

V.I.R.U.S. Specific Command List

Notes: m1 = controller1 ID; m2 = controller2 ID

Notes: ALL MUX command words (header, command, args) require the 0xBC000000 preamble instead of the normal 0xAC000000 preamble.

1. 'SRS' – Set Reply Status (0x535253)

Informs the controller to return (or not depending on argument) a reply for any future command received. This command returns a 'DON' (0x444F4E) on success.

Format: 0xm1m2203 'SRS' <reply=1, no reply=0>

2. 'RRS' – Read Reply Status (0x525253)

Returns the current value of the reply status from each controller. ALL controllers will respond regardless of the current reply status.

Format: 0xm1m2202 'RRS'

3. 'RID' – Read ID (0x524944)

Returns the controller ID. This is the one-wire ID and not the SmallCam board ID.

Format: 0xm1m2202 'RID'

4. 'SMC' – Set Multiple Controllers (0x534D43)

Sets the controller to return the one-wire controller ID within all reply headers. If this is set to zero, then all reply headers will be that of broadcast (0x020002). Returns a 'DON' (0x444F4E) on success.

Format: 0xm1m2203 'SMC' <on=1, off=0>

5. 'COM' – Set Command Mode (0x434F4D)

Sets the MUX into command mode. This is the default state and must be called after image readout to return to normal command processing mode. Returns a 'DON' (0x444F4E) on success.

Format: 0x000402 'COM'

6. 'MID' – MUX ID (0x4D4944)

Returns the MUX ID. This is the DIP switch ID set on each MUX.

Format: 0x000402 'MID'

7. 'AES' – Await Exposure Start (0x414553)

Informs the controller to prepare for image readout via a sync signal from the MUX. This command results in the MUX setting the sync signal high. Returns a 'DON' (0x444F4E) on success.

Format: 0xm1m2202 'AES'

8. 'EEX' – End Exposure (0x454558)

Informs the controller to start image readout via a sync signal from the MUX. This command results in the MUX setting the sync signal low. The designated master MUX will return a 'DON' (0x444F4E) on success. The master MUX is designated via a jumper on the MUX board.

Format: 0x000402 'EEX'

9. 'RDA' – Enable Image Mode (0x524441)

Enables image mode on the MUX. This must be called before image data can be properly processed by the MUX. Sending this command will disable command mode and prevent any commands to the controllers. Returns a 'DON' (0x444F4E) on success.

NOTE: The PCIe **REG_IMAGE_MODE_CTRL** (0x58) register must also be set to 1 to fully enable image mode.

Format: 0x000402 'RDA'