

KA2111

LINEAR INTEGRATED CIRCUIT

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

RATING	SYMBOL	VALUE	UNIT
Power Supply (Pin 5 and 6)	V ₅ , V ₆	15	V
Input Voltage (Pin 7)	V ₇	3	Vp-p
Supply Current (Pin 6)	I ₆	20	mA
AFC Output Current (Pin 1)	I ₁	30	mA
Video Output Current (Pin 4)	I ₄	15	mA
Power Dissipation	Pd	275 (Ta = 70°C)	mW
Operating Temperature	Topt	-20 to 70	°C
Storage Temperature	Tstg	-40 to 125	°C

ELECTRICAL CHARACTERISTICS (Vcc = 12V, Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	Ckt
Total Supply Current	I _{cc}	I ₅ + I ₆ , R ₄ = 560Ω	16	21	27	mA	1
Zero Signal DC Output Voltage	V ₄	R ₄ = 560Ω	3.5	4.3	5.0	V	1
Input Signal Voltage		f = 58MHz, AM Mod 90% fm = 1KHz, Vo = 1.5Vp-p		30	60	mVr.m.s.	2
Maximum Signal DC Output Voltage	V _{4max}	f = 58MHz, AM Mod 0% Vin = 200mVr.m.s.		0	0.5	V	2
Carrier Rejection	Rc	f = 58MHz, AM Mod 90% Vin = 31.6mVr.m.s.		34		dB	2
Bandwidth of IF	BW _{IF}	-3dB		80		MHz	
Bandwidth of Video Output	BW _{DET}	-3dB	8	11		MHz	2
AFC Buffer Output	V _{OAFc}	f = 58MHz, AM Mod 90% fm = 1KHz, Vin = 31.6mVr.m.s.	80	150	200	mVr.m.s.	2
Input Resistance	R _{in}	f = 58MHz		3.5		kΩ	3
Input Capacitance	C _{in}	f = 58MHz		3.0		pF	3
Output Resistance	R _{out}	f = 58MHz		30	100	Ω	
Internal Capacitance	R ₂₋₃	f = 58MHz		4.4		kΩ	4
Internal Capacitance	C ₂₋₃	f = 58MHz		5		pF	4