

Multifunction Vehicle Bus Board

MVB MODULE LINEUP

Our MVB boards are high-performance network interface modules engineered specifically for railway vehicles. They strictly comply with the international Train Communication Network (TCN) standard (IEC-61375-1) and support the highly reliable MVB protocol. These modules optimize real-time data exchange between the Train Control System and subsystem devices. Available in both Host and Slave configurations, they support PC/104 and SPI interfaces, offering exceptional compatibility and design flexibility across diverse rolling stock control environments.



IEC-61375-1 (TCN) Compliance

Designed in full accordance with the core railway communication network standards. Ensures operational stability under the extreme environmental conditions and stringent specifications required for rolling stock. Verified for immediate deployment in both domestic and global railway projects.



Deterministic Real-Time Communication

Ensures the accurate, low-delay transmission of critical vehicle control data within strict timeframes. Guarantees control continuity during physical network faults through complete communication line redundancy (Line A/B). Maximizes network reliability by efficiently segregating high-bandwidth diagnostic data from critical emergency control signals to prevent bottlenecks.



Extensive System Compatibility

Features industry-standard interfaces for seamless integration with existing legacy systems, significantly reducing initial setup and lifecycle maintenance costs. Ideal for new railway vehicle development, as well as retrofitting and modernization projects for existing fleets.



Flexible Modular Architecture

Utilizes a modular design to maximize flexibility, allowing for system optimization tailored to various rolling stock requirements. Facilitates the rapid configuration of complex networks through easy integration with onboard control units such as TCMS and DCU.



	IRMH-111	IRMH-131	IRMS-141	IRMS-151
Node Role	HOST/SLAVE	HOST/SLAVE	SLAVE	SLAVE
Physical Layer	EMD	EMD	EMD	EMD
Memory	FLASH(2MB) SDRAM (16MB) DPRAM (32KB) SRAM (512KB)	FLASH(2MB) SDRAM (32MB) DPRAM (32KB) SRAM (512KB)	FLASH (32KB) RAM (30KB)	FLASH (32KB) RAM (30KB)
Dimensions	90.2 X 95.9 mm	140 X 125 mm	79 X 116 mm	53 X 70 mm
Interface	PC/104	PC/104	SPI	SPI
Connector	D-SUB 9pin 2EA (F : 1EA, M : 1EA)	D-SUB 9pin 2EA (F : 1EA, M : 1EA)	D-SUB 9pin 2EA (F : 1EA, M : 1EA)	2.54mm Pin-Header (A/B CH.)
Operating Temp.	-25 ~ +70 °C	-25 ~ +70 °C	-25 ~ +70 °C	-25 ~ +70 °C
MVB Baud Rate	1.5Mbps	1.5Mbps	1.5Mbps	1.5Mbps
Input Voltage	DC 5V	DC 5V	DC 5V & DC 3.3V (Simultaneous)	DC 5V
Power Consumption	< 10W	< 10W	< 1.5W	< 1.5W
Options	Memory access mode selectable (Address/Index)	-	-	-

▼ Please note that vehicle interface connectors are not included with the MVB modules and are sold separately. Contact us for purchasing details.

► Contact Us

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