

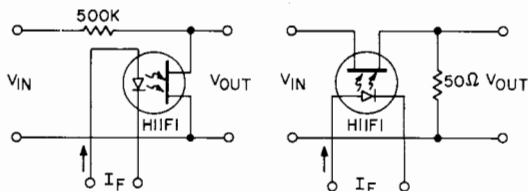
TYPICAL APPLICATIONS

AS A VARIABLE RESISTOR

AS AN ANALOG SIGNAL SWITCH

ISOLATED VARIABLE ATTENUATORS

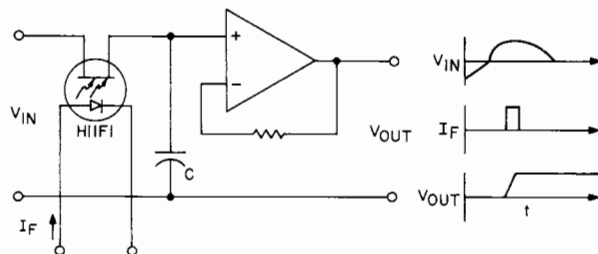
ISOLATED SAMPLE AND HOLD CIRCUIT



LOW FREQUENCY
 @ 10KHz DYNAMIC RANGE ≈ 70db
 FOR $0 \leq I_F \leq 30\text{mA}$

HIGH FREQUENCY
 @ 1MHz DYNAMIC RANGE ≈ 50db
 FOR $0 \leq I_F \leq 30\text{mA}$

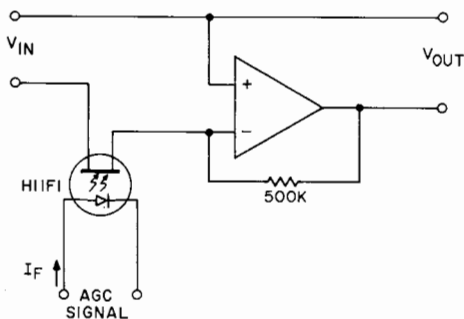
Distortion free attenuation of low level A.C. signals is accomplished by varying the IRED current, I_F . Note the wide dynamic range and absence of coupling capacitors; D.C. level shifting or parasitic feedback to the controlling function.



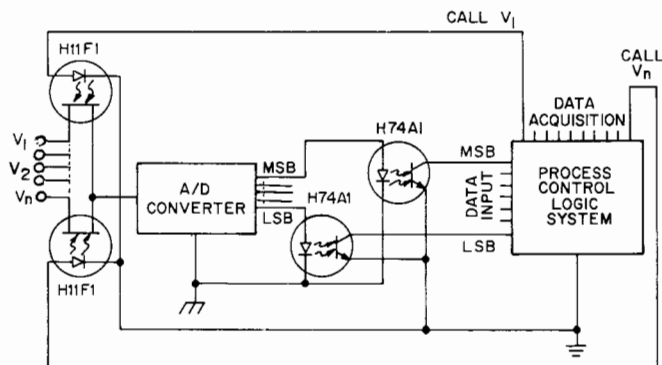
Accuracy and range are improved over conventional FET switches because the H11F has no charge injection from the control signal. The H11F also provides switching of either polarity input signal up to 30V magnitude.

AUTOMATIC GAIN CONTROL

MULTIPLEXED, OPTICALLY-ISOLATED A/D CONVERSION



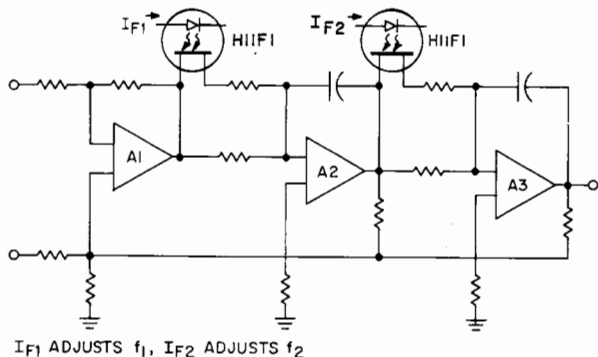
This simple circuit provides over 70db of stable gain control for an AGC signal range of from 0 to 30mA. This basic circuit can be used to provide programmable fade and attack for electronic music and can be modified with six components to a high performance compression amplifier.



The optical isolation, linearity and low offset voltage of the H11F allows the remote multiplexing of low level analog signals from such transducers as thermocouples, Hall effect devices, strain gauges, etc. to a single A/D converter.

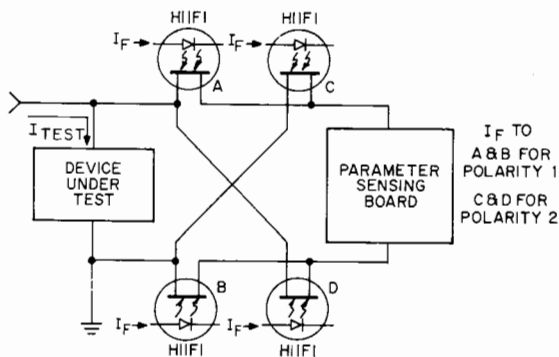
ACTIVE FILTER FINE TUNING/BAND SWITCHING

TEST EQUIPMENT – KELVIN CONTACT POLARITY



I_{F1} ADJUSTS f_1 , I_{F2} ADJUSTS f_2

The linearity of resistance and the low offset voltage of the H11F allows the remote tuning or band-switching of active filters without switching glitches or distortion. This schematic illustrates the concept, with current to the H11F1 IRED's controlling the filter's transfer characteristic.



In many test equipment designs the auto polarity function uses reed relay contacts to switch the Kelvin Contact polarity. These reeds are normally one of the highest maintenance cost items due to sticking contacts and mechanical problems. The totally solid-state H11F eliminates these troubles while providing faster switching.

PRINTED IN U.S.A.