

USB-16MF12

USB port, 16-channel single-ended/8-channel differential/mixed, 12-bit analog input channel, up to 100k conversion rate; 2-channel 12-bit analog output; 8-channel digital input/output channel; 1-channel programmable timer/counter; frequency measurement



Specifications and Features

Analog Input

Channel: 16-channel single-ended/8-channel differential/mixed mode (single-ended and differential can be mixed)
 Resolution: 12-bit
 FIFO Size: 4K x 16-bit
 Input Type:
 Unipolar: 0~1.25V, 0~2.5V, 0~5V, 0~10V
 Bipolar: -0.625~-0.625V, -1.25~-1.25V, -2.5~-2.5V, -5~-5V, -10~-10V
 Max. Sampling Rate: 100kps
 Accuracy: 0.05% FSR (FSR: Full Scale Range)
 Input Impedance: 2MΩ
 Trigger Mode: 1. software trigger: one-time trigger
 2. internal programmable trigger clock
 3. external synchronization trigger clock

Programmable Timer/Counter

Channel: 1
 Resolution: 16-bit
 Counter Type: Count-down
 Clock Type: External or internal (12MHz)
 Max. External Input Frequency: 10MHz
 Working Method: 3
 1. Method 0: Stop counting and give indication
 2. Method 1: Pulse frequency generator
 3. Method 2: Square wave frequency generator

Analog Output

Channel: 2
 Resolution: 12-bit
 Voltage Output Range: 0~5V, 0~10V
 Accuracy: 0.05% FSR (FSR: Full Scale Range)
 Trigger Method: One-time method

Digital Input

Channel: 8-channel

Digital Output

Channel: 8-channel

Frequency Measurement Function

Channel: 1
 Frequency Measurement Range: 0.1Hz~10KHz
 Frequency Measurement Accuracy: ±0.05%

General Specifications

Supports USB2.0 specification (480Mbps)
 Power Consumption: Typical: +5V@360mA; max.: +5V @450mA
 External Dimensions (L x H): 132mm x 80mm (5.2" x 3.2")
 Operating Temperature: 0°C~60°C
 Storage Temperature: -20°C~70°C
 Relative Humidity: Operating: 5%~85%, non-condensing; storage: 5%~95%, non-condensing

Ordering Information

Part Number	Model Number	Description
0060-003200	USB-16MF12	USB port, 16-channel single-ended/8-channel differential/mixed 12-bit analog input channel, up to 100k conversion rate; 2-channel 12-bit analog output; 8-channel digital input/output channel; 1-channel programmable timer/counter; frequency measurement

ARK-8520NH

It is a passive non-isolated RS-232 and RS-485 converter which can automatically adjust baud rate



Specifications and Features

RS-232 Port

Port Type: Standard DB9 female connector
 Band Rate: 300bps~115.2kbps

RS-485 Port

Port Type: Differential, 2-pin half-duplex cable
 Baud Rate (bps): 300bps~115.2kbps
 Communication Distance: 1200m/9600bps
 Driving Capacity: 32 load devices

Other Functions

Automatically identifies the signal transmitting direction without flow control
 Powered by serial ports, easy to operate. External power supply is not needed
 Built-in 500w/ms anti-lightning protection

General Specifications

Power Consumption: <200mW
 Operating Temperature: -25°C~75°C
 Storage Temperature: -40°C~80°C

Ordering Information

Part Number	Model Number	Description
0070-000050	ARK-8520NH	Passive non-isolated RS-232 and RS-485 converter

ARK-8520CFI

It has isolated RS-232 and RS-485/RS-422 converter, can automatically adjust baud rate; it adopts external power supply, supporting both AC and DC



Specifications and Features

RS-232 Port

Port Type: Standard DB9 female connector
 Baud Rate: 300bps~115.2kbps
 Isolation Voltage: 3000V_{DC}

RS-422 Port

Port Type: Differential, 4-pin half-duplex cable
 Baud Rate (bps): 300bps~115.2kbps
 Isolation Voltage: 3000V_{DC}
 Communication Distance: 1200m/9600bps
 Driving Capacity: Supports up to 32 drivers on one line

Power Supply

AC: 85V~264V; DC: 120V~370V

RS-485 Port

Port Type: Differential, 2-pin half-duplex cable
 Baud Rate (bps): 300bps~115.2kbps
 Isolation Voltage: 3000V_{DC}
 Communication Distance: 1200m/9600bps
 Driving Capacity: Supports up to 32 drivers on one line

Other Functions

Automatically identifies the signal transmitting direction of RS-485, without flow direction control
 Supports external AC 220V power supply
 Built-in 500w/ms lightning protection and surge protection

General Specifications

Power Supply: <1W
 Operating Temperature: -25°C~75°C
 Storage Temperature: -40°C~80°C

Ordering Information

Part Number	Model Number	Description
0070-000060	ARK-8520CFI	With RS-232 and RS-485/RS-422 converter

1

Full-Size/Half-Size Slot CPU Cards

2

SBC/Motherboard Modules

3

Embedded Box PC

4

Network Application Computers

5

Industrial PC

6

HMI

7

EVOG Rugged Series

8

MCC Series

9

Chassis

10

Data Acquisition Boards & Modules

11

Accessories

1

Full-Size/Half-Size Slot CPU Cards

2

SBC/Motherboard Modules

3

Embedded Box PC

4

Network Application Computers

5

Industrial PC

6

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7

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9

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10

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11

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