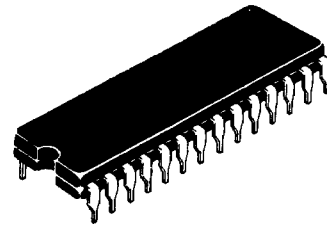


**Color TV Luminance-
Chroma System with Auto. Flesh**

- Auto Flesh Control
- Over Load Detector
- Chroma Amp (Peak Detection Type ACC)
- Color Sync (APC)
- Color Demoduration (Color Difference Output)
- Sharpness Emitter Peaking
- Contrast Control
- Pedestal Clamp
- Brightness Control
- Blanking
- Video Output Circuit for VIR Detector
- Over Saturation Preventer



■ FEATURES

- All functions of luminance and chroma for U.S. field
- Low cost and excellent characteristics for VTR monitors
- Combination with the HA11409 (for VIR) OK
- Demodulation phase adjustable by one external capacitor

- VCO's output frequency adjustable by a variable resistor
- Voltage gain of auto flash control adjustable externally.
- High Range Tint Control 120 deg. typ.

The diagram illustrates the internal architecture of the HA11436 integrated circuit, a monochrome video processor. The circuit is organized into several functional blocks:

- Input/Output and Power:** The circuit has multiple pins for Video I/P, VIR O/P, BLK I/P, and Video O/P. It is powered by Vcc and includes an Auto Flash control (off/on) and a Sync Pulse input.
- Signal Processing Blocks:**
 - Emitter Peaking:** Processes the input video signal.
 - Contrast Control:** Adjusts the contrast of the video signal.
 - Pedestal Clamp:** Clamps the pedestal level of the video signal.
 - Video Amp. (VIR):** Amplifies the video signal.
 - Bright Control:** Controls the brightness of the video signal.
 - Blanking Video Amp.:** Amplifies the blanking signal.
 - (R-Y) Demod. and (B-Y) Demod.:** Demodulate the color signals.
 - (G-Y) Matrix:** Processes the green-yellow color signal.
 - ACC Det. (Automatic Color Control):** Detects the color signal.
 - Color Control:** Controls the color of the video signal.
 - Killer Det. (Killer Detector):** Detects the killer signal.
 - APC Det. (Automatic Phase Control):** Detects the phase of the video signal.
 - I-Det. (I-Detector):** Detects the I signal.
 - Range Control:** Controls the range of the video signal.
 - Q-Det. (Q-Detector):** Detects the Q signal.
 - 1st BPA (Band Pass Amplifier) and 2nd BPA:** Amplify the video signal.
 - Gate Pulse Shaping:** Shapes the gate pulse.
 - 1,Q ref. Gene. (Reference Generator):** Generates the reference signal.
 - VCO (Voltage Controlled Oscillator):** Generates the video signal.
 - D.C. Tint:** Controls the DC tint of the video signal.

The diagram also shows the internal connections between these blocks and the various pins of the HA11436 package.

Item	Symbol	Rating	Unit
Supply Voltage	V_{CC}	15	V
Power Dissipation ($T_a = 65^\circ\text{C}$)	P_T (max)	850	mW
Operating Temperature Range	T_{opr}	-20 to +65	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

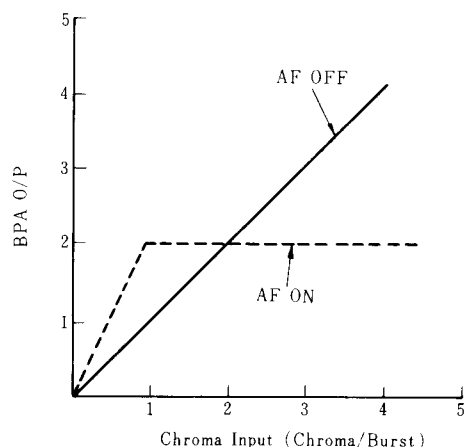
Item	Symbol	min.	typ.	max.	Unit	Note No.
Max Chroma O/P	E_C max.	0.55	0.67	0.85	V_{P-P}	Note 1
ACC Range	E_a	0.38	0.55	0.74	V_{P-P}	Note 2
Killer Sensitivity	E_k	—	-44	—	dB	
Conversion Gain	G_{R-Y}	4.5	6.2	—		
Matrix Ratio (1)	E_{B-Y}/E_{R-Y}	—	0.8	—		
Matrix Ratio (2)	E_{G-Y}/E_{R-Y}	—	0.3	—		
Demodulation Phase $\angle(R-Y) - \angle(B-Y)$		—	115	—	deg	Note 3
Demodulation Phase $\angle(G-Y) - \angle(B-Y)$		—	245	—	deg	
DC Output Voltage	E_{ODC}	6.4	7.0	7.6	V	
Difference of DC Output Voltage	ΔE_{ODC}	-0.3	0	+0.3	V	
Video Amp Voltage Gain (1)	G_V	10.5	12	13.5	times	
Video Amp Frequency Response	f_c	—	6.5	—	MHz	
DC Reproduce		—	75	—	%	
Blanked Output Voltage		11	—	—	V	
Video Amp Voltage Gain (2)	G_{VIR}	4.2	5	5.8	times	

Notes : 1. Input Chroma: B/C=1/1, 100mV_P = 0dB

2. Input Level: -20dB

3. Adjustable Externally (90° min)

OVER LOAD



AUTO FLESH

