SWITCHED I/O PORTS (\$40 - \$4F) $\,$ / $\,$ Revision 001 $\,$ / $\,$ by KdL 2011.04.13

| \$40 | (read_n / write) | ID ID | | MSX2+ FS-A1 SERIES* 1CHIPMSX | w/ Z80B 5.37MHz w/ OCM-PLD Pack v2.4 | | | | SMART COMMANDS TABLE |
|-------------|--------------------|----------|--------|--|---|------|--------------|----------------------------|---|
| | | BIT | 0 | | ., | | \$00 | (000) | Null Command (reserved) |
| \$41 | (read_n / write) | BIT | 1 | | | | \$01 | , , | Set Turbo Pana Redirection OFF (default) |
| | | BIT | 2 | | | | \$02 \$03 | . , | Set Turbo Pana Redirection ON Set Standard Speed 3.58MHz |
| | | BIT | 4 | Smart Commands | Get \$FF if Not Found | | \$04 | . , | Set Custom Speed 4.10MHz |
| | | BIT | 5 | | | | \$05 | , , | Set Custom Speed 4.48MHz |
| | | BIT | 6 7 | | | | \$06 \$07 | . , | Set Custom Speed 4.90MHz Set Custom Speed 5.39MHz |
| | | BIT | 0 | Green Turbo | Virtual DIP-SW1 | | \$08 | | Set Custom Speed 6.10MHz |
| | (read / write_n) | BIT | 1 | Display (MSB) | Virtual DIP-SW2 | | \$09 | (009) | Set Custom Speed 6.96MHz |
| | | BIT | 2 | Display (LSB) | Virtual DIP-SW3 | | \$0A | | Set Custom Speed 8.06MHz (default) (originally called 10MHz) |
| \$42 | | BIT | 3 | Slot-1 Slot-2 (MSB) | Virtual DIP-SW4 Virtual DIP-SW5 | | \$0B \$0C | | Set Turbo MegaSD OFF Set Turbo MegaSD ON (default) |
| | | BIT | 5 | Slot-2 (LSB) | Virtual DIP-SW6 | | \$0D | , , | Set External Slot-1 + External Slot-2 |
| | | BIT | 6 7 | Current Mapper Current MegaSD | Virtual DIP-SW7 Virtual DIP-SW8 | | \$0E \$0F | . , | Set Internal SCC-I Slot-1 + External Slot-2 Set External Slot-1 + Internal SCC-I Slot-2 |
| | | BIT | 0 | Current Wegasb | Turbo | | \$10 | | Set Internal SCC-I Slot-1 + Internal SCC-I Slot-2 |
| | | | 1 | Lock Mask of Toggles** | Display | | \$10 | . , | Set External Slot-1 + Internal ASCII-8K Slot-2 |
| | | BIT | 2 | | Audio Mixer & CMT | | \$12 | . , | Set Internal SCC-I Slot-1 + Internal ASCII-8K Slot-2 |
| \$43 | (read / write_n) | BIT | 3 | | Slot-1 Slot-2 | | \$13 \$14 | , , | Set External Slot-1 + Internal ASCII-16K Slot-2 Set Internal SCC-I Slot-1 + Internal ASCII-16K Slot-2 |
| | | BIT | 5 | | Hard Reset | | \$15 | (021) | Set Japanese Keyboard Layout |
| | | BIT | 6 7 | | Mapper MegaSD | | \$16 \$17 | | Set Non-Japanese Keyboard Layout Set Display Mode to 15KHz Composite / S-Video |
| \$44 | (read / write_n) | | 0 | 0 1 2 3 Lights Mode I/O 5 | Green Led 1 | | \$18 | • • • | Set Display Mode to 15KHz RGB w/ Audio (Mono) |
| | | BIT | | | Green Led 2 | | \$19 | | Set Display Mode to 13kHz kGB w/ Addio (Moho) |
| | | BIT | 2 | | Green Led 3 | | \$1A | | Set Display Mode to 31Khz VGA w/ High Luminance |
| | | BIT | 3 | | Green Led 4 Green Led 5 | | \$1B \$1C | | Set VGA to Original Mode (50Hz + 60Hz) Set VGA to 60Hz Forced (default) |
| | | BIT | 5 | | Green Led 6 | | \$1D | (029) | Preset MegaSD OFF for next Warm Reset |
| | | BIT | 6 7 | | Green Led 7 Green Led 8 | | \$1E \$1F | . , | Preset MegaSD ON for next Warm Reset Set MegaSD Blink OFF |
| | | BIT | 0 | | BIT 0 (LSB) | | \$20 | | Set MegaSD Blink Orr Set MegaSD Blink ON (default) |
| \$45 | (read / write_n) | BIT | | PSG Volume | BIT 1 | | \$20 | | Set Lights Mode OFF w/ Auto LEDs Control (default) |
| | | BIT | 2 | | BIT 2 (MSB) | | \$22 | (034) | Set Lights Mode ON + Red Led OFF |
| | (read only) | BIT | 3 | PSG Mute | Status BIT 0 (LSB) | | \$23 \$24 | , , | Set Lights Mode ON + Red Led ON Set Audio Mute on PSG, SCC-I and OPLL |
| | (read / write_n) | BIT | 5 | Master Volume | BIT 1 | | \$25 | (037) | Set Original Audio Settings on PSG, SCC-I and OPLL |
| | (read only) | BIT | | Master Muto | BIT 2 (MSB) | | \$26 \$27 | | Set Audio at Max Volume on PSG, SCC-I and OPLL (default) Set CMT OFF (default) |
| | (read only) | BIT | | Master Mute | Status BIT 0 (LSB) | | \$27 | | Set CMT OF (detault) Set CMT ON |
| \$46 | (read / write_n) | BIT | | OPLL Volume | BIT 1 | | \$28 | (/ | Lock Turbo Toggles |
| | | BIT | 2 | 6011.14 | BIT 2 (MSB) | | \$2A | (042) | Unlock Turbo Toggles |
| | (read only) | BIT | 3 | OPLL Mute | Status BIT 0 (LSB) | | \$2B \$2C | , , | Lock Display Toggles Unlock Display Toggles |
| | (read / write_n) | BIT | 5 | SCC-I Volume | BIT 1 | | \$2D | (045) | Lock Audio Mixer & CMT Toggles |
| | (read only) | BIT | | SCC I Musto | BIT 2 (MSB) | | \$2E \$2F | . , | Unlock Audio Mixer & CMT Toggles Lock Slot-1 Toggles |
| | (read only) | BIT | | SCC-I Mute | Status BIT 0 (LSB) | | \$2F \$30 | ` ′ | Unlock Slot-1 Toggles |
| \$47 | (read only) | BIT | | Custom Speed | BIT 1 | | \$31 | (049) | Lock Slot-2 Toggles |
| | | BIT | 2 | Turbo MagaCD (+MCD) | BIT 2 (MSB) | | \$32 | () | Unlock Slot-2 Toggles |
| | | BIT | 3 | Turbo MegaSD (tMSD) Turbo Pana Redirection (tPR) | Status Status | | \$33 \$34 | | Lock Slot-1 & Slot-2 Toggles Unlock Slot-1 & Slot-2 Toggles |
| | | BIT | 5 | VGA 60Hz Forced | Status | | \$35 | (053) | Lock Hard Reset Key |
| | | BIT | | Next Mapper Next MegaSD | Status Status | | \$36 \$37 | | Unlock Hard Reset Key Lock Mapper Toggle |
| | | BIT | 0 | Red Turbo (tPANA)* | Status | | \$38 | | Unlock Mapper Toggle |
| | | BIT | 1 | Keyboard Layout | Status | | \$39 | (057) | Lock MegaSD Toggle |
| | | BIT | | CMT Lights Mode | Status 0=Auto, 1=ON | | \$3A \$3B | (/ | Unlock MegaSD Toggle Lock All Toggles |
| \$48 | (read only) | BIT | | Red Mode | Red LED Status | | \$3C | (/ | Unlock All Toggles (default) |
| | | BIT | | Last Reset Flag | 0=Cold, 1=Warm | | | | |
| | | BIT | 6 7 | Reset Required Flag MegaSD Blink | Status Status | | | | |
| | | BIT | 0 | -0 | | | \$80 | | Null Command (useful for programming) |
| \$49 - \$4D | | BIT | 1 | | | | | | |
| | (read only) | BIT | 2 | | | | \$D3 | | Restore Keyboard to Default Layout |
| | | BIT | 4 | Null | Free | | \$D4 | (212) | Null Command (reserved) |
| | | BIT | | | | | \$D5 | , , | Restore Turbo to Default Setting |
| | | BIT | | | | | | | |
| | | BIT | | Green Turbo | Hard DIP-SW1 | | | | |
| \$4E | (read only) | BIT | 1 | Display (MSB) | Hard DIP-SW2 | | | | |
| | | BIT | | Display (LSB) Slot-1 | Hard DIP-SW3 Hard DIP-SW4 | | \$FA \$FB | . , | Restore Last Reset Flag to Cold Reset Status Cold Reset (= Hard Reset) |
| | | BIT | 4 | Slot-2 (MSB) | Hard DIP-SW5 | | \$FC | (252) | Warm Reset w/ Mapper 2048KB |
| | | BIT | 5 | Slot-2 (LSB) | Hard DIP-SW6 | | \$FD | (/ | Warm Reset w/ Manner 4096KR |
| | | BIT | | Mapper MegaSD | Hard DIP-SW7 Hard DIP-SW8 | | \$FE \$FF | | Warm Reset w/ Mapper 4096KB Restore all Default Settings + Preset Mapper & MegaSD to Default |
| \$4F | (read only) | BIT | | Revision Number | BIT 0 (LSB) | | | | |
| | | BIT | | | BIT 1 | | | (read / write) | 0 = OFF Positive Logic |
| | | BIT | | | BIT 2 BIT 3 | | | | 1 = ON |
| | | BIT | 4 | | BIT 4 | | R/W | | 0 = ON |
| | | BIT | 5 | | BIT 5 | | | (read_n / write_n) | Negative Logic |
| | | BIT | | Keyboard Layout | BIT 6 (MSB) Default Status | | | | 1 = OFF |
| | | | | , | | | | Turbo | [F12] [SHIFT+PGUP/PGDOWN] [DIP-SW1] |
| | | | | | | | | Display | [PRNSCR] [SHIFT+PRNSCR] [DIP-SW2] [DIP-SW3] |
| (*) | | Adv. | to FS | S-A1WX, FS-A1WSX and FS-A1FX | | (**) | (**) | Audio Mixer & CM Slot-1 | T [F9/F10/F11] [SHIFT+F9/F10/F11] [PGUP/PGDOWN] [SCRLCK] [SHIFT+F12] [DIP-SW4] |
| | | | | | | | (**) | | |
| (*) | http:/ | | .grau | w.nl/resources/msx_io_ports.p | hp#switch_io | | () | Slot-2 | [SHIFT+SCRLCK] [DIP-SW5] [DIP-SW6] |
| (*) | http:/ | | .grau | ıw.nl/resources/msx_io_ports.p | hp#switch_io | | | Hard Reset | [HARD RESET KEY] |
| (*) | http:/ | | .grau | .w.nl/resources/msx_io_ports.p | hp#switch_io | | () | | |