AN2515S

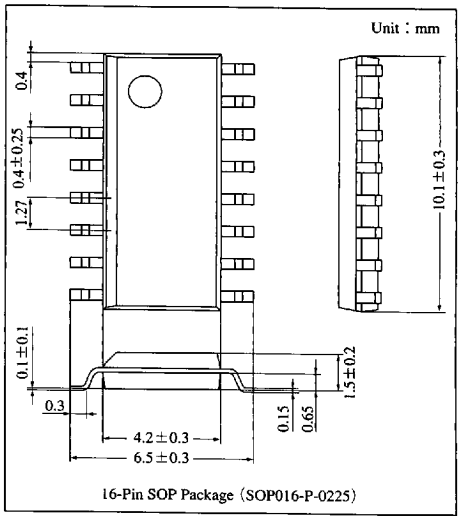
Electronic View-Finder Driving IC with Synchronous Signal

■ Overview

The AN2515S is a drive IC for an electronic monochrome view-finder of a video camera. It is an advanced version of the AN2514S with additional HD output and enhanced vertical-drive capability. It is easy to make up a 0.5-inch electronic view-finder with minimal external components.

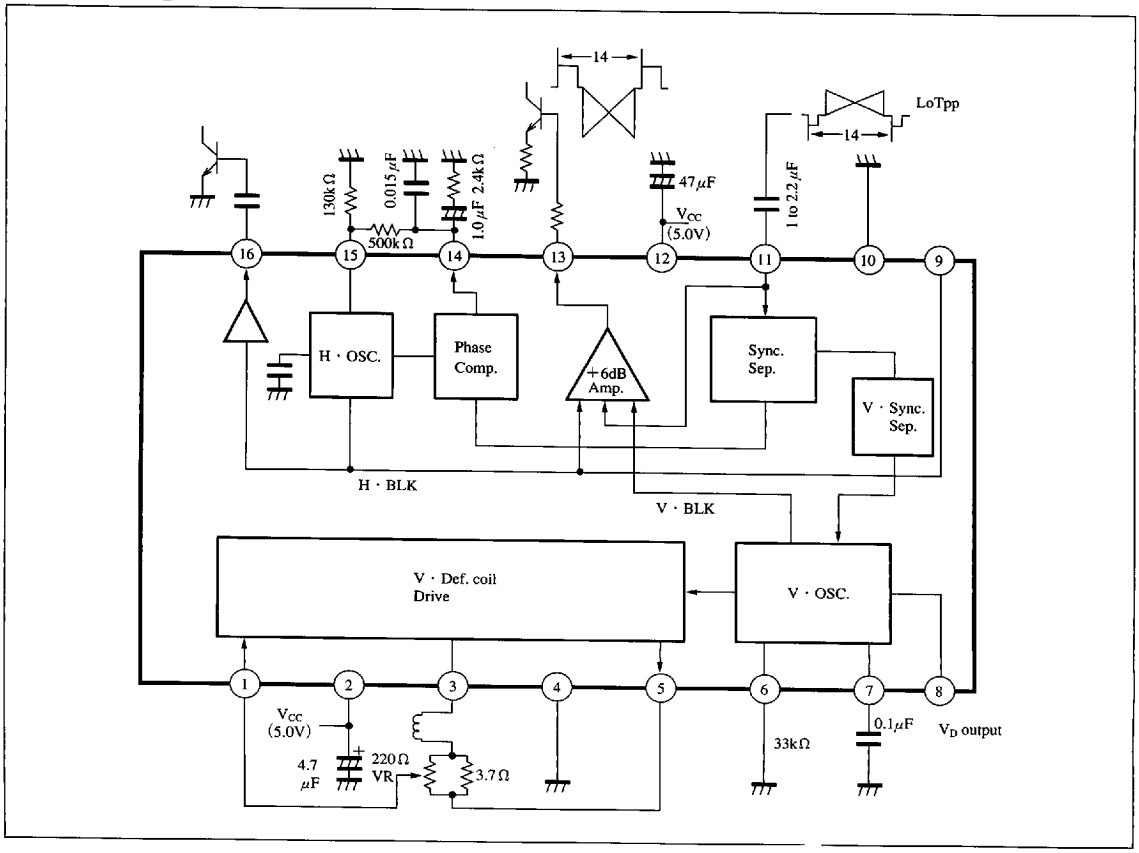
■ Features

- Built-in video amplifier, synchronization separation, horizontal/vertical oscillator, AFC, and vertical driver circuits.
- Direct driving of a vertical deflection coil available.
- Built-in capacitor for vertical synchronious signal separation



16-Pin SOP Package (SOP016-P-0225)

■ Block Diagram



http://www.chipdocs.com

■ Pin Descriptions

Pin No.	Pin name	Pin No.	Pin name
1	Vertical size control input	9	H_D output
2	Power supply input	10	GND
3	Vertical deflection coil driver output (1)	11	Video input
4	GND	12	Power supply pin
5	Vertical deflection coil driver output (2)	13	Video amplifier output
6	Vertical oscillation resistor pin	14	Phase comparator output
7	Vertical oscillation capacitor pin	15	Horizontal oscillation resistor pin
8	V_D output	16	Horizontal AFC output

■ Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	5.5	V
Supply current	I_{CC}	47	mA
Power dissipation Note 2)	P_D	190	mW
Operating ambient temperature Note 1)	T_{opr}	−20 to +75	℃
Storage temperature Note 1)	T_{stg}	−55 to +125	℃

Note 1) Ta=25℃ except operating ambient temperature and storage temperatures unless otherwise specified.
Note 2) Power dissipation is that of a package at Ta=75℃.

■ Recommended Operating Range (Ta=25℃)

Parameter	Symbol	Range
Operating supply voltage range	V_{CC}	4.5V to 5.3V

■ Electrical Characteristics (Ta=25±2℃)

Parameter	Symbol	Condition	min	typ	max	Unit	Note
Supply current (1)	I_2		2.35	7.5	13.0	mA	at no-load
Supply current (2)	I_{12}		5.5	10.0	14.0	mA	at no-load
Video amp. gain	G_v		5.0	6.0	7.0	dB	
Video amp. dynamic range	DR_v		2.0	3.0	4.0	dB	
Synchronous separating capability (1)	HSEP1		0.2	—	—	V	
Synchronous separating capability (2)	HSEP2		—	—	1.3	V	
Video signal H_D width	τ_{Hout}		7.0	8.0	9.0	μs	
H_D width	τ_{HD}		8.5	9.5	10.5	μs	
AFC output H_D width	τ_{AFCHD}		9.5	10.5	11.5	μs	
Horizontal free oscillation freq.	f_{Hfree}		14.25	15.75	17.25	kHz	
AFC lock range	f_{AFC}		15.25	15.75	16.25	kHz	
AFC control sensitivity	β		840	960	1080	Hz/μA	
Vertical separation time	T_{VSEP}		8	16	24	μs	
V_D width	τ_{VD}		800	900	1000	μs	
Video signal V_D width	τ_{Vout}		1.1	1.3	1.5	ms	
Vertical free-oscillation frequency	f_{Vfree}		45	49	53	Hz	
Vertical deflection output amplitude (1)	v_{VDEF1}		1.3	1.6	1.9	V	
Vertical deflection output amplitude (2)	v_{VDEF2}		1.3	1.6	1.9	V	
Vertical deflection output dynamic range (1)	DR_{VDEF1}		2.0	2.4	2.8	V	
Vertical deflection output dynamic range (2)	DR_{VDEF2}		2.0	2.4	2.8	V	

http://www.chipdocs.com