



AC6520 Series

Uncooled 2.5 Gbps Receiver in 4-pin ROSA Package



Features:

- Wide dynamic range with differential output
- Low power +3.3 V operation
- Wide operation temperature (-40°C to +85°C)
- High reliability
- Suitable for 2.5 Gbps applications

Applications: Telecom and Datacom

Electrical/Optical Characteristics (T_c=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply	V _{cc}	3.0	3.3	3.6	V
Supply Current ⁽¹⁾	I _{cc}		42	58	mA
Bandwidth	BW	1.5		2.4	GHz
Low-Frequency Cut Off	LF		50		kHz
Rise Time/Fall Time ^(2,3)	Tr/Tf			200	ps
Wavelength	λ	1100		1650	nm
Single Ended Output Impedance	R _o		50		Ohms
Overload ^(3,4)	P _{over}	0	+3		dBm
Sensitivity ^(3,4)	P _{sens}		-23		dBm
Conversion Gain ⁽⁵⁾			8		kV/W
Differential Output Voltage ⁽⁶⁾	V _{diff}		350	500	mVpp

(1) No Loads

(2) 20% to 80% at -18 dBm input

(3) λ=1550 nm, 0.9A/W

(4) BER = 10⁻¹², PRBS 2³¹-1, ER =10 dB

(5) Single ended output voltage (peak to peak) to optical power swing (OMA)

(6) Into 50 Ohms

Absolute Maximum Ratings:

Parameter	Symbol	Min	Max	Unit
Case Temperature	T _C	-40	+85	°C
Storage Temperature	T _{stg}	-40	100	°C
Humidity Range	RH	5	95	%
Amplifier Bias Voltage	V _{ccmax}		5	V
Input Optical Power	P _{max}		+6	dBm
Load Solder Temp. and Time			260 °C, 10sec	

