

XG2 TEST OSCILLATOR MANUAL ERRATA

Rev E-4, June 5, 2009

**THE FOLLOWING CHANGES TO THE XG2 MANUAL
MUST BE MADE BEFORE PROCEEDING,
OR THE XG2 MODULE WILL NOT FUNCTION CORRECTLY**

1. **Page 1 ONLY, Parts Inventory:** This section of the parts list, which includes the new value for R8, replaces the one in the manual on page 1: (You can cut this out and pasted it in the manual after incorporating the changes on the reverse side of this errata page).

Ref	Qty	Description	Part #
R2	1	Res, 18.7 k 1% (brn, gry, vio, red, brn)	E500127
R3	1	Res, 16.5 Ω 1% (brn, blu, grn, gold, brn)	E500122
R4	1	Res, 348 Ω 1% (org, yel, gry, blk, brn)	E500123
R5	1	Res, 57.6 Ω 1% (grn, vio, blu, gold, brn)	E500124
R6, R7	2	Res, 52.3 Ω 1% (grn, red, org, gold, brn)	E500125
R8	1	Res, 1.24 k 1% (brn, red, yel, brn, brn)	E500126

2. **Page 2, Description for U1:** add “or ZXRE1004D”.
3. **Page 3, steps 1 and 2:** Please replace the existing steps with the following:

Assembly

- Sort the resistors by value. Some of the color bands may be hard to read; use a magnifying glass if necessary. A Digital Multimeter (DMM) should be used to confirm the values.
- Orient the printed circuit board with the silk-screened side up and the title “XG2” at the bottom.
- Install the following resistors in their indicated positions, starting at the top of the PC board and working down. (Complete the left column, below, then the right column.) **Note: The XG2's output level accuracy depends on each resistor being installed in the correct location.**

__ R7, 52.3 Ω , 1% (grn, red, org, gold, brn)	__ R3, 16.5 Ω , 1% (brn, blu, grn, gold, brn)
__ R8, 1.24 k, 1% (brn, red, yel, brn, brn)	__ R2, 18.7 k, 1% (brn, gray, vio, red, brn)
__ R6, 52.3 Ω , 1% (grn, red, org, gold, brn)	__ R1, 10 k, 5% (brn, blk, org)
__ R5, 57.6 Ω , 1% (grn, vio, blu, gold, brn)	__ R9, 10 k, 5% (brn, blk, org)
__ R4, 348 Ω , 1% (org, yel, gry, blk, brn)	__ R13, 5.6k 5% (grn, blu, red)

4. **Page 3, step 5 (begins with “Install diodes D1 and D4...”)** delete the step and replace it with the following two steps:

- Install diode D1 (1N4148) with the banded end nearest resistor R7. **NOTE: The silk-screened outline and band on the Rev A board is backwards!**
- Install diode D4 (1N4148). The outline for this diode is correct. Align the banded end with the band on the silk-screened outline. The band will be at the end nearest the edge of the board.

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5. **Page 6, “Signal-to-Noise And MDS Calculations”:** In the example of DMM readings, each step is supposed to perform a new calculation on the result of the previous step. Please make the changes to the following calculations and this will become apparent:

Change step “B” from “ $\log(30) = 1.52$ ” to “ $\log(33) = 1.52$ ”.

Change step “C” from “ $20 \times 1.48 = \text{about } 30 \text{ dB} \dots$ ” to “ $20 \times 1.52 = \text{about } 30 \text{ dB} \dots$ ”.

6. **Page 8, Schematic:** The battery is shown backwards (normally the schematic symbol for a battery indicates the negative terminal with the shorter line). To avoid confusion, place a plus sign, + at the end of the battery that connects to R9 and D4.