



# NEW! Special Function Motor Drivers

AN41908A Lens Driver

AN41919A DC Iris Driver

# Panasonic Special Function Motor Drivers For Network and Security Cameras



**Dome Type Cameras  
(Iris Servo for Hall Sensor)**



**Box Type Camera  
(Iris Servo for Dumping Coil)**

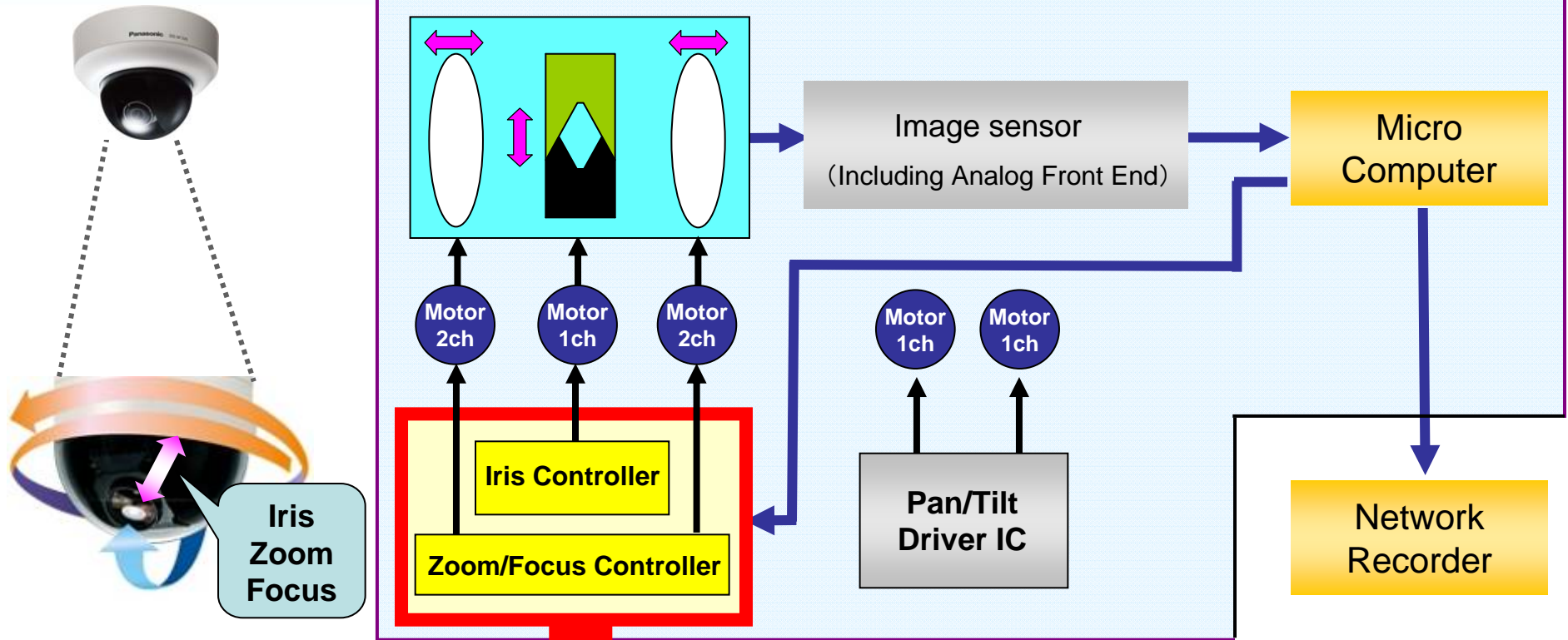
	Type	Function	Package (Chip size)	Status
Lens Driver for Dome type	AN41908A	5ch motor drive controller (Zoom 2ch + Focus 2ch + Iris servo for hall sensor 1ch)	QFN44 (6mm × 6mm)	Under MP
DC Iris Driver for Box type	AN41919A	1ch Iris controller (Iris servo for dumping coil 1ch)		

# Panasonic AN41908A Lens Driver for Dome Type Camera (Iris Servo for Hall Sensor )



# Block Diagram of Network Camera (Hall Sensor)

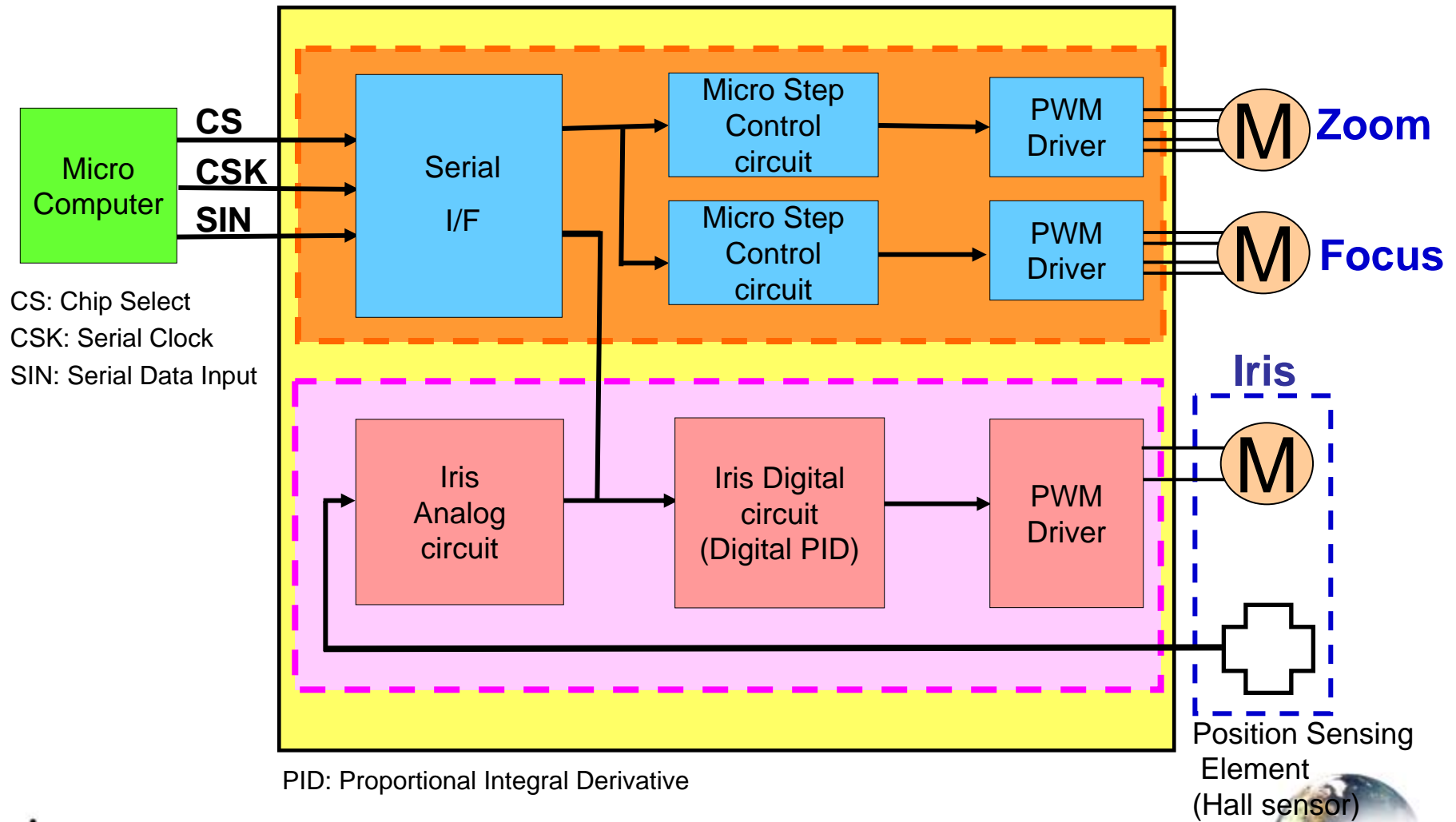
## Block diagram



**Single chip solution  
Lens Driver  
AN41908A**

# Panasonic AN41908A Block Diagram

To Integrate Iris Control Function on Zoom & Focus Driver



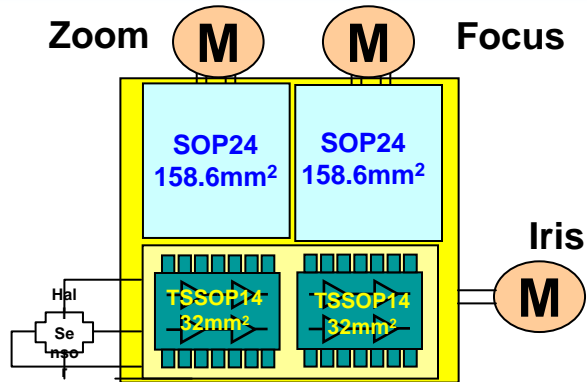
# Panasonic AN41908A Single Chip Advantages

- PCB Space Reduction
- Reduced Design-In Time
- Low Acoustic Noise
- Low Power Consumption

# PCB Space Reduction

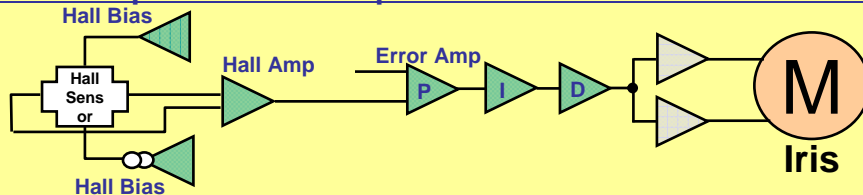
**Company A**

Total Area = 381mm<sup>2</sup>



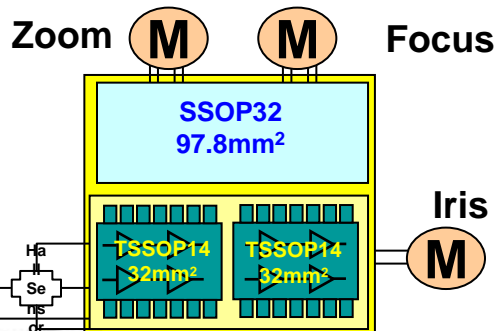
**90.5% Reduction**

8 OP Amps and external parts are needed for Iris function...



**Company B**

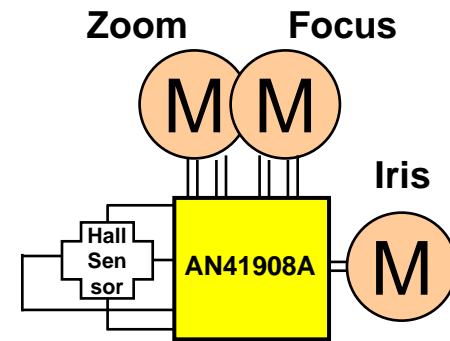
Total Area = 162mm<sup>2</sup>



**78% Reduction**

**AN41908A**

1Chip LSI of Zoom, Focus and Iris function



Total Area = 36mm<sup>2</sup>  
(About 80-90% reduction!!)

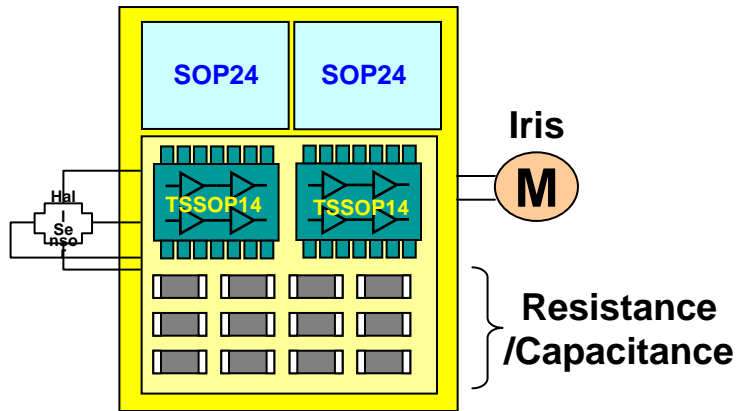
Advantage for

- Small Camera design
- PCB cost reduction

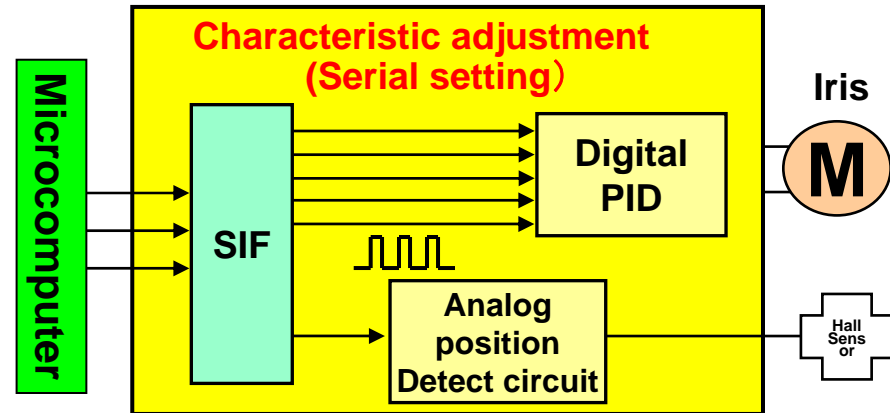
# Reduced Design-In Time

## Easy Adjustment of Iris Circuit

### Existing system



### AN41908A



SIF: Serial Inter Face

PID: Proportion / integral calculus / differential calculus 3 elements digital control system

### Inconvenient...

You needed to adjust Iris circuit when you start to design camera...

You needed to change external resistance and capacitance for Iris adjustment...

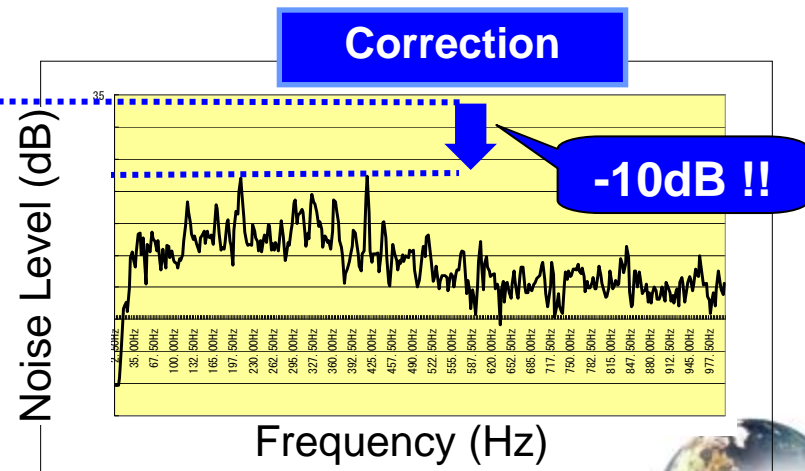
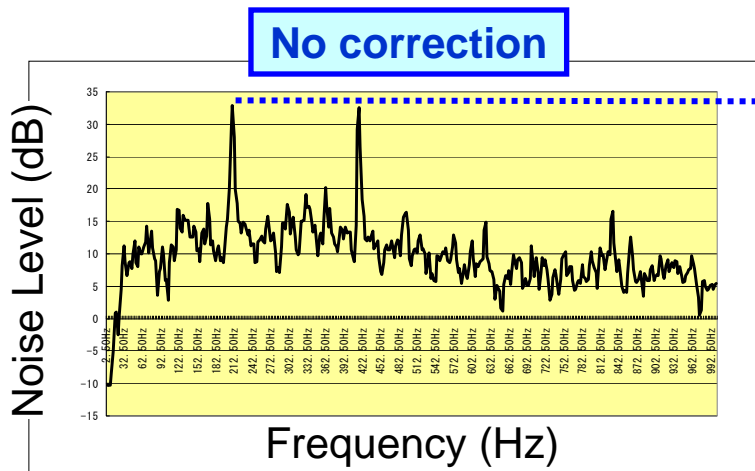
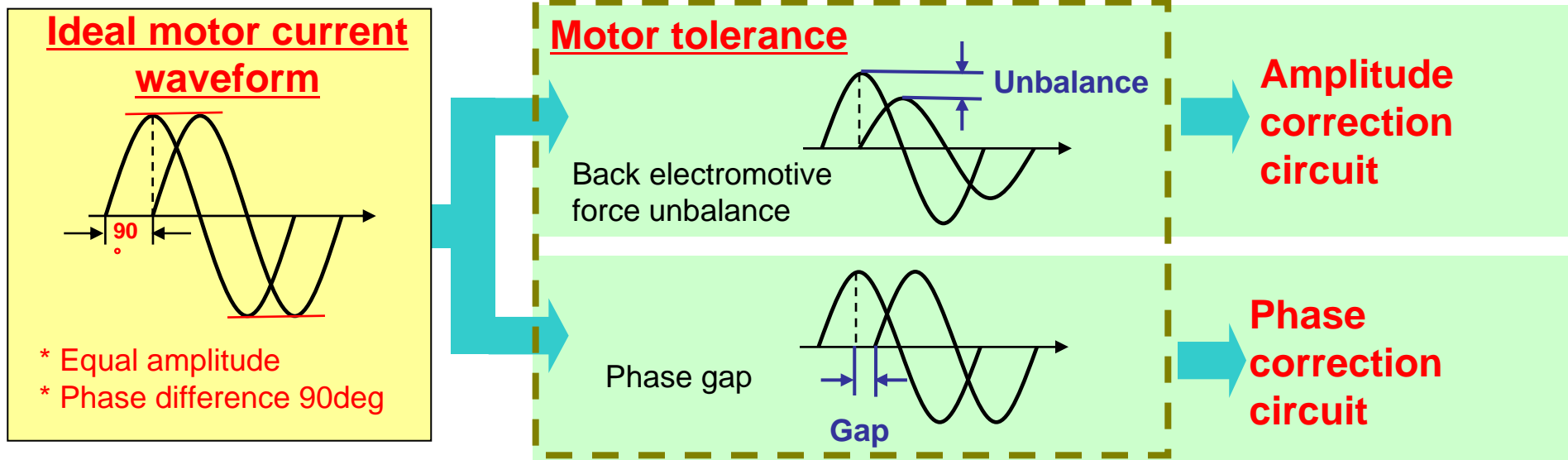
### Improved !!

Software can arrange the circuit by SIF because of built-in digital PID



# Low Noise Micro Step Drive for Zoom and Focus

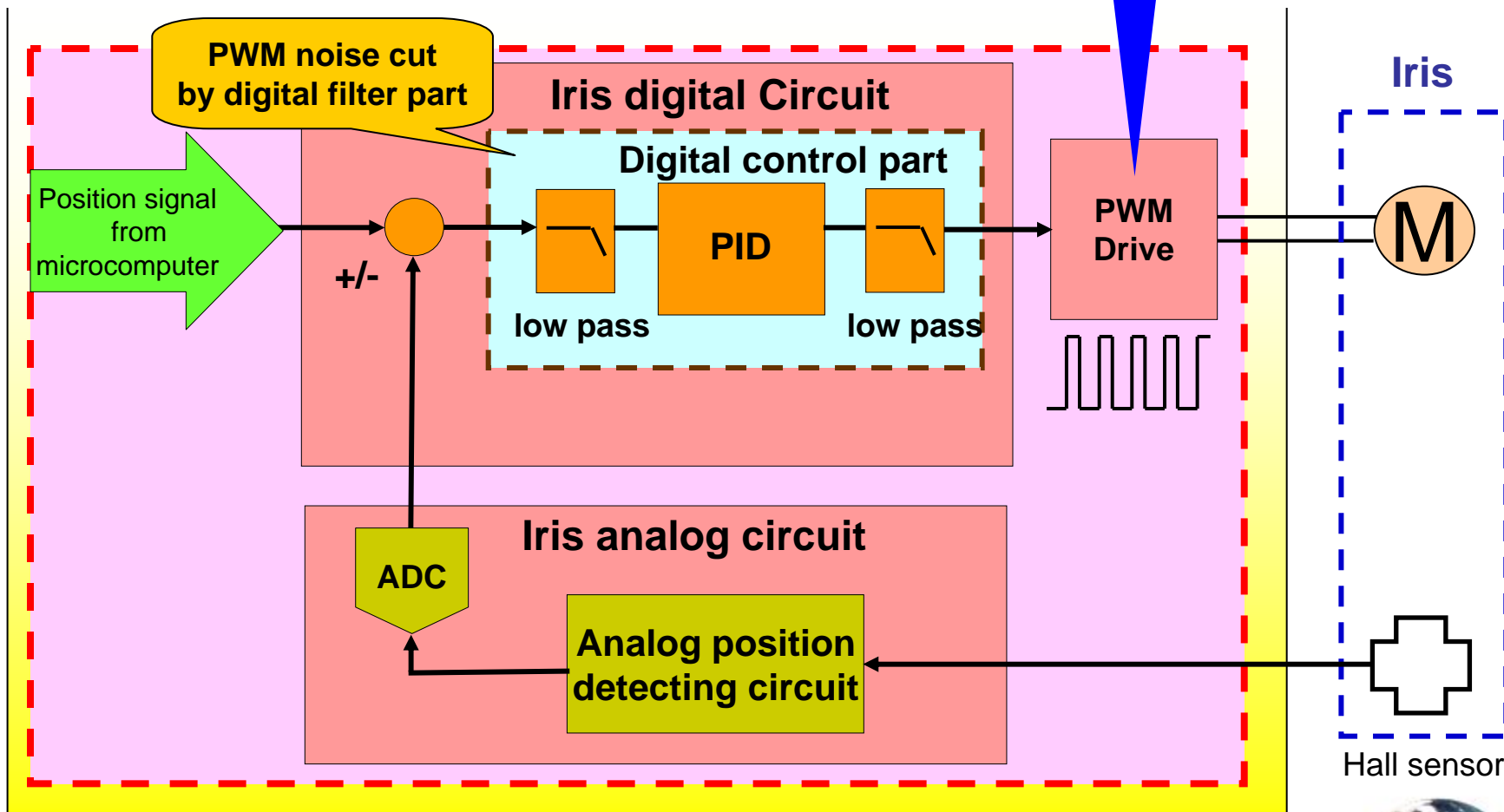
## Less Acoustic Noise by Motor Tolerance Correction Function



# Low Power Consumption

**50% power reduction by PWM driving system !!**

(Compared with Linear driving system)



# Panasonic AN41908A Application Circuit

Panasonic can prepare evaluation board and more specific application notes.

## Overview

AN41908A is a lens motor driver IC for camcorder and security-camera featuring the functions of Iris control. Voltage drive system and several torque ripple correction techniques enable super- low noise microstep drive.

## Features

- Voltage drive system 256-step microstep drivers (2 systems)
- Built-in Iris controller
- Motor control by 4-line serial data communication
- 2 systems of open-drain for driving LED

## Applications

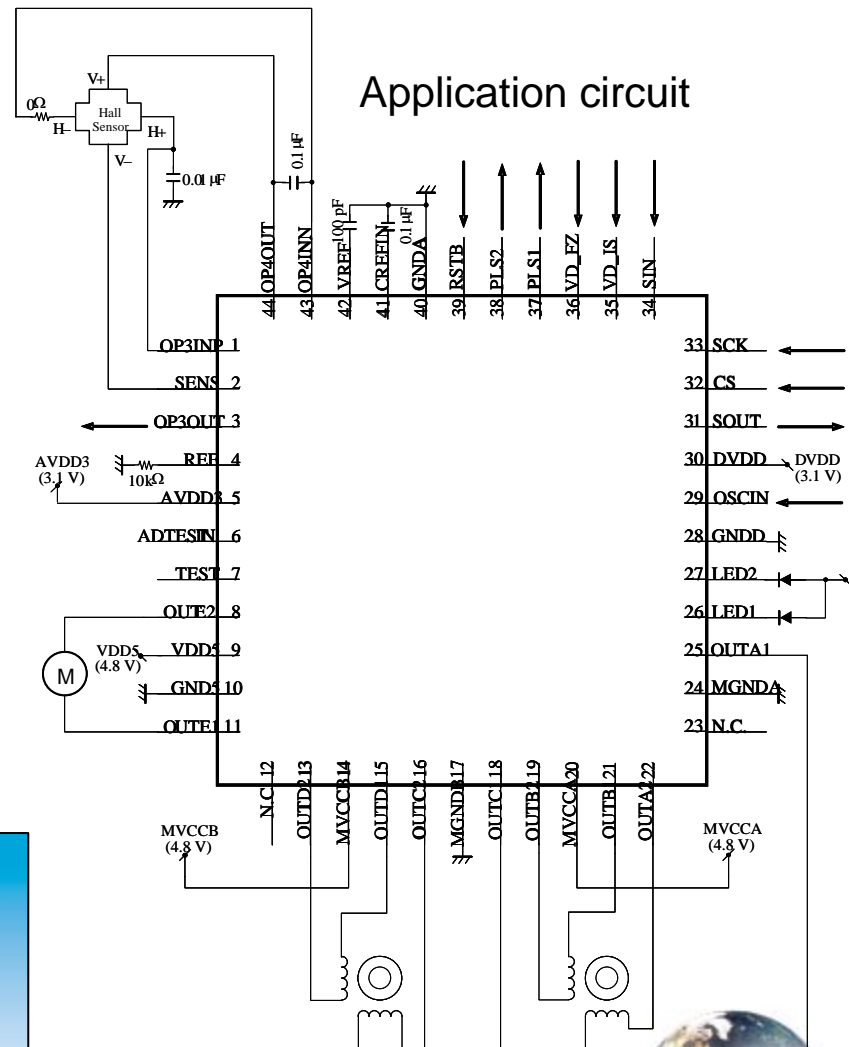
- Camcorders, Security Cameras

## Package

- 44 pin Plastic Quad Flat Non-leaded Package

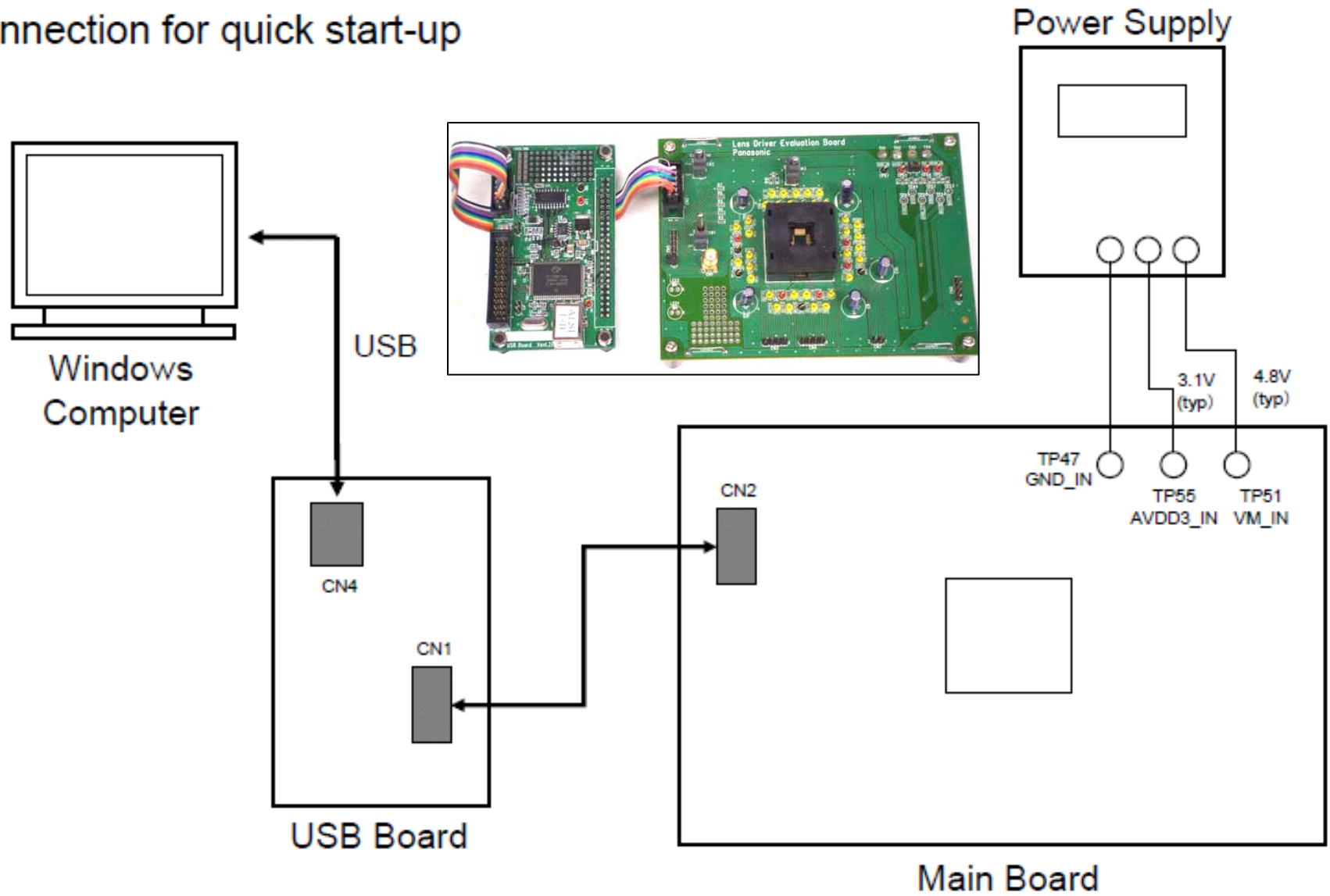
## Type

- Bi-COMS IC



# Evaluation Board

Connection for quick start-up



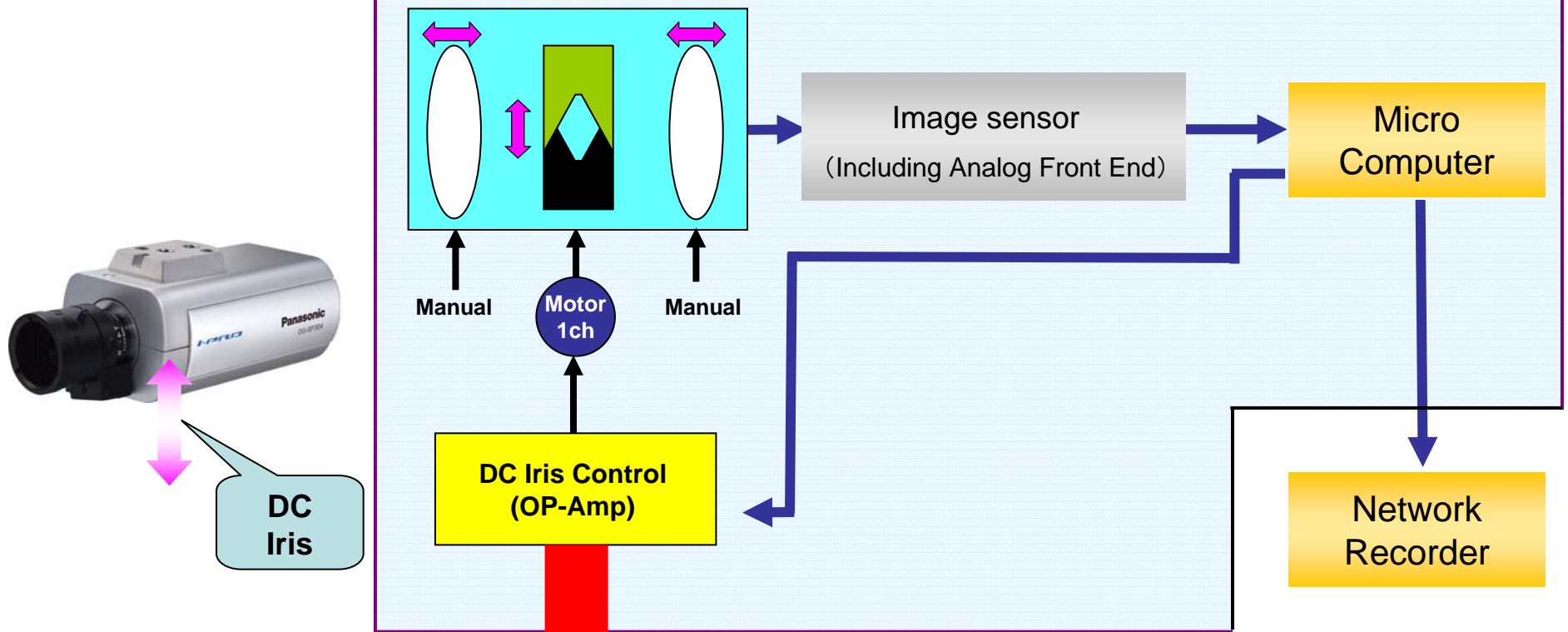
# Panasonic AN41919A DC Iris Driver for Box Type Camera

(Iris Servo for Dumping Coil)



# Block Diagram of Network Camera (DC-Iris)

## Block diagram



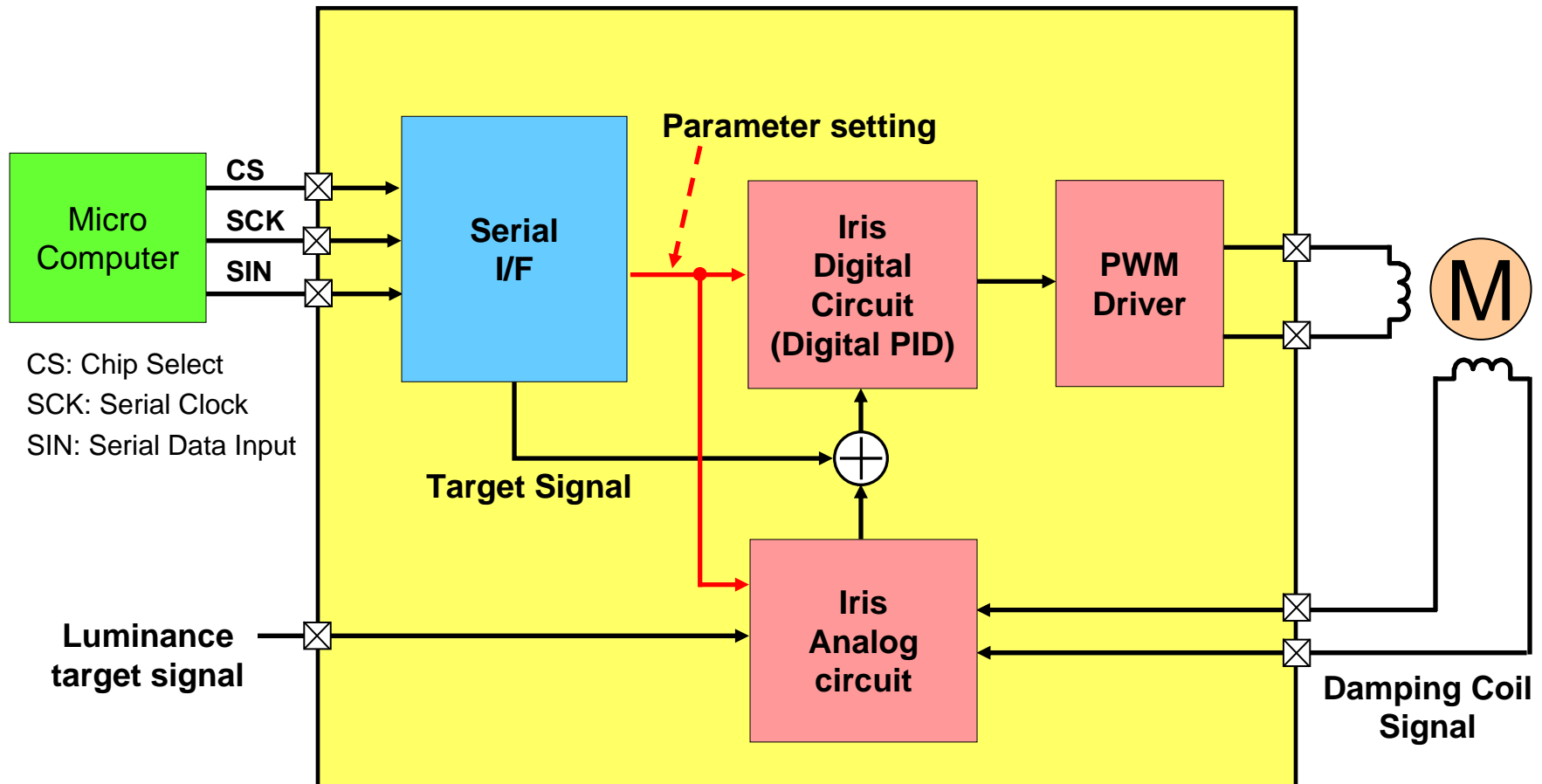
**Single chip solution  
DC Iris Driver  
AN41919A**

*Integration,  
Industry's first !!*

# Panasonic AN41919A Block Diagram

Contributes to Sets' Miniature Design.

## AN41919A



Single Chip Solution of DC Iris Function

# Panasonic AN41919A Advantages

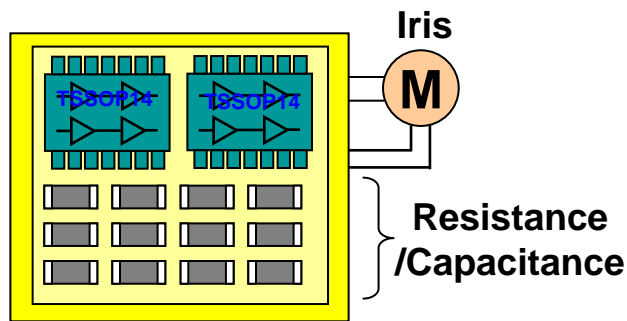
- **Reduced Design-In Time**
- **Low Power Consumption**



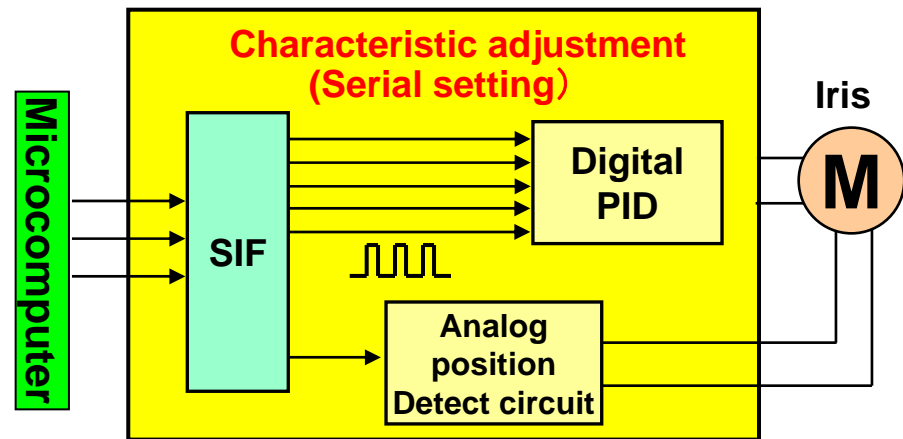
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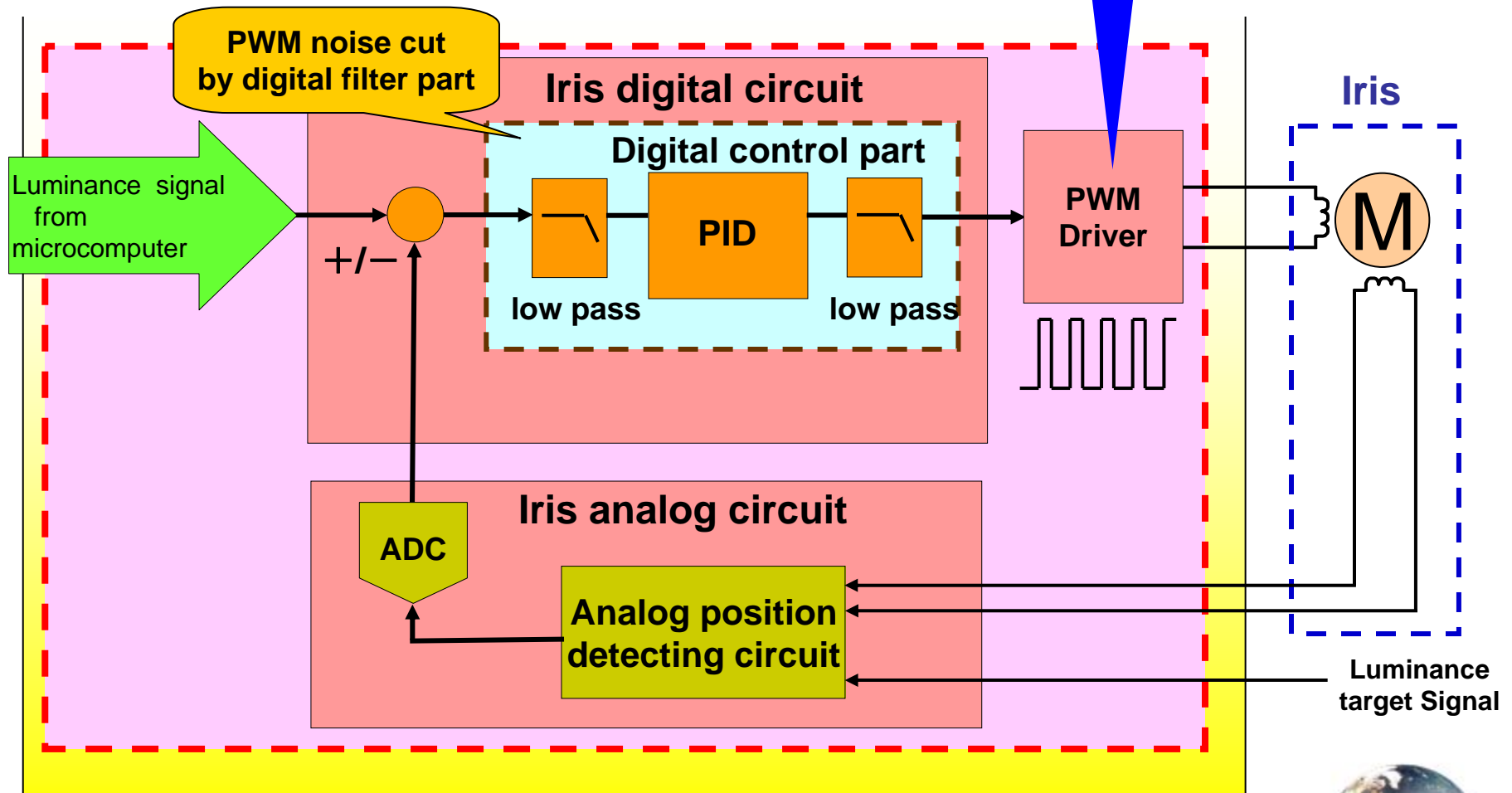
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(Compared with Linear driving system)



# Panasonic AN41919A Application Circuit

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## Overview

AN41919A is a iris control LSI for IP-camera and security-camera.

## Features

- Built-in Iris controller
- Iris control by 4-line serial data communication

## Applications

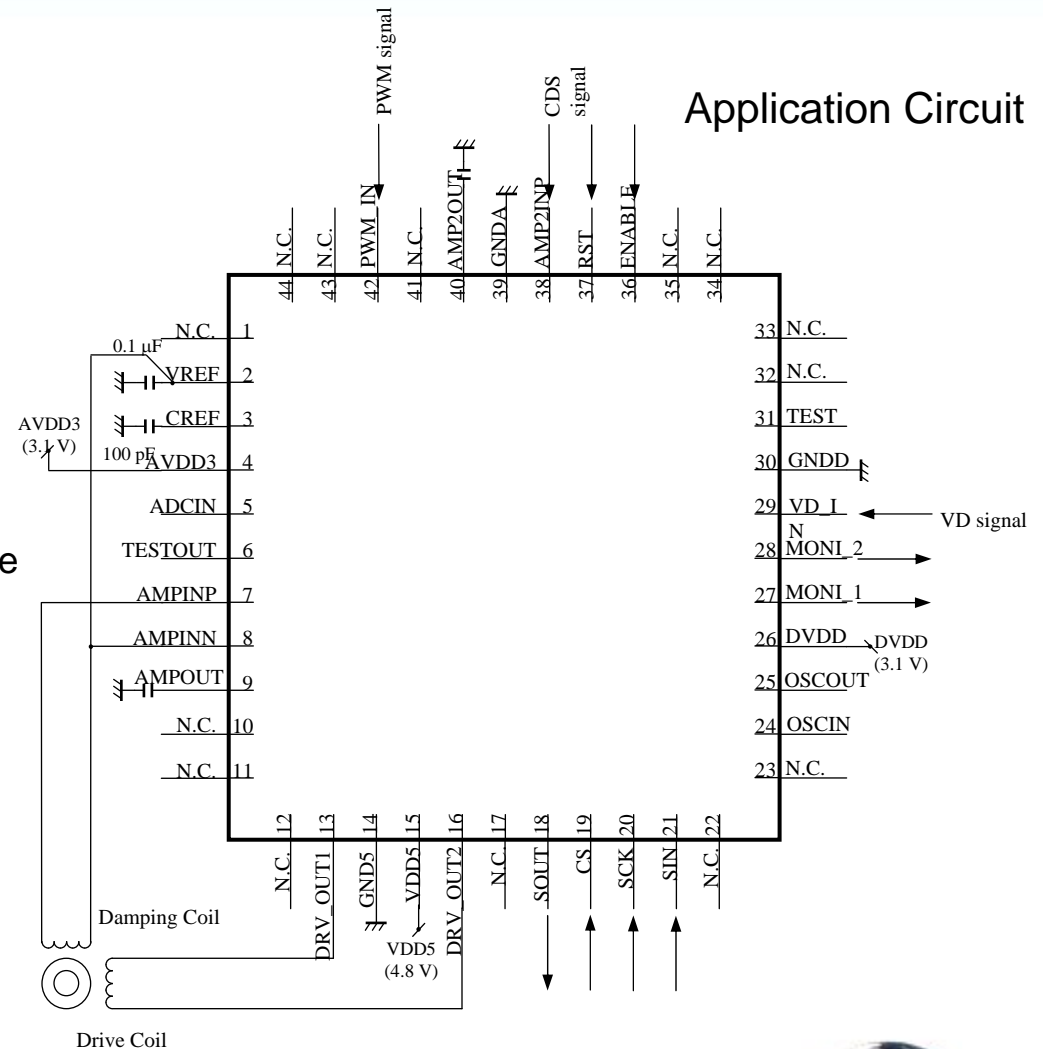
- IP-camera, Security-camera

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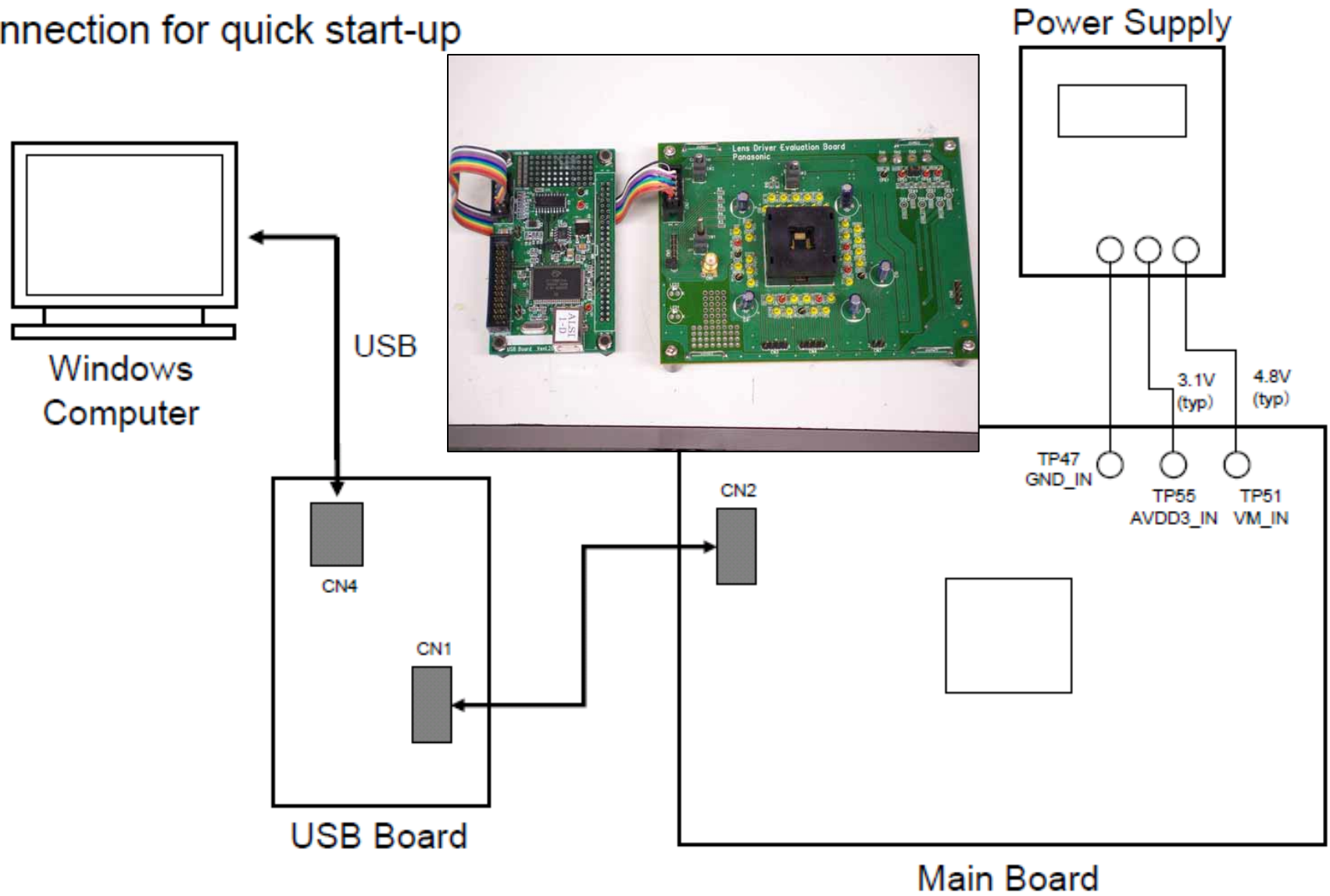
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AN41919A DC Iris Driver