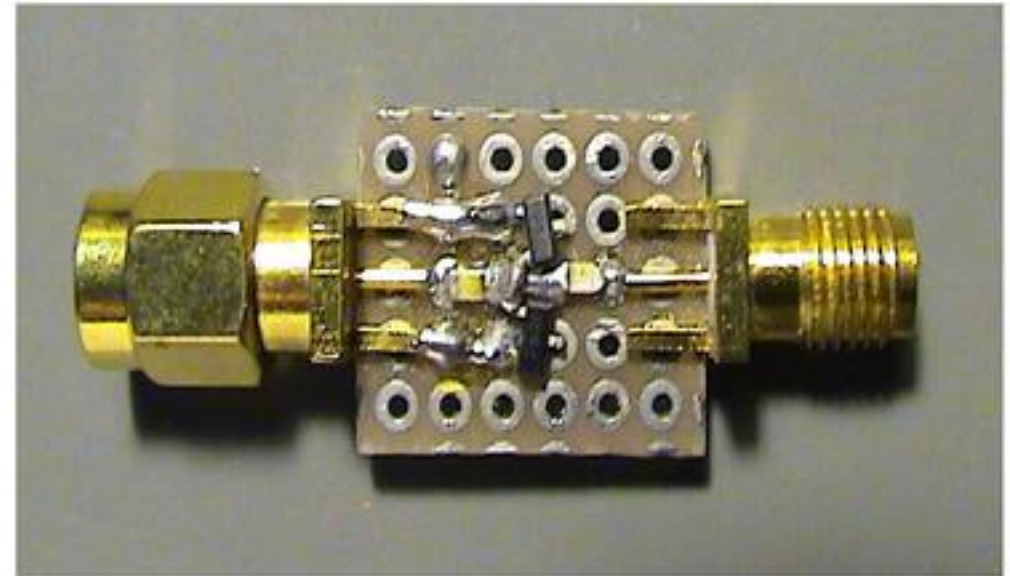
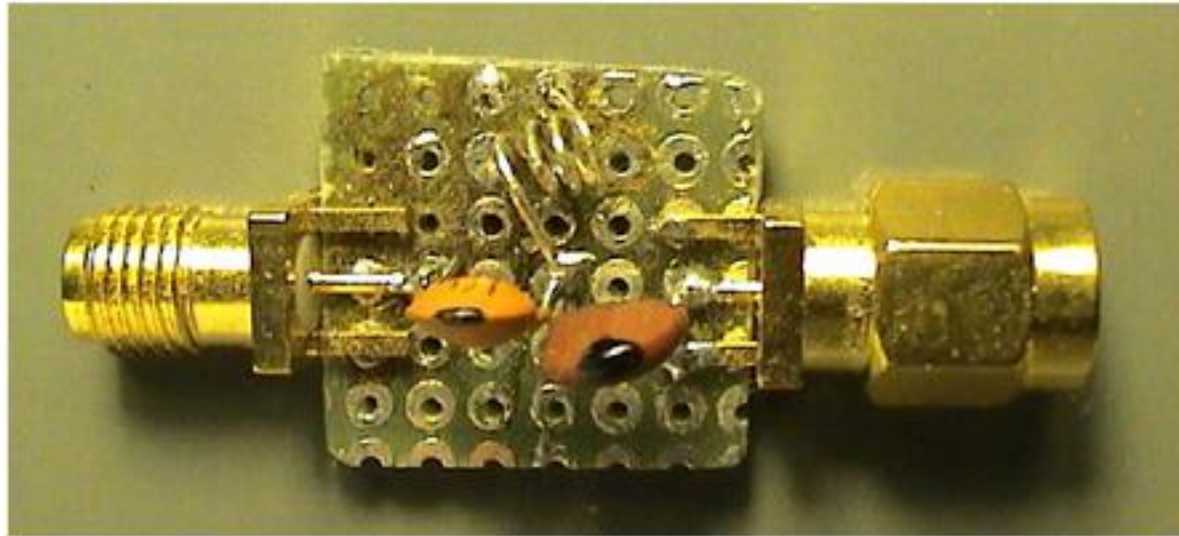
0.32 dB/cm na 4GHz

Elektricna dolzina:

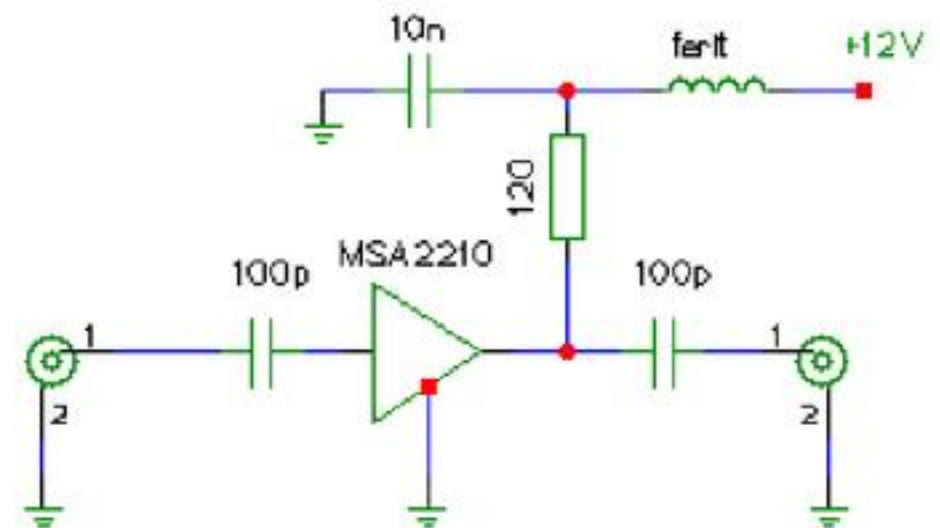
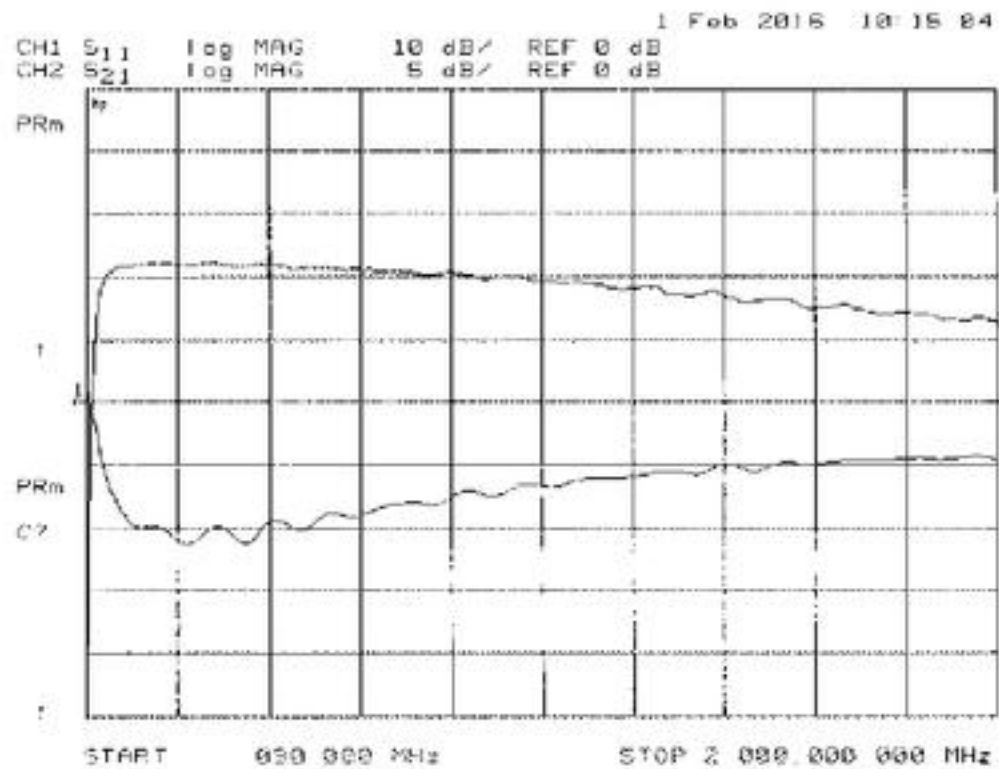
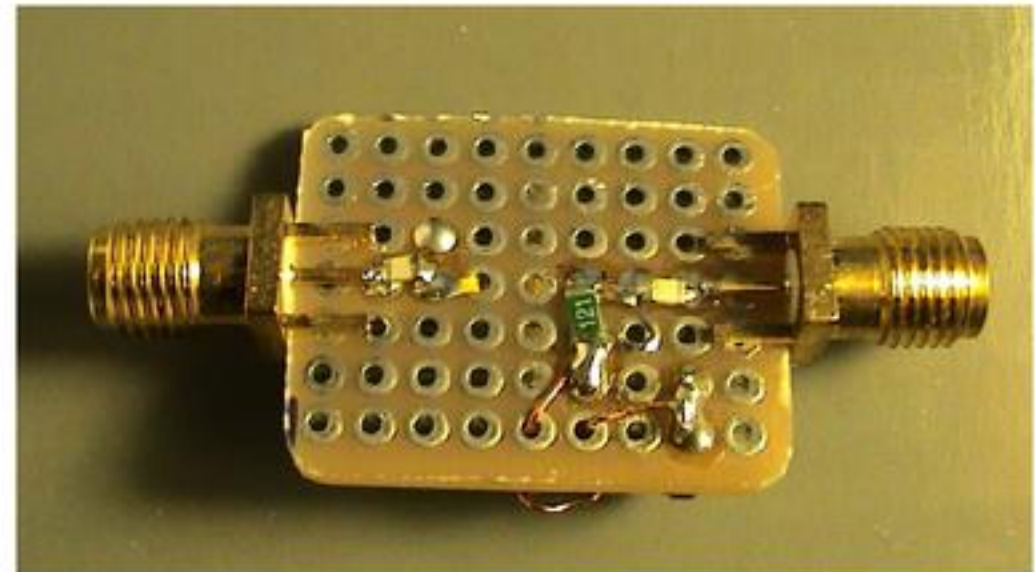
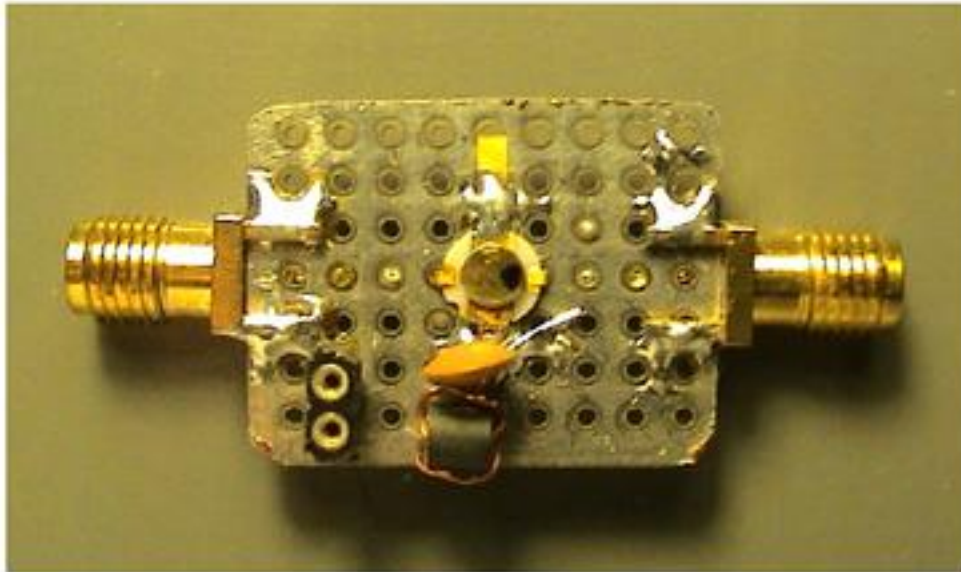
180 stopinj pri cca 812MHz

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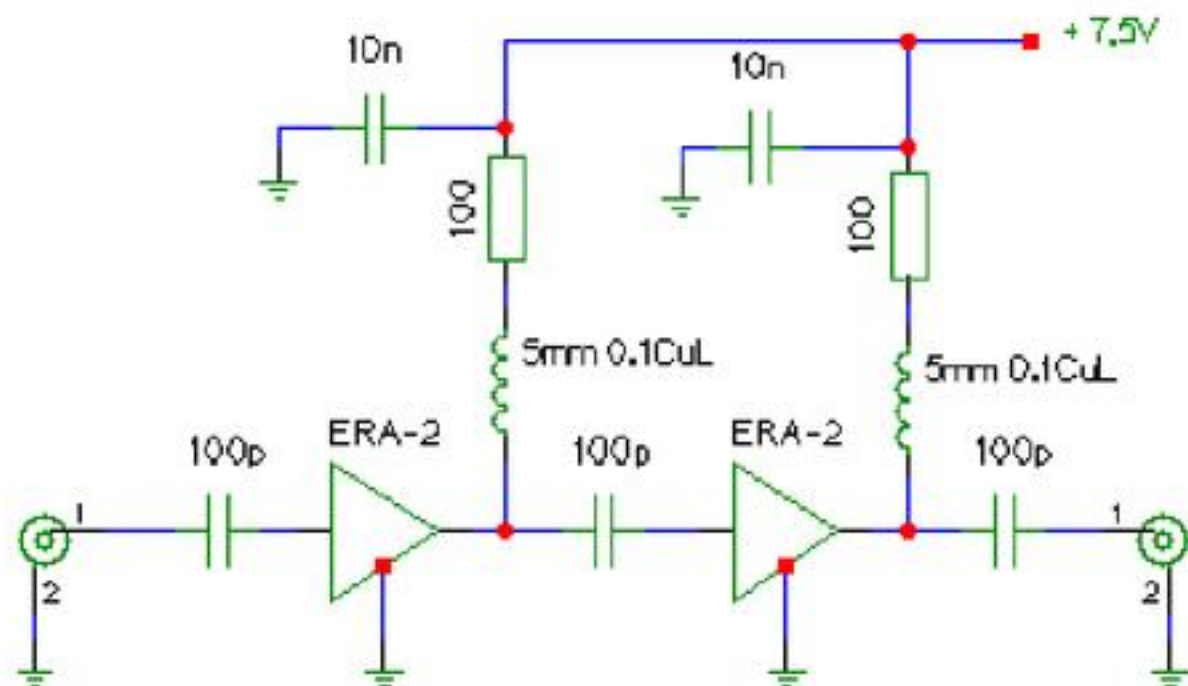
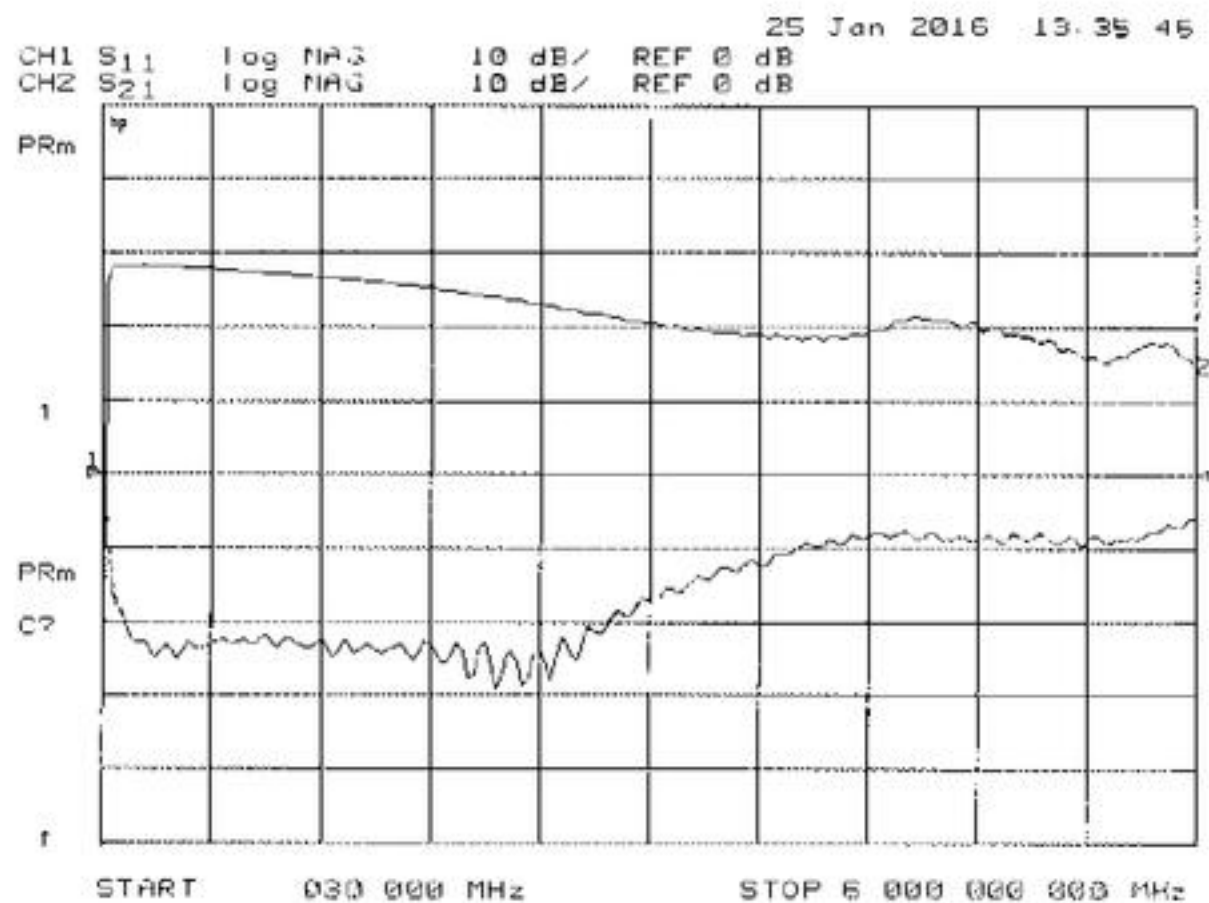
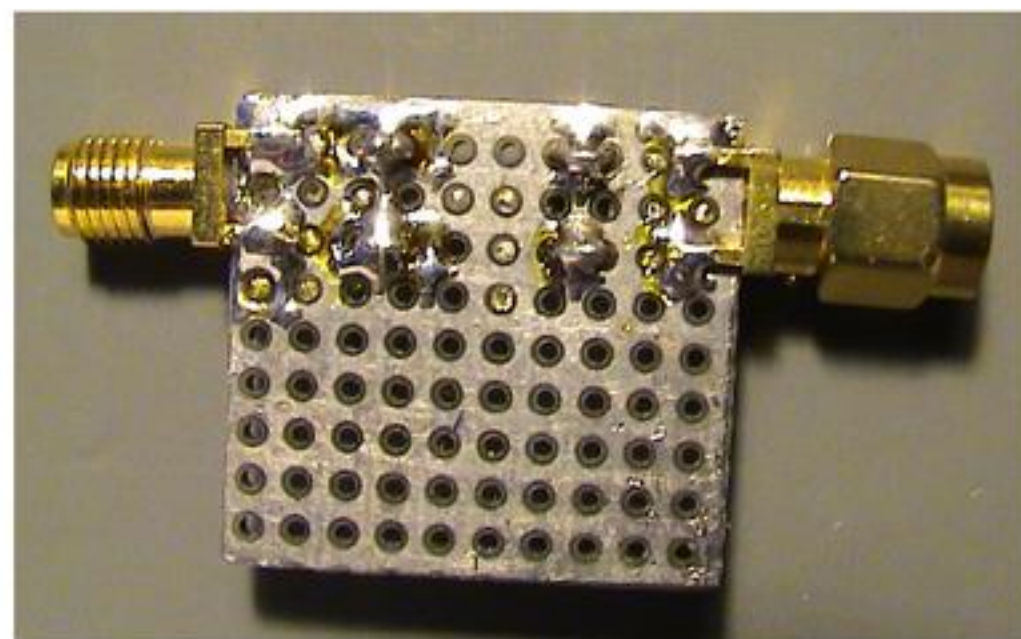
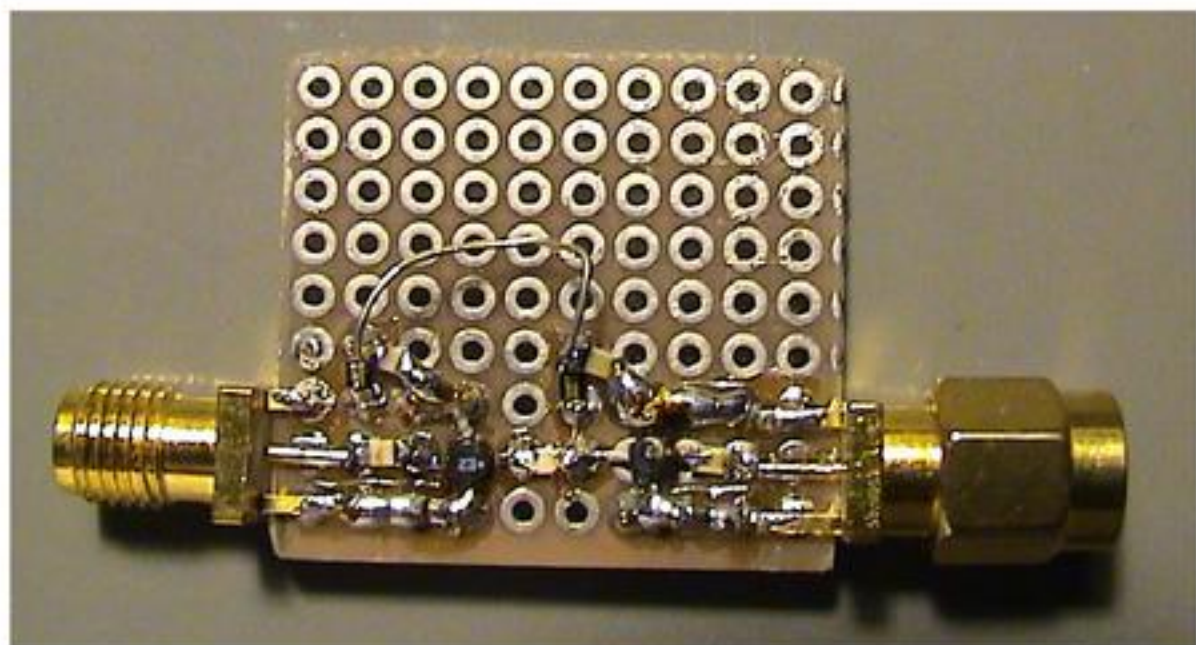
# Visokoprepustno sito, limiter



# Ojacevalnik z MSA1120

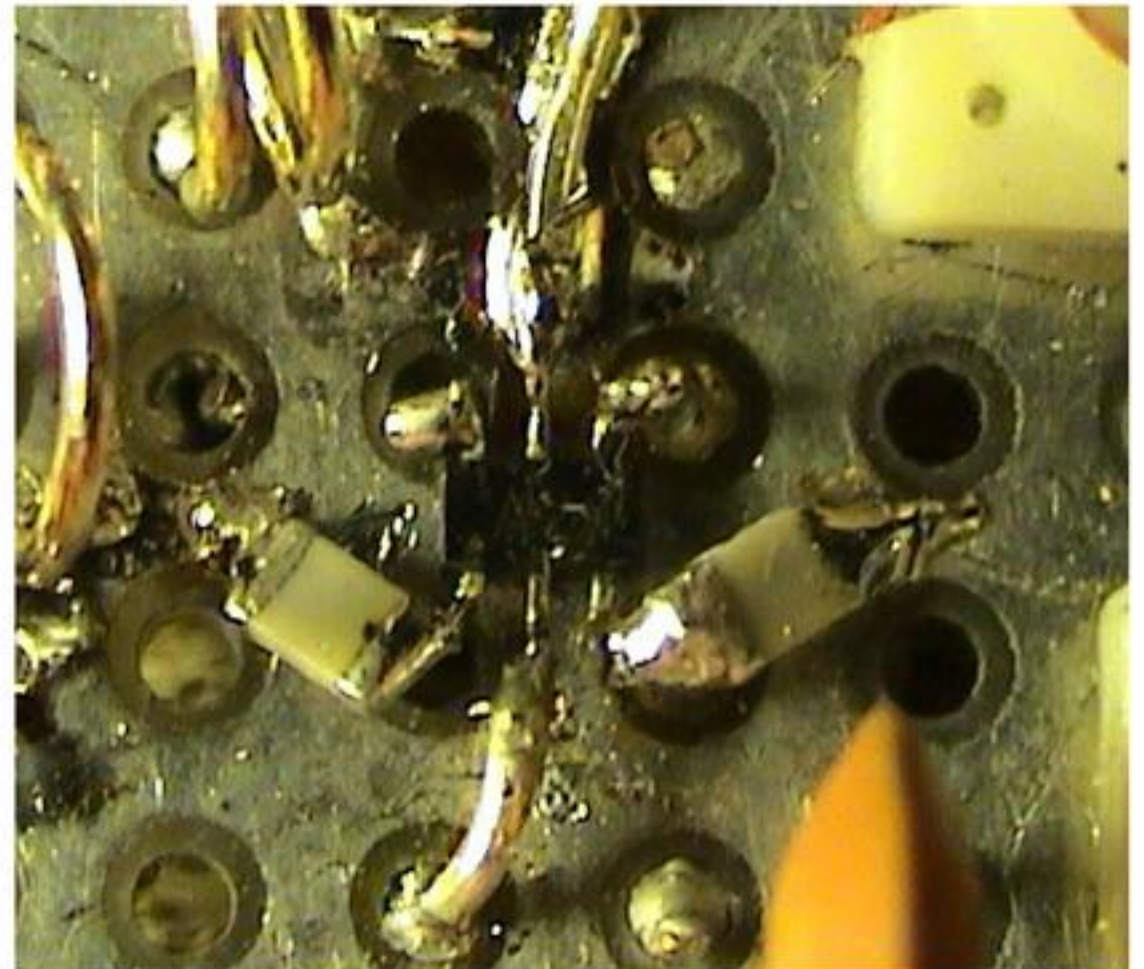
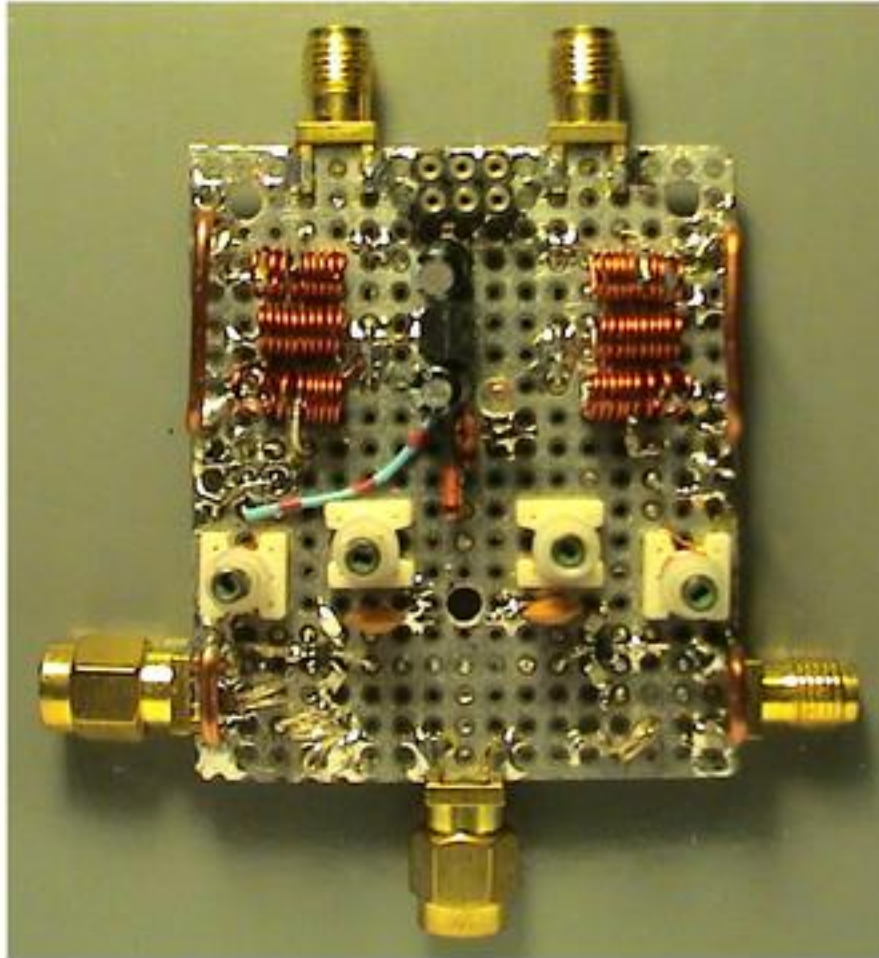


# Ojacevalnik z 2x ERA-2





# Montaza SOT363



# Pasovno sito

