

SUMMARY

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I - INTRODUCTION

ONE PCB, TWO APPLICATIONS,
MANY OPTIONS.

To take advantage of the pin to pin compatibility of the 2 heads video amplifier STV5715 with the 4 heads video amplifier TEA5705 is the guideline of this demoboard.

With one PCB two main applications can be realized :

- STV5712/STV5715 providing a 2 video/2 FM audio playback/record solution
- STV5712/TEA5705 providing a 4 video/2 FM audio playback/record solution.

Additionally the PCB layout of the board offers the user several application options as desired.

II - STV5712/STV5715 APPLICATION

The Demoboard is mounted according to the typical application diagram (Figure 1).

Regarding the STV5715 part, V_{R1} and V_{R2} trimmers have been added in order to easily adjust the record signal to the required level.

Supply Voltages

| | STV5712 | STV5715 |
|---------------|---------------|---|
| Playback Mode | $V_{CC} = 5V$ | $V_{CC} = 5V$ |
| Record Mode | $V_{CC} = 5V$ | $V_{CC} = 5V$ and $5V < V_{REC} < 12V$ |

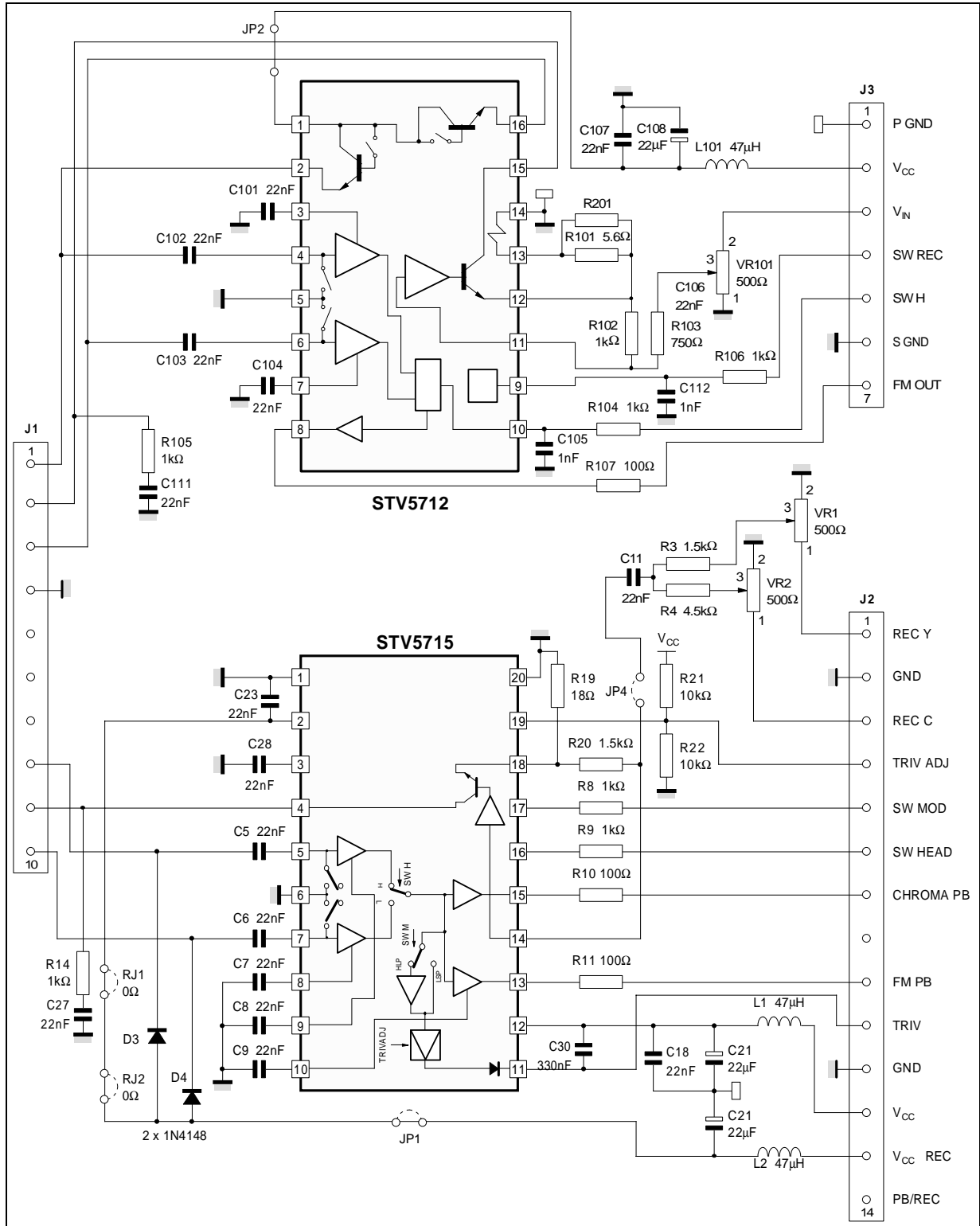
Application options provided by the PCB layout

Figure 2 gives an example of electrical diagram using the PCB options.

- STV5712 part :
 - C109/C110 capacitors can be added to tune the head peaking effect,
 - C105/C112 capacitors can be added to filter the control signals (only when disturbances can be noticed)
- STV5715 part :
 - C24/C25 can be added to tune the head peaking effect,
 - using Q2, Q3, R15, R16, R17, R18 circuitry, the STV5715 can be supplied with a single 5V line in record mode.

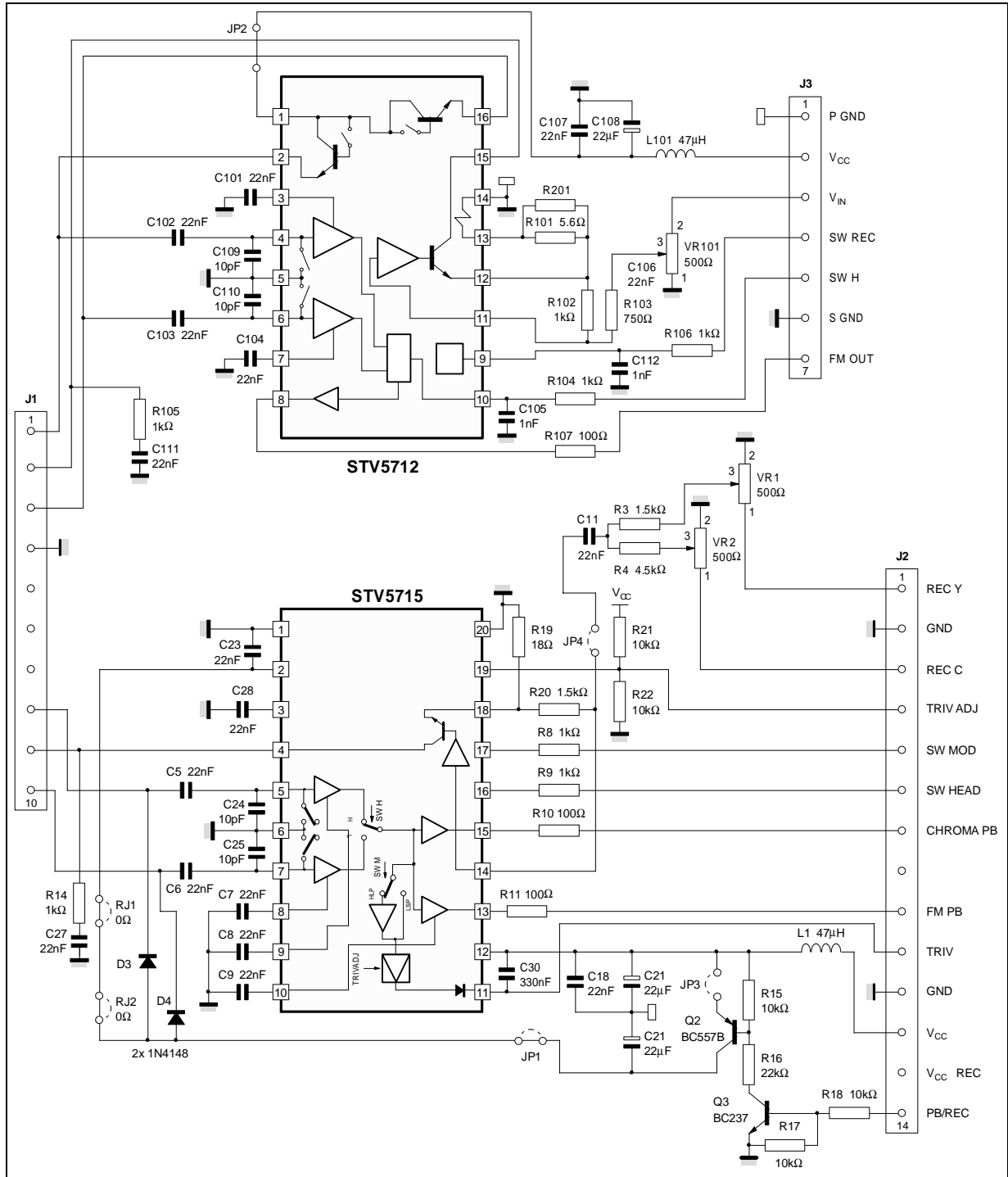
STV5712 - STV5715 - TEA5705 DEMOBOARD

Figure 1 : STV5712/STV5715 Typical Application



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Figure 2 : STV5712/STV5715 Application Example using the PCB Layout Options



III - STV5712/TEA5705 APPLICATION

The demoboard is mounted according to the typical application diagram (Figure 3).

Similarly to the STV5715, VR₁ and VR₂ trimmers

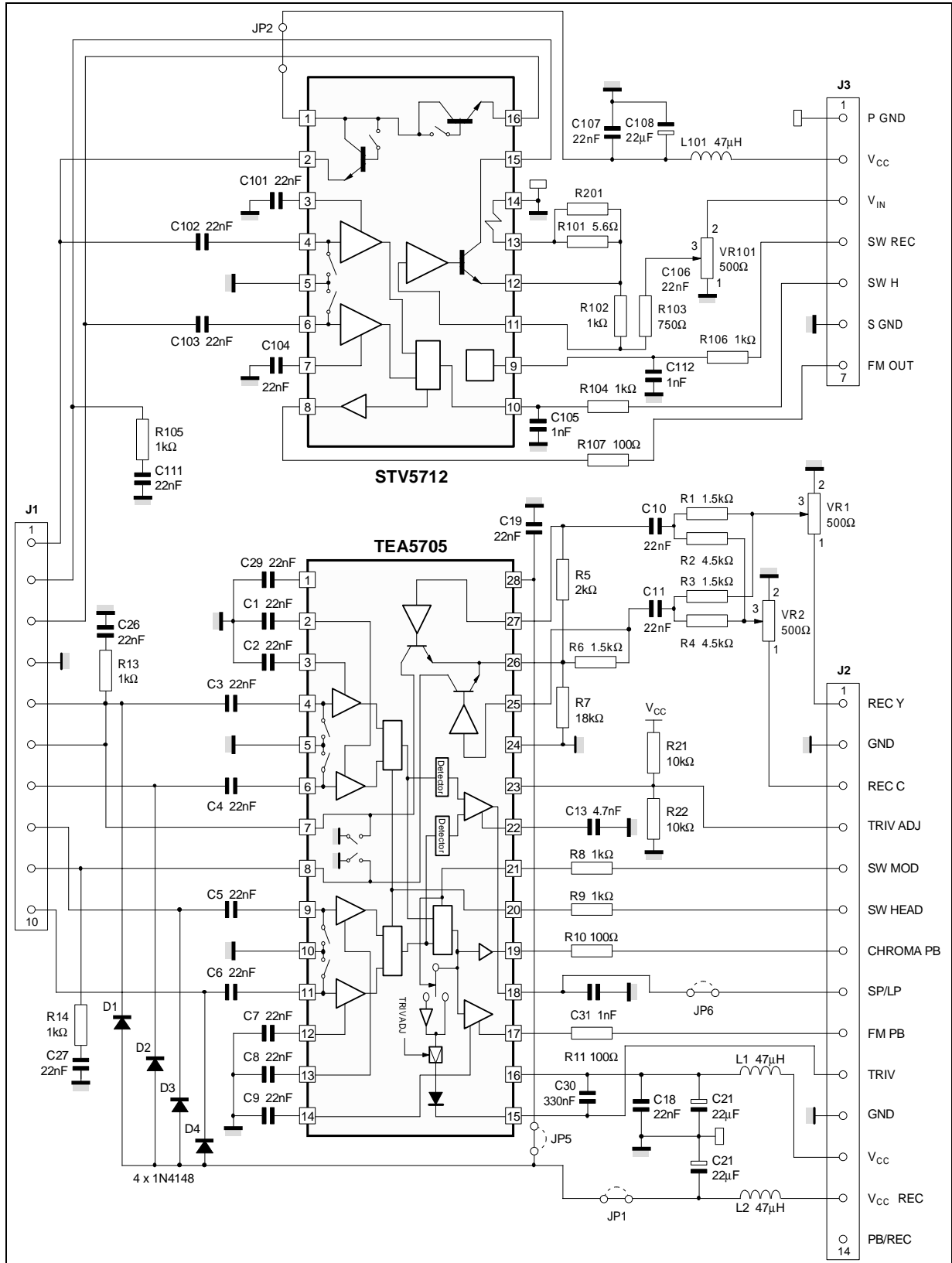
have been added in order to easily adjust the record level to the required level.

Supply Voltages

As STV5712/STV5715 application

STV5712 - STV5715 - TEA5705 DEMOBOARD

Figure 3 : STV5712/TEA5705 Typical Application



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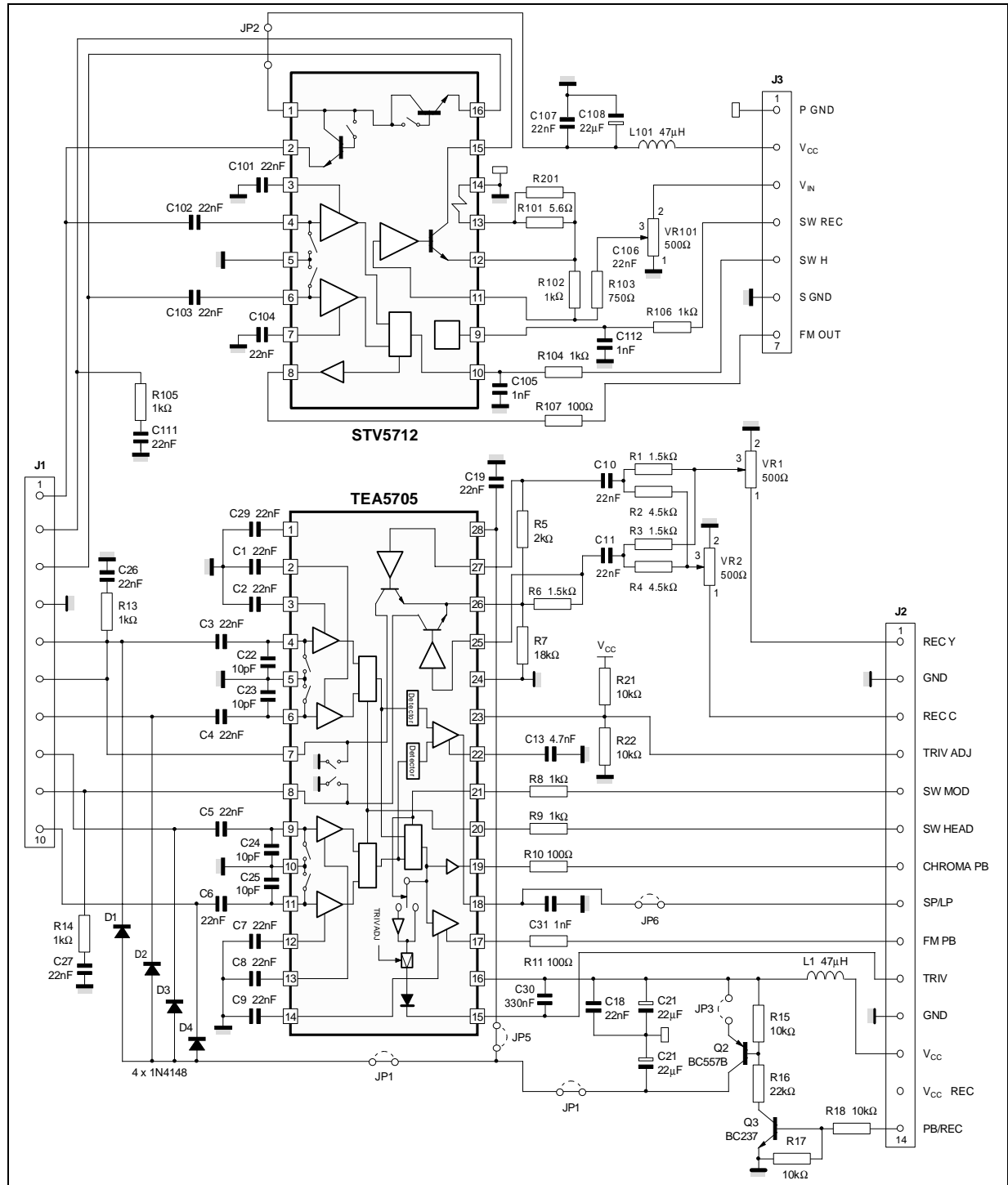
Application options provided by the PCB layout

Figure 4 gives an example of electrical diagram using the PCB options.

- STV5712 part : see chapter II

- TEA5705 part :
 - C22/C23/C24/C25 can be added to tune the head peaking effect,
 - using Q2, Q3, R15, R16, R17, R18 circuitry, the TEA5705 can be supplied with a single 5V line in record mode.

Figure 4 : STV5712/TEA5705 Application Example using the PCB Layout Options

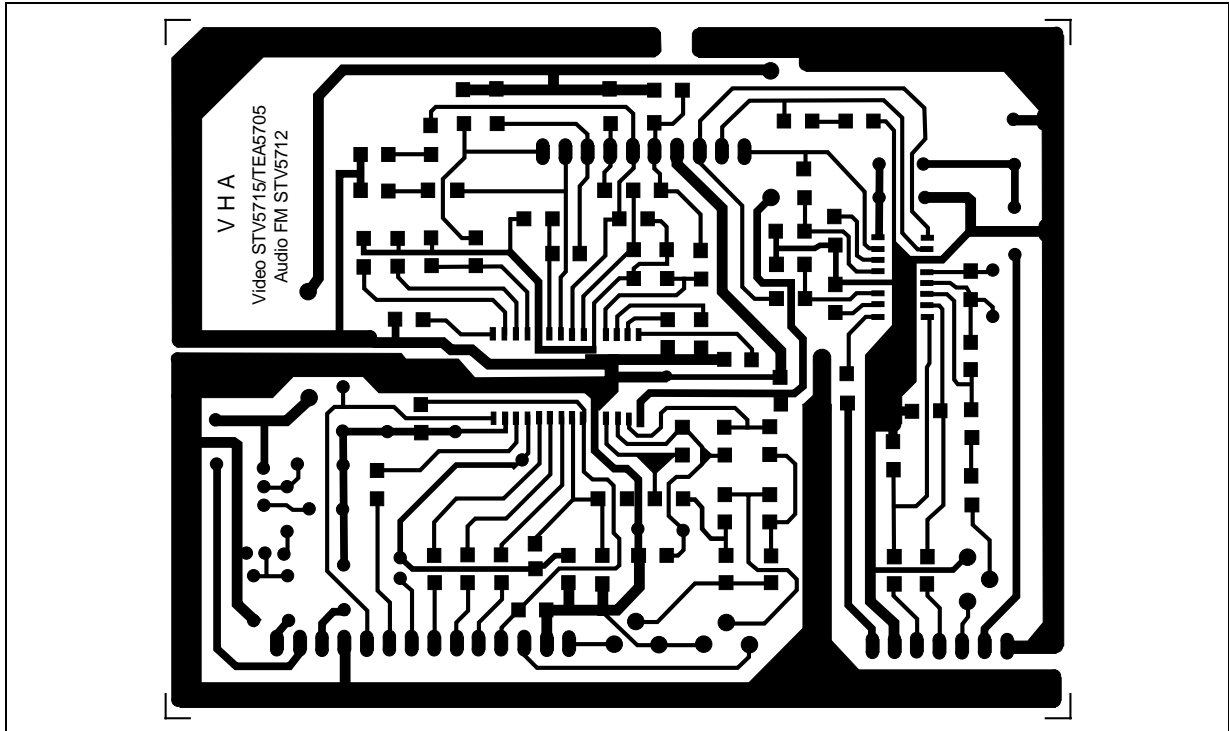


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STV5712 - STV5715 - TEA5705 DEMOBOARD

IV - PCB LAYOUT PATTERN (copper side)

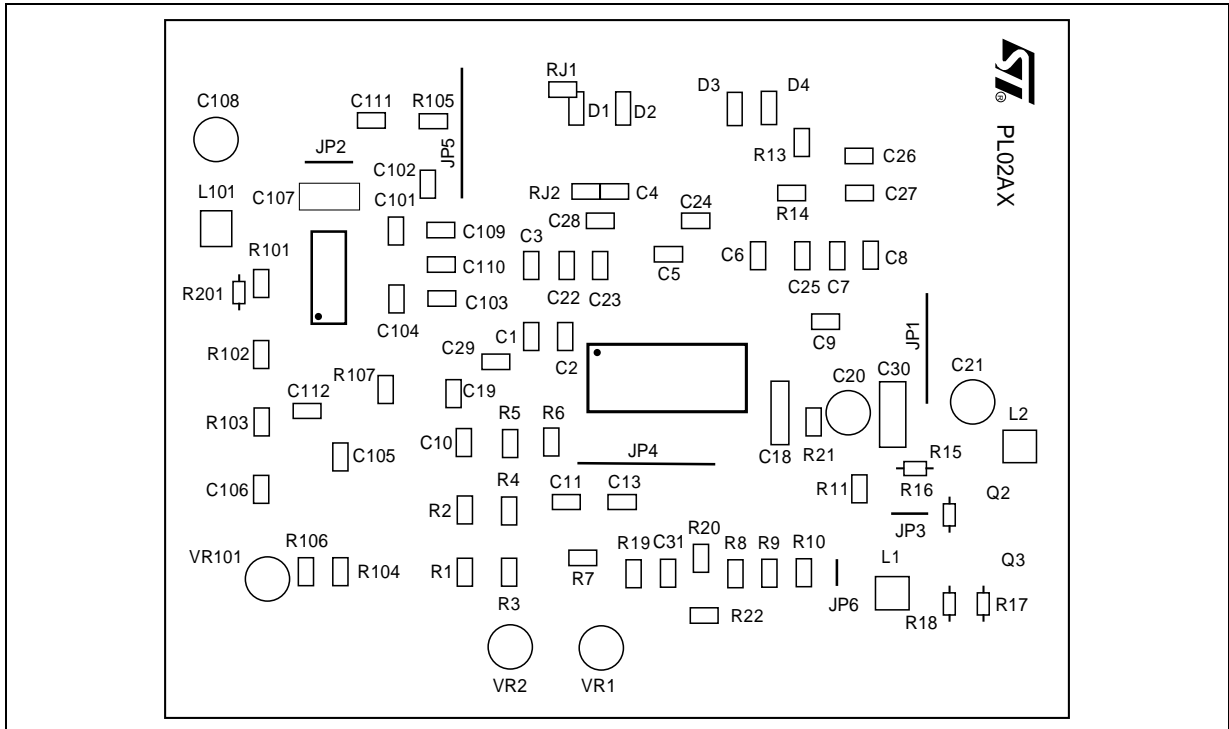
Figure 5



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V - SILKSCREEN PRINTING PATTERN (connectors side)

Figure 6



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