

AN2254FAP

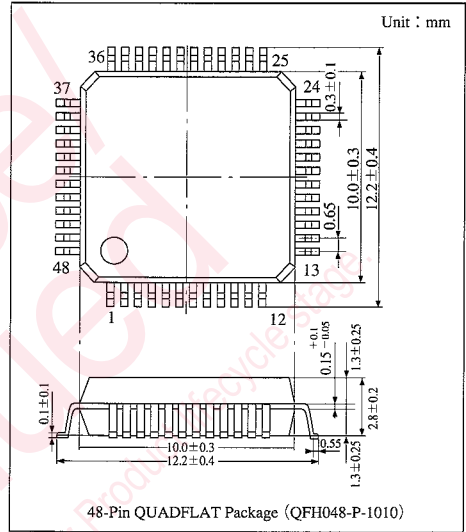
Camera Encoder IC

Overview

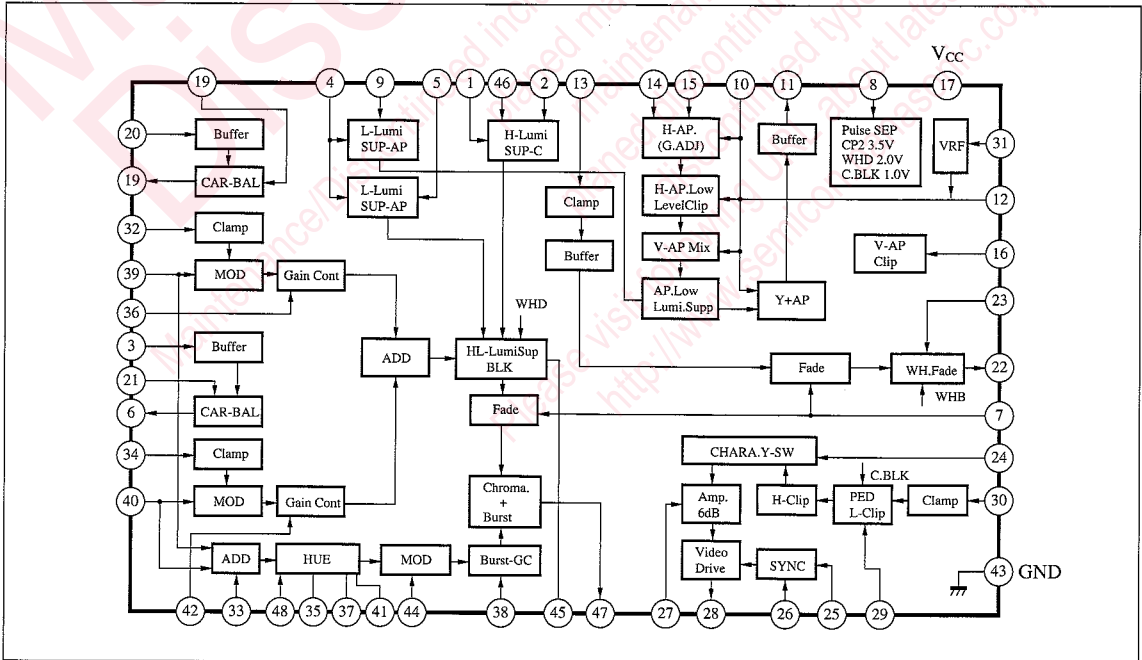
The AN2254FAP is an integrated circuit that outputs video signal of NTSC/PAL made from luminance and color difference signals from the AN2154FAP.

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



Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

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	°C
Storage temperature	T _{stg}	-55 to +125	°C

■ Recommended Operating Range (Ta=25°C)

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

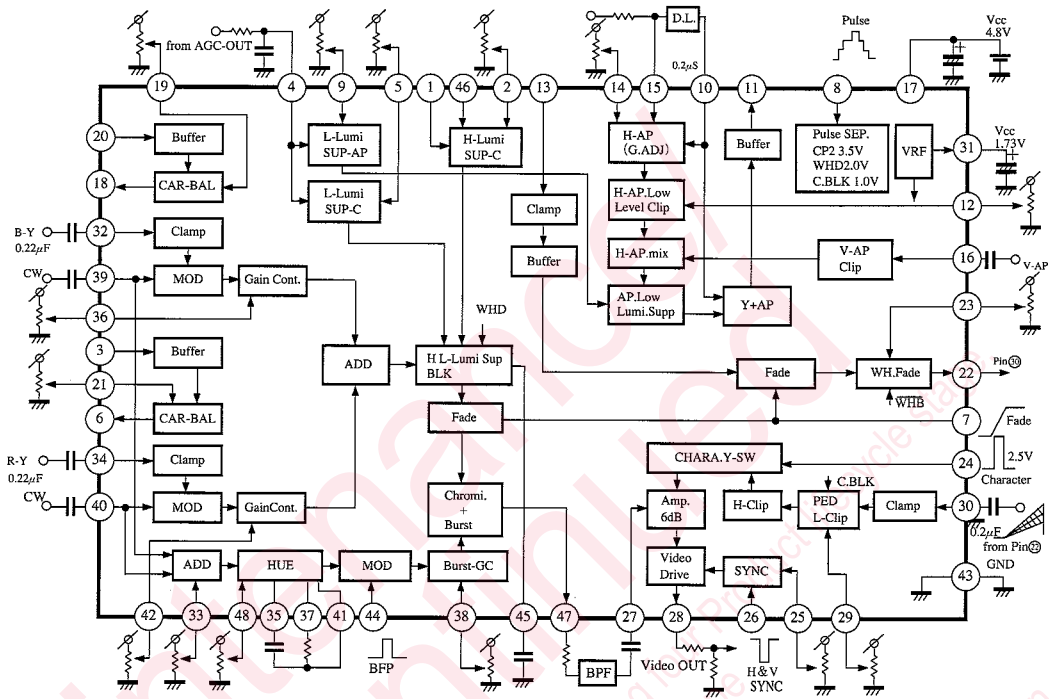
■ Electrical Characteristics (Ta=25°C)

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 ₁₃₋₃₁	V _{CC} =4.8V	-0.15	0	0.15	V
Clamp voltage (2)	V ₃₄₋₃₁	V _{CC} =4.8V	-0.15	0	0.15	V
Clamp voltage (3)	V ₃₂₋₃₁	V _{CC} =4.8V	-0.15	0	0.15	V
Clamp voltage (4)	V ₃₀₋₃₁	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 _{SYNC}	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 Pin⑩ capacitor GND	56	76	96	mV
Pedestal adjustment 2	V _{PED2}	V _{CC} =4.8V Pin⑩ capacitor GND	77	107	152	mV
Pedestal adjustment 3	V _{PED3}	V _{CC} =4.8V Pin⑩ 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_{SY1}) in synchronous signal output amplitude 1.

ICs for
Video
Camera

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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