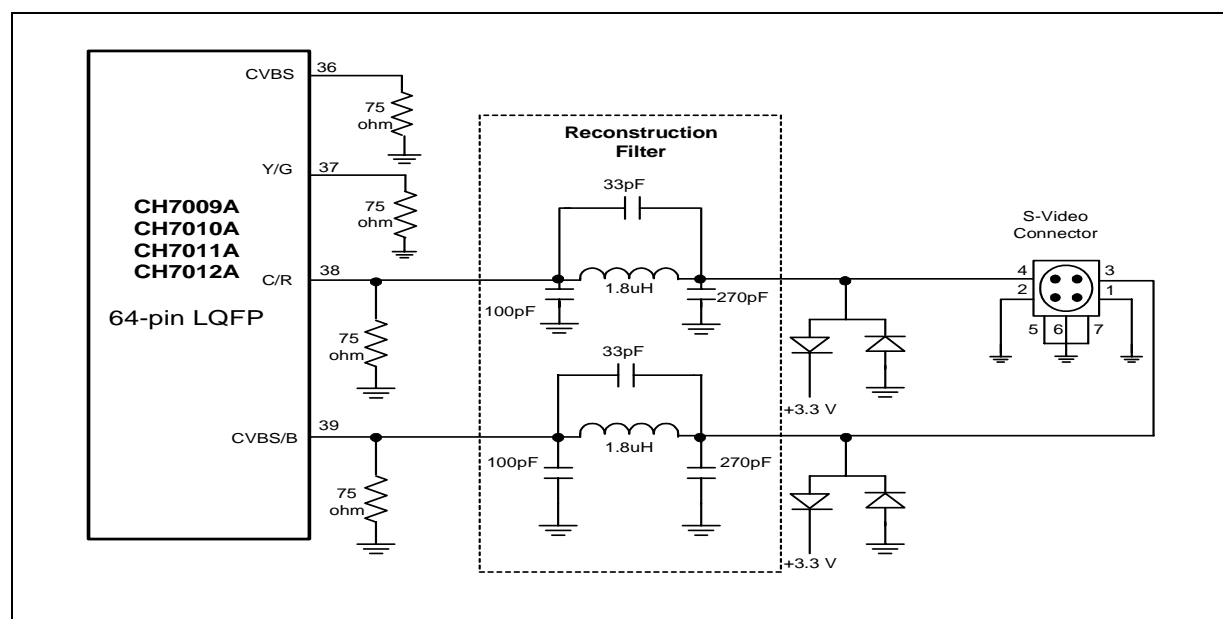


## Recommendation of Composite & S-Video in Single Connector for CH7009 - CH7012

### Introduction

In some application, there is only one video output connection available and simultaneously display of S-Video and Composite is not a concern. In order to provide S-Video & Composite signals under this situation, a recommended signal connection from CH7009 - CH7012 is shown:

### Circuit Diagram

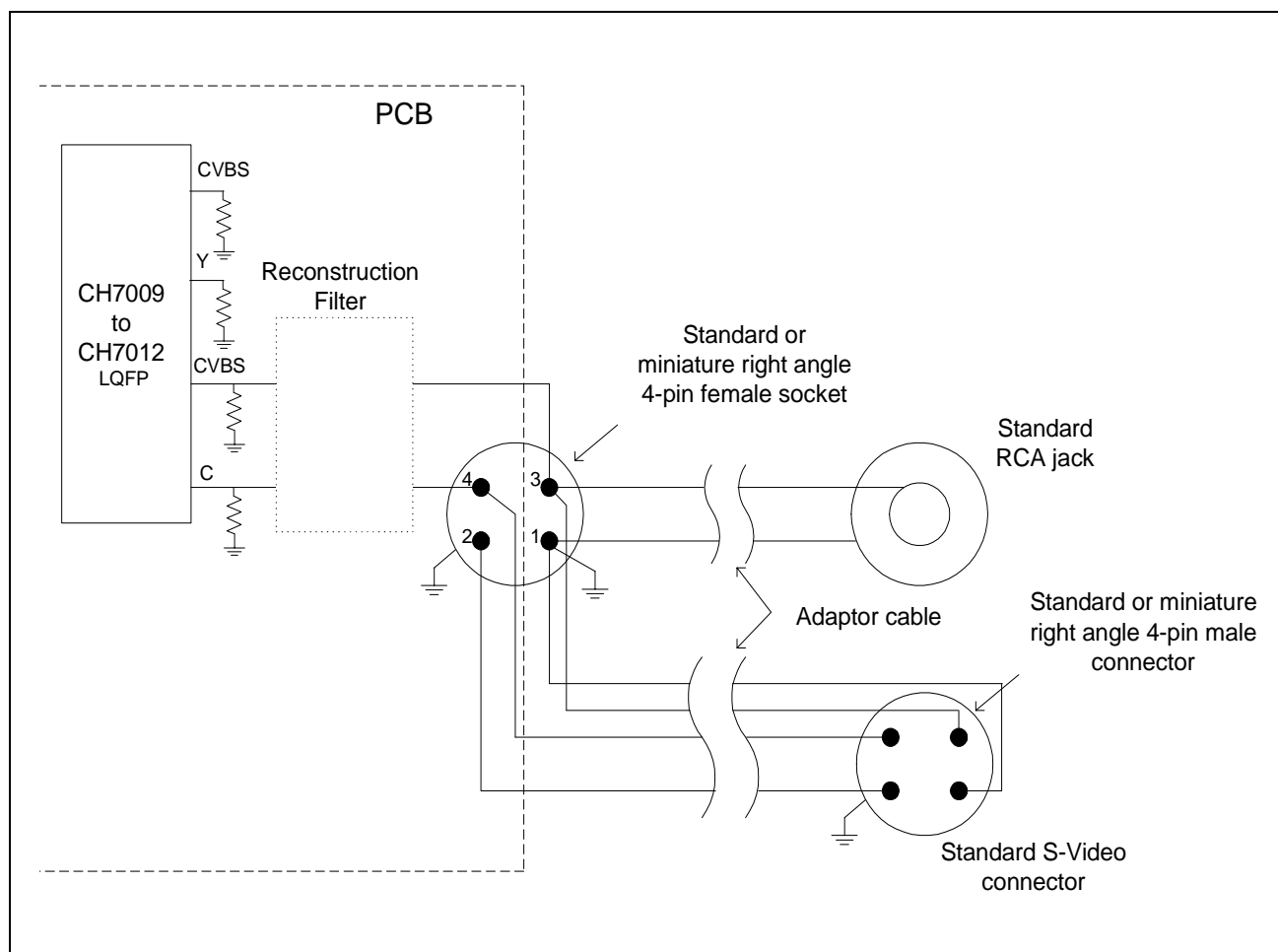


**Note:** All the VDD are connected to DAC power supply & GND are conneted to DAC ground.  
Please refer to the data sheet for both VDD & GND pin's number. For PCB layout requirement, please refer to AN-34 (CH7009), AN-36 (CH7011), AN-44 (CH7010) and AN-45 (CH7012).

### Software Register Setting

| TV Output                                       | Register Setting     |                                    |
|---|----------------------|------------------------------------|
|   | VBW Register 02h     | PM Register 49h                    |
| Composite Output                                | Bit5 (CVBWB bit) = 1 | bit 5 TV = 1 and DACPD[3:0] = 1110 |
| S-Video Output                                  | Bit5 (CVBWB bit) = 0 | bit 5 TV = 1 and DACPD[3:0] = 1010 |
| Composite Black/White Output (for sharper text) | Bit5 (CVBWB bit) = 0 | bit 5 TV = 1 and DACPD[3:0] = 1110 |

## Cable Connection



**Recommendation:** Please refer to Digi-Key or JAMECO for the standard socket & connector. Customer should be aware and consult the cable manufacturer regarding the EMI issue, when the small form factor custom made connectors & cables are required.