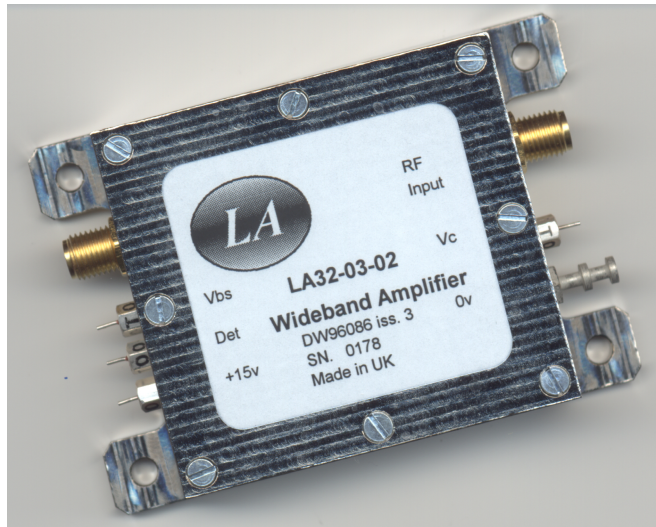




LA Techniques Ltd

**LA32-03-02
VERY WIDE BAND POWER AMPLIFIER**



The LA32-03-02 is a power amplifier intended for use in applications requiring large bandwidths. It is well suited for driving optical modulators as its output stage can cope well with low impedance loads. It incorporates output level control, monitor, and bias-T.

- 30 kHz - 6 GHz Bandwidth
- Good pulse performance
- Output monitor and level control
- Bias-T on output port
- Low cost

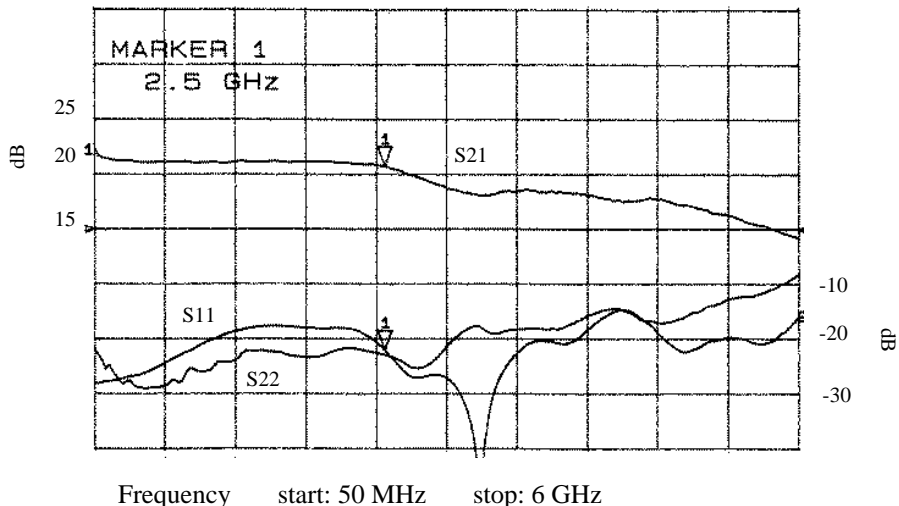
Electrical Specification

($t_{\text{case}} = 30^{\circ}\text{C}$)

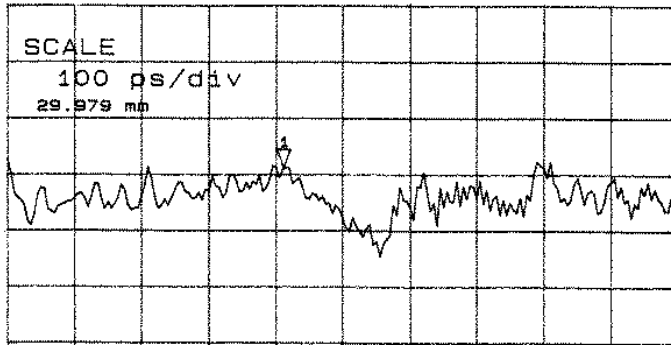
Parameter	Units	Min	Typ	Max
Bandwidth				
Low frequency 3 dB point	kHz	-	30	50
High frequency 3 dB point	GHz	4	5	-
Gain	dB	18	21	25
Gain ripple (from gain slope)				
100 kHz - 5 GHz	dB	-	± 1	± 2
Input VSWR	-	-	1.6:1	3:1
Output VSWR	-	-	1.6:1	3:1
Output voltage, V_{max}				
50 Ω load (0.8 v_{pp} input)	v_{pp}	6	6.5	-
25 Ω load (")	v_{pp}	3.8	4.5	-
Output voltage control range				
50 Ω load	v_{pp}	4.6	-	V_{max}
25 Ω load	v_{pp}	3	-	V_{max}
Detector sensitivity (PRBS data)	v/v_{pp}	0.2	0.28	-
Group delay (10 MHz - 6 GHz)	ps	-	± 60	-
Pulse characteristics				
Rise time	ps	-	75	-
Fall time	ps	-	75	-
Droop (time < 100 ns)	%	-	2	-
RF Output bias-T				
dc path resistance	$k\Omega$	9	10.6	12
maximum voltage	v	-16	-	+16
Supply voltage	v	13	15	18
Supply current	mA	-	310	340
Operating temperature range	$^{\circ}\text{C}$	-10	-	+70

Note: All parameters to $f < 5$ GHz, data is 2.6 Gb/s PRBS unless stated otherwise

LA32-03-02 Frequency Response

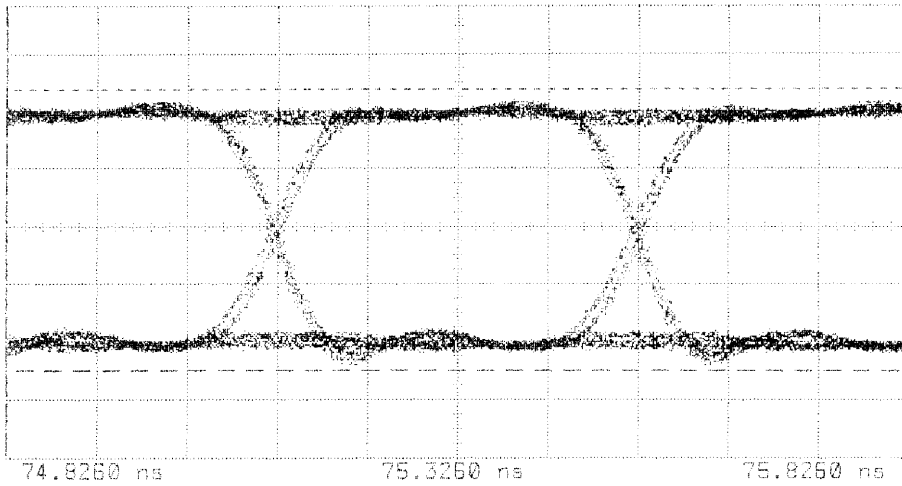


Group Delay Ripple



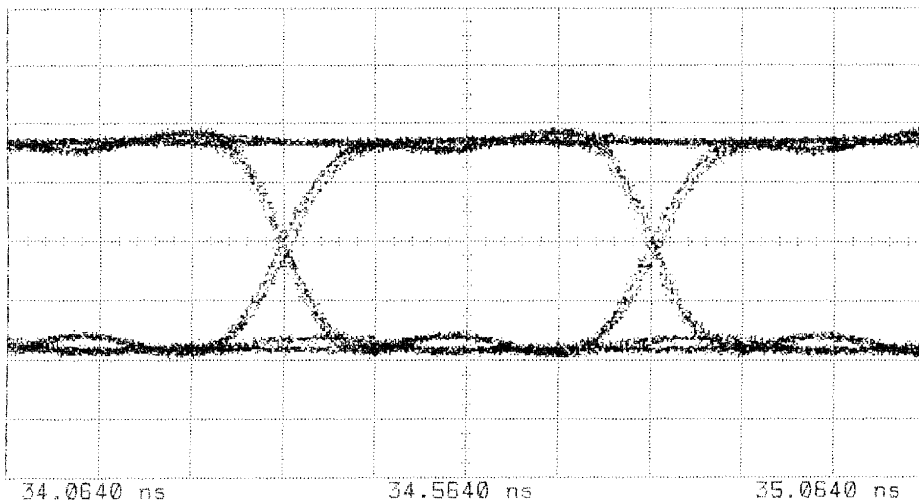
Frequency
start: 50 MHz
stop: 6 GHz

2.6 Gb/s Eye Diagram (50 Ω load)

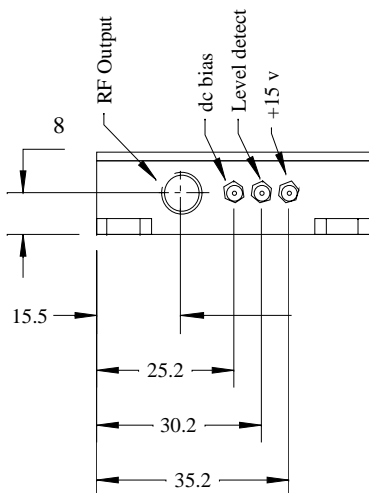
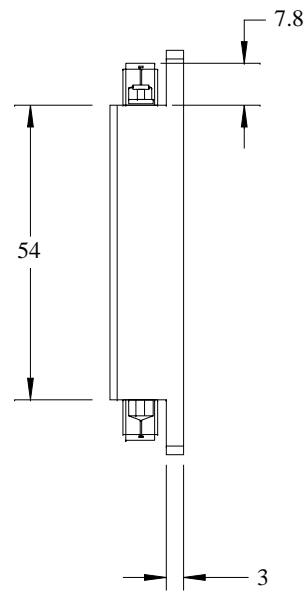
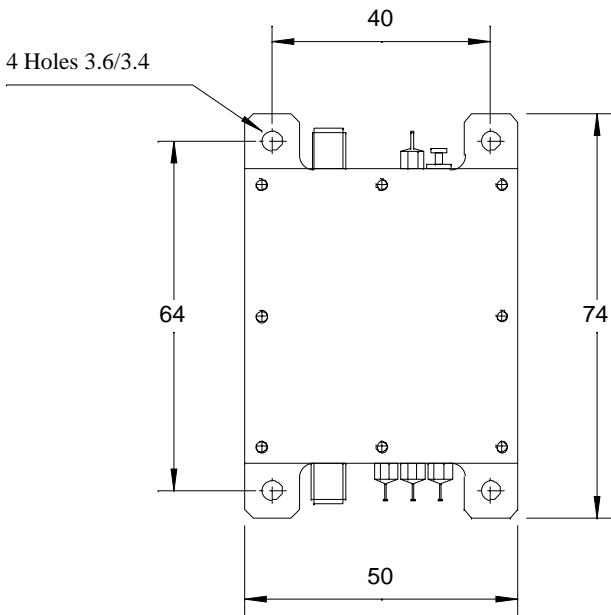
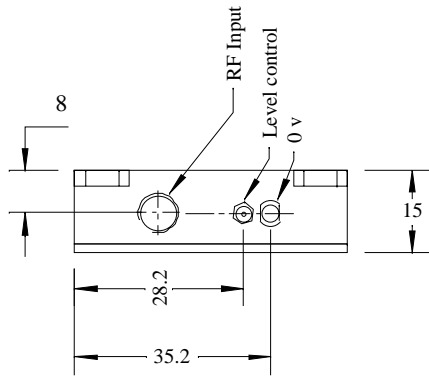


Time: 100 ps/div Volts: 1.6 v/div Input: 0.8 v_{pp}

2.6 Gb/s Eye Diagram (25 Ω load)



Time: 100 ps/div Volts: 1.3 v/div Input: 0.8 v_{pp}



Contact



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

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