This study investigates changes of S-parameters (S21, S11, S22, S12) of a SBB5089Z power amplifier module in relation to changing DC conditions. Behaviour of those linear performance parameters (S21, S11, S22, S12) was examined graphically. S-parameters of SBB5089Z were analysed covering the 5.8 GHz WiMAX frequency from 5.7 GHz to 5.9 GHz with 200 MHz bandwidth. DC conditions were controlled using a microcontroller, an R/2R Digital Analogue Converter (DAC) ladder circuit and a voltage follower with LM324. The R/2R ladder circuit and voltage follower with LM324 have been integrated with the microcontroller. Also ACS712 current sensor and ADS1115 16-bit Analog Digital Convertor (ADC) are integrated to the microcontroller. PA’s current was read with microcontroller.