

# DATA SHEET

Part No.	AN13206A
Package Code No.	XLGA012-L-0303

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# AN13206A

## Video 75 $\Omega$ Driver IC built in Charge Pump Circuit

### ■ Overview

AN13206A is a 75  $\Omega$  driver IC for video which can operate with power supply of 2.85 V. It can be used for direct DC coupling by a charge pump circuit which can get a sufficient output dynamic range from power supply of 2.85 V

### ■ Features

1. Power Supply voltage : 2.85V, 75  $\Omega$  driver for 1-ch. Video signal.
2. Output capacitor is unnecessary by generating negative voltage from Charge Pump Circuit.
3. Supporting wide output dynamic range.
4. Adopting of small size non-leaded package.  
Mounting area : -45% (than conventional products), including shrinking the area of peripheral parts.
5. Output pin can be a high impedance. Additionally two switches are built-in, the output pin for a video signal is usable with other ICs .
6. Peripheral resistor of 75  $\Omega$  is possible to use as terminating resistance. (output pin is shorted to GND by internal switch.)

### ■ Applications

- Video 75  $\Omega$  driver for the mobile devices. (For mobile phone, digital still camera etc.)

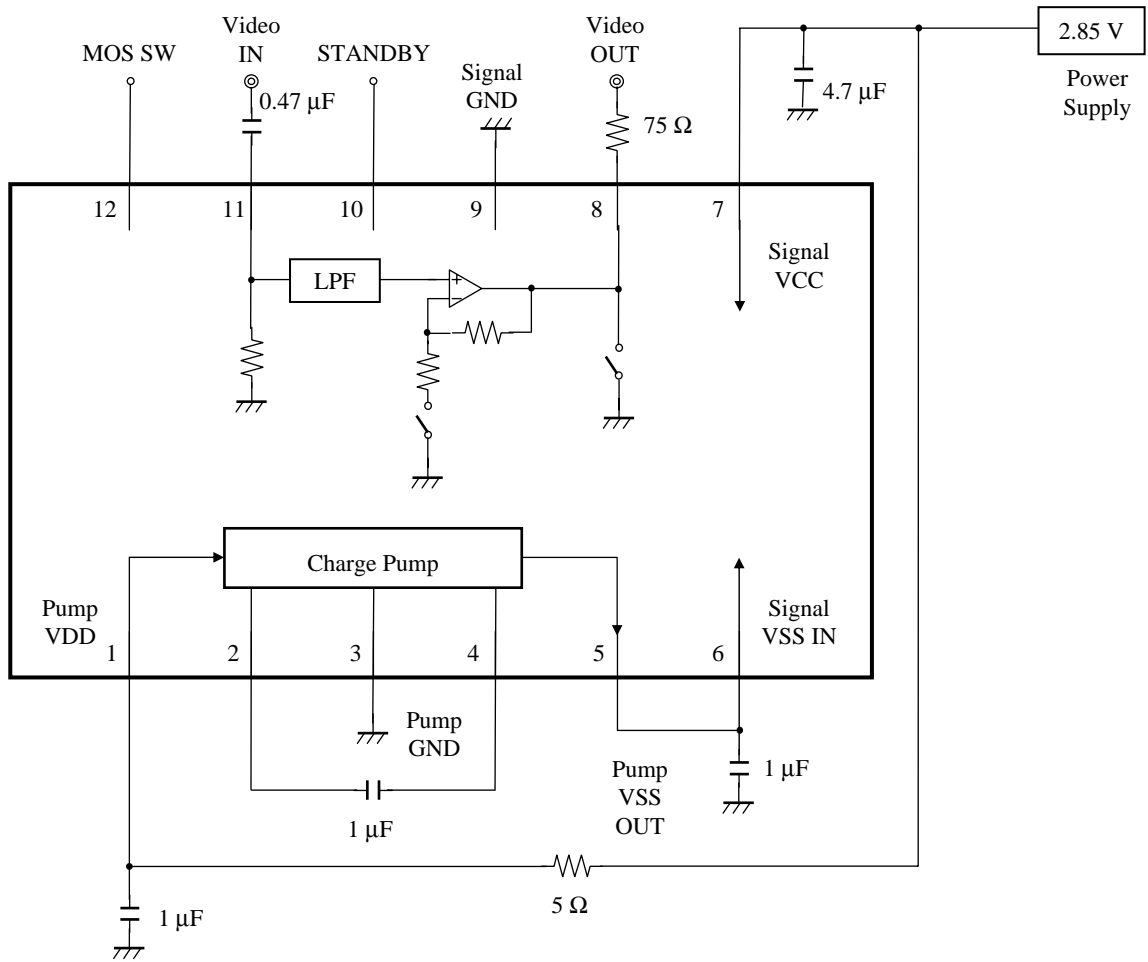
### ■ Package

- 12 pin Fine Pitch Land Grid Array Package (LGA Type)

### ■ Type

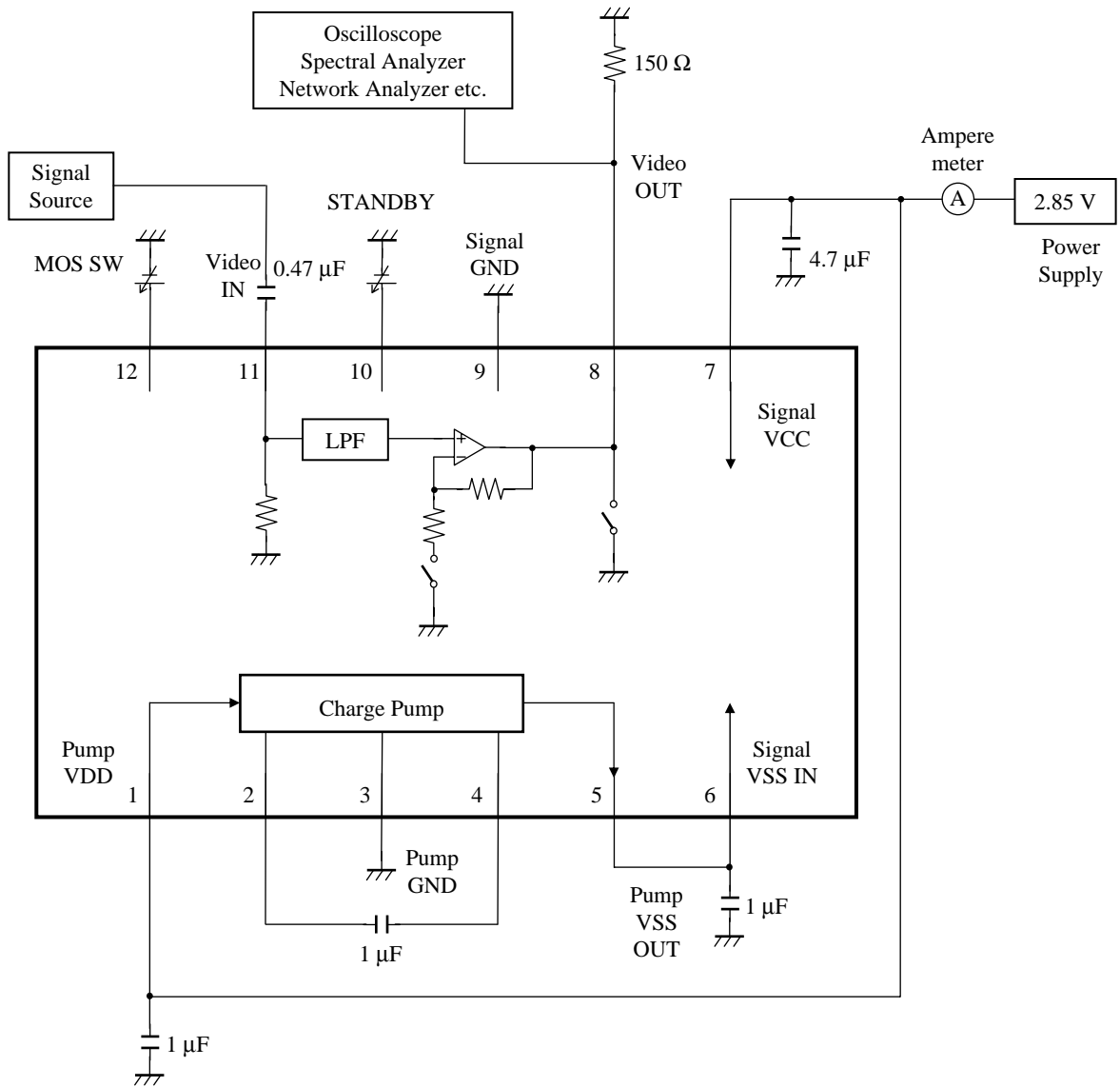
- Silicon monolithic Bi-CMOS IC

■ Block Diagram



Note) The Above circuit and peripheral part's constants shows an example of design, but it is not guaranteed as those for mass production sets.

■ Test Circuit Diagram



## ■ Pin Descriptions

Pin No.	Pin name	Type	Description
1	PUMP_VCC	Power supply	VCC for a charge pump circuit block
2	CP1	Output	Capacitor pin No.1 for generating negative voltage by the charge pump circuit.
3	PUMP_GND	Ground	GND for a charge pump circuit block.
4	CP2	Output	Capacitor pin No.2 for generating negative voltage by the charge pump circuit.
5	PUMPVSS	Output	The negative voltage-output pin created in the charge pump circuit.
6	VSS_SUB	Input	Negative voltage input pin (Substrate potential of IC).
7	VCC	Power supply	VCC for a video circuit block.
8	VIDEO_OUT	Output	Video output pin.
9	GND	Ground	GND for a video circuit block.
10	DRIVER_SW	Input	Standby On/Off control pin.
11	VIDEO_IN	Input	Video input pin.
12	SHORT SW	Input	Standby On/Off control pin.

### ■ Absolute Maximum Ratings

A No.	Parameter	Symbol	Rating	Unit	Note
1	Supply voltage	$V_{CC}$	3.3	V	*1
2	Supply current	$I_{CC}$	—	A	—
3	Power dissipation	$P_D$	51	mW	*2
4	Operating ambient temperature	$T_{opr}$	-20 to +70	°C	*3
5	Storage temperature	$T_{stg}$	-55 to +125	°C	*3

Note) \*1 : The values under the condition not exceeding the above absolute maximum ratings and the power dissipation.

\*2 : The power dissipation shown is the value at  $T_a = 70^\circ\text{C}$  for the independent (unmounted) IC package without a heat sink.

\*3 : Except for the power dissipation, operating ambient temperature, and storage temperature, all ratings are for  $T_a = 25^\circ\text{C}$ .

### ■ Operating Supply Voltage Range

Parameter	Symbol	Range	Unit	Note
Supply voltage range	$V_{CC}$	2.7 to 3.1	V	—

Note) \* : The values under the condition not exceeding the above absolute maximum ratings and the power dissipation.

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