



LA Techniques Ltd

**LA19-06-01
High Speed RZ Converter**



The LA19-06-01 is a high speed NRZ to RZ converter module with built-in clock amplifiers and ac coupled input and outputs. The unit includes an auxiliary clock output (1.4 V_{pp} typical) and operates from 8 to 12 Gb/s.

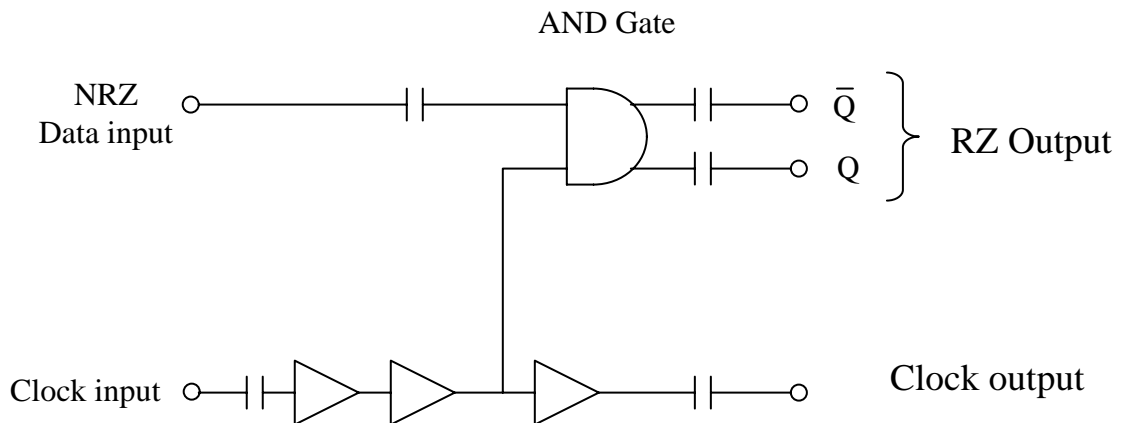
- 8 to 12 Gb/s Operation
- AC coupled input and outputs
- Clock amplifier and auxiliary clock output

LA19-06-01 RZ Converter Electrical Characteristics

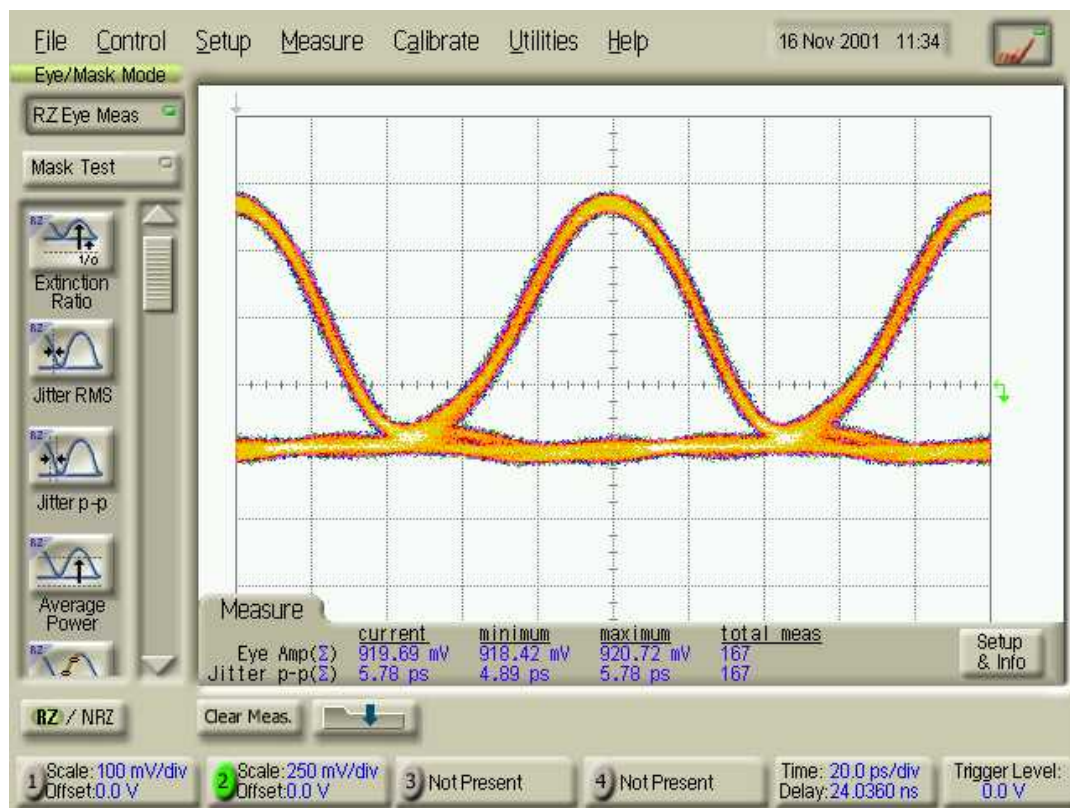
$T_{\text{case}} : -10\text{ }^{\circ}\text{C to } +70\text{ }^{\circ}\text{C}$

Parameter	Symbol	Units	Conditions	Min	Max
Input signal level	Din	Vpp		0.6	1.5
Data output level	Q, Qbar	mV	Single ended 50ohms load	700	1200
Jitter (peak-peak)	J0.5	ps	Half height pulse jitter	-	8
Din S11		dB	8 to 11 GHz.	-	-10
Clock gain	Gclk	dB	8 to 11 GHz	13	21
Clock gain	Gclk	dB	11 to 12 GHz	10	19
Clock output level	Vclk	Vpp	10.7 GHz, 0.5 Vpp input	1	1.6
Clock S11 and S22		dB	8 to 11 GHz	-	-10
Data output Rise/Fall Time	tr / tf	ps	20 to 80%.	-	25
Clock input level	CK_in	mVpp	50 ohms source	250	1100
Clock frequency	f	GHz		8	12
Logic Supply Voltage	Vss	V		-4.7	-4.3
Logic Supply Current	Iss	mA		-	680
Clock Supply Voltage	Vd	V		7.8	8.5
Clock Supply Current	Id	mA		-	100

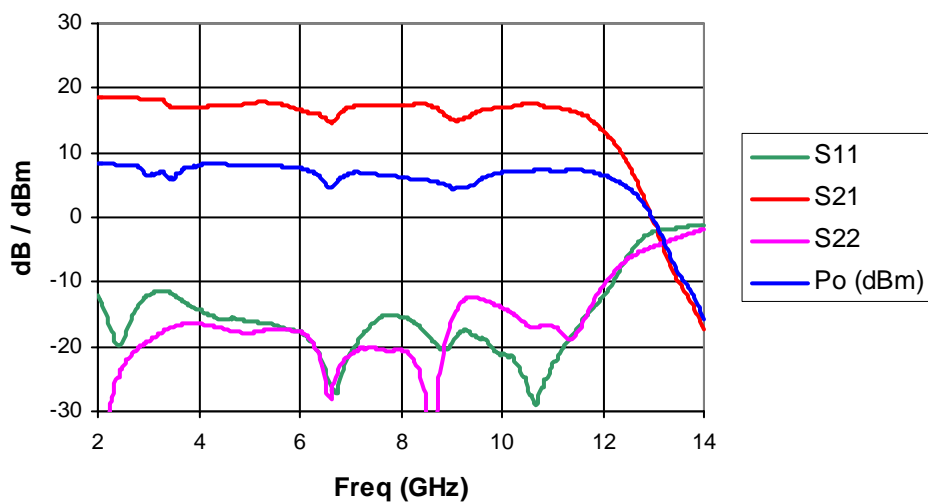
Simplified Functional Block Diagram

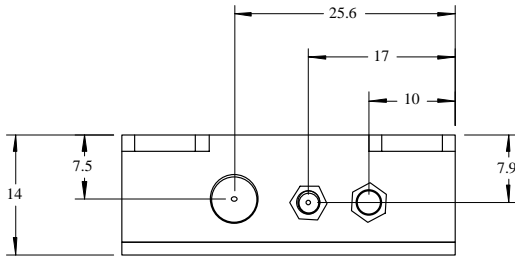


10 Gb/s RZ Eye Diagram

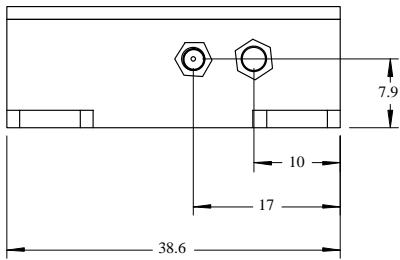
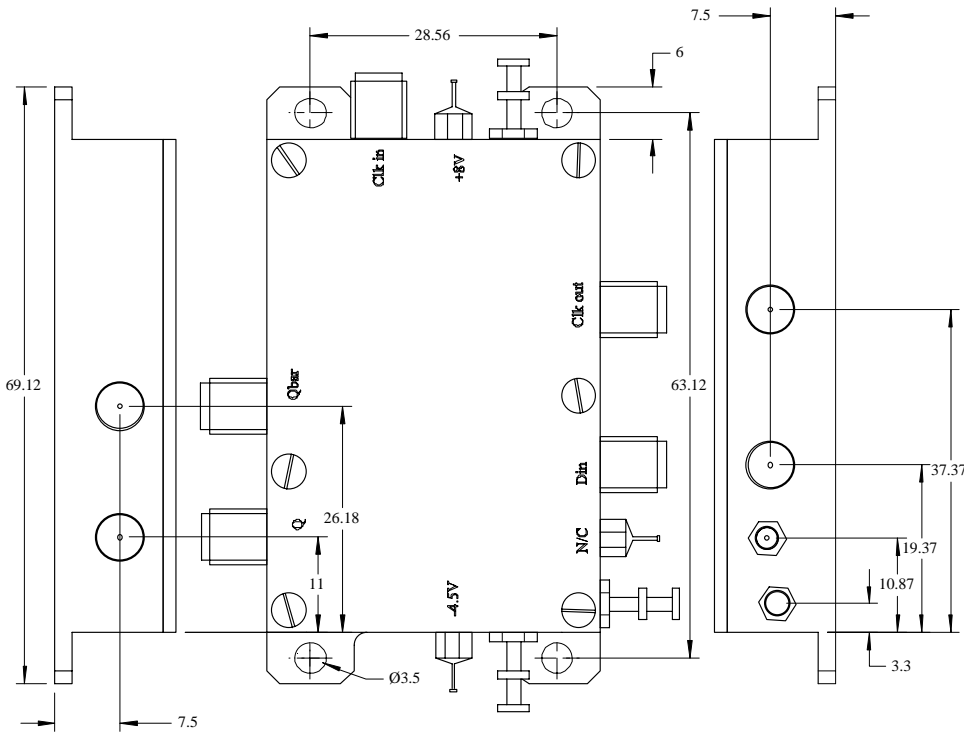


Clock Amplifier Characteristics





All dimensions in mm



Contact



*Manufactured in the UK
Specification subject to change without notification*

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