

The Z420 Z620 Z820 motherboards came out with a Version 2 hardware update that can be most reliably and easily detected by looking at their BIOS Boot Block Dates:

12/28/11 is "Version 1" motherboard's Boot Block date (confirmed for Z420, Z620, & Z820)

3/6/13 is "Version 2" motherboard's Boot Block date (confirmed for Z420, Z620 & Z820).

Ideally the v2 is the one to have because the V2 Xeon processors are somewhat better/faster. Virtually all the Z620s in our system have been v1 workstations except a single Z620 v2 at IH in RR2 (this was the last Z620 bought). I have upgraded v1 Z620s to v2 easily... via motherboard upgrades. This takes about 45 minutes, and is a moderate level project. Thereafter we switched over to the Z640, and beyond.

The ZX20 v1 vs v2 situation is similar to the ZX00 generation of processors which also have v1 and v2 motherboards. For the ZX20 workstations the v1 motherboards are limited to Sandy Bridge processors, and the V2 motherboards can run all of those plus the Ivy Bridge Xeons that are HP-certified. There are some v1 and v2 Xeons that have an earlier and a later "stepping" with a different sSpec code, but I have never seen a HP workstation with a processor that is not the latest stepping. Thus I only search for the latest stepping by its specific sSpec code on eBay.

Z820 Added Info: (looking at the barcode label right side numbers is the eBay key)

The initial Z420/Z620/Z820 motherboards provided support only for the Xeon V1 HP-certified processors. The right hand white barcode motherboard "Assembly Part Number" label of the Z820 original version 1 motherboard is "AS# 618266-001". For this v1 MB there are 3 left hand "Spares Part Number" listings of SP# 619562-001 (No DPK), -005 (W8 STD), and -601 (W8 PRO). These indicate the three branding options for that motherboard, but that does not tell you what the motherboard actually is branded as. There are two ways to know what the branding is. First install the motherboard and try to install from an official set of Z820 "Restore" optical discs.

If the process proceeds with a Windows set then that motherboard is Windows branded. The second method is rare, and applies to only a motherboard with an official HP sticker on it stating something to the effect of "Replace with Spares P/N 708610-601". From the info below you can see that is a V2 motherboard branded for W8 Pro. The "No DPK" branding is for Linux builds.

An example of a V1 MB has a Spares Part Number of 708464-001. These version 1 motherboards cannot be firmware updated to support the addition of HP certified Xeon V2 processors. The newer "v2" processor support (with continued "V1" support) came with the ZX20 version 2 MB update, and for the Z820 those motherboards have right side AS#618266-003 or -004. These have left side white barcode label Spares Part Numbers of SP# 708610-001 (Linux) and 708610-006 (W8 Pro).

Z820 MB version	SP P/N	AS P/N	Added Notation
v1	619562-001	618266-001	2012 PCB Rev: 1.00

v1 (confirmed as v1*)	708464-001	618266-002	No DPK (Linux) 2012 PCB REV: 1.02
	708464-501		W8 STD
	708464-601		W8 PRO
v2 (later v2)	708610-001	618266-003 & -004	No DPK 2012 (RUN W7 W10 FINE)
	708610-601	“ “	W8 Pro (BEST ONES TO GET)

These HP motherboards have a set of firmware codes "branded" in that permits them to run the HP OEM W7Pro64 or the HP OEM W8 software, which allows easy clone building and use of any HP Restore disc set they are matched to. A Linux build, for example, would be a "No DPK" version so that HP does not have to pay Microsoft the licensing fee for that motherboard. The "virgin" motherboards from HP are not yet branded. Some HP motherboards come branded from HP, and these will have a small added sticker on the motherboard stating "Replace with..." showing they type of branding by a Spares P/N.

Thus, the best MB to get would be the v2 motherboards that are "branded" to have the ability to use the HP OEM COA installer/restore discs for W7Pro64 or W8Pro (64 bit also).

* The post below confirms the 618266-002 is a v1 and not a v2 Z820 motherboard. Note that my post on page one of the thread is related to the v1->v2 difference for the Z400/Z600/Z800 and not the ZX20 workstations:

<https://h30434.www3.hp.com/t5/Desktops-Archive-Read-Only/z820-e5-2600-v2-ivy-bridge-upgrade/td-p/5086052>