

Command Set

4

4.1 Introduction

To avoid communication conflicts when several devices try to send data at the same time, all actions are instigated by the host computer. The basic form is a command/response protocol with the host initiating the sequence.

When modules are not transmitting they are in listen mode. The host issues a command to a module with a specified address and waits a certain amount of time for the module to respond. If no response arrives, a timeout aborts the sequence and returns control to the host.

Changing ADAM's configuration might require the module to perform auto calibration before changes can take effect. Especially when changing the range, the module has to perform all stages of auto calibration that it also performs when booted. When this process is under way, the module does not respond to any other commands. The command set includes the exact delays that might occur when modules are reconfigured.

4.2 Syntax

[delimiter character][address][command][data][checksum] [carriage return]

Every command begins with a delimiter character. There are four valid characters: a dollar sign \$, a pound sign #, a percentage sign % and an at sign @.

The delimiter character is followed by a two-character address (hexadecimal) that specifies the target module. The actual two character command follows the address. Depending on the command, an optional data segment follows the command string. An optional two character checksum may be appended to the total string. Every commands is terminated by a carriage return (cr).

ALL COMMANDS SHOULD BE ISSUED IN UPPERCASE CHARACTERS!

Before the command set, we provide the I/O module commands search table to help you find the commands you wish to use. The command set is divided into the following four subsections:

- Analog Input Module commands
- Analog Output Module commands
- Digital I/O and Relay Output Module commands
- Counter/Frequency Module commands

Every subsection starts with a command summary of the particular type of module, followed by datasheets that give detailed information about individual commands.

Although commands in different subsections sometimes share the same format, the effect they have on a certain module can be completely different than they have on another. For example, the configuration command: %AANNTTCCFF affects analog input modules and analog output modules differently. Therefore, the full command set for every module is listed.

4.3 I/O Module Commands Search Table

ADAM-4011 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets the address, input range, baud rate, data format, checksum status, and/or integration time for a specified analog input module	4-37
#AA	Analog Data In	Returns the input value from a specified analog input module in the currently configured data format	4-45
\$AA0	Span Calibration	Calibrates an analog input module to correct for gain errors	4-50
\$AA1	Offset Calibration	Calibrates an analog input module to correct for offset errors	4-51
#**	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4-52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the #** command	4-53
\$AA2	Configuration Status	Returns the configuration parameters for the specified analog input module	4-41
\$AA3	CJC Status	Returns the value of the CJC sensor for a specified analog input module	4-56
\$AA9	CJC Offset Calibration	Calibrates the CJC sensor for offset errors	4-57
\$AAF	Read Firmware Version	Return the firmware version code from the specified analog input module	4-43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4-44

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Command Syntax	Command Name	Command Description	Page No.
@AADl	Read Digital I/O and Alarm Status	The addressed module returns the state of its digital input channel, its two digital output channels and the status of its alarm	4–86
@AADO(data)	Set Digital Output	Set the values of the module's two digital outputs (ON or OFF)	4–88
@AAEAT	Enable Alarm	Enables the alarm in either Momentary or Latching mode	4–90
@AAHI(data)	Set High Alarm	Downloads the High alarm limit value	4–92
@AALO(data)	Set Low Alarm	Downloads the Low alarm limit value	4–93
@AADA	Disable Alarm	Disables all alarm functions	4–94
@AACA	Clear Latch Alarm	The latch alarm is reset	4–95
@AARH	Read High Alarm	The addressed analog input module is asked to return its high alarm value	4–96
@AARL	Read Low Alarm	The addressed analog input module is asked to return its low alarm value	4–97
@AARE	Read Event Counter	The addressed module is asked to return its event counter value	4–98
@AACE	Clear Event Counter	The event counter is set to 0	4–99

ADAM-4011D Command Table

Command Syntax	Command Name		Page No.
%AANNTTCFF	Configuration	Sets the address, input range, baud rate, data format, checksum status, and/or integration time for a specified analog input module	4-37
#AA	Analog Data In	Returns the input value from a specified analog input module in the currently configured data format	4-45
\$AA0	Span Calibration	Calibrates an analog input module to correct for gain errors	4-50
\$AA1	Offset Calibration	Calibrates an analog input module to correct for offset errors	4-51
#**	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4-52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the #** command	4-53
\$AA2	Configuration Status	Returns the configuration parameters for the specified analog input module	4-41
\$AA3	CJC Status	Returns the value of the CJC sensor for a specified analog input module	4-56
\$AA9	CJC Offset Calibration	Calibrates the CJC sensor for offset errors	4-57
\$AAF	Read Firmware Version	Return the firmware version code from the specified analog input module	4-43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4-44
\$AAB	Open Thermocouple Detection	Ask the module to respond whether the thermocouple is open or not	4-55

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Command Syntax	Command Name	Command Description	Page No.
@AADI	Read Digital I/O and Alarm Status	The addressed module returns the state of its digital input channel, its two digital output channels and the status of its alarm	4–86
@ADO(data)	Set Digital Output	Set the values of the module's two digital outputs (ON or OFF)	4–88
@AEAT	Enable Alarm	Enables the alarm in either Momentary or Latching mode	4–90
@AAHI(data)	Set High Alarm	Downloads the High alarm limit value	4–92
@AALO(data)	Set Low Alarm	Downloads the Low alarm limit value	4–93
@ADA	Disable Alarm	Disables all alarm functions	4–94
@ACA	Clear Latch Alarm	The latch alarm is reset	4–95
@ARH	Read High Alarm	The addressed analog input module is asked to return its high alarm value	4–96
@ARL	Read Low Alarm	The addressed analog input module is asked to return its low alarm value	4–97
@ARE	Read Event Counter	The addressed module is asked to return its event counter value	4–98
@ACE	Clear Event Counter	The event counter is set to 0	4–99

ADAM-4012 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets the address, input range, baud rate, data format, checksum status, and/or integration time for a specified analog input module	4-37
#AA	Analog Data In	Returns the input value from a specified analog input module in the currently configured data format	4-45
\$AA0	Span Calibration	Calibrates an analog input module to correct for gain errors	4-50
\$AA1	Offset Calibration	Calibrates an analog input module to correct for offset errors	4-51
#**	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4-52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the #** command	4-53
\$AA2	Configuration Status	Returns the configuration parameters for the specified analog input module	4-41
\$AAF	Read Firmware Version	Return the firmware version code from the specified analog input module	4-43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4-44

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Command Syntax	Command Name	Command Description	Page No.
@AADI	Read Digital I/O and Alarm Status	The addressed module returns the state of its digital input channel, its two digital output channels and the status of its alarm	4–86
@AADO(data)	Set Digital Output	Set the values of the module's two digital outputs (ON or OFF)	4–88
@AAEAT	Enable Alarm	Enables the alarm in either Momentary or Latching mode	4–90
@AAHI(data)	Set High Alarm	Downloads the High alarm limit value	4–92
@AALO(data)	Set Low Alarm	Downloads the Low alarm limit value	4–93
@AADA	Disable Alarm	Disables all alarm functions	4–94
@AACA	Clear Latch Alarm	The latch alarm is reset	4–95
@AARH	Read High Alarm	The addressed analog input module is asked to return its high alarm value	4–96
@AARL	Read Low Alarm	The addressed analog input module is asked to return its low alarm value	4–97
@AARE	Read Event Counter	The addressed module is asked to return its event counter value	4–98
@AACE	Clear Event Counter	The event counter is set to 0	4–99

ADAM-4013 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets the address, input range, baud rate, data format, checksum status, and/or integration time for a specified analog input module	4–37
#AA	Analog Data In	Returns the input value from a specified analog input module in the currently configured data format	4–45
\$AA0	Span Calibration	Calibrates an analog input module to correct for gain errors	4–50
\$AA1	Offset Calibration	Calibrates an analog input module to correct for offset errors	4–51
***	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4–52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the *** command	4–53
\$AA2	Configuration Status	Returns the configuration parameters for the specified analog input module	4–41
\$AAF	Read Firmware Version	Return the firmware version code from the specified analog input module	4–43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4–44

ADAM-4014D Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets the address, input range, baud rate, data format, checksum status, and/or integration time for a specified analog input module	4-37
#AA	Analog Data In	Returns the input value from a specified analog input module in the currently configured data format	4-45
\$AA0	Span Calibration	Calibrates an analog input module to correct for gain errors	4-50
\$AA1	Offset Calibration	Calibrates an analog input module to correct for offset errors	4-51
#**	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4-52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the #** command	4-53
\$AA2	Configuration Status	Returns the configuration parameters for the specified analog input module	4-41
\$AAF	Read Firmware Version	Return the firmware version code from the specified analog input module	4-43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4-44

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Command Syntax	Command Name	Command Description	Page No.
\$AA3	Read Source High/Low Values for Linear Mapping	Read the high/low limit values from the specified module for linear mapping.	4-60
\$AA5	Read Target High/Low Values for Linear Mapping	Read the mapped input high/ low limit values from the specified module for linear mapping.	4-62
\$AA6 (data_A)(data_B)	Write Source High/Low Values for Linear Mapping	Write the high/low limit values to the specified module for linear mapping. The module will only activate the source values after new target high/low values are written (Command \$AA7).	4-64
\$AA7 (data_C)(data_D)	Write Target High/Low Values for Linear Mapping	Write the mapped input high/ low limit values to a specified module for linear mapping. This command is only valid if its was preceded by a \$AA6 command.	4-66
\$AAAV	Enable/Disable Linear Mapping	Enables or disables the linear mapping function of the specified analog input module.	4-68
\$AA8V	Select LED Data Origin	Select whether LED will display data from the input module directly or from the host PC	4-69
\$AA9(sign_data)	Send LED Data	The PC sends data to the module's LED display. This command is valid only after selecting LED to display from PC (\$AA8V)	4-70

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Command Syntax	Command Name	Command Description	Page No.
@AADI	Read Digital I/O And Alarm Status	Ask the addressed module to return the state of its digital input channel, its two digital output channels and the status of its alarm	4–86
@AADO(data)	Set Digital Output Values	Set the values of the module's two digital outputs (ON or OFF)	4–88
@AAEAT	Enable Alarm	Enable the alarm in either momentary or latching mode	4–90
@AAHI(data)	Set High Alarm Value	Download the high alarm limit value	4–92
@AALO(data)	Set Low Alarm Value	Download the low alarm limit value	4–93
@AADA	Disable Alarm	Disable all alarm functions	4–94
@AACA	Clear Latch Alarm	Reset the module's latch alarm to zero	4–95
@AARH	Read High Alarm Value	Ask the addressed module to return its high alarm value	4–96
@AARL	Read Low Alarm Value	Ask the addressed module to return its low alarm value	4–97
@AARE	Read Event Counter	Ask the addressed module to return its event counter value	4–98
@AACE	Clear Event Counter	Reset the module's event counter to zero	4–99

ADAM-4016 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Set the address, input range, baud rate, data format, checksum status and/or integration time for the specified analog input module	4–37
#AA	Read Analog Input	Return the input value from the specified analog input module in the currently configured data format	4–45
\$AA0	Span Calibration	Calibrate an analog input module to correct for gain errors	4–50
\$AA1	Offset Calibration	Calibrate an analog input module to correct for offset errors	4–51
\$AA2	Configuration Status	Return the configuration parameters for the specified analog input module	4–41
***	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4–52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the *** command	4–53
\$AAF	Read Firmware Version	Return the firmware version code from the specified analog input module	4–43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4–44

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Command Syntax	Command Name	Command Description	Page No.
@AADI	Read Digital I/O And Alarm Status	Ask the addressed module to return the state of its four digital output channels and the status of its alarm	4-86
@AADO(data)	Set Digital Output Values	Set the values of the module's four digital outputs (ON or OFF)	4-88
@AAEAT	Enable Alarm	Enable the alarm in either momentary or latching mode	4-90
@AAHI(data)	Set High Alarm Value	Download the high alarm limit value	4-92
@AALO(data)	Set Low Alarm Value	Download the low alarm limit value	4-93
@AADA	Disable Alarm	Disable all alarm functions	4-94
@AACA	Clear Latch Alarm	Reset the module's latch alarm to zero	4-95
@AARH	Read High Alarm Value	Ask the addressed module to return its high alarm value	4-96
@AARL	Read Low Alarm Value	Ask the addressed module to return its low alarm value	4-97

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Command Syntax	Command Name	Command Description	Page No.
\$AA6	Get Excitation Voltage Output Value	Returns either last value sent to specified module by \$AA7 command, or start-up output voltage	4-102
\$AA7	Excitation Voltage Output	Direct output excitation voltage data to a specified module	4-103
\$AAS	Start-up Voltage Output Configuration	Stores a default value in a specified module. The output value will take effect upon startup.	4-104
\$AAE	Trim Calibration	Trims specified module a number of units up or down	4-106
\$AAA	Zero Calibration	Tells the module to store parameters for zero calibration	4-107
\$AAB	Span Calibration	Tells the module to store parameters for span calibration	4-108

ADAM-4017 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Set the address, input range, baud rate, data format, checksum status and/or integration time for the specified analog input module	4-37
#AAN	Read Analog Input from Channel N	Return the input value from channels number N of the specified analog input module	4-47
#AA	Read Analog Input from all Channels	Return the input values from all channels of the specified analog input module	4-45
\$AA0	Span Calibration	Calibrate the analog input module to correct for gain errors	4-50
\$AA1	Offset Calibration	Calibrate the analog input module to correct for offset errors	4-51
\$AA2	Configuration Status	Return the configuration parameters for the specified analog input module	4-41
\$AA5VV	Enable/disable Channels for Multiplexing	Enables/disables multiplexing simultaneously for separate channels of the specified input module	4-48
\$AA6	Read Channel Status	Ask the specified input module to return the status of all eight channels	4-49
#**	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4-52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the #** command	4-53
\$AAF	Read Version	Return the firmware version code from the specified analog input module	4-43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4-44

ADAM-4018 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Set the address, input range, baud rate, data format, checksum status and/or integration time for the specified analog input module	4-37
#AAN	Read Analog Input from Channel N	Return the input value from channels number N of the specified analog input module	4-47
#AA	Read Analog Input from all Channels	Return the input value from all channels of the specified analog module	4-45
\$AA0	Span Calibration	Calibrate the analog input module to correct for gain errors	4-50
\$AA1	Offset Calibration	Calibrate the analog input module to correct for offset errors	4-51
\$AA2	Configuration Status	Return the configuration parameters for the specified analog input module	4-41
\$AA5VV	Enable/disable Channels for Multiplexing	Enables/disables multiplexing simultaneously for separate channels of the specified input module	4-48
\$AA6	Read Channel Status	Ask the specified input module to return the status of all eight channels	4-49
#**	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4-52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the #** command	4-53
\$AAF	Read Version	Return the firmware version code from the specified analog input module	4-43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4-44
\$AA3	CJC Status	Returns the value of the CJC sensor for a specified analog input module	4-56
\$AA9	CJC Offset Calibration	Calibrates the CJC sensor for offset errors	4-57

ADAM-4018M Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Set the address, input range, baud rate, data format, checksum status and/or integration time for the specified analog input module	4-37
#AAN	Read Analog Input from Channel N	Return the input value from channels number N of the specified analog input module	4-47
\$AA0	Span Calibration	Calibrate the analog input module to correct for gain errors	4-50
\$AA1	Offset Calibration	Calibrate the analog input module to correct for offset errors	4-51
\$AA2	Configuration Status	Return the configuration parameters for the specified analog input module	4-41
\$AA5VV	Enable/disable Channels for Multiplexing	Enables/disables multiplexing simultaneously for separate channels of the specified input module	4-48
\$AA6	Read Channel Status	Ask the specified input module to return the status of all eight channels	4-49
***	Synchronized Sampling	Orders all analog input modules to sample their input values and store them in special registers	4-52
\$AA4	Read Synchronized Data	Returns the value that was stored in the specified module's register after the *** command	4-53
\$AAF	Read Version	Return the firmware version code from the specified analog input module	4-43
\$AAM	Read Module Name	Return the module name from the specified analog input module	4-44
\$AA3	CJC Status	Returns the value of the CJC sensor for a specified analog input module	4-56
\$AA9	CJC Offset Calibration	Calibrates the CJC sensor for offset errors	4-57

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Command Syntax	Command Name	Command Description	Page No.
@AACCCSDMTTTT	Set Memory Configuration	Set the channel storage status, standalone mode, data logger mode, storage type and sampling interval for the specified analog input data logger.	4-72
@AAD	Read Memory Configuration	Return the configuration parameters for the specified analog input data logger.	4-74
@AASO	Set Memory Operation Mode	Start/stop the recording function of the memory module.	4-75
@AAT	Read Memory Operation Mode	Read the recording status of the memory module.	4-76
@AAL	Event Record Count	Read the number of stored event records in the memory module.	4-77
@AAN	Standard Record Count	Read the number of stored standard records in the memory module.	4-78
@AARNNNN	Read Record Content	Read the contents of the specified record.	4-79
@AAACSDHHHTEIIITTEI-III	Set Alarm Limit	Set the high/low alarm settings for the specified channel.	4-81
@AABC	Read Alarm Limit	Read the high/low alarm settings for the specified channel.	4-83

ADAM-4021 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Set the address, output range, baud rate, data format, slew rate and/or checksum status	4-110
#AA(data)	Analog Data Out	Directs output data to a specified module	4-113
\$AA4	Start-up output current/voltage configuration	Stores a default output value in a specified module. The output value will take effect upon startup.	4-115
\$AA3(number of counts)	Trim Calibration	Trims specified module a number of units up/down	4-116
\$AA0	4 mA Calibration	Tells the module to store parameters for 4 mA Calibration	4-118
\$AA1	20 mA Calibration	Tells the module to store parameters for 20 mA Calibration	4-119
\$AA2	Configuration Status	Reads configuration of specified module	4-120
\$AA6	Last Value Readback	Returns either last value sent to specified module by #AA command, or start-up output current/voltage	4-121
\$AA8	Current Readback	Returns measured value of the current/voltage flowing through current loop	4-122
\$AA5	Reset Status	Checks if module has been reset since the last \$AA5 command	4-123
\$AAF	Read Firmware Version	Return the firmware version code from the specified analog output module	4-124
\$AAM	Read Module Name	Return the module name from the specified analog output module	4-125

ADAM-4050 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets address, baud rate, and/or checksum status, to a digital I/O module	4-128
\$AA6	Digital Data In	Returns the values of the digital I/O channels of the addressed module	4-130
#AAB(data)	Digital Data Out	Writes specified values to either a single channel or all channels simultaneously	4-132
***	Synchronized Sampling	Orders all digital I/O modules to sample their input values and store them in a special register	4-134
\$AA4	Read Synchronized Data	Return the value of a specified digital I/O module that was stored after an *** command was issued	4-135
\$AA2	Configuration Status	Returns the configuration parameters of a specified digital I/O module	4-137
\$AA5	Reset Status	Indicates whether a specified digital I/O module was reset after the last time the \$AA5 command was issued	4-139
\$AAF	Read Firmware Version	Return the firmware version code from the specified digital I/O module	4-141
\$AAM	Read Module Name	Return the module name from the specified Digital I/O module	4-142

ADAM-4052 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets address, baud rate, and/or checksum status, to a digital I/O module	4-128
\$AA6	Digital Data In	Returns the values of the digital I/O channels of the addressed module	4-130
***	Synchronized Sampling	Orders all digital I/O modules to sample their input values and store them in a special register	4-134
\$AA4	Read Synchronized Data	Return the value of a specified digital I/O module that was stored after an *** command was issued	4-135
\$AA2	Configuration Status	Returns the configuration parameters of a specified digital I/O module	4-137
\$AA5	Reset Status	Indicates whether a specified digital I/O module was reset after the last time the \$AA5 command was issued	4-139
\$AAF	Read Firmware Version	Return the firmware version code from the specified digital I/O module	4-141
\$AAM	Read Module Name	Return the module name from the specified digital I/O module	4-142

ADAM-4053 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets address, baud rate, and/or checksum status, to a digital I/O module	4-128
\$AA6	Digital Data In	Returns the values of the digital I/O channels of the addressed module	4-130
***	Synchronized Sampling	Orders all digital I/O modules to sample their input values and store them in a special register	4-134
\$AA4	Read Synchronized Data	Return the value of a specified digital I/O module that was stored after an *** command was issued	4-135
\$AA2	Configuration Status	Returns the configuration parameters of a specified digital I/O module	4-137
\$AA5	Reset Status	Indicates whether a specified digital I/O module was reset after the last time the \$AA5 command was issued	4-139
\$AAF	Read Firmware Version	Return the firmware version code from the specified digital I/O module	4-141
\$AAM	Read Module Name	Return the module name from the specified digital I/O module	4-142

ADAM-4060 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTCCFF	Configuration	Sets address, baud rate, and/or checksum status, to a digital I/O module	4-128
\$AA6	Digital Data In	Returns the values of the digital I/O channels of the addressed module	4-130
#AABB(data)	Digital Data Out	Writes specified values to either a single channel or all channels simultaneously	4-132
#**	Synchronized Sampling	Orders all digital I/O modules to sample their input values and store them in a special register	4-134
\$AA4	Read Synchronized Data	Return the value of a specified digital I/O module that was stored after an #** command was issued	4-135
\$AA2	Configuration Status	Returns the configuration parameters of a specified digital I/O module	4-137
\$AA5	Reset Status	Indicates whether a specified digital I/O module was reset after the last time the \$AA5 command was issued	4-139
\$AAF	Read Firmware Version	Return the firmware version code from the specified digital I/O module	4-141
\$AAM	Read Module Name	Return the module name from the specified digital I/O module	4-142

ADAM-4080 Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTTCFF	Configuration	Sets the address, input mode, baud rate, checksum status and/or frequency gate time for a specified counter/ frequency module	4-144
\$AA2	Configuration Status	Returns configuration parameters from the specified counter/frequency module	4-146
\$AAF	Read Firmware Version	Return firmware version code from the specified counter/frequency module	4-147
\$AAM	Read Module Name	Return the module name from the specified counter/frequency module	4-148
\$AABS	Set Input Signal Mode	Sets the input signal mode of the specified counter/frequency module to either non-isolated or photo-isolated input signals	4-149
\$AAB	Read Input Signal Mode	Read the input signal mode of the specified counter/frequency module.	4-150
#AAN	Read Counter or Frequency Value	Returns the value of counter 0 or counter 1 from a specified counter/ frequency module in hex format	4-151

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Command Syntax	Command Name	Command Description	Page No.
\$AAAG	Set Gate Mode	Requests the specified counter/frequency module to set its gate mode to either high, low or disabled	4–156
\$AAA	Read Gate Mode	Requests the specified counter/frequency module to return the status of its gate mode	4–157
\$AA3N(data)	Set Maximum Counter Value	Sets the maximum value of counter 0 or counter 1 for the specified counter/frequency module	4–158
\$AA3N	Read Maximum Counter Value	Reads the maximum value of counter 0 or counter 1 of the specified counter/frequency module	4–159
\$AA5NS	Start/Stop Counter	The command orders the specified counter/frequency module to start or stop counting	4–160
\$AA5N	Read Counter Start/Stop Status	The addressed counter frequency module returns its status indicating whether counting is enabled or disabled	4–161
\$AA6N	Clear Counter	The command clears the counter 0 or counter 1 of the specified counter module	4–162
\$AA7N	Read Overflow Flag	The addressed module returns the status of the overflow flag of counter 0 or counter 1	4–163

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Command Syntax	Command Name	Command Description	Page No.
\$AA4S	Enable/Disable Digital Filter	Enables or disables the digital filter of the addressed counter/frequency module	4-166
\$AA4	Read Filter Status	The addressed counter frequency module returns the status of its digital filter	4-167
\$AA0H(data)	Set Minimum Input Signal Width at High Level	Sets the minimum input signal width at high level for a specified counter/frequency module	4-168
\$AA0H	Read Minimum Input Signal Width at High Level	Reads the minimum input signal width setting at high level for a specified counter/frequency module	4-169
\$AA0L(data)	Set Minimum Input Signal Width at Low Level	Sets the minimum input signal width at low level for a specified counter/frequency module	4-170
\$AA0L	Read Minimum Input Signal Width at Low Level	Reads minimum input signal width setting at low level for a specified counter/frequency module	4-171
\$AA1H(data)	Set Non-isolated High Trigger Level	Sets the high trigger level of non-isolated input signals for a specified counter/frequency module	4-172
\$AA1H	Read Non-isolated High Trigger Level	Requests the addressed counter frequency module to return the high trigger level for non-isolated input signals	4-173
\$AA1L(data)	Set Non-isolated Low Trigger Level	Sets the low trigger level of non-isolated input signals for a specified counter/frequency module	4-174
\$AA1L	Read Non-isolated Low Trigger Level	Requests the addressed counter/ frequency module to return the low trigger level for non-isolated input signals	4-175

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Command Syntax	Command Name	Command Description	Page No.
@AAPN(data)	Set Initial Count Value of Counter N	Sets the initial count value of the module for counter 0 or counter 1	4-179
@AAGN	Read Initial Count Value of Counter N	Reads the initial count value of counter 0 or counter 1	4-180
@AAEAN	Enable Alarm of Counter N	Enable alarm for the specified counter 0 or counter 1	4-181
@AADAN	Disable Alarm of Counter N	Disable alarm for the specified counter 0 or counter 1	4-182
@AAPA(data)	Set Alarm Limit Value of Counter 0	Download the alarm limit value for counter 0 of the specified module	4-183
@AASA(data)	Set Alarm Limit Value of Counter 1	Download the alarm limit value for counter 1 of the specified module	4-183
@AARP	Read Alarm Limit Value of Counter 0	Ask the module to return the alarm limit value of counter 0	4-184
@AARA	Read Alarm Limit Value of Counter 1	Ask the module to return the alarm limit value of counter 1	4-184
@AADO (data)	Set Digital Output Values	Set the values of the module's two digital outputs (ON or OFF)	4-185
@AADI	Read Digital Output and Alarm Status	Ask the module to return the status state of its two digital outputs and the status of its alarm.	4-186

ADAM-4080D Command Table

Command Syntax	Command Name	Command Description	Page No.
%AANNTCCFF	Configuration	Sets the address, input mode, baud rate, checksum status and/or frequency gate time for a specified counter/ frequency module	4-144
\$AA2	Configuration Status	Returns configuration parameters from the specified counter/frequency module	4-146
\$AAF	Read Firmware Version	Return firmware version code from the specified counter/frequency module	4-147
\$AAM	Read Module Name	Return the module name from the specified counter/frequency module	4-148
\$AABS	Set Input Signal Mode	Sets the input signal mode of the specified counter/frequency module to either non-isolated or photo-isolated input signals	4-149
\$AAB	Read Input Signal Mode	Read the input signal mode of the specified counter/frequency module.	4-150
#AAN	Read Counter or Frequency Value	Returns the value of counter 0 or counter 1 from a specified counter/ frequency module in hex format	4-151
\$AA8V	Select LED Data Origin	Select whether LED will display data from the counter/frequency module directly or from the host computer	4-152
\$AA8	Read LED Data Origin	Returns the status of the LED Data origin. Origin is either direct from module or from host computer	4-153
\$AA9(data)	Send Data to LED	PC sends data to LED display. This command is valid only after selectting to display host computer data (\$AA8V)	4-154

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Command Syntax	Command Name	Command Description	Page No.
\$AAAG	Set Gate Mode	Requests the specified counter/frequency module to set its gate mode to either high, low or disabled	4–156
\$AAA	Read Gate Mode	Requests the specified counter/frequency module to return the status of its gate mode	4–157
\$AA3N(data)	Set Maximum Counter Value	Sets the maximum value of counter 0 or counter 1 for the specified counter/frequency module	4–158
\$AA3N	Read Maximum Counter Value	Reads the maximum value of counter 0 or counter 1 of the specified counter/frequency module	4–159
\$AA5NS	Start/Stop Counter	The command orders the specified counter/frequency module to start or stop counting	4–160
\$AA5N	Read Counter Start/Stop Status	The addressed counter frequency module returns its status indicating whether counting is enabled or disabled	4–161
\$AA6N	Clear Counter	The command clears the counter 0 or counter 1 of the specified counter module	4–162
\$AA7N	Read Overflow Flag	The addressed module returns the status of the overflow flag of counter 0 or counter 1	4–163

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Command Set

Command Syntax	Command Name	Command Description	Page No.
\$AA4S	Enable/Disable Digital Filter	Enables or disables the digital filter of the addressed counter/frequency module	4-166
\$AA4	Read Filter Status	The addressed counter frequency module returns the status of its digital filter	4-167
\$AA0H(data)	Set Minimum Input Signal Width at High Level	Sets the minimum input signal width at high level for a specified counter/frequency module	4-168
\$AA0H	Read Minimum Input Signal Width at High Level	Reads the minimum input signal width setting at high level for a specified counter/frequency module	4-169
\$AA0L(data)	Set Minimum Input Signal Width at Low Level	Sets the minimum input signal width at low level for a specified counter/frequency module	4-170
\$AA0L	Read Minimum Input Signal Width at Low Level	Reads minimum input signal width setting at low level for a specified counter/frequency module	4-171
\$AA1H(data)	Set Non-isolated High Trigger Level	Sets the high trigger level of non-isolated input signals for a specified counter/frequency module	4-172
\$AA1H	Read Non-isolated High Trigger Level	Requests the addressed counter frequency module to return the high trigger level for non-isolated input signals	4-173
\$AA1L(data)	Set Non-isolated Low Trigger Level	Sets the low trigger level of non-isolated input signals for a specified counter/frequency module	4-174
\$AA1L	Read Non-isolated Low Trigger Level	Requests the addressed counter/ frequency module to return the low trigger level for non-isolated input signals	4-175

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Command Syntax	Command Name	Command Description	Page No.
@AAEAT	Enable Alarm	Enable the alarm in either momentary or latching mode	4-188
@AADA	Disable Alarm	Disable all alarm functions	4-189
@AACA	Clear Latch Alarm	The latch alarm is reset	4-190
@AAPA(data)	Set Low-Alarm Count Value of Counter 0	Downloads the low-alarm count value for counter 0 of the specified counter/frequency module	4-191
@AASA(data)	Set High-Alarm Count Value of Counter 0	Downloads the high-alarm count value for counter 0 of the specified counter/frequency module	4-192
@AARP	Read Low-Alarm Count Value of Counter 0	Ask the addressed module to return its low-alarm count value for counter 0	4-193
@AARA	Read High-Alarm Count Value of Counter 0	Ask the addressed module to return its high-alarm count value for counter 0	4-194
@AAD0	Set Digital Output Values	Set the values of the module's two digital outputs (ON or OFF)	4-185
@AADI	Read Digital Output and Alarm Status	Ask the addressed module to return the state of its two digital output channels and the status of its alarm	4-186

