

Very low noise amplifier

SBA1250/1450-sma

1250MHz to 1450MHz

Features

- PCB sub assembly, providing a 'golden sample' reference
- solid 0.5dB noise figure with no production adjustments
- 2 stages provide high gain with stable, well defined input match
- filters for high out of band rejection, 100mW input tolerance (in-band)
- 11v – 15v DC, reverse protection, direct or using on board bias tee

Applications

- 23cm band terrestrial and EME system development tool
- 1420MHz hydrogen line radio astronomy systems
- 'standard' NF reference for your own LNA development, in system and antenna comparisons

Electrical specification at 20°C

model	Frequency (MHz)		Gain (dB)	Noise figure (dB)	Input return loss (dB)	-1dB compression typical (dBm)	O/P IP3 (dBm)	DC power	
	min	max						V	mA
SBA1250/1450	1250	1450	>30	0.5	>10dB	+19	+32	+11 to 15	<110

Continental Compliance Ltd

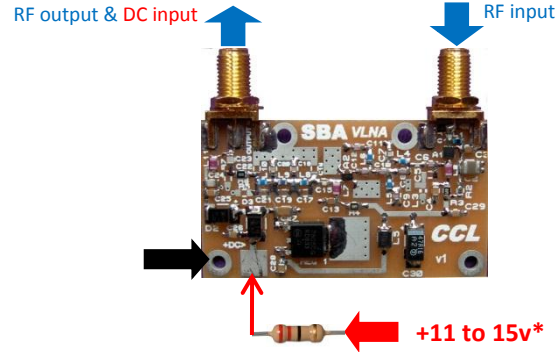
Registered in England and Wales No 2856093
27 Weelsby Way, Hessle, East Yorkshire. HU13 0JN, UK.
Telephone +44 (0)1482 629270.

Application notes available at www.rfdesignuk.com

Maximum ratings

Storage temperature	-30°C to + 70°C
Operating temperature	-10°C to +50°C
DC Voltage	+16.0V
Input port power	+20dBm

PCB dimensions: 55mm by 30mm (excluding connectors)

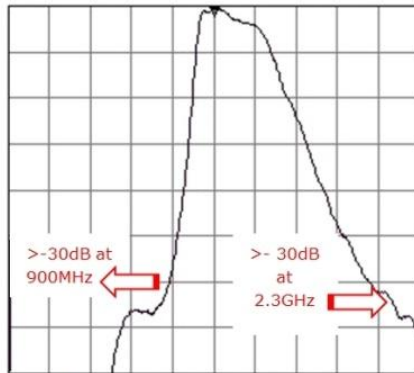


Trace A
Log 5.00 dB/div
Ref -6.000 dBm

SBA1250/1450

-40dBm input

G_{max} = 33dB



> -40dB in VHF & UHF broadcast bands

Center 1.21 GHz
Span 2.39 GHz
RBW 3.0 MHz
VBW 1.0 MHz
Sweep Time 47.80 msec
AT 10 dB
Peak

* use the supplied 22R 1W resistor in series with the positive supply.

<< Typical measured performance from production sample

Continental Compliance Ltd

Registered in England and Wales No 2856093
27 Weelsby Way, Hessle, East Yorkshire. HU13 0JN, UK.
Telephone +44 (0)1482 629270.

Application notes available at www.rfdesignuk.com