BSTLN65-0812

8-12 GHz Low Noise Amplifier

Data Sheet

I. Product Introduction

BSTLN65-0812 is a high-performance low-noise amplifier (MMIC) operating in the 8-12 GHz frequency range. It features a noise figure of 1.2 dB, a gain of 26 dB, and an output power of 11.5 dBm at 1 dB compression.

II. Key Technical Indicators

- Operating frequency: 8-12 GHz
- Small signal gain: 26dB
- Noise figure: 1.2dB
- P1dB: 11.5dBm
- Power supply: +5V/30mA
- Input / output echo: -14/-11.8dB
- Chip size: 1.75mm x 1.10mm

III. Application Areas

- Communication

IV. Electrical Parameters T_{amb} = + 25 ° C

Table 1.

INDEX	MINIMUM	TYPICAL VALUES	MAXIMUM
Frequency (GHz)	8 – 12		
Small signal gain (dB)	26		
Input echo (dB)			-14
Output echo (dB)			-11.8
Noise Figure (dB)			1.2
1dB compression point output power (dBm)			11.5

V. Test Curve (Small Signal Test)

Red is +25 degrees, blue is -55 degrees, pink is +85 degrees, and the static current is 30mA at +25 degrees.

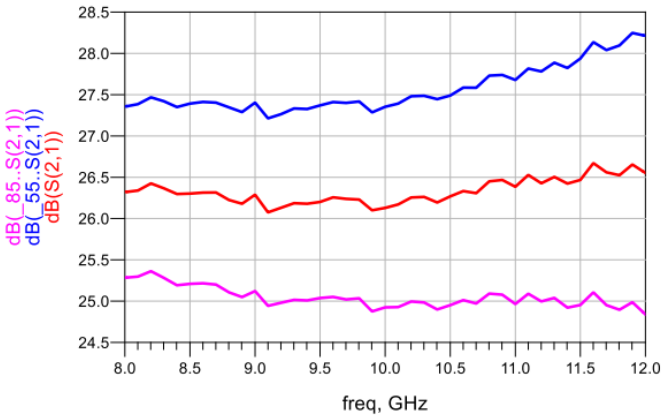

Figure 1. Gain

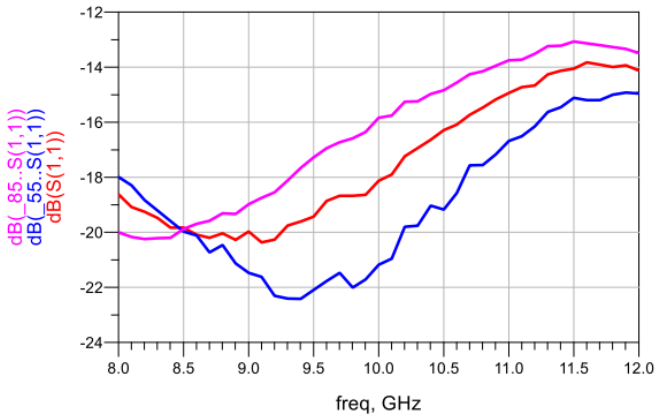

Figure 2. Input echo

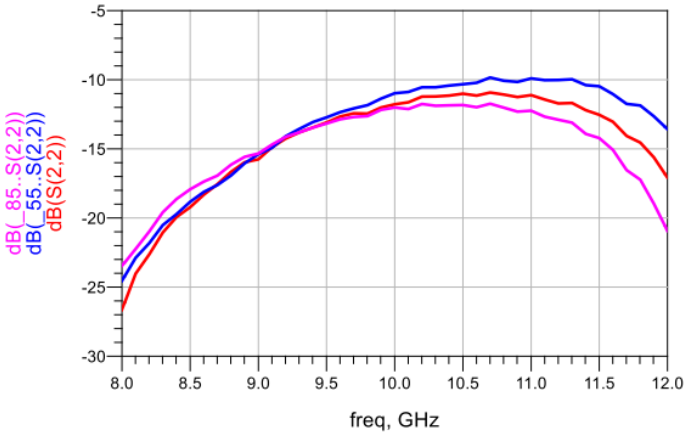

Figure 3. Output echo

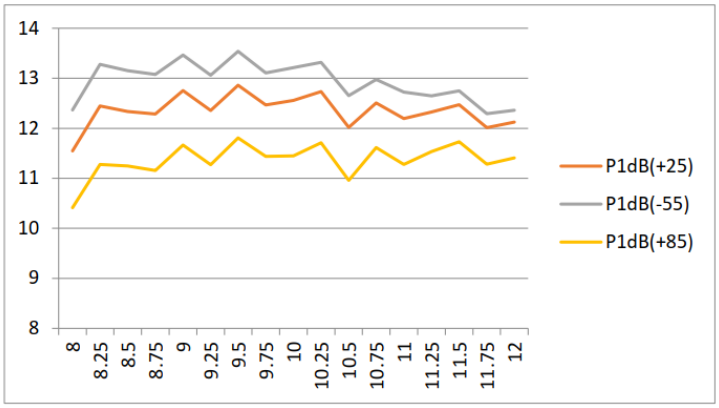

Figure 4. P1dB output power

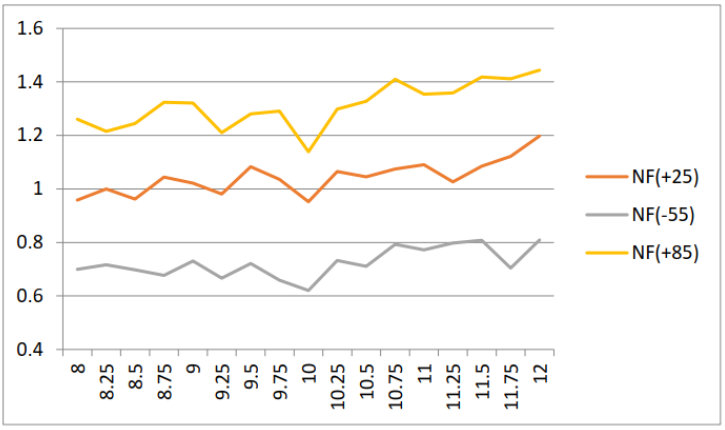

Figure 5. Noise Figure

VI. Dimensions

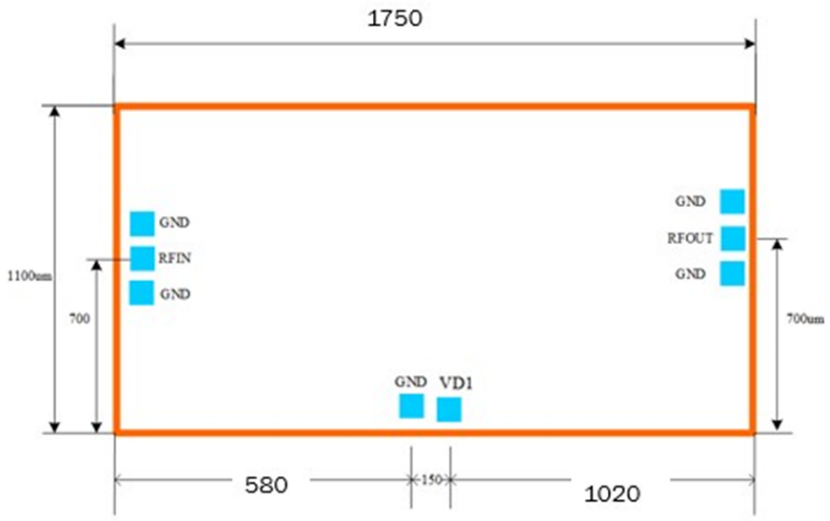

Figure 6.

VII. Chip Assembly Diagram

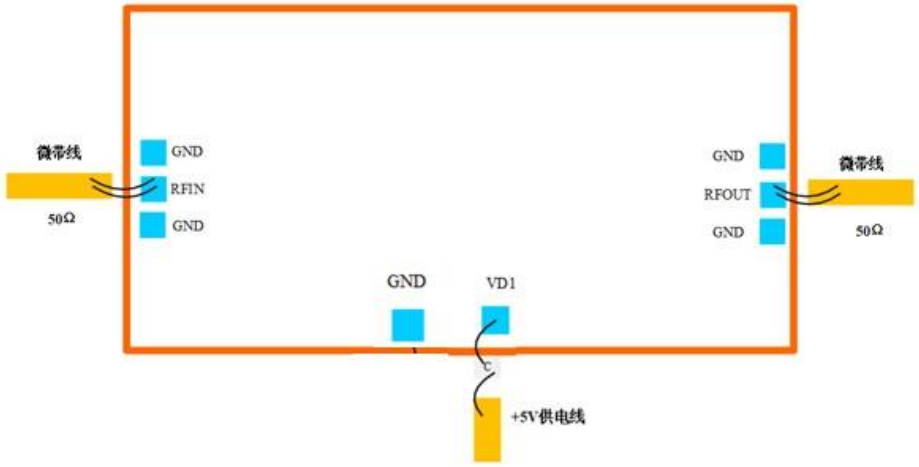

Figure 7.

Note: There are DC blocking capacitors on the input and output.

VIII. Limit Value Definition

Limiting values are given in accordance with the Absolute Maximum Ratings System (IEC 60134). Stresses above one or more of these limiting values may cause permanent damage to the product. These are stress ratings only, and operation of the device at these or any other conditions exceeding those specified is not guaranteed. Exposure to extreme conditions for extended periods may affect product reliability.