

C463 Module – Op Codes

We have developed a new CAMAC module, the C463, which is hardware slot compatible with the C453. The C463 is a DC version of the C453 which is compatible with the I/O connectors used on the C453.

Opcodes for the C463 are as follows.

A Board:

F(0)A(0)	Read DAC 0 setting
F(0)A(1)	Read DAC 1 setting
F(0)A(2)	Read DAC 2 setting
F(0)A(3)	Read DAC 3 setting

Reads the DAC setting of the respective channel in offset binary format (8000H = 0 V).

F(1)A(0)	Read 16 bit status – A Board
F(1)A(1)	Read 16 bit status – B Board

An active current sinking input bit indicates a '1' on readback.

F(6)A(0)	Read module ID
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Returns 463D, 1CFH.

F(9)A(0)	Reset module (A and B Boards)
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Initiates an approximate half second reset of module.

F(16)A(0)	Write DAC 0 setting
F(16)A(1)	Write DAC 1 setting
F(16)A(2)	Write DAC 2 setting
F(16)A(3)	Write DAC 3 setting

Writes the DAC setting of the respective channel in offset binary format (8000H = 0V).

F(24)A(0)	Turn off Bulk Supply
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Initiates a 1 second momentary TTL low output and a relay opening.

F(24)A(1)	Toggle polarity of Bulk Supply
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Toggles TTL output.

F(26)A(4) Turn on Bulk Supply

Initiates a 1 second momentary TTL hi output and a relay closure.

F(26)A(5) Reset Bulk Supply

Initiates a 1 second momentary TTL hi output and a relay closure.

F(26)A(0) Reset Regulator Supply 0

F(26)A(1) Reset Regulator Supply 1

F(26)A(2) Reset Regulator Supply 2

F(26)A(3) Reset Regulator Supply 3

Generates a 1 second momentary TTL hi output for respective output.

B Board:

F(0)A(0) Read reference 0 (converted analog value)

F(0)A(1) Read reference 1

F(0)A(2) Read reference 2

F(0)A(3) Read reference 3

Reads the value from an on board A to D converter for respective channel in two's complement format.

F(1)A(0) Read Analog Reference Mux Setting

F(17)A(0) Set Analog Reference Mux Setting

The on board mux directs the selected channel to an output read by an MADC channel.

I/O Connections

"A" Board Viking Connector

- 1L - ground
- 1R - ground
- 2L - ties to 2R
- 2R - ties to 2L
- 3L - ties to 3R
- 3R - ties to 3L
- 4L -
- 4R - ground
- 5L - output control contact (NO) "ON"
- 5R - output control contact (NO) "ON"
- 6L - output control contact (NC) "OFF"
- 6R - output control contact (NC) "OFF"
- 6L - output control contact (NO) "RESET"
- 7R - output control contact (NO) "RESET"
- 8L - "POLARITY" low = normal, high = reverse
- 8R - "ON" TTL pulse, active high
- 9L - "OFF" TTL pulse, active low
- 9R - "RESET" TTL pulse, active high
- 10L - opto coupler anode supply, 5 volts
- 10R - permit input (pull low for 8 bit status, high for 4 bit)
- 11L - status 14 input, pull low for active state
- 11R - status 15 input, pull low for active state
- 12L - status 12 input, pull low for active state
- 12R - status 13 input, pull low for active state
- 13L - status 10 input, pull low for active state
- 13R - status 11 input, pull low for active state
- 14L - status 8 input, pull low for active state
- 14R - status 9 input, pull low for active state
- 15L - status 6 input, pull low for active state
- 15R - status 7 input, pull low for active state
- 16L - status 4 input, pull low for active state
- 16R - status 5 input, pull low for active state
- 17L - status 2 input, pull low for active state
- 17R - status 3 input, pull low for active state
- 18L - status 0 input, pull low for active state
- 18R - status 1 input, pull low for active state

I/O Connections

"B" Board Viking Connector

1L -- digital ground
1R -- anode supply 1, 5 volts
2L -- status input 1-1, (pull low for active state)
2R -- status input 1-2
3L -- status input 1-3
3R -- status input 1-4
4L -- anode supply 2, 5 volts
4R -- status input 2-1
5L -- status input 2-2
5R -- status input 2-3
6L -- status input 2-4
6R -- anode supply 3, 5 volts
7L -- status input 3-1
7R -- status input 3-2
8L -- status input 3-3
8R -- status input 3-4
9L -- anode supply 4, 5 volts
9R -- status input 4-1
10L -- status input 4-2
10R -- status input 4-3
11L -- status input 4-4
11R -- digital output 1, active high
12L -- digital output 2
12R -- digital output 3
13L -- digital ground
13R -- digital output 4
14L -- analog reference ground 1
14R -- analog reference output 1
15L -- analog reference ground 2
15R -- analog reference output 2
16L -- analog reference ground 3
16R -- analog reference output 3
17L -- analog reference ground 4
17R -- analog reference output 4
18L -- multiplexed reference ground to MADC
18R -- multiplexed reference signal to MADC