AN2254FAP

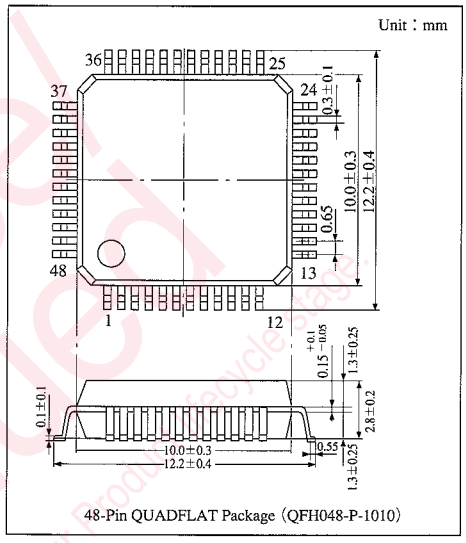
Camera Encoder IC

■ Overview

The AN2254FAP is an integrated circuit that outputs video signal of NTSC/PAL made from luminance and color difference signals from the AN2154FAP.

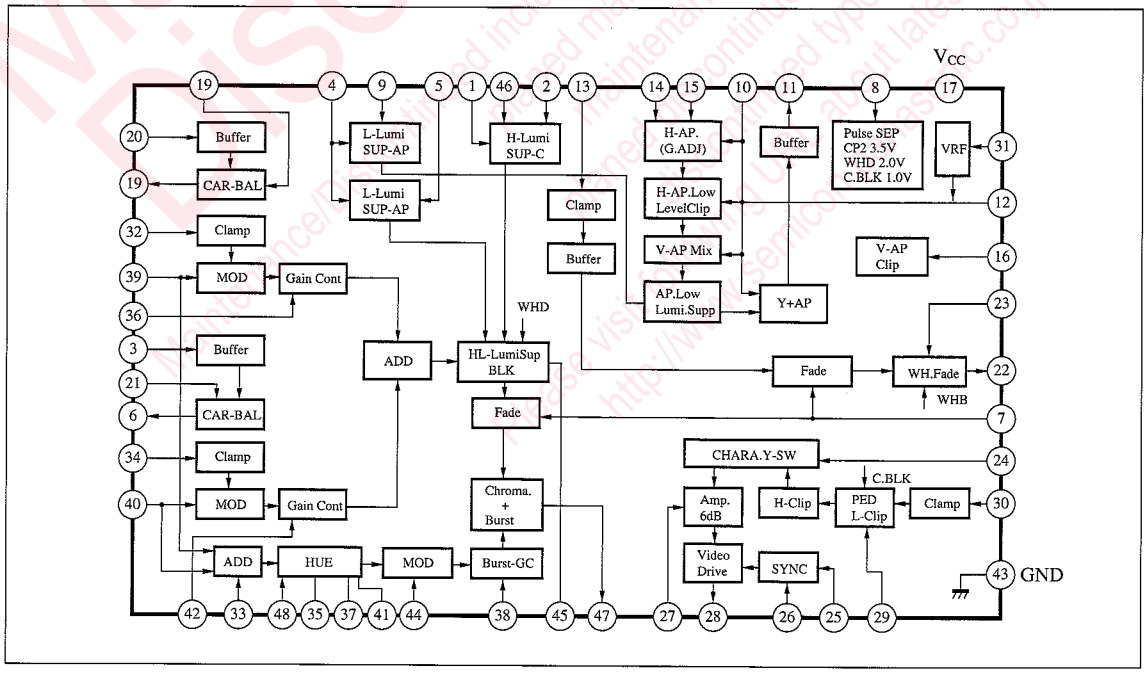
■ Features

- Low power consumption : 180mW (V_{CC}=4.8V)
- Responds to NTSC/PAL
- HVE control capacitance can be set externally (630kHz possible).
- Highly bright chroma suppressing circuit built-in
- White fading function
- QFP−48pins (0.65mm pitch) package



48-Pin QUADFLAT Package (QFH048-P-1010)

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	5.5	V
Supply current	I_{CC}	65	mA
Power dissipation	P_D	280	mW
Operating ambient temperature	T_{opr}	−20 to +75	℃
Storage temperature	T_{stg}	−55 to +125	℃

■ Recommended Operating Range (Ta=25℃)

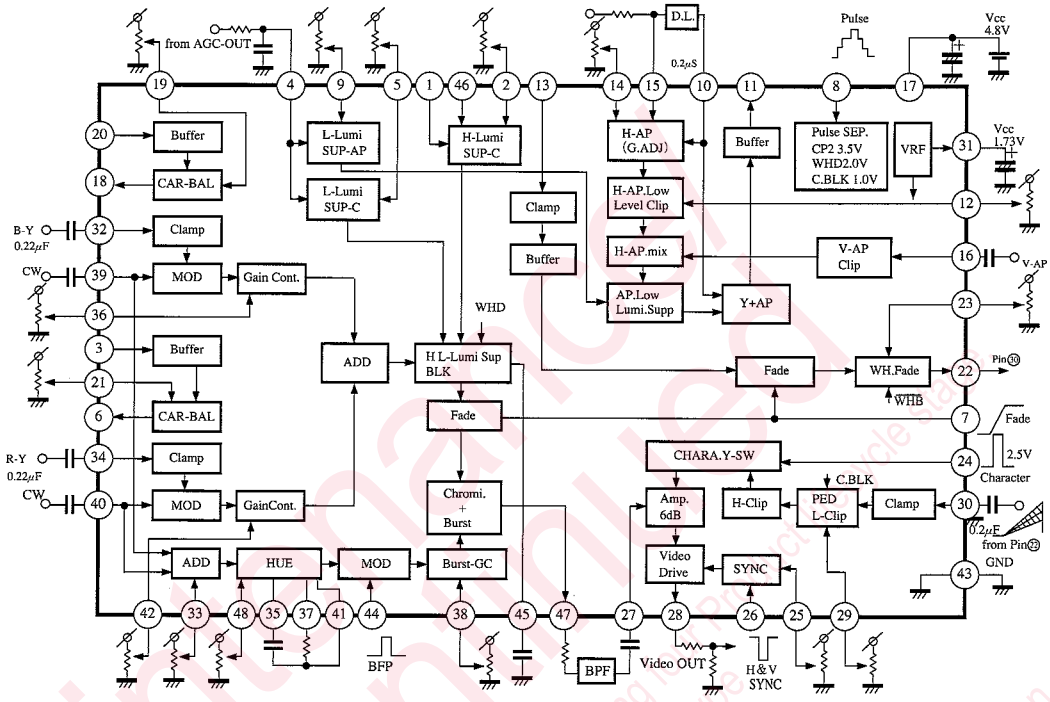
Parameter	Symbol	Range
Operating supply voltage range	V_{CC}	4.6V to 5V

■ Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Condition	min	typ	max	Unit
Supply current	I_{CC}	V_{CC}=4.8V	19	34	51	mA
Pin voltage	V_{REF}	V_{CC}=4.8V	1.62	1.73	1.83	V
Clamp voltage (1)	$V_{13\text{-}31}$	V_{CC}=4.8V	−0.15	0	0.15	V
Clamp voltage (2)	$V_{34\text{-}31}$	V_{CC}=4.8V	−0.15	0	0.15	V
Clamp voltage (3)	$V_{32\text{-}31}$	V_{CC}=4.8V	−0.15	0	0.15	V
Clamp voltage (4)	$V_{30\text{-}31}$	V_{CC}=4.8V	−0.15	0	0.15	V
Pulse separation level (1)	B_{URST}	V_{CC}=4.8V	1.4	1.8	2.2	V
Pulse separation level (2)	C_{HARA}	V_{CC}=4.8V	1.4	1.8	2.2	V
Pulse separation level (3)	S_{YNC}	V_{CC}=4.8V	1.4	1.8	2.2	V
Pulse separation level (4)	C_{BLK}	V_{CC}=4.8V	0.6	0.95	1.3	V
Pulse separation level (5)	W_{HD}	V_{CC}=4.8V	1.65	2	2.35	V
Pulse separation level (6)	C_P	V_{CC}=4.8V	3.1	3.45	3.8	V
Synchronous signal output amplitude 1	v_{SY1}	V_{CC}=4.8V f=15.75kHz 4.8V_{PP}	455	500	545	mV_{PP}
Synchronous signal output amplitude 2 *1	v_{SY2}	V_{CC}=4.8V 455mV_{PP}≦v_{SY1}<475mV_{pp}	1.27	1.33	1.44	%
		V_{CC}=4.8V 475mV_{PP}≦v_{SY1}<525mV_{pp}	1.22	1.33	1.44	%
		V_{CC}=4.8V 525mV_{PP}<v_{SY1}≦545mV_{pp}	1.22	1.33	1.39	%
Synchronous signal output amplitude 3	v_{SY3}	V_{CC}=4.8V 525mV_{PP}<v_{SY1}≦545mV_{pp}	0.64	0.7	0.76	%
Encoder output amplitude	v_{EN}	V_{CC}=4.8V f=4.43kHz 500mV_{pp}	860	940	1020	mV_{PP}
Pedestal adjustment 1	V_{PED1}	V_{CC}=4.8V Pin㉚ capacitor GND	56	76	96	mV
Pedestal adjustment 2	V_{PED2}	V_{CC}=4.8V Pin㉚ capacitor GND	77	107	152	mV
Pedestal adjustment 3	V_{PED3}	V_{CC}=4.8V Pin㉚ capacitor GND	−75	−45	−20	mV

*1 For the product standards in synchronous signal output amplitude 2, there are three types of allowable values depending on the check values ($v_{SY}1$) in synchronous signal output amplitude 1.

■ Application Circuit



■ Supplementary Explanation

Consideration should be taken for use because the electrostatic damage level of Pin③ is lower than that of other pins.

Damage level

Pin③ at C＝200pF：（＋）200 to 250V

Other pins：more than 250V

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