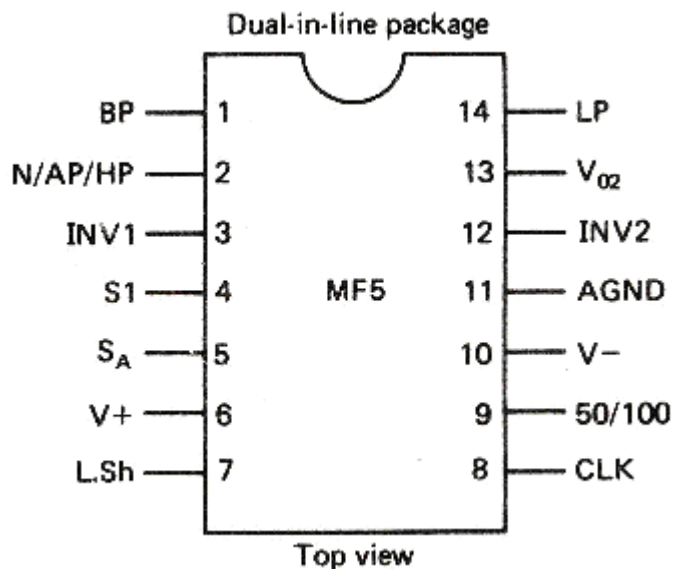


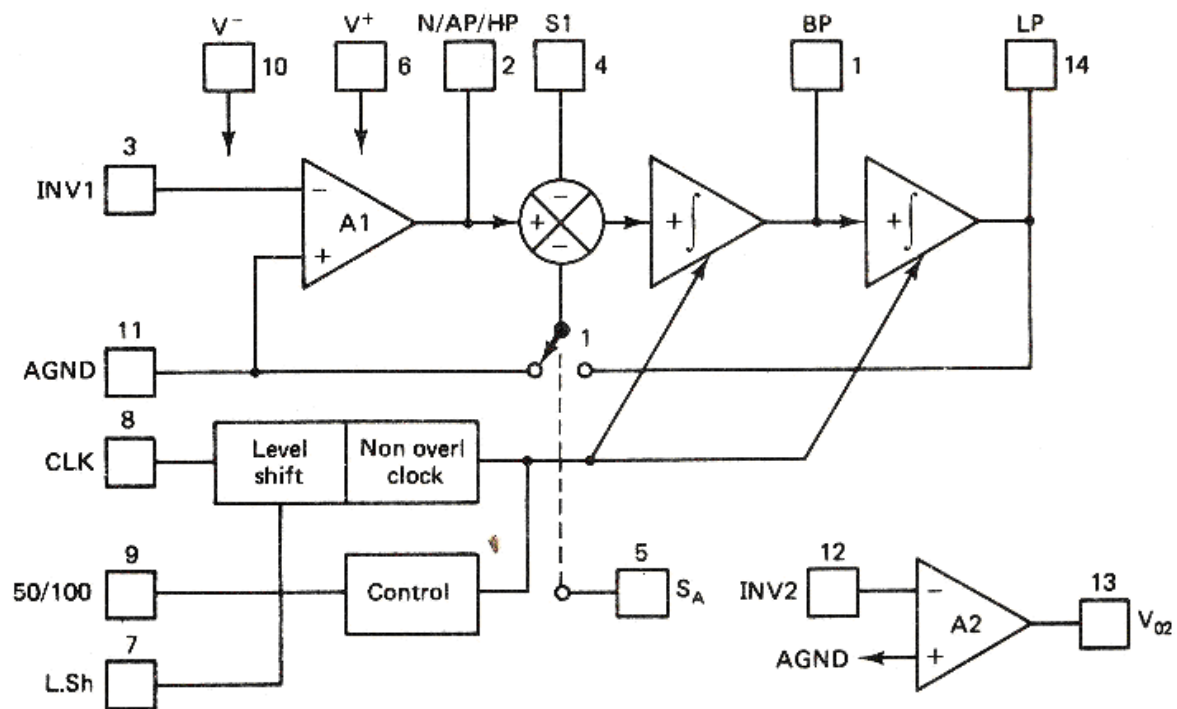
MF 5 & 10 SWITCHED CAPACITOR FILTER

MF 5 :

It is the basic type of filter. This is called as universal filter because it can be used to synthesize any type of filters such as Band pass, Low-pass, High-pass, notch and all-pass. The block diagram of MF5 was shown here. It consists of an operational amplifier, two positive integrators and summing node. A MOS switch is controlled by the logic input given at pin 5.

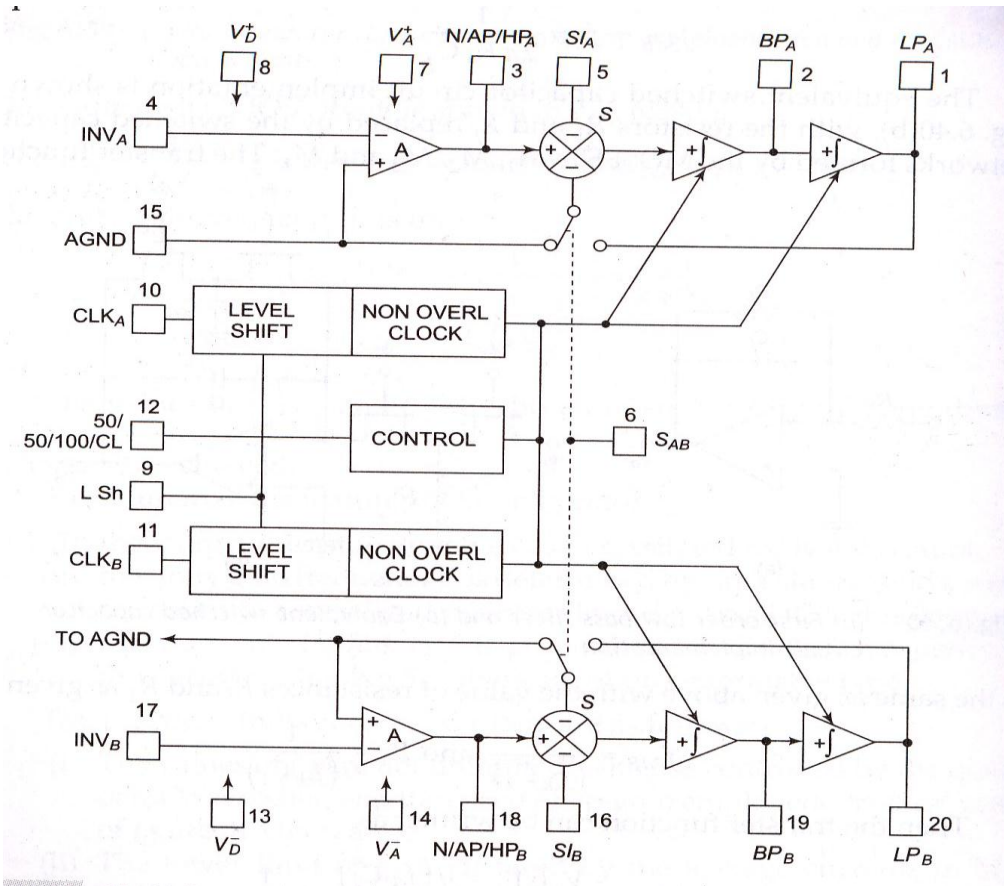
This switch is useful in connecting one of the inputs of first integrator to either ground or to the output of the second integrator. The way in which the external resistors are connected determines the characteristics of the filter. The maximum recommended clock frequency is 1 MHz. There were three modes of operation and out of all modes, mode 3 is best. All the modes have three outputs with the combinations of different filter functions. And MF5 Can Operate with single or split power supply. The clock frequency to center frequency ration is selected with a help of pin 9. There were two ratio options 50:1 and 100:1.





MF10:

The MF10 contains two of the second-order universal filter sections found in the MF5. Therefore with MF10, two second order filters or one fourth-order filter can be built. As the MF5 and MF10 have similar filter sections, the design procedure for them is same.



Source : <https://aihteienotes.files.wordpress.com/2014/07/lic-notes.doc>