

# CATTRONCONTROL™

## CCM12



## CANBUS MACHINE CONTROL UNIT (MCU)

### HIGHLIGHTS

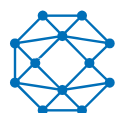
- Simplifies the installation of a remote control system on any CANbus vehicle
- Acts as a gateway between the Operator Control Unit (OCU) and the main computer on the vehicle
- Compatible with CattronControl pushbutton and lever/joystick style OCU's
- Bi-directional data, all functions executed on the OCU are transferred on the CANbus network and vehicle vital signs can be sent back to the OCU
- High safety class through redundant hardware and software design
- Housing made of impact-resistant polycarbonate resin with protection class IP66
- Secure RF Black Channel communications

### FEATURES

- Dual CANbus interfaces that meet the ISO 11898-2 standard
- Safety relays stop the machine in case of an emergency
- A dual processor, redundant architecture, meeting ISO 13849 Category 3 PL-d
- RFID Transkey™ sets frequency and address for simple spares deployment
- Supports CANopen or SAE J1939 standard protocols

### APPLICATIONS

- Vehicles designed to operate over a CANbus network such as Load Haul Dump, Roof Bolters, Feeder Breakers, Road Header, tracked vehicles and rail car movers
- Applications requiring a compact secure safety stop relay
- Can be used for industrial applications when the machine is controlled by a Programmable Logic Controller (PLC) equipped with a CANbus port





## TECHNICAL DATA AND SPECIFICATIONS

RF		MECHANICAL DATA	
Frequency Range	335 MHz 418-419 MHz 433-434 MHz 447 MHz 450-470 MHz 868-869 MHz 902-928 MHz Licensed and unlicensed bands available	Weight	.822 lbs. (373 g)
Transmitter Output Power	Up to 500mW <10 mW typical	Dimensions	122L x 144W x 48H mm
RF Security	Black Channel	Operating Temperature	-20° to +60° C (-4° to +140° F)
		RF Security	Black Channel
		Shock Resistance 16msec	17 g
		IP Protection Class	IP66
ELECTRONIC DATA		NORMS AND STANDARDS	
Digital Circuitry	Dual-processor technology	Safety Standards	EN 13849-1 Category 3 PL-d
System Addresses	24 bits = 16 million addresses	EMC	ISO 7637 road vehicles
Safety Relays	Force guided contacts 4A, Fused 250V AC/DC		
Power Supply	6-32V dc		
		CAN INTERFACE CHARACTERISTICS	
		CAN Format	CAN 2.0 A & B
		Bus Speed	10-1000 kbps
		Standard	ISO 11898-2
		Protection	Exceeds ISO 11898-2 Bus fault protection ( -27 to +40 V) Transient voltage (-200 to +200 V)

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