



oMux.11x12

Multiplexer

oMux.11x12, a part of the Multiplexer product family, is a Body Control Unit that fulfills essential control functions such as door control, signaling, lamp operation, wiper motor control, air conditioner motor control, and window raising/lowering in vehicles. It can be installed in different parts of the vehicle and provide real time information via CAN-Bus communication interface.

Due to its capability to execute simultaneous operations, it provides the most cost-effective and economical solution for the vehicle. It can operate 15 oMux devices on the same CAN-Bus with identical embedded software due to its master/slave operation capability. This allows seamless integration and efficient management of multiple oMux units within the vehicle system.

With the user-friendly oMux.Designer development GUI application, one can effortlessly create user-defined scenarios using functional block diagrams. Real-time software updates, diagnostics, and software retrieval processes can be performed via CAN-Bus, ensuring efficient operations and hassle-free maintenance. With the ability of the CAN-Bus communication interface, embedded software updates can be transmitted to all devices concurrently without uninstalling them from the vehicle.

9-36 VDC
Operating Voltage
(Applicable to 12/24 V Systems)



5 Multi Function
6 Digital Input
(2 High Active/4 Low Active)



4 Half Bridge Low Side 3A
High Side 7.5
8 High Side 7.5A



3xCAN Interface
(Protocol SAE J1939)



Wake Up via CAN and
Digital Input



120 mm x 100 mm x 42 mm
Dimensions



-40 °C ~ +85 °C
Operating Temperature



Supply Characteristics

Input Voltage Range	9-36 V
Overvoltage	36 V
Current (24 V Operation Mode)	30 mA
Current (24 V Sleep Mode)	3 mA
Overvoltage (5 minutes)	36 V
Vbb_Logic Current (For every connector)	0.05 - 1 A
Vbb_B1,B2 (For every connector)	15 A

Digital Input Characteristics

Input Voltage Range	0-Vbat V
Overvoltage	36 V
Inductive Load Protection	Available
Pull-up/down Resistor	Pull Up 10KΩ, Pull Down 95KΩ
Pin's Capacitance	0.1 μF
Pull-up/down (When Active)	10 ms

2.5A/10A “Half-Bridge” Output Characteristics

Switchable Voltage Range	9 - 36 V
Output Current	7.5A High Side, 5A Low Side
“High-Side” Output ON Resistor	16 mΩ
“Low-Side” Output ON Resistance	50 mΩ
Overvoltage	36 V
PWM Frequency (for HS)	100 Hz
PWM Resolution	1%
Internal Flyback Diode	Unavailable
Inductive Impact Protection	750 V (Peak)

CAN Characteristics

Overvoltage protection	-58 ~ +58 V
Bit Rate	50 - 1000 kbps
J1939 Compatibility	Available
Internal programable termination resistor (120Ω)	Available

Environmental Conditions

Operating Temperature	-40 °C ~ +85 °C
-----------------------	-----------------