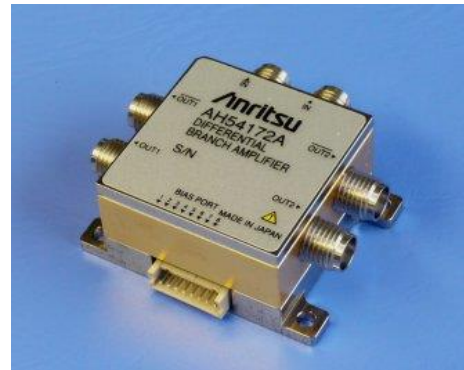


AH54172A

Differential Branch Amplifier

Features

- Wideband: 30k - 40GHz
- Low power consumption: 0.60W typ.
- Built-in DC blocking capacitors (Standard type)
- Small package: 28mm x 28mm x 17mm



Applications

Data/ Clock branch buffer amplifier for evaluation system

Absolute Maximum Ratings

Items	Symbols	Conditions	Units	Ratings	
				min.	max.
Input signal voltage	Vin		V	-1	+0.7
Supply voltage	VEE	-3.5V	V	-3.8	+0.5
Operating temperature	Tc	Case temperature	°C	+5	+50
Storage temperature	Tstg		°C	0	+60

Specifications

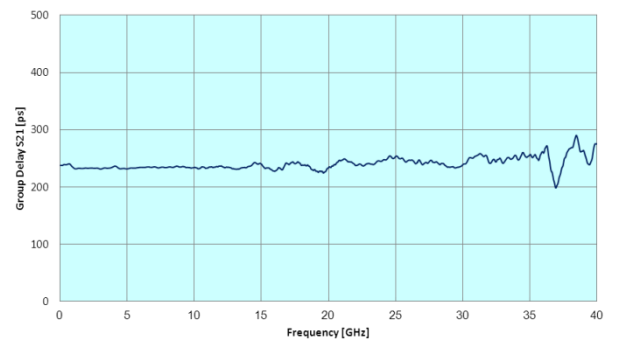
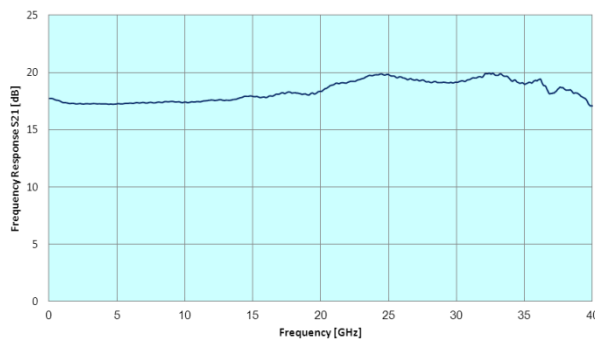
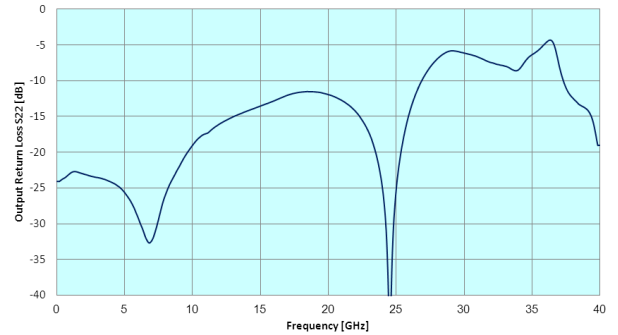
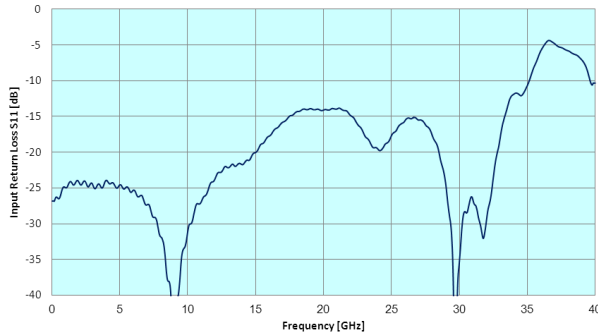
Tc=25°C, VEE=-3.5V, Zin=50ohms, Zout=50ohms

Items	Conditions	Units	Specifications		
			min.	typ.	max.
Small signal bandwidth	Low end	kHz		30	100
	High end	GHz		40	
Input voltage	Single-end	Vp-p	0.2	0.5	0.7
	Differential		0.1	0.25	0.35
Output voltage	Vin=0.5Vp-p @30GHz	Vp-p	0.5	0.8	
Jitter *1		fs rms		300	
Rise time/ fall time *1	20-80%	ps		6	
Input return loss	40M to 30GHz	dB		10	
Output return loss	40M to 30GHz	dB		10	
Supply current	VEE=-3.5V	mA		170	250
Power consumption		W		0.60	

*1: The specifications are based on the measurement using the Keysight 86118A 70GHz Remote sampling head and 86107A Precision time base.

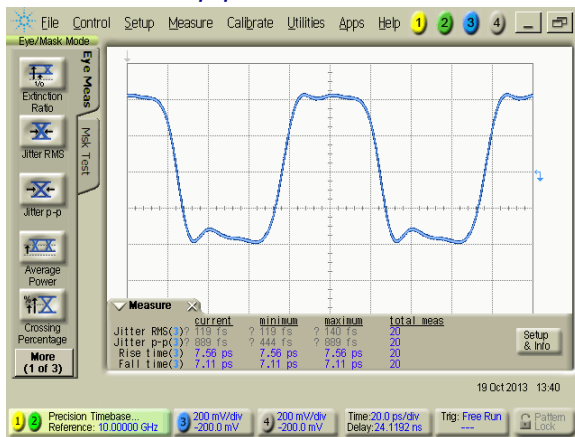
Electrical Characteristics

Frequency response (small signal)

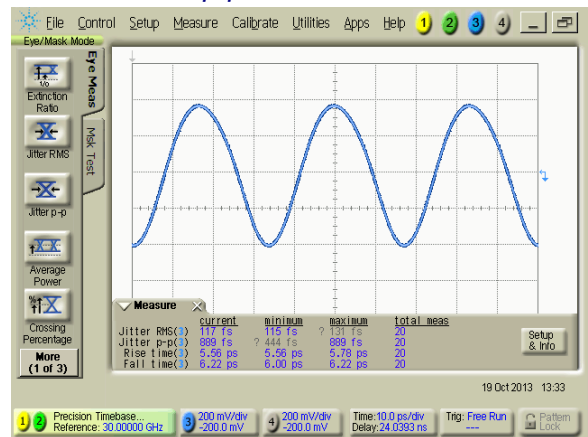


Pulse response

$V_{out}=850mV_{p-p}@10GHz$



$V_{out}=780mV_{p-p}@30GHz$

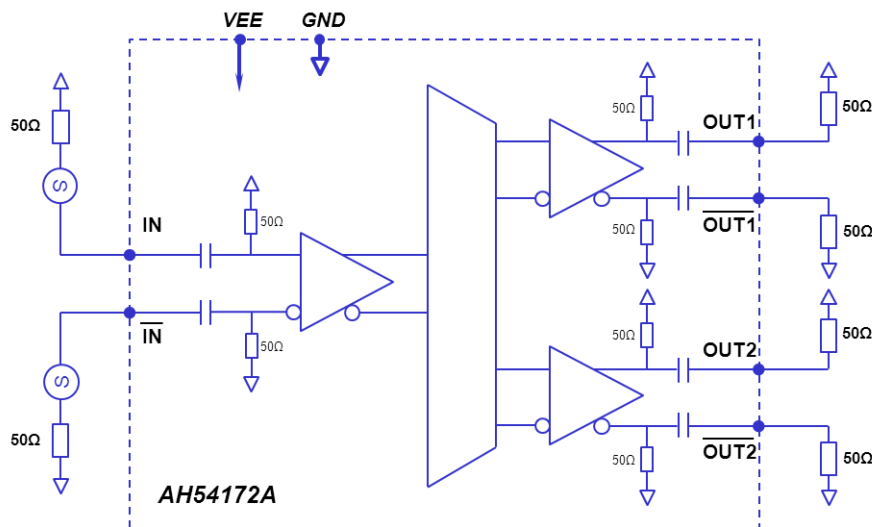


Model Name

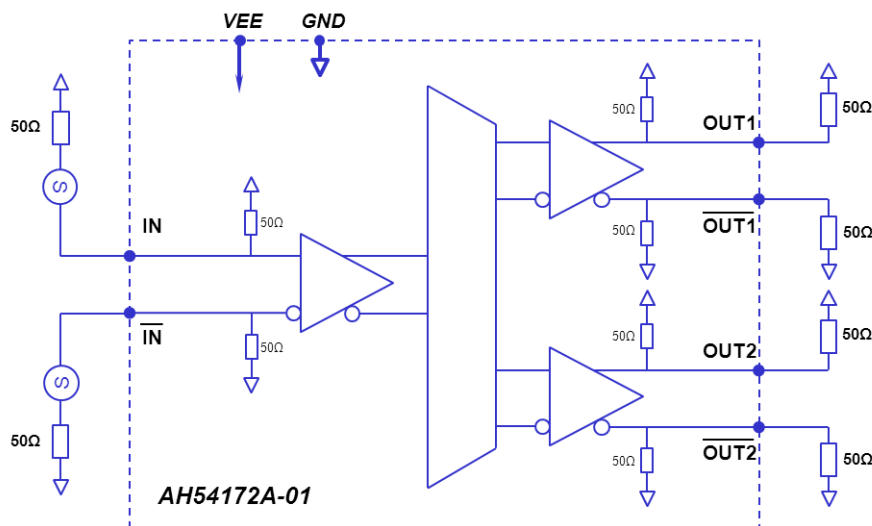
AH54172A $\begin{matrix} -\Delta\Delta \\ \text{Option} \end{matrix}$

#	Model name	Option	Connector type	Notes
1	AH54172A	none	K-F	AC coupling (standard type)
2	AH54172A	-01	K-F	DC coupling

Block Diagram

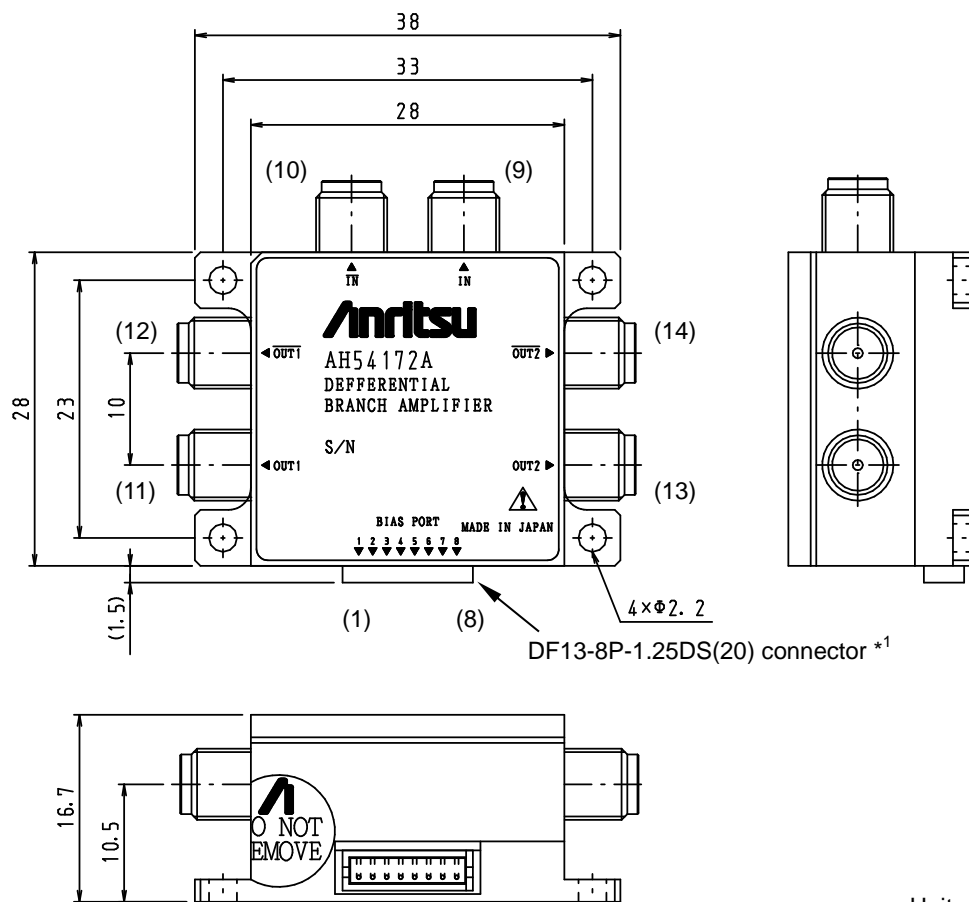


AC coupling (standard type)



DC coupling (Option -01)

Dimensions



Units: mm

No.	Symbols	Functions	Remarks
1	NC		
2	NC		
3	NC		
4	GND	Ground	
5	VEE	Power supply	-3.5V
6	NC		
7	NC		
8	NC		
9	IN	Input port (non-invert)	
10	$\overline{\text{IN}}$	Input port (invert)	
11	OUT1	Output 1 port (non-invert)	
12	$\overline{\text{OUT1}}$	Output 1 port (invert)	
13	OUT2	Output 2 port (non-invert)	
14	$\overline{\text{OUT2}}$	Output 2 port (invert)	

*1: Please utilize attached DF13-8S-1.25C connector to supply DC power.

Please consult Anritsu Corporation If the products are used in the high reliability system.
Specifications are subject to change without notice.

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