Register mapping LSM9DS1

6 Register mapping

The table given below provides a list of the 8/16-bit registers embedded in the device and the corresponding addresses.

Table 21. Accelerometer and gyroscope register address map

| Name | Туре | Register address | | 5.4.4 | N. c |
|------------------|------|------------------|----------|----------|----------|
| | | Hex | Binary | Default | Note |
| Reserved | | 00-03 | | | Reserved |
| ACT_THS | r/w | 04 | 00000100 | 00000000 | |
| ACT_DUR | r/w | 05 | 00000101 | 00000000 | |
| INT_GEN_CFG_XL | r/w | 06 | 00000110 | 00000000 | |
| INT_GEN_THS_X_XL | r/w | 07 | 00000111 | 00000000 | |
| INT_GEN_THS_Y_XL | r/w | 08 | 00001000 | 00000000 | |
| INT_GEN_THS_Z_XL | r/w | 09 | 00001001 | 00000000 | |
| INT_GEN_DUR_XL | r/w | 0A | 00001010 | 00000000 | |
| REFERENCE_G | r/w | 0B | 00001011 | 00000000 | |
| INT1_CTRL | r/w | 0C | 00001100 | 00000000 | |
| INT2_CTRL | r/w | 0D | 00001101 | 00000000 | |
| Reserved | | 0E | | | Reserved |
| WHO_AM_I | r | 0F | 00001111 | 01101000 | |
| CTRL_REG1_G | r/w | 10 | 00010000 | 00000000 | |
| CTRL_REG2_G | r/w | 11 | 00010001 | 00000000 | |
| CTRL_REG3_G | r/w | 12 | 00010010 | 00000000 | |
| ORIENT_CFG_G | r/w | 13 | 00010011 | 00000000 | |
| INT_GEN_SRC_G | r | 14 | 00010100 | output | |
| OUT_TEMP_L | r | 15 | 00010101 | output | |
| OUT_TEMP_H | r | 16 | 00010110 | output | |
| STATUS_REG | r | 17 | 00010111 | output | |
| OUT_X_L_G | r | 18 | 00011000 | output | |
| OUT_X_H_G | r | 19 | 00011001 | output | |
| OUT_Y_L_G | r | 1A | 00011010 | output | |
| OUT_Y_H_G | r | 1B | 00011011 | output | |
| OUT_Z_L_G | r | 1C | 00011100 | output | |
| OUT_Z_H_G | r | 1D | 00011101 | output | |
| CTRL_REG4 | r/w | 1E | 00011110 | 00111000 | |
| CTRL_REG5_XL | r/w | 1F | 00011111 | 00111000 | |

LSM9DS1 Register mapping

Table 21. Accelerometer and gyroscope register address map (continued)

| Name | Туре | Register address | | D - f 14 | N-4- |
|------------------|------|------------------|----------|----------|----------|
| | | Hex | Binary | Default | Note |
| CTRL_REG6_XL | r/w | 20 | 00100000 | 00000000 | |
| CTRL_REG7_XL | r/w | 21 | 00100001 | 00000000 | |
| CTRL_REG8 | r/w | 22 | 00100010 | 00000100 | |
| CTRL_REG9 | r/w | 23 | 00100011 | 00000000 | |
| CTRL_REG10 | r/w | 24 | 00100100 | 00000000 | |
| Reserved | | 25 | | | Reserved |
| INT_GEN_SRC_XL | r | 26 | 00100110 | output | |
| STATUS_REG | r | 27 | 00100111 | output | |
| OUT_X_L_XL | r | 28 | 00101000 | output | |
| OUT_X_H_XL | r | 29 | 00101001 | output | |
| OUT_Y_L_XL | r | 2A | 00101010 | output | |
| OUT_Y_H_XL | r | 2B | 00101011 | output | |
| OUT_Z_L_XL | r | 2C | 00101100 | output | |
| OUT_Z_H_XL | r | 2D | 00101101 | output | |
| FIFO_CTRL | r/w | 2E | 00101110 | 00000000 | |
| FIFO_SRC | r | 2F | 00101111 | output | |
| INT_GEN_CFG_G | r/w | 30 | 00110000 | 00000000 | |
| INT_GEN_THS_XH_G | r/w | 31 | 00110001 | 00000000 | |
| INT_GEN_THS_XL_G | r/w | 32 | 00110010 | 00000000 | |
| INT_GEN_THS_YH_G | r/w | 33 | 00110011 | 00000000 | |
| INT_GEN_THS_YL_G | r/w | 34 | 00110100 | 00000000 | |
| INT_GEN_THS_ZH_G | r/w | 35 | 00110101 | 00000000 | |
| INT_GEN_THS_ZL_G | r/w | 36 | 00110110 | 00000000 | |
| INT_GEN_DUR_G | r/w | 37 | 00110111 | 00000000 | |
| Reserved | r | 38-7F | | | Reserved |