

Euro-Bus (VXI Bus - VME EXtensions for Instrumentation)

It is the most popular bus currently in use for new "big" computer hardware systems. A 32-bit bus used extensively in the process-control, automation, and test industries. Alternatively called the EuroBus. It's almost as fast as the PCI Bus.

The VXIbus is an instrumentation bus based on the VMEbus (Versatile Multibus Extensions Bus), the Eurocard and standards such as IEEE 488.2 and the HP GPIB (General Purpose Instrumentation Bus). VMEbus is an older, slower 24-bit and/or 32-bit bus used by the same industries as the VXIbus. VXIbus is an open architecture and is useful for automated test systems and data collection. The issue of electromagnetic radiation is part of the VXIbus specification. VXIbus is an acronym for "VMEbus eXtensions for Instrumentation". The VXIbus was announced in 1987.

The VXIbus expands on the VMEbus so the two bus specifications are very similar. TTL and ECL trigger lines, a local bus and an analogue summing bus are among the added features. The December 1988 issue of "VMEbus Systems" contains a good outline of the VXIbus. The Spring 1995 issue of "VXIjournal" is a VXIbus Buyer's Guide.

The VXIbus - Description

There are two more board sizes in addition to the VMEbus single and double sizes:

Size	Height	Dimensions (mm)	Connectors	Slot Spacing
A	Single	100 x 160	P1	0.8 inch
B	Double	233 x 160	P1 & opt P2	0.8 inch
C	Double	233 x 340	P1 & opt P2	1.2 inch
D	Triple	366 x 340	P1, opt P2, P3	1.2 inch

Notes:

1. opt = optional
2. P1, P2 & P3 are the same 96 pin DIN connector as in the VMEbus.
3. The increased width of the C and D sizes are to accommodate thick analogue modules and EMI shielding.

The VXIbus uses the same pin assignments on P1 and the centre P2 pins as the VMEbus. The two rows (A & C) on P2 that were user defined on the VMEbus are assigned on the VXIbus. Features added include ECL (emitter coupled logic) and TTL trigger signals, a 10 Mhz ECL clock, more supply sources (+24, -2 and -5.2 volts), an analogue summing bus, local bus lines and a module identification line. The optional P3 available on the D size board offers the same type of resources as P2 but at a speed of 100 Mhz (P2 is only 10 Mhz).