# 5V Programmable Pulse Detector and R/W Preamplifier Interface

**Preliminary Information**

## GENERAL DESCRIPTION

The XR-9040 utilizes large scale integration to incorporate several read/write functions into a single integrated circuit.

For the read/write channel the XR-9040 performs the pulse detection function, as well as providing an interface to the preamplifier circuit.

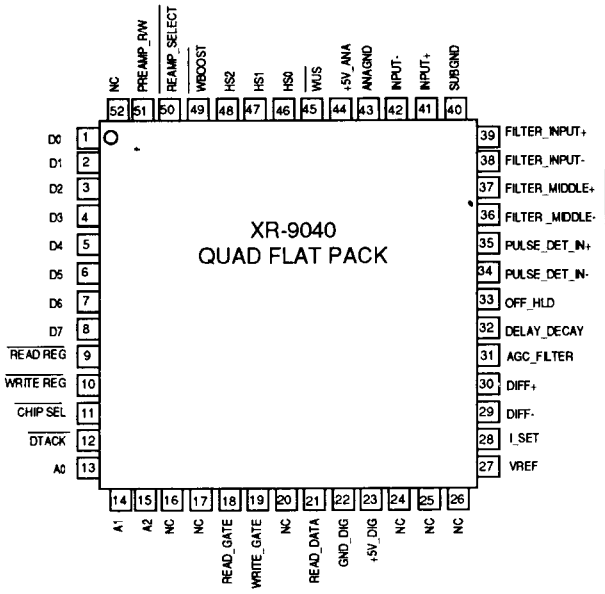
The circuit is designed to connect, through an unmultiplexed eight bit bus, to a microprocessor using a synchronous interface. This interface reduces the need for single point interconnects, as well as allowing features to be incorporated (such as the programmable data qualification threshold) that otherwise would be impractical.

The circuit is designed to operate from a single +5V supply and is fabricated using a BiCMOS process so as to decrease power dissipation and optimize circuit topology. Also incorporated are shutdown modes that allow reduced power dissipation.

## FEATURES

+5V Only Operation
BiCMOS Process for Lower Power
High Level u-P Based Interface
Register Based Architecture
Cycled Power Modes to Reduce Power Consumption
Sample and Held, Dual Bandwidth Offset Compensation Circuit to improve Write to Read Recovery
Offset sense on Filter Output.
Variable sense on Filter Output.
Filter Response Registers for Equalization.
Constant Bandwidth, Fast Attack/Decay AGC.
AGC Hold Function.
Dual Bandwidth AGC Loop.
Threshold Qualification.
Programmable Threshold Qualifier Level

## PIN ASSIGNMENT




## ORDERING INFORMATION

| Part Number | Package | Operating Temperature |
|---|---|---|
| XR-9040ACQ | 52 pin QFP | 0°C to 70°C |

## ABSOLUTE MAXIMUM RATINGS:

| | |
|---|---|
| D.C. Supply Voltage(VCC) | -0.3 to +6 V |
| Digital Input Voltage Range (VIN) | -0.3 to VCC+0.3V |
| Junction Temperature | 150 °C |
| Storage Temperature | -65 to 130 °C |
| Write Disable Operating Range(VCC) | 3.0 min |
| Temperature Range | 0°C to 70°C Max |
| Shock | (TBD)G |