

Certification Test

eLM.MP2600iec.01.HardwareOverview



Date: _____

Student Name: _____

Company Name: _____

Address: _____

Phone: _____

eMail: _____

Taking the Certification Test

Each question will have **only one correct answer**. Please record all answers on this answer sheet. The order of the questions in the test roughly follows the order of topics. All questions are equally weighted. A passing score is 89% (2 wrong).

Returning the Certification Test

Option 1: Fax this page to Yaskawa Technical Training Services at (847) 887-7185.

Option 2: E-mail the answers to all questions to training@yaskawa.com. Be sure to include all of the contact information listed above.

Receiving Your Score

You may review your answers only if a passing score is received. When the test is taken during the training class, you will receive your score in class as soon as it can be graded.

Answer Sheet:

1	_____	17	_____	_____	_____
2	_____	18	_____	_____	_____
3	_____	19	_____	_____	_____
4	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____
7	_____	_____	_____	_____	_____
8	_____	_____	_____	_____	_____
9	_____	_____	_____	_____	_____
10	_____	_____	_____	_____	_____
11	_____	_____	_____	_____	_____
12	_____	_____	_____	_____	_____
13	_____	_____	_____	_____	_____
14	_____	_____	_____	_____	_____
15	_____	_____	_____	_____	_____
16	_____	_____	_____	_____	_____

Hardware Overview

1. What software is used to program the MP2600iec?
 - A. MWIEC Express
 - B. MWIEC Pro
 - C. MW6
 - D. MW+
 - E. SigmaWin+
 - F. A, B, or C
 - G. A or B
 - H. All of the above
 - I. None of the above
2. What type of cable is required to connect a PC to the controller?
 - A. Straight-through or Crossover Ethernet
 - B. Straight-through Ethernet cable only
 - C. Crossover Ethernet cable only
 - D. Ethernet to Serial Converter
 - E. USB to USB-mini
 - F. Any of the above
 - G. None of the above
3. What options are available in the part number when ordering an SGDv amplifier with the MP2600iec option?
 - A. Number of Axes
 - B. External Encoder
 - C. EtherCAT
 - D. MotionWorks IEC Pro Software
 - E. MotionWorks IEC Express Software
 - F. All of the above
 - G. None of the above
4. For field replacements, how many part numbers are required?
 - A. 1 part number
 - B. 2 part numbers
 - C. 3 part numbers
5. What is OPC?
 - A. A widely used standard communication interface for factory automation
 - B. A widely used standard Ethernet Server used in factory automation

6. Which switch(es) on the front panel should be left in the ON position?
- A. STOP
 - B. SUP
 - C. INIT
 - D. CNFG
 - E. E-INIT
 - F. C and D
 - G. C, D, and E
 - H. All of the above
 - I. None of the above
7. What is the purpose of the battery connected to the controller (CN14)?
- A. Uninterruptible Power Supply
 - B. Supply power to the LEDs
 - C. Backup the Absolute Encoder
 - D. Supply power to the controller
 - E. Backup the Retained Variables
 - F. Provides DC bus power
 - G. A & B only
 - H. C & E only
 - I. All of the above
 - J. None of the above
8. What I/O expansion options are available with the MP2600iec?
- A. Mechatrolink I
 - B. Mechatrolink II
 - C. Ethernet
 - D. USB
 - E. LIO-06
 - F. All of the above
 - G. None of the above
9. What is the total number of programmable digital **inputs** (DI) available to the controller, both CN1 and CN13 combined?
- A. 7
 - B. 8
 - C. 10
 - D. 11
 - E. 15
 - F. 16
10. What is the total number of programmable digital **outputs** (DO) available to the controller, both CN1 and CN13 combined?
- A. 7
 - B. 8
 - C. 10
 - D. 11
 - E. 15
 - F. 16
11. The MP2600iec supports which wiring polarity for programmable digital outputs?
- A. Sinking
 - B. Sourcing
 - C. All of the above
 - D. None of the above
12. The digital inputs and outputs of which connector are both programmable and configurable?
- A. CN1
 - B. CN2
 - C. CN3
 - D. CN4
 - E. CN7
 - F. CN11A
 - G. CN11B
 - H. CN13
 - I. CN14

13. What type of command is sent from the MP2600iec to the Sigma-5 amplifier over dual port ram, and at what update rate?
- A. Torque command @ 1ms to 4ms
 - B. Torque command @ 4ms to 20ms
 - C. Speed command @ 1ms to 4ms
 - D. Speed command @ 4ms to 20ms
 - E. Position command @ 1ms to 4ms
 - F. Position command @ 4ms to 20ms
14. Code, projects, and libraries are interchangeable between which Yaskawa controllers?
- A. MP2300
 - B. MP2200
 - C. MP2300Siec
 - D. MP2310iec
 - E. MP940
 - F. MP2600iec
 - G. A, B, and C
 - H. C, D, and E
 - I. C, D and F
 - J. D, E, and F
 - K. All of the above
 - L. None of the above
15. How many servo axes can the MP2600iec control?
- A. 1
 - B. 2
 - C. 4
 - D. 8
 - E. 16
16. How does application scan rate affect motion profile performance?
- A. A higher application scan rate reduces motion profile performance
 - B. A lower application scan rate reduces motion profile performance
 - C. Application scan rate does not affect motion profile performance
 - D. None of the above
17. What types of applications can benefit from electronic camming?
- A. Applications that require motion to be synchronized to other motions on the machine
 - B. Applications that require complex motion profiles
 - C. Simple point-to-point applications that require synchronization
 - D. Applications that move the motor based on time
 - E. All applications can benefit from electronic camming
 - F. A, B, and C

18. Which Sigma-5 tuning features are incorporated in the MP2600iec?

- A. Anti-resonance Control
- B. Virtual Axis
- C. Camming
- D. EN/ENO
- E. All of the above
- F. None of the above

19. Under what condition is Advanced Auto-Tuning required?

- A. Settling time must be reduced
- B. Load changes dynamically
- C. Advanced Auto-Tuning is always required
- D. None of the above