

xw6400 vs xw6600 Fan Secrets: SDH Main WD 2/15

Fan RPMs and temp readouts are not available via the xw6400's BIOS, unlike with the xw6600 and the Z600. CPUID.com's free HWMonitor 1.26 works well, but SpeedFan 4.50 can detect a couple of added fans in the xw6400 (the Memory fan and the front PCI fan). The power supply fan never seems to be detected in any HP workstation. Noctua resistor 3-wire and 4-wire fan speed reducers are noted below.

This xw6400 workstation currently has 16GB of RAM (4 x 4 sticks), and a FX1800 with fan running at 1461 RPM, and a FX3700 with fan running at 3064 RPM. The 92x92x25mm HP PWM fans in place are not the stock xw6400 fans. Rather, they are the type of HP fans used in the xw6600. The original memory 80x80x25mm fan shroud and fan have been swapped out to HP xw6600 92mm types, and a similar swap has been done for the two combined rear chassis shroud and fans (which originally were 92x92x32mm fans in the xw6400). Most xw6600 92mm fans are the same fans (NMB-3610RL-04W-B56) but they come with either the standard white PWM fan plug (memory fan) or the special brown fan plug used by HP for front and rear chassis fans in workstations from this period. These fans in a xw6600 will actually run slower than when swapped into a xw6400 due to greater overall PWM throttle that HP has programmed into the xw6600 motherboard. The CPU fans used are stock 80x80x15mm HP PWM fans.

| xw6400 | | xw6400 | | *xw6600* | | | |
|------------------------------|------|--------------------------------------|------|-----------------------------|--|---------------------------|--|
| <u>HWMonitor 1.26</u> | | <u>What the fan is:</u> | | <u>SpeedFan 4.50</u> | | <u>xw6600 BIOS</u> | |
| FANIN0 | 1229 | Lower CPU1 (secondary) | Fan1 | 1230 | | 1140 | |
| FANIN1 | 1521 | Rear Chassis fan (1 of 2) | Fan2 | 1523 | | 1268 | |
| FANIN2 | 1560 | Rear Chassis fan (2 of 2) | Fan3 | 1565 | | 1185 MemLNA | |
| FANIN3 | 1256 | Upper CPU0 (primary) | Fan4 | 1264 | | 1104 | |
| | | | Fan5 | 0 | | | |
| | | | Fan6 | 0 | | | |
| | | Memory (see note 1) | Fan7 | 1573 (LNA) | | 1185 (LNA) | |
| | | Front PCI (see note 2) | Fan8 | 995 | | 1080 | |
| | | Chipset (present only in the xw6600) | | | | 2674 (ULNA) | |

Note 1: These are the same 92mm xw6600 "B56" memory fan with a 4-wire Noctua NA-RC7 (LNA) in-line I use in both the xw6400 and the xw6600. Search for "NA-SRC7" to find a 3-pack of these adapters.

Note 2: These are 92mm non-PWM Noctua NFB9 fans, with a 3-wire Noctua ULNA in-line.

Note 3: In the HWMonitor and SpeedFan RPM readouts for the xw6600 the third line down (FANIN2 and FAN3, respectively) measures the Memory fan rather than the second rear chassis fan.