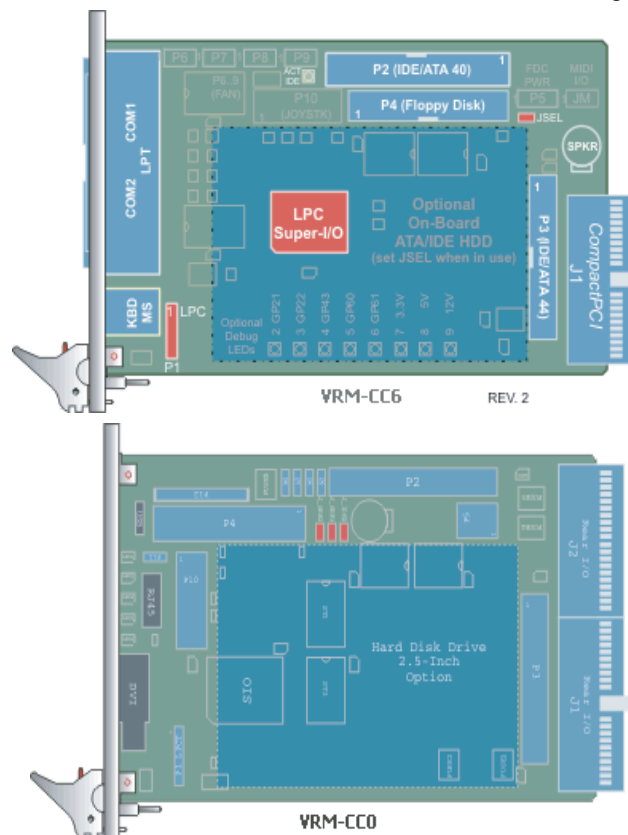


Overview:

The **VRM-CC6-X 3U**, Super I/O expansion board provided with the legacy I/O ports of a classic PC. Interconnection between the CC6 (CC0) I/O module and the host CPU board is achieved by the LPC (Low Pin Count) interface. As an option, the VRM-CC6 (CC0) is available with a rugged on-board 2.5" hard disk drive. The VRM-CC6 (VRM-CC0) communicates with the host CPU by means of the LPC interface. This is a multiplexed ISA bus, enabling the Super I/O controller chip to emulate the legacy I/O interfaces. Among these are parallel and serial ports, the PS/2 connectors, and the classic 1.4/2.8MB floppy disk controller. As an option, the VRM-CC6 (VRM-CC0) provides MIDI and joystick attachment, and control lines for fans with either tachometer output or pulse width modulation input. By connecting the boards together, the hosts ATA/IDE interface is also available on the VRM-CC6 (CC0). Optionally, the board is equipped with a robust 2.5" hard disk drive, particularly suited for use in a rugged environment. The VRM-CC6 can be mounted either on the left (bottom) side of the CPU board (version VRM-CC6-3 only), or right (top) side (both VRM-CC6-1 and VRM-CC6-3). The way of attachment (top or bottom with respect to the CPU) can be easily changed by oneself (this is not true for the VRM-CC0). The connectors COM1/2, LPT, mouse and keyboard are situated on the VRM-CC6 front panel, whereas the CC0 has been designed solely for rear I/O. In addition, both boards are provided with several on-board connectors. The Super I/O companion boards can be attached either to the left or to the right of the CPU card (top or bottom mounting). Regarding the VRM-CC6, the connectors COM1, COM2, LPT, PS/2 keyboard and mouse can be reached from the board's front panel (width 8HP). The VRM-CC6-3 comes with a 4HP front panel (LPT connector removed). When using the VRM-CC6-3, mouse and keyboard are sharing the same Mini-Din connector by means of an external splitter cable. The VRM-CC0 does not provide any connector on its front panel, which is shared with the CPU board and 8HP wide in total. Instead, all signals are wired to the connectors J1/J2 by means of an additional rear I/O transition module, the I/O connectors are available from the back panel. The VRM-CC0 comes ready assembled with the CPU board only. On-board pin headers on the VRM-CC6 (VRM-CC0) provide additional I/O functions. The Super I/O companion boards must be inserted beside the CompactPCI bus. No backplane is required for the VRM-CC6. The VRM-CC0 however needs a single-slot rear I/O backplane (P1/P2) to be present.





VRM-CC6 & VRM-CC0

Product Datasheet

Features:

- Form Factor: Single size Euro card (160x100mm²)
 - Front panel width VRM-CC6-1: 8HP (40.6mm)
 - Front panel width VRM-CC6-3: 4HP (20.3mm)
 - Joint front panel width CC0 & CPU board: 8HP (40.6mm)
- LPC Super-I/O Chip: LPC47B27x, parallel port, 2 serial ports, floppy drive controller port, keyboard controller & mouse port, infrared port, MIDI/game port, fan control ports, GPIOs, serial IRQs
- Front Panel Connectors⁴:
 - VRM-CC6-1: keyboard PS/2, mouse PS/2, COM 1, COM2 (RS-232E 9-pos. D-Sub male), LPT (25-pos. D-Sub female)
 - VRM-CC6-3: keyboard PS/2, mouse PS/2 available with external splitter-cable (accessory), COM 1 COM 2 (RS-232E 9-pin D-Sub male)
- On-Board Connectors¹: LPC interface, IDE/ATA 40-pin header 2.54mm, IDE/ATA 44-pin header 2.00mm, floppy disk header 34-pin 2.54mm. Optional: FFC/FPC floppy disk 26-pos. ZIF receptacle², floppy disk power, 2 x fan header (pulse width modulation), 2 x fan header (tacho generator), MIDI/game port header
- J1/J2 CPCI respectively Rear I/O Connectors:
 - VRM-CC6: J1, allows for redundancy in power attachment 3.3V 5V 12V, in addition to LPC connector
 - VRM-CC0: J1/J2, utilization as rear I/O handover connectors to a single slot backplane P1/P2, in addition a suitable rear I/O transition module is required.
- Rear I/O Interfaces²
 - J1: IDE, PS/2 keyboard, PS/2 mouse, joystick, Ethernet³, video³ analog/digital
 - J2: Floppy disk, LPT, COM1/2 (TTL and optional RS-232E), utilities, USB³
- On-Board Functions¹: Speaker, LED IDE activity, optional LEDs: GPIO21, GPIO22, GPIO43, GPIO60, GPIO61, 3.3V, 5V, 12V
- Hard Disk Option: HDD 2.5" optional on-board, Ultra ATA/100

¹Some of the on-board connectors and on-board functions are available as an option only

²Functions/features available only with VRM-CC0

³These options require removing of the particular host CPU front panel connectors

⁴Functions/features available only with VRM-CC6

Ordering Options:

VRM-CC6-1: 3U Super-I/O module, expansion board to CC2,CC5,CC7 and CC8, front panel width 8HP, to be mounted on top of the CPU

VRM-CC6-3: Similar to CC6-1, front panel width 4HP, without parallel port connector, keyboard/mouse combined in one Mini-DIN connector (external splitter cable available as accessory), to be mounted on the top or bottom of CPU.

VRM-CC6-8-HDK: Option hard disk, completely mounted.

VRM-2807400: External keyboard/mouse Y-splitter-cable Mini-DIN male to 2 x Mini-DIN female (required for VRM-CC6-3 only)

VRM-CC0-1: 3U Super I/O module for rear I/O systems, various assembly options and on-board hard disk possible, available only as ready assembled unit together with host CPU board, shared front panel 8HP in total.

VRM-CCZ-1-RIO: Rear I/O Transition module for VRM-CC0 (currently under development)