

## **TB13**

## EFFECTS OF VARIATION OF SUPPLY VOLTAGE ON THE SENSITIVITY OF THE BT MICROPHONE

The graph on page 2 shows the effect of supply voltage  $(V_s)$  on BT microphone output over the voltage range 0.4 to 1.3 VDC. Changes in  $V_s$  from 1.3 Volts to 20.0 Volts will typically increase the 1KHz sensitivity of BT microphones by 1 dB.

The "nominal" line illustrates the performance of the "average" BT microphone coming off of our production lines. Please note, however, that variability in components and assemblies yield a range of possible sensitivity changes for each supply voltage. This chart is referenced to our standard specification of a 1.3 VDC supply voltage and indicates the possible change of output for any single BT microphone as compared to its

1.3 Volts sensitivity. As an example, changing  $\rm V_s$  from 1.3 Volts to 0.8 Volts will typically decrease the 1KHz sensitivity by 0.6 dB. However, 99% of the product will decrease between 0.2 dB to 3.5 dB.

We guarantee, by 100% testing, that all BT microphones will exhibit no more than a 3 dB loss at 0.9 VDC compared to the 1.3 Volt output for that unit.

## **IMPORTANT NOTE**

The graph is usable only for general application perspective and should not be used to generate specifications or limits.

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1KHz SENSITIVITY CHANGE VS. DC SUPPLY VOLTAGE For All BT Microphones (Data Based on Random Sampling)

