

## **Features:**

- DM&P Vortex86EX2 Processor, Master 533MHz/Slave 400MHz
- EtherCAT Master Core runs on dedicated CPU
- Hardware/Software Real-time
- 86Duino Integrated Development Environment (IDE)
- Up to 128 axes support for motion control
- 9-inch TFT 800×480 Resolution LCD with Restive touchscreen
- Internal Monitoring Hardware Information
- Operating temperature -20 to +70°C/-40 to +85°C (Option)
- 3LAN/3USB/MicroUSB/VGA/MiniPCle/Arduino Pins

## **Specifications**

CPU	DM&P Vortex86EX2 Processor, Master 533MHz/Slave 400MHz		
Memory	512MB/1GB DDRIII Onboard		
Storage	32MB SPI Flash/2GB SLC eMMC		
LCD Display	9-inch TFT 800×480 Resolution LCD with Restive touchscreen		
LAN	1Gbps Ethernet RJ45 x1		
	10/100Mbps Ethernet RJ45 x2 for EtherCAT		
Expansion	MiniPCle x 1 with Micro SIM Card Holder		
I/O Connector	2.54mm 2-pin header for Power Connector	1.25mm 4-pin header for EXT I2C TFT Driver	
	1.25mm 4-pin wafer for Line-Out	Micro SIM Card Holder x1	
	Power DC Input/Output Connector x1	MiniPCle slot x1	
	Micro USB (Type-B) x1 (Upload/Debug only)	USB Host x3	
	VGA Connector (10-pin) x1	RJ45 x3	
	2.54mm 10-pin female header for I2CO, MCM, GPIO	2.54mm 6-pin female header for CANO and CAN1 bus	
Arduino Compatible	2.54mm 8-pin female header for MCM, GPIO, COM1(TTL)	2.54mm 6-pin female header for GPIO, VCC and GND	
Connector	2.54mm 8-pin female header for Power source	2.54mm 10-pin header for SPI, RESET-	
	2.54mm 6-pin female header for ADC/GPIO	2.54mm 10-pin header for SPI, RESET-, RS485	
Protocol	EtherCAT (EtherCAT Master Functions: PDO, CoE, DC, Cable-redundancy, etc.)		
Ethernet Standard	IEEE 802.3		
Control Cycle Time	125 µs (min.)		
Power Connector	6-pin Power Input/Output		
Power Requirement	+19 to +50VDC Power Input (Typ. +24VDC)		
Power Comsumption	8W		
Operating Temperature	-20 to +70°C/-40 to +85°C (Option)		
Dimension	245 x 152.2 x 32.55mm		
Weight	1.07 Kg		
Internal Monitoring	Temperature, Voltage, Current		
Software Support	86Duino Coding IDE 500+ (The environment is written in Java and based on Arduino IDE, Processing, DJGPP, and other open source software)		



## **Ordering Information**

QEC-M-090T	Vortex86EX2 Processor 533MHz-based EtherCAT Master System with 9-inch LCD	
QEC-M-090TP	Vortex86EX2 Processor 533MHz-based EtherCAT Master System with 9-inch LCD/PoE	

<sup>\*</sup> For detailed ordering information, please contact our sales staff or view the user manual.

## **Dimension**



