

Fully Integrated Optical Receiver IC with Preamp Stage, ADC, Logic Block and I/Os



The AMG-SO204 has a preamplifier stage for photo diodes, ADC, and logic block for computation of input signals and various built in I/Os. It is very useful for the purpose of building optical sensors.

Application Circuit Example

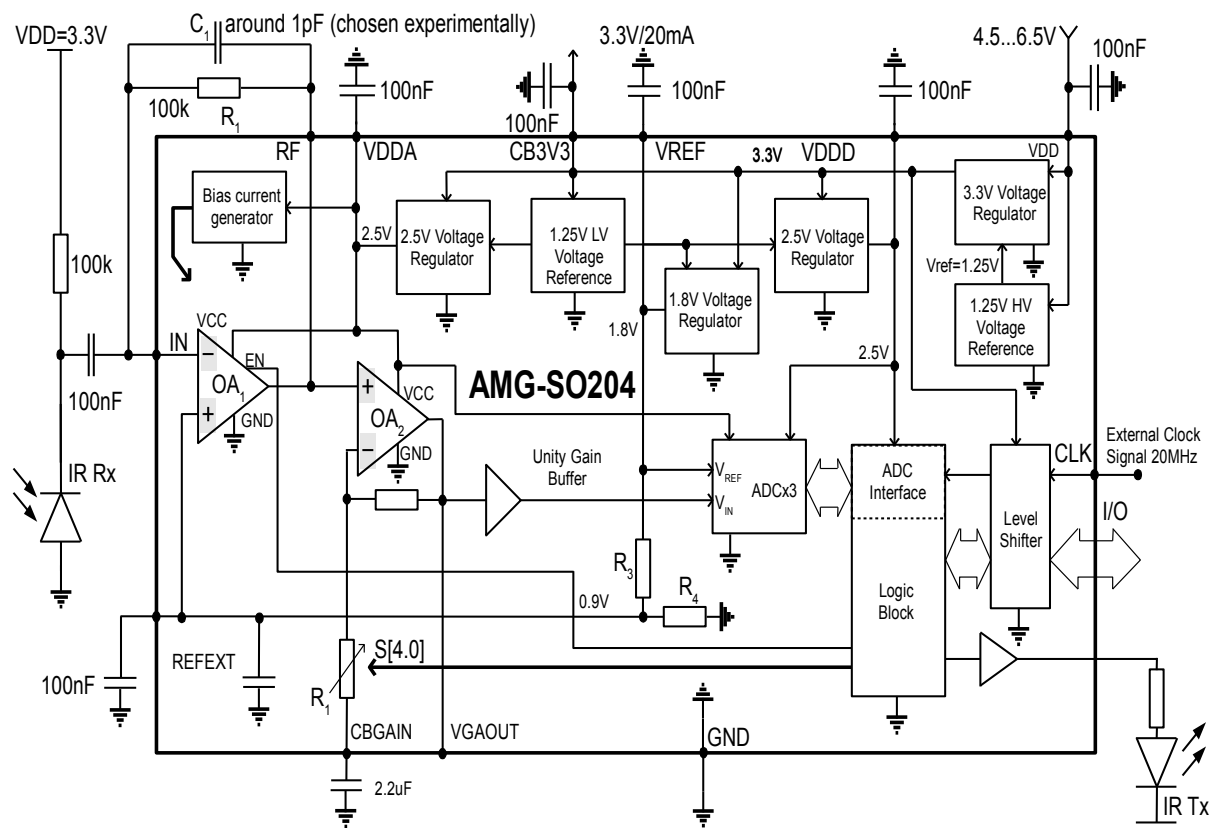


Figure 1: Simplified application example

Features

- Supply voltage: 4.5VDC...6.5VDC
- Specialized photo diode receiver front-end
- On-chip 3.3V linear voltage regulator to supply on-chip and off-chip electronics
- Internal current-to-voltage converter with modifiable trans-resistance
- Low power consumption
- Separate analog and digital block with separate supplies for lowest noise
- Dedicated 20MHz clock input pin
- Two on-chip voltage references
- Variable gain amplifier to increase dynamic range of the receiver
- Supports the use of an external current-to-voltage converter by disabling the internal one
- Direct Tx LED drive via adjustable PWM
- Data I/F via 625kbps UART (8N1)
- Configurable and controlled by a command structure
- 8 x 7 segment LED display driver
- Ambient temperature range: -25°C...90°C
- Package: TQFP48 – Body size: 7mm x 7mm x 1.0mm
- RoHS compliant

Ordering Information

- AMG-SO204-ITQ48T (TQFP48 – shipment in trays)

Development Tools

- Application Notes:AMG-AN-SO204
- Data Sheet: AMG-DS-SO204