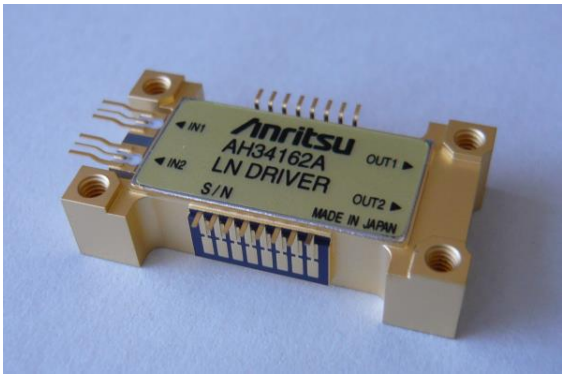
Anritsu envision : ensure

AH34162A

32Gbit/s DUAL LN DRIVER



Features

2 circuits / package
High output voltage: 7.5Vp-p typ. dual outputs
Low power consumption: 1.6W typ. / each
Input interface: GSG lead
Output interface: GPPO connector compatible
Small package: 13.4x25.4x5.6mm
DC block capacitor included

Applications

Driver for 40G DQPSK(x1) optical modulators
Driver for 100G DP-QPSK(x2) optical modulators

Absolute Maximum Ratings

Items	Symbols	Conditions	Units	Ratings	
				min.	max.
Input voltage	Vin	NRZ	Vp-p		2
Supply voltage	VG1I/Q		V	-2	0
	VC1I/Q	+0.2V	V	-1	+3
	VD1I/Q	+6V	V		+9
	VG2I/Q		V	-2	0
	VC2I/Q	+1.5V	V	0	+3
	VD2I/Q	+7V	V		+9
Operating temperature	Tc		°C	-5	+80
Storage temperature	Tstg		°C	-40	+85

Specifications

Power supplies

Items	Conditions	Units	Specifications		
			min.	typ.	max.
Current consumption	VG1I/Q	mA	-5	0	
	VC1I/Q	mA		0	5
	VD1I/Q	mA		50	100
	VG2I/Q	mA	-5	0	
	VC2I/Q	mA		0	5
	VD2I/Q	mA		180	230
Total power consumption		W		3.3	

ANRITSU CORPORATION
5-1-1 Onna Atsugi-shi, Kanagawa 〒243-8555 JAPAN
URL: http://www.anritsu.co.jp/Devices/

Electrical characteristics

Tc=30°C, VC1=+0.2V, VD1=+6V, VC2=+1.5V, VD2=+7V, Zin=50ohms, Zout=50ohms

Items	Conditions	Units	Specifications		
			min.	typ.	max.
Bit rate	NRZ	Gbit/s	32		
Max. Output voltage*1	Vin=0.5Vp-p 32Gbit/s	Vp-p	7	7.5	
Min. Output voltage*1, *2					6
Additional jitter*1		fs rms		600	
Rise time / Fall time*1	20-80%	ps		12	
Cross point adjustability*1, *3		%	45	50	55
Bandwidth	-3dB (low end)*4	kHz		(100)	
	-3dB (high end)	GHz		25	
Output polarity		-	Non-inverted		

*1: Measured by 86118A 70GHz remote sampling head with 86107A precision time base, manufactured by Keysight Technologies

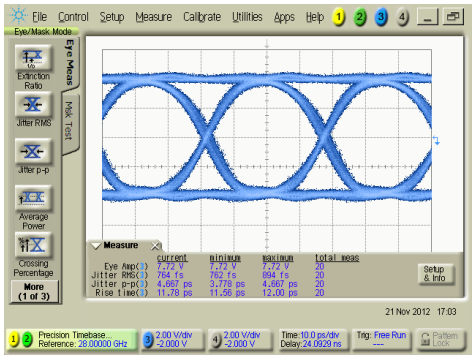
*2: Adjusted by supplied voltage to VD2I and VD2Q or VC2I and VC2Q

*3: Adjusted by supplied voltage to VG2I and VG2Q

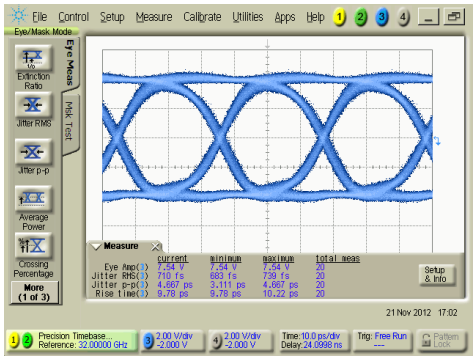
*4: External inductors (>100nH) are required between VD2I/Q terminals and power supplies.

Characteristics

28Gbit/s Eyepattern

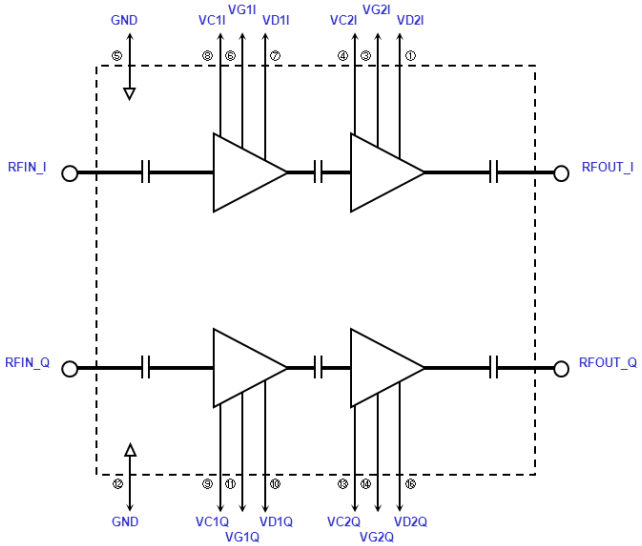


32Gbit/s Eyepattern



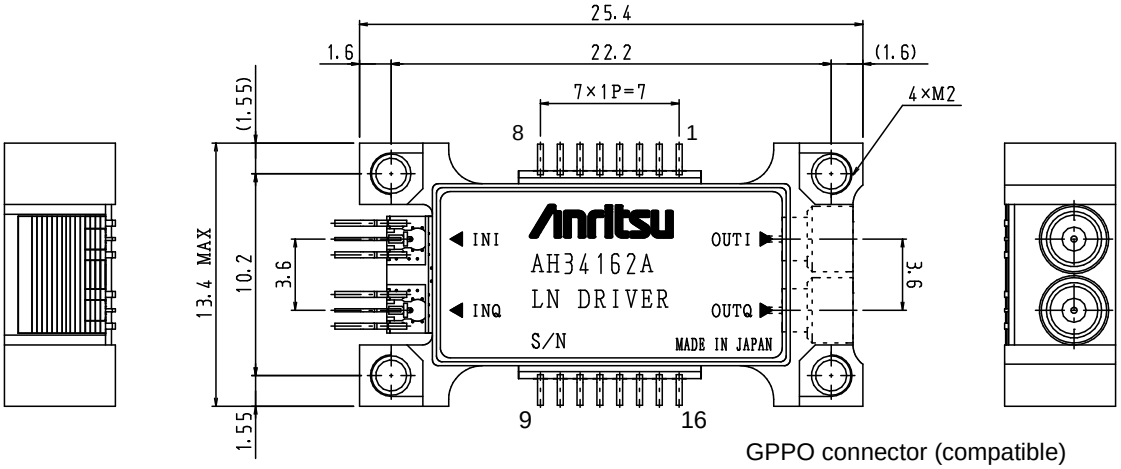
V:2V/div H:10ps/div

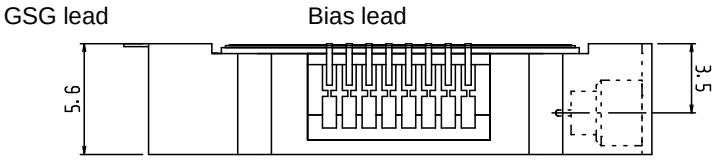
Block Diagram



ANRITSU CORPORATION
5-1-1 Onna Atsugi-shi, Kanagawa 〒243-8555 JAPAN
URL: http://www.anritsu.co.jp/Devices/

Dimensions



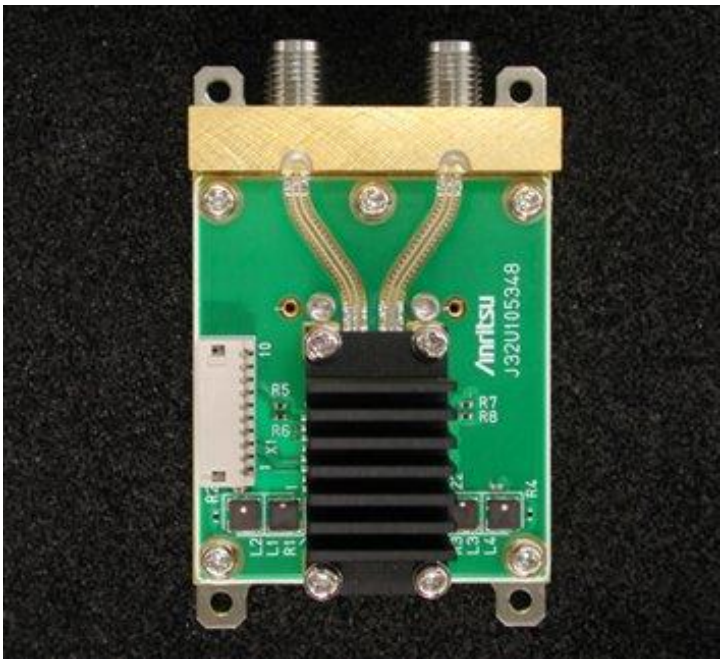


Units: mm

#	Symbols	Functions	Remarks
1	VD2I	I 2nd stage drain bias	Adjust output voltage
2	NC		
3	VG2I	I 2nd stage gate bias	Adjust cross point
4	VC2I	I 2nd stage control bias	(Adjust output voltage)
5	GND	Ground	
6	VG1I	I 1st stage gate bias	
7	VD1I	I 1st stage drain bias	
8	VC1I	I 1st stage control bias	
9	VC1Q	Q 1st stage control bias	
10	VD1Q	Q 1st stage drain bias	
11	VG1Q	Q 1st stage gate bias	
12	GND	Ground	
13	VC2Q	Q 2nd stage control bias	(Adjust output voltage)
14	VG2Q	Q 2nd stage gate bias	Adjust cross point
15	NC		
16	VD2Q	Q 2nd stage drain bias	Adjust output voltage
	IN	RF input port	GSG lead
	OUT	RF output port	GPPO connector (compatible)

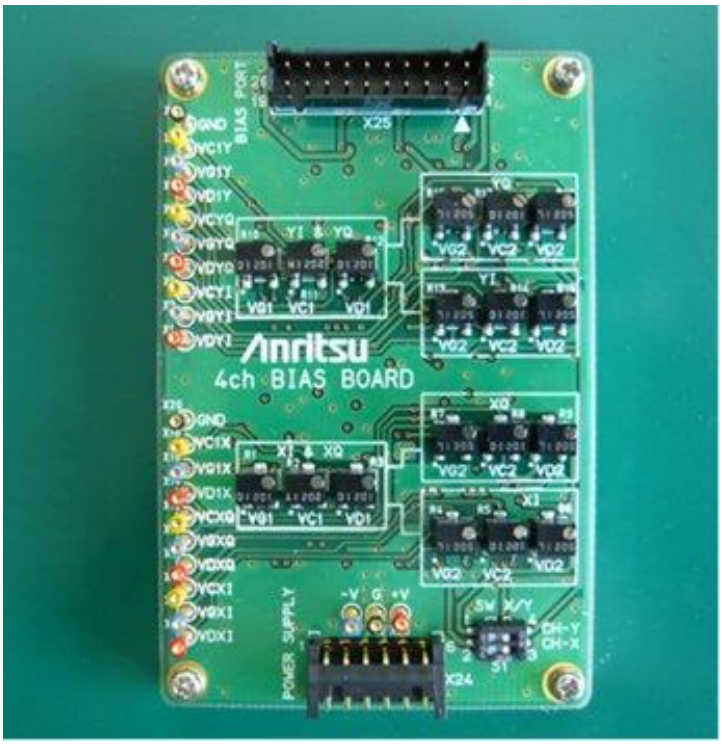
ANRITSU CORPORATION
5-1-1 Onna Atsugi-shi, Kanagawa 〒243-8555 JAPAN
URL: http://www.anritsu.co.jp/Devices/

Evaluation Board



- There is evaluation board which has the K-coaxial input connector to be suitable for evaluation.

Bias Board



- It can be adjustable easily output amplitude and eye crossing by using bias-board.