

AV-HS600-Protocol

Live Switcher AV-HS6000

Interface Specifications

**Serial Control Protocol
(GVG200)**

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(1)	Introduction.....	3
(2)	GVG200 Protocol Overview	3
(3)	AV-HS6000 PROTOCOL TABLES.....	5

(1) Introduction

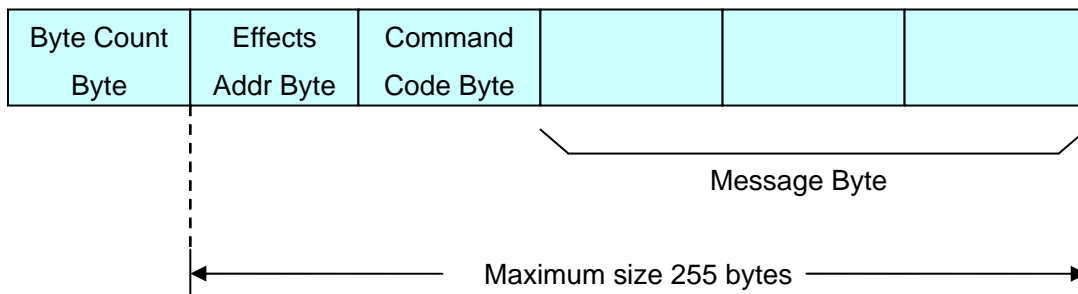
AV-HS6000 has serial interface port and GVG200 compatible protocol.

Note

- Supported protocol is subset of GVG200 “Serial Interface Protocol” and some commands are extended for AV-HS6000.

(2) GVG200 Protocol Overview

COMMAND/MESSAGE BLOCK STRUCTURE



Byte Count Byte : The number of the sequent bytes in the block.

Effects Address Byte : In case of ME1,ME2 Effects Address Byte is set to 01h or 02h. In case of DSK, is set to 00h. Other than this, Effects Address Byte is set to HS6000 original value.

Command Code Byte : Command codes fall into two broad categories; read commands and write commands.

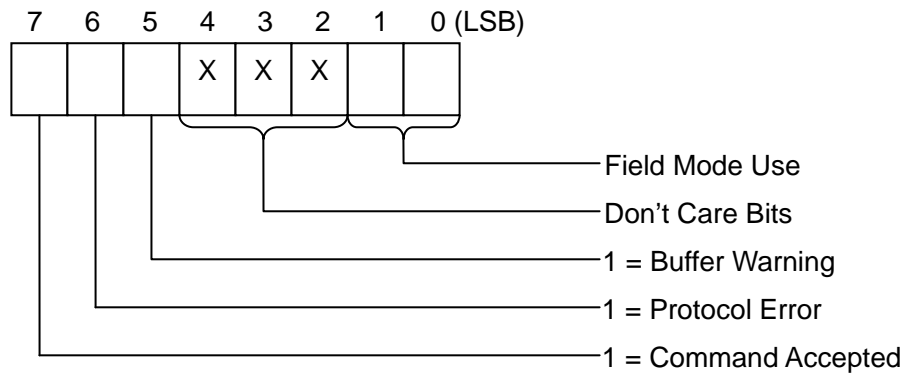
When the editor issues a read command, the switcher responds by sending the current status of an operational parameter(s) back to the external device. The status information is returned in the format of the write command. Write commands are used by the external device to change an operational parameter(s) of the switcher.

Response to a write command

The response to a write command is a two-byte status message. The first byte is the byte count which is 0x01. The second byte is the switcher response to the command which is shown below. The bits that are set to one (1) indicate the status.

0x0180 = ACK

0x0140 = NAK



The write command response will be two bytes. The first byte is the byte count which is 0x01. The second byte is the status.

bit7: Set to 1 when the command is properly received.

bit6: Set to 1 when the received message is abnormal.

bit5: Set to 1 when the serial interface buffer is about to overflow.

Any combination is possible, except both bit7 and bit6 being set to 1 at the same time.

0x0180: ACK response

0x0140: NAK response

The read command response uses the write command format.

Break command

The HS6000 can receive each command without using the break command.

(3) AV-HS6000 PROTOCOL TABLES**1) Crosspoint(write command)**

Switcher Function	Byte Count	Effects Address	Command Code	Message
Program Bus	03	ME1:01 ME2:02	C1	Crosspoint#
Preset Bus	03	ME1:01 ME2:02	C2	Crosspoint#
Key1 Bus(Fill)	03	ME1:01 ME2:02	C3	Crosspoint#
Key2 Bus(Fill)	03	ME1:01 ME2:02	C4	Crosspoint#
Key3 Bus(Fill)	03	ME1:01 ME2:02	D1	Crosspoint#
Key4 Bus(Fill)	03	ME1:01 ME2:02	D2	Crosspoint#
DSK1 Bus(Fill)	03	00	C1	Crosspoint#
DSK2 Bus	03	00	C2	Crosspoint#
DSK3 Bus	03	00	C3	Crosspoint#
DSK4 Bus	03	00	C4	Crosspoint#
AUX1 Bus	03	07	C1	Crosspoint#
~	~	~	~	~
AUX16 Bus	03	07	D0	Crosspoint#

2) Crosspoint(read command)

Switcher Function	Byte Count	Effects Address	Command Code	Message
Program Bus	02	ME1:01 ME2:02	41	-
Preset Bus	02	ME1:01 ME2:02	42	-
Key1 Bus(Fill)	02	ME1:01 ME2:02	43	-
Key2 Bus(Fill)	02	ME1:01 ME2:02	44	-
Key3 Bus(Fill)	02	ME1:01 ME2:02	51	-
Key4 Bus(Fill)	02	ME1:01 ME2:02	52	-
DSK1 Bus(Fill)	02	00	41	-
DSK2 Bus(Fill)	02	00	42	-
DSK3 Bus(Fill)	02	00	43	-
DSK4 Bus(Fill)	02	00	44	-
AUX1 Bus	02	07	41	-
~	~	~	~	~
AUX16 Bus	02	07	50	-

<Crosspoint#>

00h~1Fh: SDI IN1~32

20h~21h: DVI IN1~2

30h: Still1V

31h: Still1K

32h: Still2V

33h: Still2K

34h: Still3V

35h: Still3K

36h: Still4V

37h: Still4K

40h: Clip1V

41h: Clip1K
42h: Clip2V
43h: Clip2K
44h: Clip3V
45h: Clip3K
46h: Clip4V
47h: Clip4K
50h: Color Bar
51h: Color BackGround1
52h: Color BackGround2
53h: Black

When Aux Bus is selected, following three numbers are valid.

60h: ME1PGM
61h: ME1PVW
62h: ME1CLN
63h: ME1KEYPVW
64h: ME2PGM
65h: ME2PVW
66h: ME2CLN
67h: ME2KEYPVW
68h: DSKPGM1
69h: DSKPGM2
6Ah: DSKPVW1
6Bh: DSKPVW2
6Ch: DSK1CLN
6Dh: DSK2CLN
6Eh: DSK3CLN
6Fh: DSK4CLN
70h: SEL_KEYPVW

3) Pushbutton

Switcher Function	Byte Count	Effects Address	Command Code	Message
Auto	03	ME1:01 ME2:02	FB	1B
Cut	03	ME1:01 ME2:02	FB	1C
DSK1 Trans	03	00	FB	18
DSK2 Trans	03	00	FB	19
DSK3 Trans	03	00	FB	1A
DSK4 Trans	03	00	FB	1B
KEY1 Trans	03	ME1:01 ME2:02	FB	20
KEY2 Trans	03	ME1:01 ME2:02	FB	21
KEY3 Trans	03	ME1:01 ME2:02	FB	22
KEY4 Trans	03	ME1:01 ME2:02	FB	23
FTB	03	00	FB	1F

4) Wipe Pattern Select

Function	Byte Count	Effects Address	Command Code	Message
Wipe Pattern	03	ME1:01 ME2:02	C8	Wipe No#

Each wipe pattern has following Wipe Np#.

WIPE				
Wipe No	1	2	3	4
Wipe No	5	6	7	8
Wipe No	9	10	11	12
				No Pattern
Wipe No	13	14	15	16
		No Pattern	No Pattern	No Pattern
Wipe No	17	18	19	20

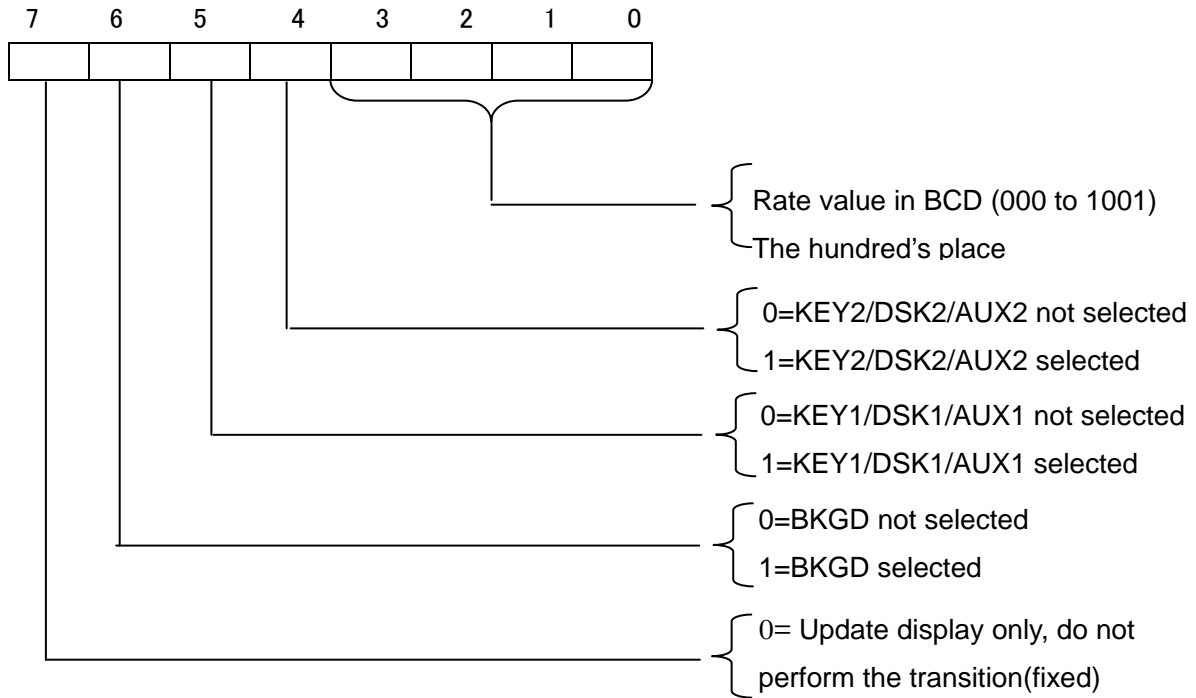
SQ				
Wipe No	31	32	33	34
Wipe No	35	36	37	38
Wipe No	39	40	41	42
				No Pattern
Wipe No	43	44	45	46

6) Auto Transition Rate

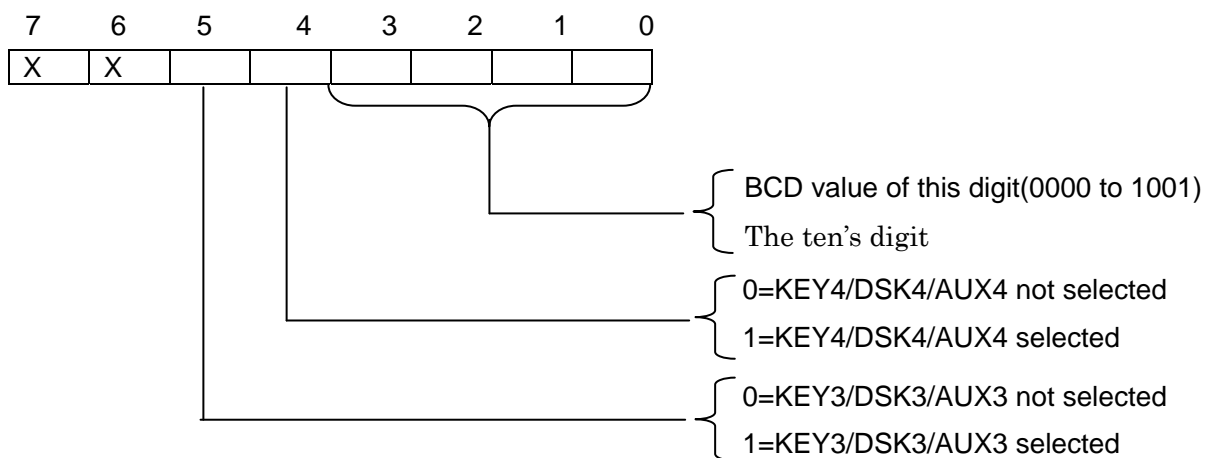
Function	Byte Count	Effects Address	Command Code	Message
BKGD,KEY1-4	05	ME1:01 ME2:02	CC	Rate Bytes
DSK1-4	05	00	CC	Rate Bytes
AUX1-16Bus	05	07	CC	Rate Bytes

Rate is specified in frames from 000 to 999.

Rate1 ; Transition control bits and most significant digit of rate



Rate2 ; Next most significant digit



Rate3 ; Least significant digit

