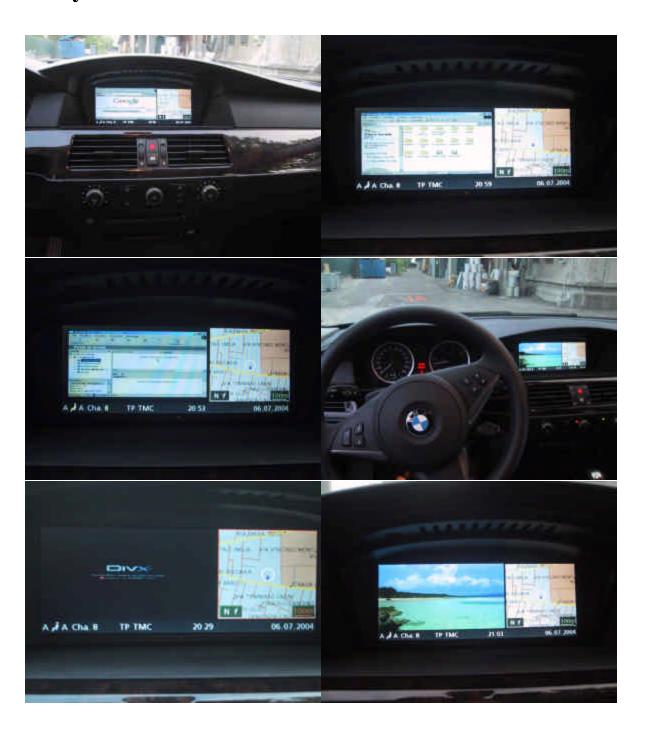
## As I have resolved the problems of connettivita' multimediale in my new bmw 5 series E60



The idea is based on two simple currently realizable solutions and seems to be the sun with the software versions rilasciate from BMW moreover such solutions they will always remain however working rimarra however the block of the vision during the guardian movement for our emergency.

## Plan 1

## Finalita':

to be able to connect sources sonorous external, to the multimediale system of the motor vehicle











mp3 players, laptop computers, handled computers, radio satellite reciever.

Not being available some official documentation that allows to use the incomes audio (gia' present but however not attivabili because of sofware) the only one possibilita e' to use an emitter stereo FM. that it transmits on a radio duct stereo

Such moreover e' favorable solution also for the fact that modifications do not have to be made the system originates them that they could be cause of contestazione for the application of the guarantee, moreover the interaction of all the other sources audio does not come compromised uses it remains invariato as in I listen to of a normal radio duct Fm.

In fact the emergency signallings/navigations remain working in foundation.

In order to realize this plan, the Main technical problems to resolve/solutions they are

Qualita' stereo and high dynamics of the emitter / to transmit to digital synthesis them PLL

Equalization of the sound level control loop level income

Elimination of possible interferences/distrurbi because of the system of reception BMW diversity with piu' receivers (level RF)/ balanced coaxial income on income antenna of receiver BMW

And here the Realized module from me' that it transmits on the frequency of 89.3







Technical characteristics of the device
Feeding 12 Vcc
Stiffness audio income 10k hom
Level of adjustable income
Selectable frequency on 4 channels 87/88 mhz
Compatible connectors with plug the RF antenna BMW (no modification)

## Sequence of assembly:

- 1 to d3connecter the cable antenna of the receiver bmw
- 2 to connect the same cable originates them bmw to the income of the modulator
- 3 to connect the cable of escape of the modulator to the income radio bmw
- 4 to stablily posizionare the modulator fixing it or eventually to leave it floating with adequate padding
- 5 to spread the income cable stereo in order to catch up the audio source
- 6 to feed the module tx with + 12 vcc
- 7 syntonized the radio and you will listen to your personal music

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For it I use of the monitor the situation is complicated even if the same ispiratore principle e', the precise one however that the plan e' valid only for endowed cars of sintonizzatore Tv!!

To construct to trasmettire tv of good qualita' e' simple what but also with the digital synthesis them they are not obtained here optimal turns out to you!!

The advantages however remain the same ones modifications do not have to be made the system originate them that they could be cause of contestazione for the application of the guarantee, moreover the interaction of all the other sources audio do not come compromised use it remain invariate as in I listen of a normal Tv channel

In fact the emergency signallings/navigations remain working in foundation.

Here we will be able to take advantage of the income video in order to connect sources video which dvd player, computer, videogames etc dovra pear tree to have itself to disposition marks them video composite of level adapted with suitable resolution, in the source case PC dovra to choose the adequate resolution and dimensions of the characters/icone making of the tests (in my case the suitable resolution it was 680 x 480)

Here the photo of the module realized transmitter from me':





this emitter it emits marks them video that puo' to be picked up on channel 8 (adjustable)

the characteristics generate them of this device are: audio modulation stereo standard pal it marks them of attivabile test for regulation feeding 12 vcc compatible audio dolby audio income with taken scart standard regulation senale level of escape regulation marks them income video (level)

I hope that these my simple ideas can be useful to someone that it has my same problem expert who e' of electronics does not make itself to advise from some electrotechnical friend on like making and on where to reperire the base material.

good divertimento and good job

hello to all they give Renzo .

who wanted some detail in piu' puo writing me to this address: renzobmw@better.it

many have asked to me to realize for they the modules are, estimating to realize of one ten in order to satisfy the insistent demands (probably the faro' in August)



Multimediale adapter bmw series 5 and 60 Audio Ingesso bmw series 5 e60 To listen to source mp3 bmw series 5 e60 To use the monitor bmw series 5 e60 Income video bmw series 5 e60 Audio Input bmw series 5 e60 Input video bmw series 5 e60