

Power Breakout Command Set

List of commands for the ICE Power Breakout Module.

Enable

Description

Arguments:

No Arguments Taken

Example:

Enable

I₂C Command Number:

Returns the state of the power outputs (“On”, “Off”, or “Fault”).

Enable

Description

Arguments:

[ASCII] On/Off

Example:

Enable On
On

I₂C Command Number: 17

Enables or disables the power outputs. If a fault condition occurred, it can be queried by running the **Enable?** or **Error?** commands.

Error

Description

Arguments:

No Arguments Taken

Example:

Error

I₂C Command Number:

Returns an error code indicating the cause the last power fault (0 indicates no error). The error codes are:

1. +5V Undervoltage
2. +15V Undervoltage
3. -15V Undervoltage
4. +5V Overcurrent
5. +15V Overcurrent

AutoPwr

Description

Arguments:

No Arguments Taken

Example:

AutoPwr

I₂C Command Number:

Returns the state of the auto power on functionality.

AutoPwr

Description

Arguments:

[ASCII] On/Off

Example:

AutoPwr On
On

I₂C Command Number: 20

Enables or disables the auto power functionality. When auto power is enabled (default), the power breakout module will automatically turn on its power output ports when the ICE box is turned on. If disabled, the user will manually have to send the **Enable** command to turn on the power outputs. The **Save** command should be executed after changing this setting to retain it between ICE box power cycles.

Delay

Description

Arguments:

No Arguments Taken

Example:

Delay

I₂C Command Number:

Returns the current power on delay time.

Delay

Description

Arguments:

[Int] Delay in ms

Example:

Delay 12
20

I₂C Command Number: 22

Sets the delay time in milliseconds before power fault checking is enabled after the power on command is sent (either via the user or with the auto power feature). The default is 12 milliseconds. This delay allows voltage output levels to a load connected to the power breakout module to stabilize before fault checking occurs. This is necessary because the amount of in-rush current of a connected device can cause the power rails to momentarily sag as capacitive loads are charged. A load with a lot of capacitance (and therefore in-rush current) may cause the power rails to sag while charge for longer than the default delay. If a known good device is causing an error during turn-on, it may be necessary to increase this value. This value will only be retained between ICE box power cycles if the **Save** command is executed.

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