

Universal Off-Highway Control – HY-TTC 36X

General Description

HY-TTC 36X is an intelligent I/O module that is controlled using CANopen®. It is compliant to CANopen standard certified by CiA. It is part of a complete and compatible product family for the off-highway industry. The HY-TTC 36X is protected by a compact, automotive-style housing and is highly suited for rough operating conditions. It allows local current control on its PWM outputs.

Specifications

Parameter		Unit
ECU Dimensions	147.6 x 180.3 x 39.8	mm
Dimensions for minimum connector release clearance	197.7 x 202.8 x 39.8	mm
Weight	about 650	g
Operating Temperature	-40 to +85	°C
Operating Altitude	0 to 4000	m
Supply Voltage	8 to 32	V
Peak Voltage	45	V _{max}
Idle Current	0.15 at 9V	A _{max}
Standby Current	0.5	mA _{max}
Current	25	A _{max}
Fulfills the following standards		
CE-Mark	2014/30/EU	
E-Mark	ECE-R10 Rev.4	
EMC	ISO13766, up to 100 V/m, 20 MHz to 1GHz	
ESD	IEC 61000-4-2	
Load Dump	ISO 7637-2, 173 V, 2 Ohm	
Ingression Protection	EN 60529 IP 65, IP67 DIN 40050 IP 6K9K	
Communication Profile	CANopen CiA DS 401	
Temperature	EN 60068-2-1, -14Nb, -2, -78, -30	
Vibration, Shock, Bump	IEC 60068-2-29, -64, -27, -32	

Features

All I/Os and interfaces mentioned below are protected against short circuit to GND and BAT+.

CPU core

- 16/32-bit Infineon XC2287 microcontroller, 80 MHz, 768 kB int. Flash, 82 kB int. RAM

Interface

- 1 x CAN, 125 kbit/s up to 1 Mbit/s

Outputs

- 4 x digital OUT 2 A high-side, PWM, configurable as timer inputs
- 8 x digital OUT 4 A high-side, configurable as analog inputs

Inputs

- 8 x analog IN 0 to 5V or 4 to 20mA / 10bit, configured by software alternative use as resistive measurements
- 4 x current feedback, configurable as digital outputs/ lowside 2 A
- 8 x digital IN (8 timer 10Hz to 10 kHz)
- 8 x digital IN

Other

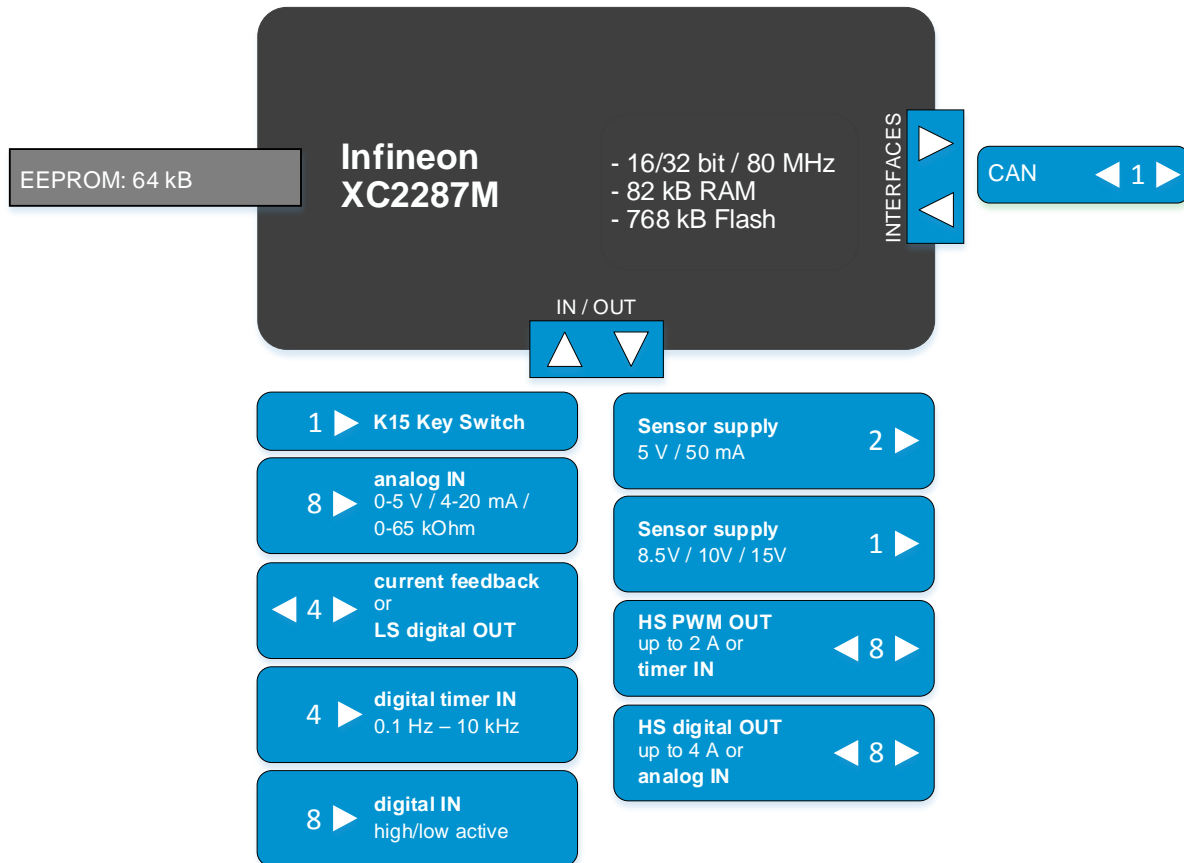
- Internal: monitoring of board temperature, sensor supply and battery
- 1 x sensor supply 8.5 V/10.0V/14.5 V configurable
- 2 x sensor supply 5V

Software

- CANopen® slave software preinstalled

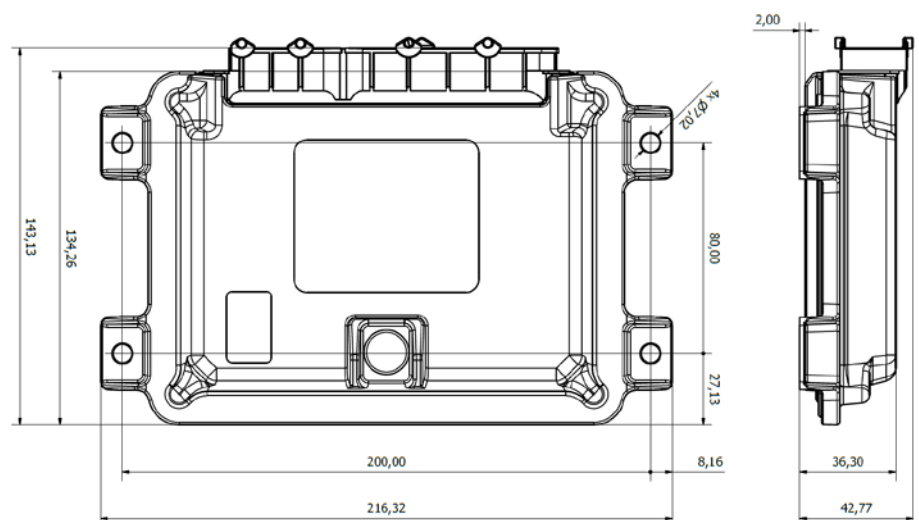


Block Diagram



Housing and Connector

- Aluminum pressure die-cast housing
- Water-proof 80-pin connector
- Pressure adjusting with water barrier



For further information, including price and availability, please contact products@ttcontrol.com

Subject to changes and corrections. HY-TTC 36X is a product name of TTControl GmbH. Other trademarks are the property of their respective holders. To the extent possible under applicable law TTControl hereby disclaims any and all liability for the content and use of this product flyer.