BSM Host Board Circuit Board Changes   P. Janos 06-24-02

The following list contains circuit board layout and component changes between the Single PCB, Host , Component Number 6 002 J10 030 Rev 2B (current production version) to 6 002 J10 030 Rev 3 ("RKE Range Fix" version):

1. Added two (2) inductors, 220uH, 5%, 0805   REF: L2, L3 (MFG: Toko   MFG PN: LL2012-FHR22J) between the +5V and the two microcontroller (S1) supply pins VDD and VDDA (pins 22 and 55).

2. Added two (2) capacitors, 330pF, 5%, 0805, NP0   REF: C111,C112 (RB: 8 902 211 420) between pin 27 (on the micro.) and GND and between pin 28 (on the micro.) and GND.

3. Added four (4) capacitors, 330pF, 5%, 0603, NP0   REF: C108,109,110,113 (RB: 8 902 212 022) with the following connections:
   C108 =   between pin 1 (on the micro.) and GND.
   C109 =   between pin 52 (on the micro.) and GND.
   C110 =   between pin 53 (on the micro.) and GND.
   C113 =   between pin 6 (on the micro.) and GND.

4. Created a separate control of switch battery supplies Sbatt2 and Sbatt3 by adding, Transistor, T10, BCV47, resistor, R161, 22k, 0805 and resistor R160, 3k9, 0805.

5. Changed watchdog timing capacitor C56 from 33nF, 5%, X7R, 0805 to 27nF, 5%, 50V, X7R, 0805 (Vishay MFG PN: VJ0805Y273JXA).

6. Added pads for 0805 capacitor C58 in parallel to C56 for future timing control of watchdog.

7. Changed SIP antenna matching capacitor, 3.9pF, 5%, X7R, 0805 REF: Z104 to Capacitor, 3.3pF, +/-0.5pF, 100V, NP0, 0805 (Kemet MFG PN: C0805C339D1GAC RB: 8 902 211 396). (315 MHz BSM version only.)

8. Changed SIP antenna matching capacitor from 470pF, 10%, X7R, 0805 REF: Z106 to capacitor, 33pF, 5%, 100V, NP0, 0805 (MFG: Kemet MFG PN: C0805C330J1GAC RB: 8 902 211 408).   (315 MHz BSM version only.)

9. Deleted pull down resistor between pin 6 of the micro and GND, 4k7, 0805 REF DES. R88.

10. Removed traces for the following components used by the Battery Backup Sense and Intrusion Sensor circuitry: R278, R90 T205, R277, R276, T207, R283, R282, R275, T206, R273, R274, T200, R266, T204, R268, R257, and R265.

11. Moved multiplexer IC select lines S0 and S1 away from SIP.

12. Connected pin 7 of micro. to R225.

13. Connected pin 48 of micro. to pin 54 of micro.

14. Swapped connections on pins 1 and 2 of relay K5.

15. Connected R2 Hood Ajar Input Pull-up resistor to Sbatt2 instead of Sbatt3.

16. Moved location of +5v reg. output capacitor C57 (22 uf) between voltage regulator S7 and micro. S1.

RF SIP1 change associated with "BSM Range Fix"   **Gordon Mapes**

Change C60 to R54.

C60 is an ESD capacitor that is functional when the SIP1 receiver is used as a stand-alone module. In the BSM, SIP1 is not in stand-alone configuration, and the ESD capacitor has no effect.

R54 is a pull-down resistor. The voltage regulator Inhibit input requires a TTL signal. The BSM provides an open collector signal. R54 allows the open collector signal to mimic a TTL signal for proper regulator turn off.