CLAIMS

1. A microwave amplifier for amplifying a microwave signal using an active element (11) characterized by comprising:

a bias circuit including,

a line (20) having an electric length one quarter a wavelength at a frequency configured to be amplified by the microwave amplifier and being connected between an output terminal of the active element and a bias voltage source (13), and

a first capacitor element (14) connected between a terminal where the line (20) is connected to the bias voltage source (13) and a ground (10) that defines a reference point of potential of the microwave amplifier; and

a resonant circuit including a resistor (15) and a second capacitor element (16) connected in series between the ground (10) and the terminal where the line (20) is connected to the bias voltage source (13).

~~2. The microwave amplifier according to Claim 1,~~ wherein

the first capacitor element (14) has a reactance regarded as being short-circuited at the frequency configured to be amplified, and

the second capacitor element (16) has a reactance in which the impedance of the line (20), the resistor (15), and the second capacitor element (16) is positioned in a vicinity of a real axis inside a circumference of a Smith chart at a maximum frequency of a beat signal generated between a lowest frequency and a highest frequency in a communication band of the microwave amplifier.

2~~3~~. The microwave amplifier according to Claim 1 ~~or 2~~, characterized in that~~wherein~~

a self-resonating frequency of the resonant circuit is greater than or equal to a maximum frequency of a beat signal generated between a lowest frequency and a highest frequency in a communication band of the microwave amplifier.

3~~4~~. The microwave amplifier according to ~~any one of~~ Claims 1 or~~to~~ 2~~3~~, characterized by comprising an inductive element (36) connected between the line (20) and the bias voltage source (13).

~~5. A microwave amplifier for amplifying a microwave signal using an active element comprising:~~

~~an LC resonant circuit that includes a resistor connected between an output terminal of the active element and a ground that defines a reference potential of the microwave amplifier.~~