KEJIAN

Optical Receiver Integrated Circuit KA1080BO/AGC

FEATURES

- ◆ Excellent linearity
- ◆ Excellent distortion performance
- ◆ Low input noise
- ◆ Optical-AGC

DESCRIPTION

The supply voltage of KA1080BO/AGC is 12VDC and 5VDC.The modules have an FC/APC or SC/APC Connector, with a single mode optical input Suitable for 1100 to 1650nm wavelengths , a terminal to monitor the photo diode current and an electrical output having a characteristic impedance of 75Ω . Optical power receiving at -7～+1dBm , RF output is 19dBmV/channel with optical-AGC.

HANDLING

Fiberglass optical coupling :

maximum tensile strength= 5N; minimum bending radius=35mm.

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LIMITING VALUES

In accordance With the Absolute Maximum Rating System

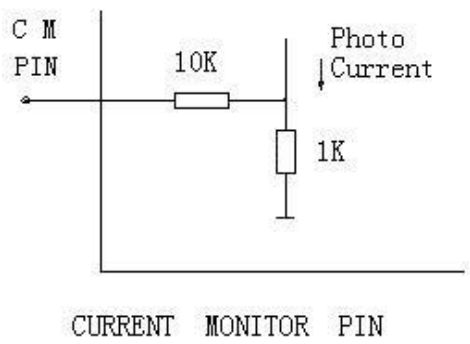
SYMBOL	PARAMETER	CONDITION	MIN	MAX	UNITS
P_{in}	Input Optical Power			3	mw
T_{stg}	Storage temperature		-40	+80	℃
T_{op}	Operating temperature		-20	+80	℃
ESD	ESD sensitivity	Human body model; R=1.5KΩ;C=100pF	500		V

CHARACTERISTICS

Tmb=25℃, VB12=12V, VB5=5V, Zs=ZL=75Ω

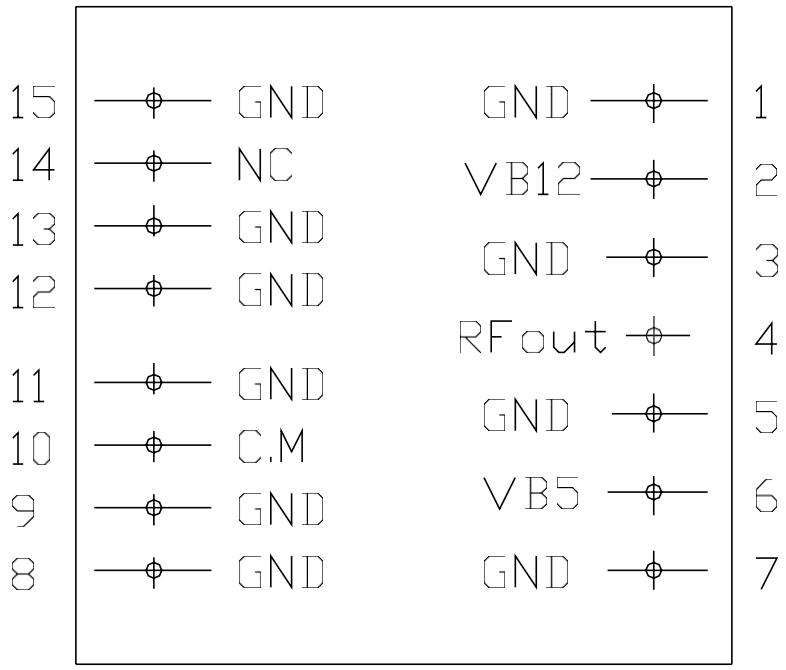
SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
f	Frequency range	MHz	40		870	
Sλ	Spectral sensitivity	A/W	0.85			λ=1310±20nm
		A/W	0.9			λ=1550±20nm
λ	Optical wavelength	nm	1100		1650	-
Vcm	Voltage of CM Pin	mV	850			λ=1310nm , 0dBm input
Vo	Output voltage	dBμV		79		60～98 channels flat; Optical power receiving at -7～+1dBm
FL	Flatness of frequency response	dB	-	-	±0.75	f=40 to 1000 MHz
CTB	Composite Triple Beat	dB	-	-70	-	60 channels flat ; measured at 543.25MHz; Optical power receiving at -7～+1dBm
CSO	Composite Second Order distortion	dB	-	-64	-	
CNR	Noise carrier rating	dB	-	52	-	Optical power receiving at 0 dBm
S22	Output Return loss	dB	-	-	-10	f=40 to 1000 MHz
	Optical input return losses	dB	-	-	-45	
I_{tot}	Total Current Consumption	mA	145	-	170	VB12=12V， VB5=5V （DC）

PHOTODIODE CURRENT MONITOR PIN



CURRENT MONITOR PIN

Assembly PCB Pin DESCRIPTION (TOP VIEW)



PIN NO.	NAME	DESCRIPTION	PIN NO.	NAME	DESCRIPTION
1	GND	Ground	8	GND	Ground
2	VB12	+12V Supply for the module	9	GND	Ground
3	GND	Ground	10	C.M	(Optical Power) Current Monitor
4	RF out	Output for the module	11	GND	Ground
5	GND	Ground	12	GND	Ground
6	VB5	+5V Supply for the module	13	GND	Ground
7	GND	Ground	14	NC	NC
			15	GND	Ground

ATTENTION:

PIN 2: SUPPLY +12V

PIN 6: SUPPLY +5V

MODULE DIMENSIONS

UNIT: mm