Adding a Booster to SIG60 EVB

Application Note

This information is preliminary and may be changed without notice *August 2013*

GENERAL

This application note suggests a booster circuit (figure 1) to extend the SIG60 communication distance in highly attenuated environment by adding a Transmit booster circuitry to the SIG60 evaluation board (EVB). The output level is boosted from ~1Vpp to ~5Vpp.

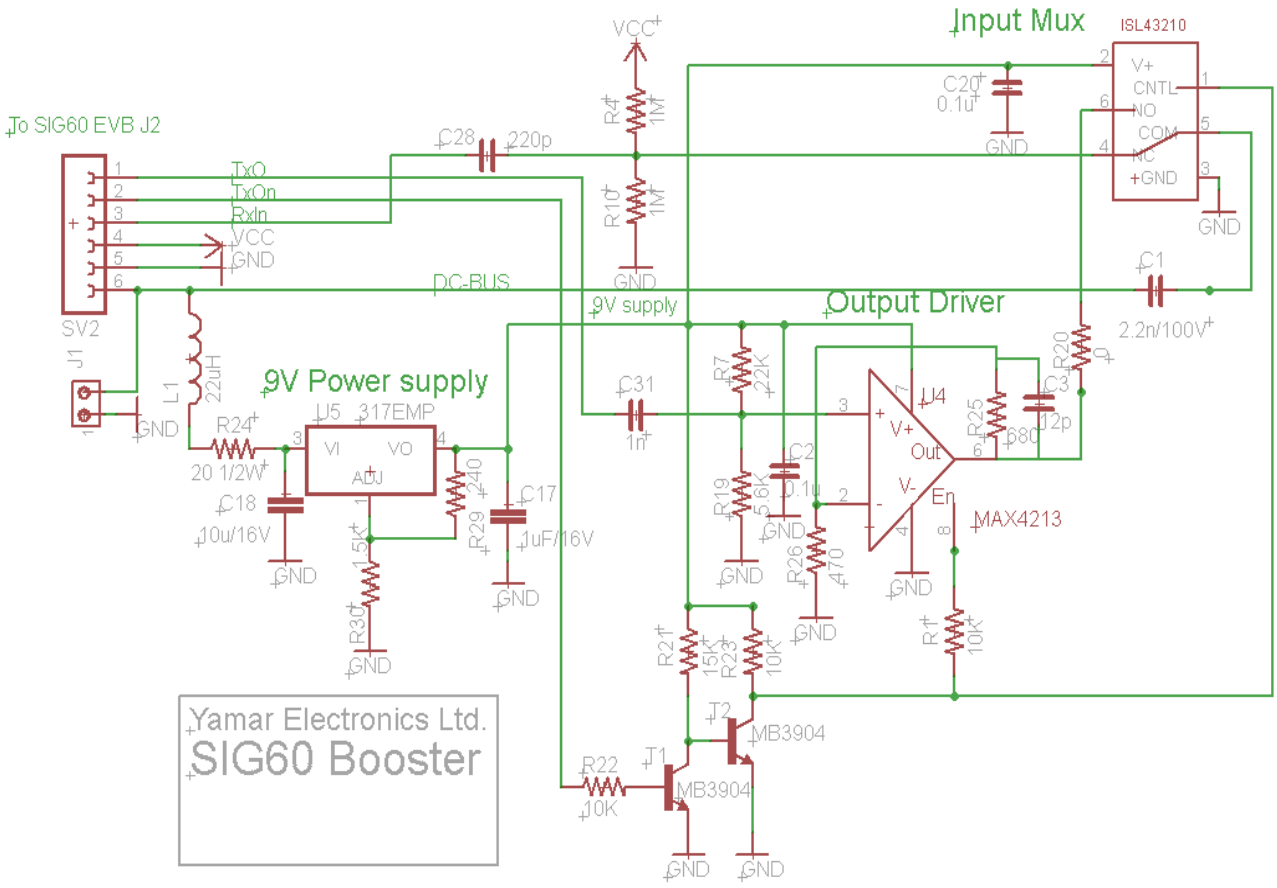

Figure 1 – SIG60 Booster circuit

1.1 SIG60 EVB operation without booster (Default Setup)

- Connect the DC cable with the 2 pins J1power connector on the SIG60 EVB.
- Verify that capacitor **C4** and resistor **R4** assembled on the SIG60 EVB. See figure 2.

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2 Booster Setup

2.1 Changing the SIG60 EVB for booster operation

To operate the SIG60 EVB with the booster circuit do the following:

1. Disconnect capacitor **C4** and resistor **R4** from SIG60 EVB.

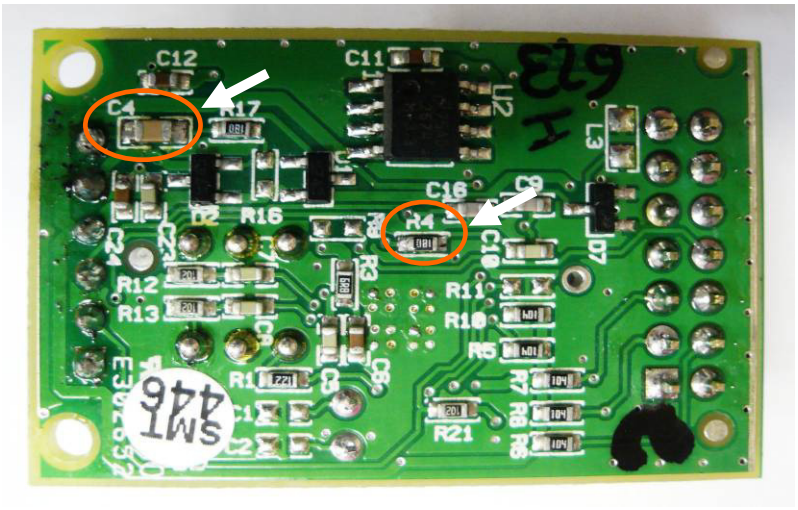

Figure 2 - SIG60 EVB Bottom View

2. Remove SIG60 EVB J1 2 pins connector and connect a 6 pins header.
3. Connect the Booster on top of the assembled header. (See figure 3)
4. Connect the 2 pins DC powerline cable to DC connector in the booster board.

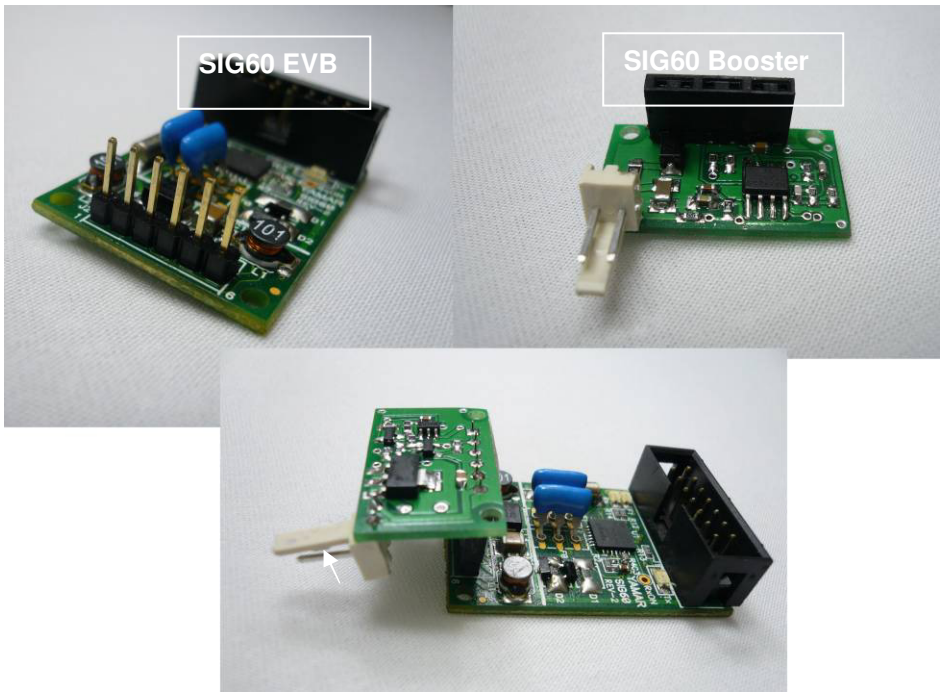

Figure 3 - Booster Setup View