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Serial Protocol Definitions
SDP-40HD

Software Version 1.00
Protocol Version:
Major Rev 1
Minor Rev 6

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1 Documents

The following documents should also be used with this document to understand how this protocol can be used with an SDP-40HD:

070-17555 Manual, Owner's, SDP-40HD

1.1 Change List

1/11/06 New Document based on MC-12/MC-12B V5.0.
1/12/06 Updated Parameter Id Reference Table for SDP-40HD V 1.00 software.

2 Definitions

User Parameter:	A user changeable variable that stores a specific value that describes an operating condition for the SDP-40HD system.
HOST:	The device initiating or receiving the serial communication packets to/from the SDP-40HD.
SDP-40HD:	The Lexicon product receiving or transmitting the serial communication packets to/from the HOST.
Nonvolatile RAM:	An area of memory in an SDP-40HD that stores user-adjustable parameters. The Nonvolatile RAM is battery backed, to maintain values during power-down.

2.1 Protocol Version Cross-reference

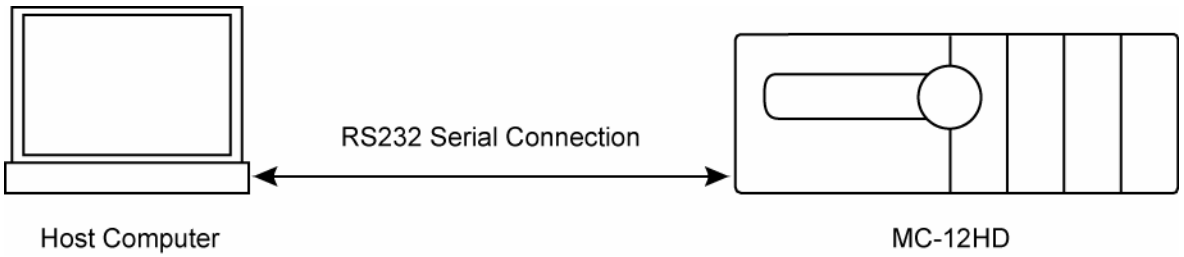
All references to SDP-40HD shall be valid for both the SDP-40HD and SDP-40HD products unless specifically documented otherwise.

3 Abbreviations

SOPStart of Packet
EOPEnd of Packet
ACKAcknowledge
NAKNo Acknowledge
FPDFront Panel Display

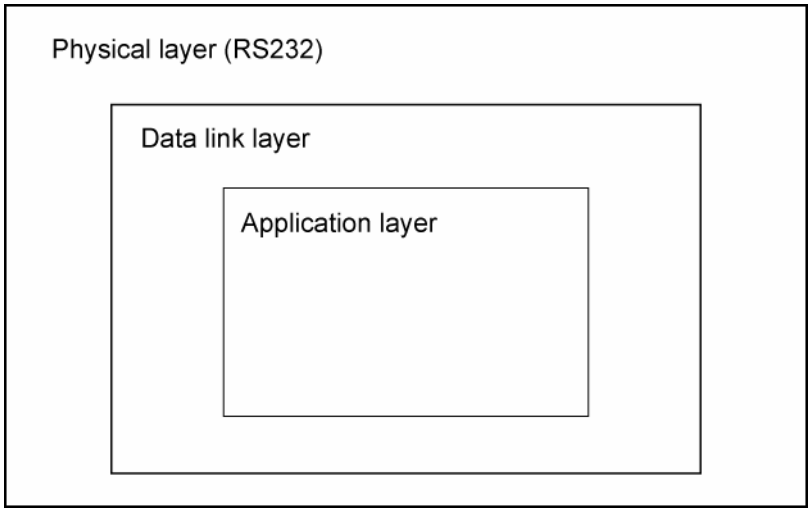
4 General Description

The intention of the SDP-40HD serial port and protocol communication is for an external connected HOST to control and obtain status from the SDP-40HD. The protocol has been designed to focus on two specific goals. The first is HOST uploading and downloading of SDP-40HD configuration, and system/effect setups. The second is HOST control of basic user adjustable parameters (i.e. input, volume, balance…).



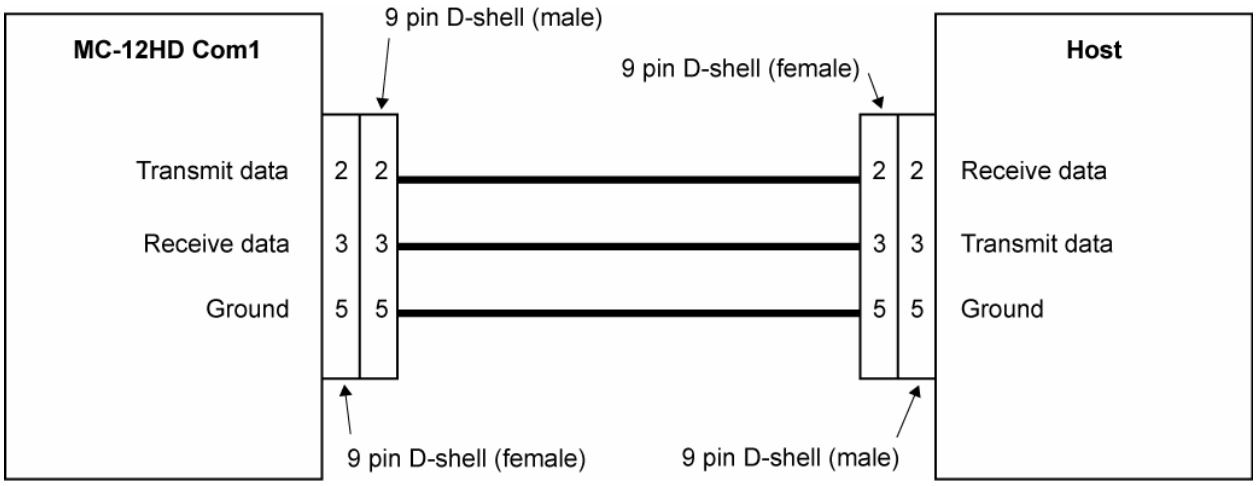
The SDP-40HD uses simple notification, command, response and acknowledgment packets to have communication transactions with a given HOST. This protocol is designed for point to point communication between a HOST and SDP-40HD. The SDP-40HD Protocol is a 3 layered system. The SDP-40HD serial protocol allows for the SDP-40HD, or the HOST, to initiate a communication transaction. Most transactions are initiated by the HOST. SDP-40HD then responds to the HOST command with either a response or acknowledgment packet. There are a few asynchronous notifications that SDP-40HD initiates indicating system changes. After each transaction is initiated, the initiating device must wait for a corresponding response before initiating the next transmission.

The 3 protocol layers are Physical, Data Link, and Application Layers.



5 Physical Layer

5.1 DB-9 RS232 Connector



Note: The wiring requirements for a 9 pin to 9 pin serial connection are a male to female straight through cable.

5.2 Serial Port Driver

SDP-40HD serial port has been setup to operate as follows:

Operating Mode:	Full Duplex
Baud rate:	19.2K baud
Data Size:	8 bits (1 byte)
Parity:	Odd
Stop Bits:	1
Hardware Handshaking:	None

5.3 Errors

The SDP-40HD will detect parity, framing and data overrun errors. If any physical layer errors are detected, the complete packet is corrupted and the SDP-40HD will reset the transaction and begin to look for a start of packet byte.

5.4 Receive Buffer

The SDP-40HD has an internal receive buffer. The buffer is 256 Bytes and will transmit a NAK packet with an error code of DC_ERR_BUFFER_FULL to the HOST if the buffer is full. If the buffer is full, all data transmitted to the SDP-40HD will be ignored, therefore making the currently transmitted packet, if partially transmitted, invalid.

5.5 Hardware Verification

This test verifies the RS232 ports are working by comparing the transmitted signal (at pin 2) to the received signal (at pin 3). The SDP-40HD transmits a known test signal just following a power up. The SDP-40HD monitors the serial port receivers while transmitting the test signal. If the signals are the same, the test passes. In order to test this circuit, RS232 Wraparound plug(s) are needed and must be installed at the female D9 connector(s) on the rear panel of the SDP-40HD labeled “RS232”. The wraparound plug shorts pins 2 to 3, allowing for the SDP-40HD to receive the signal it is transmitting. Once installed, power cycle the SDP-40HD and verify the following message is displayed on the FPD:

SERIAL PORT A PASSED
SERIAL PORT B PASSED

This message is displayed for about 2 seconds before entering normal operating mode. If no messages are displayed, then both wrap tests failed.

6 Data Link Layer

The data link layer is used to define a transmission packet. The layer appends a header and tail that enclose the transmitted application packet data. The data link header will contain the start of packet byte and count of bytes to follow. The data link tail will contain the end of packet byte.

Data Link Header:		
Byte Number	Description	Value
First Byte(0)	Start of Packet (SOP)	0xF1
Byte(1)	DLL Data Count	nn
Application Header:		
Byte(2)	Command	nn
Byte(3)	APP Data Count (number of application data bytes to Follow)	nn
Application Data:		
Byte(4)	Data[0]	nn
Byte(5)	Data[1]	nn
…	Data[…]	nn
Last Data Byte -1	Data[Data Count -1]	nn
Data Link Tail:		
Last Byte	End of Packet (EOP)	0xF2

6.1 Errors

If the number of DLL data bytes received is the same as the data count and an EOP has not been received, the SDP-40HD responds by transmitting a NAK packet with an error code DC_ERR_INVALID_PACKET. The SDP-40HD then continues to look for a SOP byte and will not process the erroneous application packet. The HOST can use this as an indicator to retransmit the corrupted packet.

In addition, each byte of a packet must be received sequentially and within the INTER_PACKET_TIME. If any of the bytes within a packet transmission exceeds the INTER_PACKET_TIME, the SDP-40HD will respond by transmitting a NAK packet with an error code DC_ERR_INVALID_PACKET. The SDP-40HD then continues to look for a SOP byte and will not process the erroneous application packet. The HOST can use this as an indicator to retransmit the corrupted packet.

7 Application Layer

7.1 Asynchronous Notification Packets

SDP-40HD has been designed to transmit the asynchronous notification packets following these system changes:
1. Power On
2. Entering Standby
3. Front Panel Display update
4. Parameter Value Changes.

The notification packets are defined as follows:

7.1.1 Wakeup Notification

By transmitting the Wakeup Notification, SDP-40HD indicates the unit has just “powered on” or reset and is ready to receive host commands. This notification is primarily for the HOST to know the status of the SDP-40HD.

7.1.1.1 Notification Packet Description

Application Header:		
Command	DC_WAKEUP	0x01
Data Count	0	0x00
Application Data:		
	N/A	

7.1.1.2 Host Response

The SDP-40HD does not expect any response from the HOST.

7.1.2 Sleep Notification

By transmitting the Sleep Notification, SDP-40HD indicates the unit is shutting down into a standby mode. Because the hard power switch could be activated independently of the SDP-40HD system software, hard power down will not be notified. Acknowledgment of the Sleep Notification is not required. This notification is primarily for the HOST to know the operating status of the SDP-40HD.

7.1.2.1 Notification Packet Description

Application Header:		
Command	DC_SLEEP	0x02
Data Count	0	0x00
Application Data:		
	N/A	

7.1.3 Front Panel Display

SDP-40HD will transmit the front panel display buffer following the update to the SDP-40HD front panel display. The SDP-40HD front panel display is 2 X 20 ASCII character display. The HOST can enable transmission of this notification message by sending Host Wakeup. To disable transmission the HOST can send Host Sleep. Transmission of the display buffer is asynchronous to other host/SDP-40HD communication and will only transmit following the completion of any communication exchanges in progress or pending.

7.1.3.1 Notification Packet Description

Application Header:		
Command	DC_FPD	0x03
Data Count	42	0x2A
Application Data:		
Data[0] - Data[20]	Line1	ch ch ch… 0x00
Data[21] - Data[41]	Line2	ch ch ch … 0x00

7.1.3.2 Data Description

Line1

Data Type:Null (0x00) terminated ASCII character string.
Max Length:DISP_LINE_LENGTH defined in Appendix E Protocol Constants.

Line2

Data Type:Null (0x00) terminated ASCII character string.
Max Length:DISP_LINE_LENGTH defined in Appendix E Protocol Constants.

The SDP-40HD includes 8 custom characters that are defined to display increments of a display block. (i.e. Volume Bar)
The custom characters are ASCII character codes 8E - 93(hex). The codes are used as follows:

'8E' - empty cell
'8F' - left 1 bar
'90' - left 2 bars
'91' - left 3 bars
'92' - left 4 bars
'93' - full cell

7.1.3.3 HOST Response

The SDP-40HD does not expect any response from the HOST.

7.1.4 SDP-40HD Parameter Notification by ID

SDP-40HD will transmit parameter change notifications if they are enabled using the command described in (SDP-40HD Set Parameter Notification By Id). If a parameter value is changed due to any user action or system action the SDP-40HD will transmit the current value of the parameter that is changing.

7.1.4.1 Command Packet Description

Application Header:		
Command	MC_PARAM_NOTIFICATION_BY_ID	0x05
Data Count	24	0x18
Application Data:		
Data[0]	ParamId(LSB)	nn
Data[1]	ParamId(MSB)	nn
Data[2]	ParamType	nn
Data[3-23]	Value[0 -20]	nn nn nn…

7.1.4.2 Data Description

Same as Parameter Set Data Description

7.1.4.3 HOST Response

The SDP-40HD does not expect any response from the HOST.

7.1.4.4 Defaults

The following Parameters Notifications are Enabled in the SDP-40HD default state:

Parameter	SDP-40HD Parameter Name	
Current Mode	PARAM.MAIN.EFFECT	
Main Zone Mute	PARAM.MAIN.MUTE	
Main Zone Volume	PARAM.MAIN.VOLUME	
Main Zone Balance	PARAM.MAIN.BALANCE	
Main Zone Input Selection	PARAM.MAIN.INPUT	
Zone 2 Input	PARAM.ZONE.INPUT	
Zone 2 Volume	PARAM.ZONE.VOLUME	
Zone 2 Balance	PARAM.ZONE.BALANCE	
Zone 2 Mute	PARAM.ZONE.MUTE	
Bass	PARAM.MAIN.BASS	
Treble	PARAM.MAIN.TREBLE	
Loudness	PARAM.MAIN.LOUDNESS	
Tilt	PARAM.MAIN.TILT	
Menu Background On/Off	PARAM.OSD.BACKGND	

7.2 Acknowledgment Packets

Acknowledge and No Acknowledge packets are used to communicate transmission, packet and data validation status. Both the HOST and SDP-40HD can transmit and receive these packets.

7.2.1 Acknowledge

7.2.1.1 Packet Description

Application Header:		
Command	DC_ACK	0xE0
Data Count	1	0x01
Application Data:		
Data[0]	Command	nn

7.2.1.2 Data Description

Command:
DataType:Valid SDP-40HD command as defined in Appendix A Command Codes.

7.2.2 No Acknowledge

7.2.2.1 Packet Description

Application Header:		
Command	DC_NACK	0xE1
Data Count	2	0x02
Application Data:		
Data[0]	Command	nn
Data[1]	ErrorCode	nn

7.2.2.2 Data Description

Command:
DataType:Valid SDP-40HD command as defined in Appendix A Command Codes.

ErrorCode:
DataType:Error code as defined in Appendix B Error Codes.

7.3 Host Initiated Command Packets

The SDP-40HD serial communication protocol has been designed to respond to the following commands as described below. Each command is transmitted to the SDP-40HD with the identified parameters. If the command is successfully received and processed by the SDP-40HD, the unit will respond with the described response packet or action.

7.3.1 Reset Unit

Commands the SDP-40HD to soft reset.

7.3.1.1 Command Packet Description

Application Header:		
Command	DC_CMD_RESET	0x10
Data Count	0	0x00
Application Data:		
	N/A	

7.3.1.2 SDP-40HD Response

The SDP-40HD will perform an internal reset. After reset the SDP-40HD will go through a soft power-up initialization. This includes transmitting the “Wakeup Notification Packet”. A soft reset does not reinitialize the SDP-40HD. Nonvolatile RAM is maintained. While the unit is resetting, the front panel will show “Configuring Please Wait”.

7.3.2 Restore

Commands the SDP-40HD to restore the system and effect parameters to factory default settings.

7.3.2.1 Command Packet Description

Application Header:		
Command	DC_CMD_RESTORE_DEFAULTS	0x13
Data Count	0	0x00
Application Data:		
	N/A	

7.3.2.2 SDP-40HD Response

The SDP-40HD will reset, clear any saved system and effect parameters in Nonvolatile RAM, and restore the factory default system and effect parameters. After reset the SDP-40HD will go through a soft power-up initialization. This includes transmitting the “Wakeup Notification Packet”.

7.3.3 Get Custom Name

Request to SDP-40HD for the custom name. SDP-40HD will respond with “Custom Name Packet”.

7.3.3.1 Command Packet Description

Application Header:		
Command	DC_CMD_GET_CUST_NAME	0x2B
Data Count	0	0x00
Application Data:		
	N/A	

7.3.3.2 Data Description

N/A

7.3.3.3 Custom Name Response Packet

Application Header:		
Command	DC_RESP_CUST_NAME	0x89
Data Count	Number of Characters in CustomName + 1	nn
Application Data:		
Data[0]- Data[DataCount-1]	CustomName	ch ch ch … 0x00

7.3.3.4 Data Description

CustomName:

Data Type:Null (0x00) terminated ASCII character string.
Max Length:CUSTOM_NAME_LENGTH defined in Appendix E Protocol Constants.

7.3.4 Set Custom Name

Sets the Custom Name that can be displayed when the unit powers up.

7.3.4.1 Packet Description

Application Header:		
Command	DC_CMD_SET_CUST_NAME	0x2C
Data Count	Number of characters in CustomName + 2	nn
Application Data:		
Data[0]	CustomNameEnable	nn
Data[1]-Data[DataCount-1]	CustomName	ch ch ch … 0x00

7.3.4.2 Data Description

CustomNameEnable:Enables/Disables the Custom Name Display.
DataType:Boolean
TRUE:CustomName Enabled
FALSE:CustomName Disabled

CustomName:
Data Type:Null (0x00) terminated ASCII character string.
Max Length:CUSTOM_NAME_LENGTH defined in Appendix E Protocol Constants.

7.3.4.3 SDP-40HD Response

If the custom name enable is TRUE then the custom name banner is displayed on “power on”. If the Custom Name Enable is FALSE the custom name is not displayed. The CustomName string is copied to Nonvolatile RAM. The SDP-40HD will send an ACK when completed with this command.

7.3.4.4 Data Validation:

No data validation is done on the transmitted data.

7.3.5 Host Wakeup

By transmitting the Wakeup Notification, the Host indicates it has just “powered on” or reset and is ready to receive SDP-40HD Notifications or Responses. The Host is assumed to be asleep upon power up of the SDP-40HD. Host status is maintained during standby.

7.3.5.1 Command Packet Description

Application Header:		
Command	HOST_WAKEUP	0x11
Data Count	0	0x00
Application Data:		
	N/A	

7.3.5.2 Data Description

N/A

7.3.5.3 SDP-40HD Response

The SDP-40HD will respond to this command with an ACK.

7.3.6 Host Sleep

By transmitting the Sleep command, the Host indicates it has just “powered down” and will no longer respond to SDP-40HD Notifications. No Acknowledgment is expected. The Host is assumed to be asleep upon power up of the SDP-40HD. Host status is maintained during standby.

7.3.6.1 Packet Description

Application Header:		
Command	HOST_SLEEP	0x12
Data Count	0	0x00
Application Data:		
	N/A	

7.3.6.2 Data Description

N/A

7.3.7 Get Communication Configuration

This command is a request to the SDP-40HD for the current communications configuration for the serial port and protocol. The SDP-40HD responds to this command with a Communication Configuration Packet.

7.3.7.1 Command Packet Description

Application Header:		
Command	DC_CMD_GET_COM_CONFIG	0x2F
Data Count	0	0x00
Application Data:		
	N/A	

7.3.7.2 Communication Configuration Response Packet

Application Header:		
Command	DC_RESP_COM_CONFIG	0x8C
Data Count	1	0x01
Application Data:		
Data[0]	Configuration Register 0	nn

7.3.7.3 Data Description

Data Word	Bit	Definition
0	0	Acknowledge Enable

Acknowledge Enable:

TRUE Indicates the SDP-40HD will transmit Acknowledge Notification’s to the Host.

FALSE Indicates the SDP-40HD will not transmit any positive Acknowledge Notification messages. The SDP-40HD will always transmit NAK error notification messages.

7.3.8 Set Communication Configuration

The Set Communication Configuration Command allows the serial port user to set up the various serial port/ protocol configuration parameters.

7.3.8.1 Command Packet Description

Application Header:		
Command	DC_CMD_SET_COM_CONFIG	0x30
Data Count	1	0x01
Application Data:		
Data[0]	Configuration Register 0	nn

7.3.8.2 Data Description

Data Word	Bit	Definition
0	0	Acknowledge Enable

Acknowledge Enable:

TRUE Indicates the SDP-40HD will transmit Acknowledge Notification's to the Host.

FALSE Indicates the SDP-40HD will not transmit any positive Acknowledge Notification messages. The SDP-40HD will always transmit NAK error notification messages.

7.3.8.3 SDP-40HD Response

The data values transmitted will be copied over to the registers stored in nonvolatile RAM. The SDP-40HD will respond with an ACK Packet.

7.3.9 Set Mute

The Set Mute Command message allows the RS232 users to set/clear the SDP-40HD mute state directly.

7.3.9.1 Command Packet Description

Application Header:		
Command	DC_CMD_SET_MUTE	0x31
Data Count	1	0x01
Application Data:		
Data[0]	Mute State	nn

7.3.9.2 Mute State Data Description

Value	Definition	Description
0	UNMUTE	The user mute state is set to unmuted. The SDP-40HD may still be muted for other internal reasons.
1	USER MUTE	The system volume decrements by the specified amount set in the OUTPUT LEVELS Menu.
2	FULL MUTE	The system is fully muted.

7.3.9.3 SDP-40HD Response

The SDP-40HD will set the mute state according to the value transmitted. The SDP-40HD may still be full muted if other conditions require the audio path to be muted. This is only a direct access to the user mute state.

7.3.9.4 Data Validation

The data value transmitted to the SDP-40HD will be verified as a valid value. If it is valid the SDP-40HD will set/clear the mute and respond with an ACK Packet. If the data value is invalid the SDP-40HD will respond with a DC_INVALID_DATA error NAK.

7.3.10 Send Display String Command

This command allows the Host to send a 40-character string to the SDP-40HD for display on the OSD and Front Panel Display.

7.3.10.1 Packet Description

Application Header:		
Command	DC_CMD_SET_DISPLAY_STR	0x33
Data Count	Number of characters in the DisplayStr + 2	nn
Application Data:		
Data[0]	DisplayFlags	nn
Data[1]-Data[DataCount-1]	DisplayStr	ch ch ch … 0x00

7.3.10.2 Display Command Flags Data Description

Word	**Bit**	**Definition**
0	0	FPD only: If set TRUE, the display string will only be sent to the FPD device for display.

Display String:
Data Type:Null (0x00) terminated ASCII character string.
Max Length:40 Characters.

7.3.10.3 SDP-40HD Response

The display string is sent to the OSD and Front Panel Display. The SDP-40HD will ACK when completed with this command.

7.3.10.4 Data Validation:

If a string length exceeds the 40-character maximum the string will be truncated before displaying and the SDP-40HD transmit a DC_NAK command with an error code DC_INVALID_DATA.

7.3.11 SDP-40HD Get Parameter Definition by Id

Request to SDP-40HD for a Parameter Definition by Parameter Id. SDP-40HD will respond with “SDP-40HD Parameter Definition Packet”.

7.3.11.1 Command Packet Description

Application Header:		
Command	MC_GET_PARAM_BY_ID	0x35
Data Count	2	0x02
Application Data:		
Data[0]	ParamId(LSB)	nn
Data[1]	ParamId(MSB)	nn

7.3.11.2 Data Description

ParamId:
Data Type:Unsigned 16 bit Integer
Max Value: Max Parameter Count as reported by the SDP-40HD Unit Configuration Response Packet in SDP-40HD Unit Configuration Response Packet

7.3.11.3 Data Validation:

If the ParamId is not a valid Id the SDP-40HD will respond with a NAK packet and error code DC_ INVALID_PARAM_ID.

7.3.11.4 Parameter Definition Response Packet

The following Packet has been defined as follows for SDP-40HD V1.00. Future releases may modify this definition.

Application Header:		
Command	MC_RESP_PARAM_DEF_PKT	0x8F
Data Count	110	0x6E
Application Data:		
Data[0]	ParamId(LSB)	nn
Data[1]	ParamId(MSB)	nn
Data[2]	ParamType	nn
Data[3]	MAX Value(LSB)	nn
Data[4]	MAX Value(MSB)	nn
Data[5]	MIN Value(LSB)	nn
Data[6]	MIN Value(MSB)	nn
Data[7-27]	CurrentValue[0 -20]	nn nn nn…
Data[28]-Data[108]	Parameter Path	ch ch ch … 0x00
Data[108]	Read Only	nn

7.3.11.5 Data Description

ParamId:

Data Type:Unsigned 16 bit Integer

Max Value: Max Parameter Count as reported by the SDP-40HD Unit Configuration Response Packet in SDP-40HD Unit Configuration Response Packet

ParamType:

Param Type Name	**Param Type ID**	**Type Description**	**Data Size (Bytes)**
PARAM_TYPE_UINT8	0	Unsigned 8 bit integer(0 to 255)	1
PARAM_TYPE_UINT16	1	Unsigned 16 bit integer(0 to 65535)	2
PARAM_TYPE_CSTR8	2	Zero terminated string of 8 ascii characters	9
PARAM_TYPE_CSTR13	3	Zero terminated string of 13 ascii characters	14
PARAM_TYPE_UINT32	4	Unsigned 32 bit integer (0 to 4,294,967,295)	4
PARAM_TYPE_BOOLEAN	5	Boolean(0 to 1)	1
PARAM_TYPE_INT8	6	Signed 8 bit integer (-127 to 128)	1
PARAM_TYPE_BRANCH	7	Parameter Branch	N/A
PARAM_TYPE_INT16	8	Signed 16 bit integer (-32,767 to 32,768)	2
PARAM_TYPE_CSTR20	9	Zero terminated string of 20 ascii characters	21

Data: The data value transmitted is dependent on the ParamType, as described above. The CurrentValue is always packed starting at the CurrentValue [0] byte in the packet. For multi-byte data, the values are packed LSB first(CurrentValue [0]) to MSB(CurrentValue [0+(num bytes-1)]). For example: Setting a given signed 16 bit parameter to a value of -300 the data array would be packed as follows:

Data[0] = 0xd4
Data[1] = 0xfe
Data[2 - 13] = don't care.

If a parameter's current value is a signed 16 bit parameter with a value of -3 the data array would be packed as follows:

Data[0] = 0xfd
Data[1] = 0xff
Data[2 - 13] = don't care.

All signed values are in the 2's compliment format.

Max Value: This is a 16 bit value representing the maximum value for a parameter. Parameter values exceeding the maximum will be limited to the maximum. This may be a signed or unsigned value depending on the Parameter Type.

Min Value: This is a 16 bit value representing the minimum value for a parameter. Parameter values exceeding the minimum will be limited to the minimum. . This may be a signed or unsigned value depending on the Parameter Type.

Parameter Path:This is a zero terminated ASCII character string describing the parameter's name and path in the units parameter tree structure.

Read Only:
Data Type:Boolean
TRUE:Parameter is read only
FALSE:Parameter is writeable

7.3.12 SDP-40HD Set Parameter Value by Id

Sets the parameter value equal to the value sent in the command packet, then runs the appropriate functional changes associated with changing the given parameter.

7.3.12.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_PARAM_VALUE_BY_ID	0x36
Data Count	24	0x18
Application Data:		
Data[0]	ParamId(LSB)	nn
Data[1]	ParamId(MSB)	nn
Data[2]	ParamType	nn
Data[3-23]	Value[0 -20]	nn nn nn…

7.3.12.2 Parameter Set Data Description

ParamId:
Data Type:Unsigned 16 bit Integer
Max Value:Max Parameter Count as reported by the SDP-40HD Unit Configuration Response Packet in SDP-40HD Unit Configuration Response Packet.

ParamType:

Param Type Name	Param Type ID	Type Description	Data Size (Bytes)
PARAM_TYPE_UINT8	0	Unsigned 8 bit integer(0 to 255)	1
PARAM_TYPE_UINT16	1	Unsigned 8 bit integer(0 to 65535)	2
PARAM_TYPE_CSTR8	2	Zero terminated string of 8 ASCII characters	9
PARAM_TYPE_CSTR13	3	Zero terminated string of 13 ASCII characters	14
PARAM_TYPE_UINT32	4	Unsigned 32 bit integer (0 to 4,294,967,295)	4
PARAM_TYPE_BOOLEAN	5	Boolean (0 to 1)	1
PARAM_TYPE_INT8	6	Signed 8 bit integer (-127 to 128)	1
PARAM_TYPE_BRANCH	7	Parameter Branch	N/A
PARAM_TYPE_INT16	8	Signed 16 bit integer (-32,767 to 32,768)	2
PARAM_TYPE_CSTR20	9	Zero terminated string of 20 ASCII characters	21

Value:

The data value transmitted is dependent on the ParamType, as described above. The Data Value is always packed starting at the Value[0] byte in the packet. For multi-byte data, the values are packed LSB first (Value[0]) to MSB(Value[0+(num bytes-1)]). For example: Setting a given signed 16 bit parameter to a value of -300 the data array would pack as follows:

Value[0] = 0xd4
Value[1] = 0xfe
Value[2 - 13] = don't care.

All signed values are in the 2's compliment format.

7.3.12.3 Data Validation:

The ParamId must be a valid Parameter. The ParamType must be valid for the given ParamId. If either of these condition is not true the SDP-40HD will respond with a NAK packet and error code DC _ INVALID_PARAM_ID. The data value size cannot exceed the size of a given data type. A value that does exceed the size of a give data type will be truncated to the appropriate size. The ParamType transmitted must match the ParamType for the Parameter being transmitted, as per the Parameter Definition as transmitted by the MC_SYS_PARAM_DEF_PKT . If the types do not match The SDP-40HD will transmit a NAK packet with a DC_INVALID_INPUT error code. The SDP-40HD will transmit a NAK packet with a DC_ERR_READ_ONLY error code for read only parameters.

7.3.13 SDP-40HD Set Parameter Value by Id, No Run

SDP-40HD Set Parameter by Id command sets the parameter value equal to the value sent in the command packet and does not run the appropriate functional changes associated with changing the given parameter.

7.3.13.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_PARAM_VALUE_BY_ID_NO_RUN	0x37
Data Count	24	0x18
Application Data:		
Data[0]	ParamId(LSB)	nn
Data[1]	ParamId(MSB)	nn
Data[2]	ParamType	nn
Data[3-23]	Value[0 -20]	nn nn nn…

7.3.13.2 Data Description

Same as Parameter Set Data Description

7.3.14 SDP-40HD Get Unit Configuration

Requests the current SDP-40HD unit configuration. SDP-40HD will respond with “Unit Configuration Packet”. The HOST should use this information to determine if any information saved by the HOST is current.

7.3.14.1 Command Packet Description

Application Header:		
Command	MC_CMD_GET_CONFIG	0x38
Data Count	0	0x00
Application Data:		
	N/A	

7.3.14.2 SDP-40HD Unit Configuration Response Packet

Application Header:		
Command	MC_RESP_UNIT_CONFIG	0x91
Data Count	30	0x1E
Application Data:		
Data[0]	ProductId	nn
Data[1]	Software Type	nn
Data[2]	Software Level	nn
Data[3]	Software Major Revision	nn
Data[4]	Software Minor Revision	nn
Data[5]	Protocol Major Revision	nn
Data[6]	Protocol Minor Revision	nn
Data[7]	Parameter Count Low(LSB)	nn
Data[8]	Parameter Count High(MSB)	nn
Data[9]	Effect Count	nn
Data[10]	TimeStamp[0]	ch
Data[11]	TimeStamp[1]	ch
Data[12]	TimeStamp[2]	ch
Data[13]	TimeStamp[3]	ch
Data[14]	TimeStamp[4]	ch
Data[15]	TimeStamp[5]	ch
Data[16]	TimeStamp[6]	ch
Data[17]	TimeStamp[7]	ch
Data[18]	TimeStamp[8]	ch
Data[19]	TimeStamp[9]	ch
Data[20]	TimeStamp[10]	ch
Data[21]	TimeStamp[11]	ch
Data[22]	TimeStamp[12]	ch
Data[23]	TimeStamp[13]	ch
Data[24]	TimeStamp[14]	ch
Data[25]	TimeStamp[15]	0x00
Data[26]	SerialNumber(LSB)	nn
Data[27]	SerialNumber	nn
Data[28]	SerialNumber	nn
Data[29]	SerialNumber(MSB)	nn

7.3.14.3 Data Description

ProductId: This unsigned 8 bit value describes the product.

Product ID	
Lexicon DC-2	1
Lexicon MC-1	2
JBL Synthesis SDP-3	3
Lexicon MC-12	4
JBL Synthesis SDP-40	5
Lexicon MC-8	6
JBL Synthesis SDP6	7
Lexicon RV-8	8
Lexicon MC-4	9
JBL Synthesis	10
Lexicon MC12HD	11
JBL Synthesis	12

Software Type: An unsigned 8 bit value indicating the current configuration of the unit's software. The following table shows the values assigned to the available types:

SW Type	
THX	1
AC3	2
DTS	3
COMPLETE	4
BOOTROM	5

Software Level: The following table shows the values assigned to the possible software levels:

SW Level	
RELEASED	0
PRE_ALPHA	1
ALPHA	2
BETA	3
GAMMA	4
UNSUPPORTED	5

*Note: SW level indicates the status of the SDP-40HD internal application software.

Software Major Revision: An unsigned 8 bit integer value indicating the unit's major software version. The host should use this information to determine if new effects, effect parameters, or system parameters have been added or removed.

Software Minor Revision: An unsigned 8 bit integer value indicating this units minor software version. Indicates the units software operation has changed but effects, effect parameters, or system parameters have not changed.

Protocol Major Revision: An unsigned 8 bit integer value indicating the serial communication protocol major version. The host should use this value to determine if new commands, notifications, or response packets have been added or deleted from this specification.

Protocol Minor Revision: An unsigned 8 bit integer value indicating the serial communication protocol minor version. The host should use this value to determine if the existing commands, notifications, or response packets have changed in this specification

Parameter Count: An unsigned 16 bit integer value indicating the maximum number of parameters for this version of software. All Parameters are sequential ordered with in the unit so cycling from ParamId 0 to ParamId = Parameter Count -1 allows for the host system to learn the Parameter definitions for all Parameters defined for a given software version. The 16 bit value is packed LSB followed by the MSB.

Total Number of Effects: An unsigned 8 bit integer value indicating the maximum number of effects available for this version of software.

TimeStamp: Is a null terminated ASCII text string describing the build date and time of the current software build. The Format of this text string is:

“yy/mm/dd(sp)hh:mm”

yy- is the last two digits of the year (i.e. year 2001=01, year 2002 = 02)

mm - is the month

dd- is the day

(sp) - is an ASCII space character (0x20)

hh - is the hour

mm - is the minute

SerialNumber: The Serial Number is an unsigned 32 bit integer holding the unique value of the current unit.

7.3.15 SDP-40HD Send IR Command

This command allows the HOST to transmit IR command key codes to the SDP-40HD.

7.3.15.1 Command Packet Description

Application Header:		
Command	MC_CMD_IR	0x39
Data Count	1	0x01
Application Data:		
Data[0]	KeyCode	nn

7.3.15.2 Data Description

KeyCode:
Data Type:Unsigned 8 bit integer.
Valid Values:Appendix C SDP-40HD IR-Codes

7.3.15.3 SDP-40HD Response

The KeyCode is processed as a valid IR code. No acknowledgment will be sent from SDP-40HD.

7.3.15.4 Data Validation

The KeyCode data will be verified as a legal IR code. If the Code is not valid the SDP-40HD will not respond.

7.3.16 SDP-40HD Get Parameter Value by Id (SDP-40HD)

Request to SDP-40HD for the current value of a given parameter. The SDP-40HD will respond with a “Parameter Value Packet”.

7.3.16.1 Command Packet Description

Application Header:		
Command	MC_CMD_GET_PARAM_VALUE_BY_ID	0x3A
Data Count	2	0x02
Application Data:		
Data[0]	ParamId (LSB)	nn
Data[1]	ParamId (MSB)	nn

7.3.16.2 Data Description

ParamId:
Data Type:Unsigned 16 bit integer.
Max:Max Parameter Count as reported by the SDP-40HD Unit Configuration
Response Packet in 7.3.39.2

7.3.16.3 Data Validation

If ParamId exceeds the its maximum value, the SDP-40HD will ignore the command and transmit a DC_NAK command with an error code DC_INVALID_PARAM_ID.

7.3.16.4 SDP-40HD Value String Response Packet

Application Header:		
Command	MC_RESP_PARAM_VALUE	0x92
Data Count	24	0x18
Application Data:		
Data[0]	ParamId (LSB)	nn
Data[1]	ParamId (MSB)	nn
Data[2]	ParamType	nn
Data[3-23]	Value[0 -20]	nn nn nn…

7.3.16.5 Data Description

Same as Parameter Set Data Description

7.3.17 SDP-40HD Set Parameter Notification by Id

Request to SDP-40HD to enable or disable transmission of the SDP-40HD parameter change notification for a given parameter.

7.3.17.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_PARAM_NOTIFICATION_BY_ID	0x3B
Data Count	3	0x03
Application Data:		
Data[0]	ParamId (LSB)	nn
Data[1]	ParamId (MSB)	nn
Data[2]	Enable/Disable	nn

7.3.17.2 Data Description

ParamId:
Data Type:Unsigned 16 bit integer.
Max:Max Parameter Count as reported by the SDP-40HD Unit Configuration
Response Packet in 7.3.39.2
Enable/Disable:
Data Type:Boolean
TRUE:Enable transmission of parameter notification
FALSE:Disable transmission of parameter notification

7.3.17.3 Data Validation

If ParamId exceeds the its maximum value, the SDP-40HD will ignore the command and transmit a DC_NAK command with an error code DC_INVALID_PARAM_ID.

7.3.17.4 SDP-40HD Response

If a parameter has been enabled for notification the SDP-40HD will transmit its current value whenever it has been changed due to any user or system action. For the details of the SDP-40HD notification packet, see SDP-40HD Parameter Notification by Id.

7.3.18 SDP-40HD Parameter Get Value String by Id

Request to SDP-40HD for the string representation of a given value for a given parameter. The SDP-40HD will respond with a “Value String Response Packet”.

7.3.18.1 Command Packet Description

Application Header:		
Command	MC_CMD_PARAM_GET_VALUE_STRING_BY_ID	0x3C
Data Count	23	0x17
Application Data:		
Data[0]	ParamId (LSB)	nn
Data[1]	ParamId (MSB)	nn
Data[2] - Data[22]	Value[0] - Value[20]	nn nn nn ..

7.3.18.2 Data Description

ParamId:
Data Type:Unsigned 16 bit integer.
Max:Max Parameter Count as reported by the SDP-40HD Unit Configuration Response Packet in 7.3.39.2

Value:
See MC12_Value_Union_Description.

7.3.18.3 Data Validation

If ParamId exceeds the its maximum value, the SDP-40HD will ignore the command and transmit a DC_NAK command with an error code DC_INVALID_PARAM_ID.

7.3.18.4 SDP-40HD Value String Response Packet

Application Header:		
Command	MC_RESP_VALUE_STRING	0x93
Data Count	Number of Characters in Value String + 1	nn
Application Data:		
Data[0] - Data[20]	Value String	ch ch ch … 0x00

7.3.18.5 Data Description

Value String:
Data Type:Null (0x00) terminated ASCII string.
Max Length:21 (20 characters plus terminating Null)

7.3.19 SDP-40HD Clear All Parameter Notifications

Request to the SDP-40HD to disable all SDP-40HD parameter notifications.

7.3.19.1 Command Packet Description

Application Header:		
Command	MC_CMD_CLEAR_ALL_PARAM_NOTIFICATIONS	0x3D
Data Count	0	0x00
Application Data:		
	N/A	

7.3.20 SDP-40HD Get System Status

Request to SDP-40HD for its current system status. SDP-40HD will respond with “System Status Packet”.

7.3.20.1 Command Packet Description

Application Header:		
Command	MC_CMD_GET_SYS_STATUS	0x3E
Data Count	0	0x00
Application Data:		
	N/A	

7.3.20.2 System Status Response Packet

Application Header:		
Command	MC_RESP_SYS_STATUS	0x94
Data Count	10	0x0A
Application Data:		
Data[0]	System Volume	nn
Data[1]	Current Input	nn
Data[2]	Current Effect Id	nn
Data[3]	Current Input Sample Rate	nn
Data[4]	Current Input Format	nn
Data[5]	Mute Active	nn
Data[6]	Effect Bypass	nn
Data[7]	Left/Right Balance	nn
Data[8]	Front/Back Balance	nn
Data[9]	Video Sync	nn

7.3.20.3 Data Description

System Volume:

Data Type:Signed 8 bit integer (2’s compliment)
Max:+12 (0x0C) (12 dB)
Min:-80 (0xB0) (-80 dB)

Current Input:

Data Type:Unsigned 8 bit integer
Definition/Conversion:Appendix D SDP-40HD Input Ids

Current Effect Id:

Data Type:Unsigned 8 bit integer
Definition/Conversion:Appendix F SDP-40HD Effect Ids

Current Input Sample Rate:
Data Type:Unsigned 8 bit integer.

SAMPLE RATE	
RATE_UNKNOWN	0
RATE_44	1
RATE_48	2
RATE_88	3
RATE_96	4

Current Input Format:
Data Type:Unsigned 8 bit integer.

DATA STREAM TYPE	
DATA_TYPE_UNKNOWN	0
DATA_TYPE_BYPASS	1
DATA_TYPE_ANALOG	2
DATA_TYPE_PCM	3
DATA_TYPE_DD	4
DATA_TYPE_DTS	5
DATA_TYPE_NOISE	6

Mute Active:
Data Type:Signed 8 bit integer
00:Unmuted
01:Full Mute
02:User Mute

Effect Bypass:
Data Type:Boolean
TRUE:Effect Bypass is Active
FALSE:Effect Bypass is Inactive

Left/Right Balance:
Data Type:Signed 8 bit integer (2's compliment)
Max:16 (0x10) (Full Right)
Min:-16 (0xF0) (Full Left)

Front/Back Balance:
Data Type:Signed 8 bit integer (2's compliment)
Max:16 (0x10) (Full Front)
Min:-16 (0xF0) (Full Back)

Video Sync:
Data Type:Boolean.
TRUE:SDP-40HD has detected Video Sync for current video input
FALSE:SDP-40HD can not detect Video Sync for the current video input

7.3.21 SDP-40HD Get Zone2 Status

This command is a request to SDP-40HD for current Zone 2 Status. SDP-40HD will respond with “Zone2 Status Packet”.

7.3.21.1 Command Packet Description

Application Header:		
Command	MC_CMD_GET_ZONE2_STATUS	0x3F
Data Count	0	0x00
Application Data:		
	N/A	

7.3.21.2 Zone2 Status Response Packet

Application Header:		
Command	MC_RESP_ZONE2_STATUS	0x95
Data Count	5	0x05
Application Data:		
Data[0]	Zone2 Volume	nn
Data[1]	Assigned Zone 2 Input	nn
Data[2]	Record Active	nn
Data[3]	Zone2 Mute Active	nn
Data[4]	Zone2 Balance	nn

7.3.21.3 Data Description

Zone2 Volume:

Data Type:Signed 8 bit integer (2’s compliment)
Max:+12 (0x0C) (12 dB)
Min:-80 dB (0xB0) (-80 dB)

Assigned Zone 2 Input:
Indicates the Zone 2 input that is currently assigned for the zone 2 outputs.

Data Type:Unsigned 8 bit integer.
Definition/Conversion:Appendix D SDP-40HD Input Ids

Zone2 Mute Active:

Data Type:Boolean.
TRUE:Zone2 Outputs are active.
FALSE: Zone 2 Outputs are not active.

Record Active:

Data Type:Boolean.
TRUE:Record Zone Output is active
FALSE: Record Zone Output is not Active.

Zone 2 Balance:

Data Type:Signed 8 bit integer (2’s compliment)
Max:16 (0x10) (Full Right)
Min:-16 (0xF0) (Full Left)

7.3.22 SDP-40HD Set System Volume

This command is a request to the SDP-40HD to set the system volume to the value in this packet.

7.3.22.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_SYS_VOLUME	0x40
Data Count	1	0x01
Application Data:		
Data[0]	Value	nn

7.3.22.2 Data Description

Value:

Data Type:Signed 8 bit integer (2's compliment)
Max:+12 (0x0C) (12 dB)
Min:-80 (0xB0) (-80 dB)

7.3.22.3 SDP-40HD Response

The SDP-40HD will assign the value from the packet to the system volume.

7.3.22.4 Data Validation

If a value is passed that exceeds the maximum value of that parameter the SDP-40HD will ignore the command and transmit a DC_NAK command with an error code DC_INVALID_DATA.

7.3.23 SDP-40HD Set Main Balance

Commands the SDP-40HD to set the system balance to the value in this packet.

7.3.23.1 Command Packet Description

Application Header:		
Command	DC_CMD_SET_SYS_BALANCE	0x41
Data Count	1	0x01
Application Data:		
Data[0]	Value	nn

7.3.23.2 Data Description

Value:

Data Type:Signed 8 bit integer (2's compliment)
Max:+16 (0x10) (Full Right)
Min:-16 (0xF0) (Full Left)

7.3.23.3 SDP-40HD Response

The SDP-40HD will assign the value from the packet to the system balance.

7.3.23.4 Data Validation

If a value is passed that exceeds the maximum value of that parameter the SDP-40HD will ignore the command and transmit a DC_NAK command with an error code DC_INVALID_DATA.

7.3.24 SDP-40HD Set Fader

Commands SDP-40HD to set the front/back balance to the value in this packet.

7.3.24.1 Packet Description

Application Header:		
Command	MC_CMD_SET_FRONT_BACK_BALANCE	0x42
Data Count	1	0x01
Application Data:		
Data[0]	Value	nn

7.3.24.2 Data Description

Value:

Data Type:Signed 8 bit integer (2's complement)
Max:+16 (0x10) (Full Front)
Min:-16 (0xF0) (Full Back)

7.3.24.3 SDP-40HD Response

The SDP-40HD will assign the value from the packet to the front/back balance.

7.3.24.4 Data Validation

If a value is passed that exceeds the maximum value of that parameter the SDP-40HD will ignore the command and transmit a NAK command with an error code DC_INVALID_DATA.

7.3.25 SDP-40HD Set Active Effect by Id

This command requests the SDP-40HD to set the active effect to the value in this packet.

7.3.25.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_EFFECT	0x43
Data Count	1	0x01
Application Data:		
Data[0]	EffectId	nn

7.3.25.2 Data Description

EffectId:
Data Type:Unsigned 8 bit integer

Definition/Conversion: Appendix F SDP-40HD Mode Ids

7.3.25.3 SDP-40HD Response

The SDP-40HD will load the desired effect.

7.3.25.4 Data Validation

If a value is passed that exceeds the maximum value of that parameter the SDP-40HD will ignore the command and transmit a NAK command with an error code DC_INVALID_DATA.

7.3.26 SDP-40HD Set Record Input

Sets the Record input.

7.3.26.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_REC_INPUT	0x44
Data Count	1	0x01
Application Data:		
Data[0]	InputId	nn

7.3.26.2 Data Description

InputId:
Data Type:Unsigned 8 bit Integer
Description/Conversion:Appendix D SDP-40HD Input Ids

7.3.26.3 SDP-40HD Response:

If the Input Id is a valid SDP-40HD input then the SDP-40HD will make the requested Input the active record input.

7.3.26.4 Data Validation:

The InputId must be a valid Input Id. If it is not the SDP-40HD will respond with a NAK packet and error code DC_INVALID_INPUT. If the input is assigned the SDP-40HD will respond with an ACK Packet.

7.3.27 SDP-40HD Set Zone2 Volume

Commands SDP-40HD to set the Zone 2 volume to the value in this packet.

7.3.27.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_ZONE2_VOLUME	0x45
Data Count	1	0x01
Application Data:		
Data[0]	Value	nn

7.3.27.2 Data Description

Value:
Data Type:Signed 8 bit integer (2's compliment)
Max:+12 (0x0C) (12dB)
Min:-80 (0xB0) (-80 dB)

7.3.27.3 SDP-40HD Response

The SDP-40HD will assign the value from the packet to the Zone 2 volume.

7.3.27.4 Data Validation

If a value is passed that exceeds the maximum value of that parameter the SDP-40HD will ignore the command and transmit a NAK command with an error code DC_INVALID_DATA.

7.3.28 SDP-40HD Set Zone2 Left/Right Balance

Commands SDP-40HD to set the Zone 2 balance to the value in this packet.

7.3.28.1 Packet Description

Application Header:

Command	MC_CMD_SET_ZONE2_BALANCE	0x46
Data Count	1	0x01
Application Data:		
Data[0]	Value	nn

7.3.28.2 Data Description

Value:

Data Type:Signed 8 bit integer (2's compliment)
Max:+16 (0x10) (Full Right)
Min:-16 (0xF0) (Full Left)

7.3.28.3 SDP-40HD Response

The SDP-40HD will assign the value from the packet to the Zone 2 balance.

7.3.28.4 Data Validation

If a value is passed that exceeds the maximum value of that parameter the SDP-40HD will ignore the command and transmit a NAK command with an error code DC_INVALID_DATA.

7.3.29 SDP-40HD Get Input Name by Id

This command is a request to SDP-40HD for the custom input name. SDP-40HD will respond with "Input Name Packet".

7.3.29.1 Command Packet Description

Application Header:		
Command	MC_CMD_GET_INPUT_NAME	0x47
Data Count	1	0x01
Application Data:		
Data[0]	InputId	nn

7.3.29.2 Data Description

InputId:

Data Type:Unsigned 8 bit Integer
Definition/Conversion:Appendix D SDP-40HD Input Ids

7.3.29.3 Data Validation:

The InputId must be a valid Input number. If it is not the SDP-40HD will respond with a NAK packet and error code DC_INVALID_INPUT.

7.3.29.4 Input Name Response Packet

Application Header:		
Command	MC_RESP_INPUT_NAME	0x96
Data Count	Number of Characters in InputName + 2	nn
Application Data:		
Data[0]	InputId	nn
Data[1]- Data[DataCount-1]	InputName	ch ch ch … 0x00

7.3.29.5 Data Description

InputId:
Data Type:Unsigned 8 bit Integer
Definition/Conversion:Appendix D SDP-40HD Input Ids

InputName:
Data Type:Null (0x00) terminated ASCII character string.
Max Length:INPUT_NAME_LENGTH defined in Appendix E Protocol Constants.

7.3.30 SDP-40HD Set Input Name by Id

Sets an Input Name to the transmitted value for a given input.

7.3.30.1 Command Packet Description

Application Header:		
Command	MC_CMD_SET_INPUT_NAME	0x48
Data Count	Number of characters in InputName + 2	nn
Application Data:		
Data[0]	InputId	nn
Data[1]-Data[DataCount-1]	InputName	ch ch ch ... 0x00

7.3.30.2 Data Description

InputId:
Data Type:Unsigned 8 bit Integer
Description/Conversion:Appendix D SDP-40HD Input Ids

InputName:
Data Type:Null (0x00) terminated ASCII character string.
Max Length:INPUT_NAME_LENGTH defined in Appendix E Protocol Constants.

7.3.30.3 SDP-40HD Response

SDP-40HD will copy the InputName to the given input.

7.3.30.4 Data Validation:

The InputId must be a valid Input Id. If it is not the SDP-40HD will respond with a NAK packet and error code DC_INVALID_INPUT. If the InputName string exceeds the INPUT_NAME_LENGTH, the SDP-40HD will truncate the string to the INPUT_NAME_LENGTH.

Appendix A: Command Codes

Notifications:		
	DC_NO_CMD	0x00
	DC_WAKEUP	0x01
	DC_SLEEP	0x02
	DC_FPD	0x03
	MC_PARAM_NOTIFICATION_MSG	0x04

Host Commands:		
	DC_CMD_RESET	0x10
	HOST_WAKEUP	0x11
	HOST_SLEEP	0x12
	DC_CMD_RESTORE_DEFAULTS	0x13
	DC_CMD_GET_CUST_NAME	0x2B
	DC_CMD_SET_CUST_NAME	0x2C
	DC_CMD_GET_COM_CONFIG	0x2F
	DC_CMD_SET_COM_CONFIG	0x30
	DC_CMD_SET_MUTE	0x31
	DC_CMD_SET_DISPLAY_STR	0x33
	MC_CMD_GET_PARAM_BY_ID	0x35
	MC_CMD_SET_PARAM_VALUE_BY_ID	0x36
	MC_CMD_SET_PARAM_VALUE_BY_ID_NO_RUN	0x37
	MC_CMD_GET_CONFIG	0x38
	MC_CMD_IR	0x39
	MC_CMD_GET_PARAM_VALUE_BY_ID	0x3A
	MC_CMD_SET_PARAM_NOTIFICATION_BY_ID	0x3B
	MC_CMD_PARAM_GET_VALUE_STRING_BY_ID	0x3C
	MC_CMD_CLEAR_ALL_PARAM_NOTIFICATIONS	0x3D
	MC_CMD_GET_SYS_STATUS	0x3E
	MC_GET_REC_ZONE2_STATUS	0x3F
	MC_CMD_SET_SYS_VOLUME	0x40
	MC_CMD_SET_SYS_BALANCE	0x41
	MC_CMD_SET_FRONT_BACK_BALANCE	0x42
	MC_CMD_SET_EFFECT	0x43
	MC_CMD_SET_REC_INPUT	0x44
	MC_CMD_SET_ZONE2_VOLUME	0x45
	MC_CMD_SET_ZONE2_BALANCE	0x46
	MC_CMD_GET_INPUT_NAME	0x47
	MC_CMD_SET_INPUT_NAME	0x48

Responses		
	DC_RESP_CUST_NAME	0x89
	DC_RESP_COM_CONFIG	0x8C
	DC_RESP_DATA	0x8E
	MC_RESP_PARAM_DEF	0x8F
	MC_WAITING_FOR_DOWNLOAD	0x90
	MC_RESP_UNIT_CONFIG	0x91
	MC_RESP_PARAM_VALUE	0x92
	MC_RESP_VALUE_STRING	0x93
	MC_RESP_SYS_STATUS	0x94
	MC_RESP_ZONE2_STATUS	0x95
	MC_RESP_INPUT_NAME	0x96

Acknowledgments		
	DC_ACK	0xE0
	DC_NAK	0xE1

Appendix B: Error Codes

Error	Code(Hex)
NO_ACK	0x00
DC_NO_ERROR	0x01
DC_ERR_PARITY	0x02
DC_ERR_FRAMING	0x03
DC_ERR_OVERRUN	0x04
DC_ERR_INVALID_PACKET	0x05
DC_ERR_TIME_OUT	0x06
DC_ERR_BUFFER_FULL	0x07
DC_INVALID_COUNT	0x10
DC_INVALID_CMD	0x11
DC_INVALID_DATA	0x12
DC_INVALID_ADDRESS	0x13
DC_INVALID_EFFECT_ID	0x14
DC_INVALID_PARAM_ID	0x15
DC_INVALID_NAME	0x16
DC_INVALID_INPUT	0x17
DC_ERR_READ_ONLY	0x18

Appendix C: IR Codes

KEY	Button2 **Main**		Button3 **Zone-2**		Button4 **Record**		Button9 **Shift**	
	LABEL	DATA (hex)	FUNCTION	DATA (hex)	FUNCTION	DATA (hex)	FUNCTION	DATA (hex)
Setup	LIGHT	None	LIGHT	None	LIGHT	None	LIGHT	None
1	MAIN_ON_STDBY	0x05	ZONE_ON_STDBY	0x05	REC_ON_STDBY	0x05	SHIFT_STDBY	0x05
2	MAIN	None	MAIN	None	MAIN	None	MAIN	None
3	ZONE	None	ZONE	None	ZONE	None	ZONE	None
4	REC	None	REC	None	REC	None	REC	None
5	Deleted	None	Deleted	None	Deleted	None	Deleted	None
6	Deleted	None	Deleted	None	Deleted	None	Deleted	None
7	Deleted	None	Deleted	None	Deleted	None	Deleted	None
8	Deleted	None	Deleted	None	Deleted	None	Deleted	None
9	SHIFT	None	SHIFT	None	SHIFT	None	SHIFT	None
10	MAIN_DVD_1	0x20	ZONE_DVD_1	0x60	REC_DVD_1	0xE0	MAIN_OFF	0xA0
11	MAIN_DVD_2	0x21	ZONE_DVD_2	0x61	REC_DVD_2	0xE1	ZONE_OFF	0xA1
12	MAIN_LD	0x22	ZONE_LD	0x62	REC_LD	0xE2	REC_OFF	0xA2
13	MAIN_TV	0x23	ZONE_TV	0x63	REC_TV	0xE3	LOUDNESS_ON	0xA3
14	MAIN_SAT	0x24	ZONE_SAT	0x64	REC_SAT	0xE4	LOUDNESS_OFF	0xA4
15	MAIN_VCR	0x25	ZONE_VCR	0x65	REC_VCR	0xE5	Reserved	0xA5
16	MAIN_CD	0x26	ZONE_CD	0x66	REC_CD	0xE6	BASS_INCR	0xA6
17	MAIN_PVR	0x27	ZONE_PVR	0x67	REC_PVR	0xE7	TREBLE_INCR	0xA7
18	MAIN_GAME	0x28	ZONE_GAME	0x68	REC_GAME	0xE8	TILT_INCR	0xA8
19	MAIN_TAPE	0x29	ZONE_TAPE	0x69	REC_TAPE	0xE9	BASS_DECR	0xA9
20	MAIN_TUNER	0x2A	ZONE_TUNER	0x6A	REC_TUNER	0xEA	TREBLE_DECR	0xAA
21	MAIN_AUX	0x2B	ZONE_AUX	0x6B	REC_AUX	0xEB	TILT_DECR	0xAB
22	MODE_INCR	0x1A	TRIGGER1_ON	0x5A	TRIGGER2_On	0xDA	ON	0x9A
23	MODE_DECR	0x1B	TRIGGER1_OFF	0x5B	TRIGGER2_OFF	0xDB	STANDBY	0x9B
24	FP	0x04	ZONE_VOL_N15DB	0x44	REC_VOL_N15DB	0xC4	VOL_N15DB	0x84
25	BLUE	0x03	ZONE_VOL_N30DB	0x43	REC_VOL_N30DB	0xC3	VOL_N30DB	0x83
26	OSD	0x02	Reserved	0x42	Reserved	0xC2	EQ_OFF	0x82
27	VOL_INCR	0x17	ZONE_VOL_INCR	0x57	REC_VOL_INCR	0xD7	VOL_03DB	0x97
28	VOL_DECR	0x16	ZONE_VOL_DECR	0x56	REC_VOL_DECR	0xD6	VOL_N03DB	0x96
29	STAT	0x1C	ZONE_STATUS	0x5C	REC_STATUS	0xDC	INPUT_STATUS	0x9C
30	MUTE	0x15	ZONE_MUTE	0x55	REC_MUTE	0xD5	FULL_MUTE	0x95
31	UP_ARROW	0x01	SUB_ADJ_INCR	0x41	Reserved	0xC1	FADER_FRONT	0x81
32	DN_ARROW	0x1D	SUB_ADJ_DECR	0x5D	Reserved	0xDD	FADER_REAR	0x9D
33	LEFT_ARROW_DONE	0x0A	ZONE_BAL_LEFT	0x4A	REC_BAL_LEFT	0xCA	BAL_LEFT	0x8A
34	RIGHT_ARROW_SELECT	0x08	ZONE_BAL_RIGHT	0x48	REC_BAL_RIGHT	0xC8	BAL_RIGHT	0x88
35	MENU	0x09	ZONE_BAL_CENTER	0x49	REC_BAL_CENTER	0xC9	BAL_CENTER	0x89
36	MAIN_TOGGLE_7_5	0x1E	Reserved	0x5E	Reserved	0xDE	MAIN_SRC_MODE	0x9E
37	MAIN_2_CHANNEL	0x1F	Reserved	0x5F	Reserved	0xDF	BYPASS	0x9F
38	THX_LOGO	0x0B	Reserved	0x4B	Reserved	0xCB	THX_EX_TOGGLE	0x8B
39	DOLBY_LOGO	0x0C	Reserved	0x4C	Reserved	0xCC	DOLBY_EX_TOGGLE	0x8C
40	LOGIC7_LOGO	0x0D	Reserved	0x4D	Reserved	0xCD	Reserved	0x8D
41	TV_L_LOGO	0x0E	Reserved	0x4E	Reserved	0xCE	MONO_LOGIC	0x8E
42	DTS_LOGO	0x0F	Reserved	0x4F	Reserved	0xCF	DTS_ES_TOGGLE	0x8F
43	MUSIC	0x10	Reserved	0x50	Reserved	0xD0	MUSIC_SURROUND	0x90
44-55	Deleted	None	Deleted	None	Deleted	None	Deleted	None

Additional Ir Codes(V1.0)

Mode	Code(hex)		Mode	Code(hex)
DIRECT_LOGIC7_IR	0xAC		DIRECT_DTS_LOGIC7_IR	0xEC
DIRECT_TV_LOGIC_IR	0xAD		DIRECT_DTS_MUSIC_IR	0xED
DIRECT_MUSIC_LOGIC_IR	0xAE		DIRECT_DTS_2CHANNEL_IR	0xEE
DIRECT_2CHAN_SURROUND_IR	0xAF		DIRECT_DTS_IR	0xEF
DIRECT_2_CHANNEL_IR	0xB0		DIRECT_DTS_THX_IR	0xF0
DIRECT_MONO_LOGIC_IR	0xB1		DIRECT__51_AD_FILM_IR	0xF1
DIRECT_MONO_SURROUND_IR	0xB2		DIRECT__51_AD_MUSIC_IR	0xF2
DIRECT_MONO_IR	0xB3		DIRECT__51_AD_2CHANNEL_IR	0xF3
DIRECT_PROLOGIC_IR	0xB4		DIRECT__51_AD_IR	0xF4
DIRECT_PROLOGIC2_IR	0xB5		DIRECT__51_AD_THX_IR	0xF5
DIRECT_PL2MUSIC_IR	0xB6		DIRECT_NIGHTCLUB_IR	0xF6
DIRECT_THX_CINEMA_IR	0xB7		DIRECT_CONCERT_HALL_IR	0xF7
DIRECT_DTS_NEO_FILM_IR	0xB8		DIRECT_CHURCH_IR	0xF8
DIRECT_DTS_NEO_MUSIC_IR	0xB9		DIRECT_CATHEDRAL_IR	0xF9
DIRECT__51_LOGIC7_IR	0xBA		DIRECT_MUSIC_SURR_IR	0xFA
DIRECT__51_TV_LOGIC_IR	0xBB		DIRECT__51_AD_THX_MUSIC_IR	0xFB
DIRECT__51_MUSIC_IR	0xBC		DIRECT_DTS_THX_MUSIC_IR	0xFC
DIRECT__51_THX_IR	0xBD		DIRECT__51_THX_MUSIC_IR	0xFD
DIRECT_DOLBY_DIGITAL_IR	0xBE		DIRECT_PANORAMA_IR	0xFE
DIRECT__51_2CHANNEL_IR	0xBF			
DIRECT__51_MONO_LOGIC_IR	0xC0		DIRECT_PLIIX_THX	0xCB
DIRECT__51_MONO_SURROUND_IR	0xC6		DIRECT_PLIIX_MOVIE	0xCC
DIRECT__51_MONO_IR	0xC7		DIRECT_PLIIX_MUSIC	0xCD
			DIRECT_5_1PLIIX_MOVIE	0xCE
			DIRECT_5_1_PLIIX_MUSIC	0xCF

Appendix D: Input IDs

SDP-40HD Input Name	SDP-40HD Input Id
OFF	0
DVD1	1
DVD2	2
LD	3
TV	4
SAT	5
VCR	6
CD	7
PVR	8
GAME	9
TAPE	10
TUNER	11
AUX	12

Appendix E: Protocol Constants

Constant	**Value (Dec)**	Units
FPD_LINE_LENGTH	20	Chars
PARAM_NAME_LENGTH	13	Chars
CUSTOM_NAME_LENGTH	20	Chars
INPUT_NAME_LENGTH	8	Chars
PARAM_PATH_LENGTH	80	Chars
INTER_PACKET_TIME	200	mSec
SOP	0xF1	Hex
EOP	0xF2	Hex

Appendix F: Mode IDs

SDP-40HD Mode ID	SDP-40HD Mode Name
0	NONE
1	USE LAST
2	INT NOISE
3	LOGIC7
4	TV LOGIC
5	MUSIC LOGIC
6	PARTY
6	2CHAN SURROUND
7	STEREO
7	2 CHANNEL
8	MONO LOGIC
9	MONO SURROUND
10	MONO
11	PROLOGIC
12	PROLOGIC2
13	PL2MUSIC
14	THX CINEMA
15	DTS NEO FILM
16	DTS NEO MUSIC
17	5.1 LOGIC7
18	5.1 TV LOGIC
19	5.1 MUSIC
20	5.1 THX
21	DOLBY DIGITAL
22	5.1 2CHANNEL
23	5.1 MONO LOGIC
24	5.1 MONO SURROUND
25	5.1 MONO
26	DTS LOGIC7
27	DTS MUSIC
28	DTS 2CHANNEL
29	DTS
30	DTS THX
31	2 CHAN ANALOG BYPASS
32	5.1 ANALOG BYPASS
33	EXT NOISE PL2
34	EXT NOISE DD
35	EXT NOISE DTS
36	5.1 MULTI CHAN FILM
37	5.1 MULTI CHAN MUSIC
38	5.1 MULTI CHAN 2CHANNEL
39	5.1 MULTI CHAN
40	5.1 MULTI CHAN THX
41	NIGHTCLUB
42	CONCERT HALL
43	CHURCH
44	CATHEDRAL

45	MUSIC SURR
46	5.1 MULTI CHAN THX MUSIC
47	DTS THX MUSIC
48	5.1 THX MUSIC
49	AUTO CAL
50	PANORAMA
51	PROLOGIC THX
52	DTS NEO THX
53	LIVE1
54	LIVE2
55	LIVE3
56	LIVE CAL
57	PROLOGIC 2X THX
58	PROLOGIC 2X MOVIE
59	PROLOGIC 2X MUSIC
60	5.1 PROLOG 2X MOVIE
61	5.1 PROLOG 2X MUSIC

Appendix G: Application Notes and Examples

1 Box initializations:

1.1 SDP-40HD:

When the SDP-40HD is powered on it will initialize the serial port and then transmit the DC_WAKEUP Packet, and look for an ACK from the HOST. Currently, if an ACK is not received, the SDP-40HD continues to operate. This message is mostly for the HOST to know if the SDP-40HD is in an operational state.

1.2 HOST:

When the HOST issues a HOST_WAKEUP Packet the SDP-40HD responds with an ACK and then transmits the current FPD buffer with a DC_FPD notification. If the Host issues a HOST_WAKEUP command and does not receive the ACK it should assume it is not connected or the SDP-40HD is not capable of responding on the RS232 and therefore further serial communications will not be possible. If the SDP-40HD RS232 is capable of communicating, the SDP-40HD will respond to a HOST_WAKEUP Command in any “Powered up” state including standby.

2 Getting System Wide Status and Setup:

TBD

3 Downloading the System Setup to the SDP-40HD:

TBD

4 Simple System Control & System Status:

The HOST can control the system via the IR commands thus making any direct IR code a direct command. Because of some limitations in the IR codes the HOST also has direct control over the system volume, balance, fader, effect selection, zone 2 volume, balance and input selection through dedicated commands.

5 Examples:

The following examples show the byte’s transmitted for the SDP-40HD Get Unit Configuration, and Send SDP-40HD IR Commands . They are shown as they should be transmitted from left to right.

5.1 SDP-40HD Get Unit Configuration

The HOST initiates by sending the GET_UNIT_CONFIG command packet:

SOP	DLL DC	CMD	AppDC	EOP
F1	03	38	00	F2

If the command is received without error the SDP-40HD responds with the UNIT_CONFIG response packet:

SOP	DLL DC	CMD	App DC	DATA0	DATA1	DATA2

				Product Id	SW TYPE	SW LVL
F1	1E	91	19	0B	04	05

DATA3	DATA4	DATA5	DATA6	DATA7	DATA8	DATA9
SW MJ REV	SW MN REV	PTCL MJ REV	PTCL MN REV	PARAM COUNT (LSB)	PARAM COUNT (MSB)	EFFECT COUNT
01	00	01	07	6e	08	3e

DATA10	DATA11	DATA12	DATA13	DATA14	DATA15	DATA16	DATA17
Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp
30	36	2f	30	33	2f	30	37
0	6	/	0	3	/	0	7

DATA18	DATA19	DATA20	DATA21	DATA22	DATA23	DATA24	DATA25
Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp	Time Stamp
20	31	31	3A	34	37	00	00
(sp)	1	1	:	4	7		

DATA26	DATA27	DATA28	DATA29	EOP
Serial Number (LSB)	Serial Number	Serial Number	Serial Number (MSB)	
68	04	00	00	F2

From the response packet we can see that the SDP-40HD is configured as a
Product Id is Lexicon MC-12HD
Software type COMPLETE
Software level of RELEASED
Software Version 1.00
Protocol Version 1.01
with 1007 parameters
and 25 effects,
and the software image was built
“01/07/27 17:07”
and has an internal serial number of
1128 (0x00 00 04 68)

5.2 Send SDP-40HD IR Command Example

SOP	DLL DC	CMD	AppDC	DATA0 IR Key Code	EOP
F1	04	39	01	28	F2

This example shows how to transmit the IR command for "MAIN_GAME". This example command will select the GAME input for the Main Zone. The bytes are transmitted from left to right and they are defined as:

Byte 0: Start of Packet(F1 hex)
Byte 1: Data Link Layer(DLL) Data Count(DC); for an IR command this would be 4 bytes to follow
Byte 2: The Application Layer Command, in this case it is 39 hex indicating this is an IR command packet.
Byte 3: The Application Layer Data Count(DC); for this packet it is 1 data byte to follow.
Byte 4: The Application Command Data: This IR Command Packet is transmitting Key Code "MAIN_GAME"(28 hex). To transmit other IR Key Codes the user would replace this byte with other IR key codes as found in Appendix D SDP-40HD IR Codes.
Byte 5: End of Packet (F2 hex)

6 SDP-40HD V1.00 Parameter ID List

. These Parameter Id Values will change with S/W and Protocol version changes. The SDP-40HD can always be queried for the correct Parameter Id numbers and Parameter Definition Packets.

ParamId (dec)	ParamId (hex)	Parameter Name
0	0x0000	
1	0x0001	PARAM.INPUTS
2	0x0002	PARAM.INPUTS.OFF
3	0x0003	PARAM.INPUTS.OFF.INPNAME
4	0x0004	PARAM.INPUTS.OFF.HDMIIN
5	0x0005	PARAM.INPUTS.OFF.DIGIN
6	0x0006	PARAM.INPUTS.OFF.ANLGIN
7	0x0007	PARAM.INPUTS.OFF.ANLGTRIM
8	0x0008	PARAM.INPUTS.OFF.TRIMMODE
9	0x0009	PARAM.INPUTS.OFF.VIDEOIN
10	0x000A	PARAM.INPUTS.OFF.CH2EFFCT
11	0x000B	PARAM.INPUTS.OFF.DDEFFCT
12	0x000C	PARAM.INPUTS.OFF.DTSEFFCT
13	0x000D	PARAM.INPUTS.OFF.MSRCMODE
14	0x000E	PARAM.INPUTS.OFF.RSRCMODE
15	0x000F	PARAM.INPUTS.OFF.ZSRCMODE
16	0x0010	PARAM.INPUTS.OFF.RECTRIM
17	0x0011	PARAM.INPUTS.OFF.SPDIF
18	0x0012	PARAM.INPUTS.OFF.ANLGBYPASS
19	0x0013	PARAM.INPUTS.OFF.DIGBYPASS
20	0x0014	PARAM.INPUTS.OFF.TRIGGER1
21	0x0015	PARAM.INPUTS.OFF.TRIGGER2
22	0x0016	PARAM.INPUTS.OFF.COMPONENTIN
23	0x0017	PARAM.INPUTS.OFF.SVID_16_9

0	0x0000	PARAM.PARAM
1	0x0001	PARAM.INPUTS
2	0x0002	PARAM.INPUTS.OFF
3	0x0003	PARAM.INPUTS.OFF.INPNAME
4	0x0004	PARAM.INPUTS.OFF.HDMIIN
5	0x0005	PARAM.INPUTS.OFF.DIGIN
6	0x0006	PARAM.INPUTS.OFF.ANLGIN
7	0x0007	PARAM.INPUTS.OFF.ANLGTRIM
8	0x0008	PARAM.INPUTS.OFF.TRIMMODE
9	0x0009	PARAM.INPUTS.OFF.VIDEOIN
10	0x000A	PARAM.INPUTS.OFF.CH2EFFCT
11	0x000B	PARAM.INPUTS.OFF.DDEFFCT
12	0x000C	PARAM.INPUTS.OFF.DTSEFFCT
13	0x000D	PARAM.INPUTS.OFF.MSRCMODE
14	0x000E	PARAM.INPUTS.OFF.RSRCMODE
15	0x000F	PARAM.INPUTS.OFF.ZSRCMODE
16	0x0010	PARAM.INPUTS.OFF.RECTRIM
17	0x0011	PARAM.INPUTS.OFF.SPDIF
18	0x0012	PARAM.INPUTS.OFF.ANLGBYPASS
19	0x0013	PARAM.INPUTS.OFF.DIGBYPASS
20	0x0014	PARAM.INPUTS.OFF.TRIGGER1
21	0x0015	PARAM.INPUTS.OFF.TRIGGER2
22	0x0016	PARAM.INPUTS.OFF.COMPONENTIN
23	0x0017	PARAM.INPUTS.OFF.SVID_16_9
24	0x0018	PARAM.INPUTS.OFF.RECBLOCK
25	0x0019	PARAM.INPUTS.OFF.SVIDOSD_4_3
26	0x001A	PARAM.INPUTS.OFF._51_AD_EFFECT
27	0x001B	PARAM.INPUTS.OFF.COMPNTOSD
28	0x001C	PARAM.INPUTS.OFF.LIVEEFFCT
29	0x001D	PARAM.INPUTS.OFF.TRANSITION_TIME
30	0x001E	PARAM.INPUTS.OFF.HDMIOSD
31	0x001F	PARAM.INPUTS.DVD1
32	0x0020	PARAM.INPUTS.DVD1.INPNAME
33	0x0021	PARAM.INPUTS.DVD1.HDMIIN
34	0x0022	PARAM.INPUTS.DVD1.DIGIN
35	0x0023	PARAM.INPUTS.DVD1.ANLGIN
36	0x0024	PARAM.INPUTS.DVD1.ANLGTRIM
37	0x0025	PARAM.INPUTS.DVD1.TRIMMODE
38	0x0026	PARAM.INPUTS.DVD1.VIDEOIN
39	0x0027	PARAM.INPUTS.DVD1.CH2EFFCT
40	0x0028	PARAM.INPUTS.DVD1.DDEFFCT
41	0x0029	PARAM.INPUTS.DVD1.DTSEFFCT
42	0x002A	PARAM.INPUTS.DVD1.MSRCMODE
43	0x002B	PARAM.INPUTS.DVD1.RSRCMODE
44	0x002C	PARAM.INPUTS.DVD1.ZSRCMODE
45	0x002D	PARAM.INPUTS.DVD1.RECTRIM
46	0x002E	PARAM.INPUTS.DVD1.SPDIF
47	0x002F	PARAM.INPUTS.DVD1.ANLGBYPASS
48	0x0030	PARAM.INPUTS.DVD1.DIGBYPASS
49	0x0031	PARAM.INPUTS.DVD1.TRIGGER1
50	0x0032	PARAM.INPUTS.DVD1.TRIGGER2

51	0x0033	PARAM.INPUTS.DVD1.COMPONENTIN
52	0x0034	PARAM.INPUTS.DVD1.SVID_16_9
53	0x0035	PARAM.INPUTS.DVD1.RECBLOCK
54	0x0036	PARAM.INPUTS.DVD1.SVIDOSD_4_3
55	0x0037	PARAM.INPUTS.DVD1._51_AD_EFFECT
56	0x0038	PARAM.INPUTS.DVD1.COMPNTOSD
57	0x0039	PARAM.INPUTS.DVD1.LIVEEFFCT
58	0x003A	PARAM.INPUTS.DVD1.TRANSITION_TIME
59	0x003B	PARAM.INPUTS.DVD1.HDMIOSD
60	0x003C	PARAM.INPUTS.DVD2
61	0x003D	PARAM.INPUTS.DVD2.INPNAME
62	0x003E	PARAM.INPUTS.DVD2.HDMIIN
63	0x003F	PARAM.INPUTS.DVD2.DIGIN
64	0x0040	PARAM.INPUTS.DVD2.ANLGIN
65	0x0041	PARAM.INPUTS.DVD2.ANLGTRIM
66	0x0042	PARAM.INPUTS.DVD2.TRIMMODE
67	0x0043	PARAM.INPUTS.DVD2.VIDEOIN
68	0x0044	PARAM.INPUTS.DVD2.CH2EFFCT
69	0x0045	PARAM.INPUTS.DVD2.DDEFFCT
70	0x0046	PARAM.INPUTS.DVD2.DTSEFFCT
71	0x0047	PARAM.INPUTS.DVD2.MSRCMODE
72	0x0048	PARAM.INPUTS.DVD2.RSRCMODE
73	0x0049	PARAM.INPUTS.DVD2.ZSRCMODE
74	0x004A	PARAM.INPUTS.DVD2.RECTRIM
75	0x004B	PARAM.INPUTS.DVD2.SPDIF
76	0x004C	PARAM.INPUTS.DVD2.ANLGBYPASS
77	0x004D	PARAM.INPUTS.DVD2.DIGBYPASS
78	0x004E	PARAM.INPUTS.DVD2.TRIGGER1
79	0x004F	PARAM.INPUTS.DVD2.TRIGGER2
80	0x0050	PARAM.INPUTS.DVD2.COMPONENTIN
81	0x0051	PARAM.INPUTS.DVD2.SVID_16_9
82	0x0052	PARAM.INPUTS.DVD2.RECBLOCK
83	0x0053	PARAM.INPUTS.DVD2.SVIDOSD_4_3
84	0x0054	PARAM.INPUTS.DVD2._51_AD_EFFECT
85	0x0055	PARAM.INPUTS.DVD2.COMPNTOSD
86	0x0056	PARAM.INPUTS.DVD2.LIVEEFFCT
87	0x0057	PARAM.INPUTS.DVD2.TRANSITION_TIME
88	0x0058	PARAM.INPUTS.DVD2.HDMIOSD
89	0x0059	PARAM.INPUTS.LD
90	0x005A	PARAM.INPUTS.LD.INPNAME
91	0x005B	PARAM.INPUTS.LD.HDMIIN
92	0x005C	PARAM.INPUTS.LD.DIGIN
93	0x005D	PARAM.INPUTS.LD.ANLGIN
94	0x005E	PARAM.INPUTS.LD.ANLGTRIM
95	0x005F	PARAM.INPUTS.LD.TRIMMODE
96	0x0060	PARAM.INPUTS.LD.VIDEOIN
97	0x0061	PARAM.INPUTS.LD.CH2EFFCT
98	0x0062	PARAM.INPUTS.LD.DDEFFCT
99	0x0063	PARAM.INPUTS.LD.DTSEFFCT
100	0x0064	PARAM.INPUTS.LD.MSRCMODE
101	0x0065	PARAM.INPUTS.LD.RSRCMODE

102	0x0066	PARAM.INPUTS.LD.ZSRCMODE
103	0x0067	PARAM.INPUTS.LD.RECTRIM
104	0x0068	PARAM.INPUTS.LD.SPDIF
105	0x0069	PARAM.INPUTS.LD.ANLGBYPASS
106	0x006A	PARAM.INPUTS.LD.DIGBYPASS
107	0x006B	PARAM.INPUTS.LD.TRIGGER1
108	0x006C	PARAM.INPUTS.LD.TRIGGER2
109	0x006D	PARAM.INPUTS.LD.COMPONENTIN
110	0x006E	PARAM.INPUTS.LD.SVID_16_9
111	0x006F	PARAM.INPUTS.LD.RECBLOCK
112	0x0070	PARAM.INPUTS.LD.SVIDOSD_4_3
113	0x0071	PARAM.INPUTS.LD._51_AD_EFFECT
114	0x0072	PARAM.INPUTS.LD.COMPNTOSD
115	0x0073	PARAM.INPUTS.LD.LIVEEFFCT
116	0x0074	PARAM.INPUTS.LD.TRANSITION_TIME
117	0x0075	PARAM.INPUTS.LD.HDMIOSD
118	0x0076	PARAM.INPUTS.CD
119	0x0077	PARAM.INPUTS.CD.INPNAME
120	0x0078	PARAM.INPUTS.CD.HDMIIN
121	0x0079	PARAM.INPUTS.CD.DIGIN
122	0x007A	PARAM.INPUTS.CD.ANLGIN
123	0x007B	PARAM.INPUTS.CD.ANLGTRIM
124	0x007C	PARAM.INPUTS.CD.TRIMMODE
125	0x007D	PARAM.INPUTS.CD.VIDEOIN
126	0x007E	PARAM.INPUTS.CD.CH2EFFCT
127	0x007F	PARAM.INPUTS.CD.DDEFFCT
128	0x0080	PARAM.INPUTS.CD.DTSEFFCT
129	0x0081	PARAM.INPUTS.CD.MSRCMODE
130	0x0082	PARAM.INPUTS.CD.RSRCMODE
131	0x0083	PARAM.INPUTS.CD.ZSRCMODE
132	0x0084	PARAM.INPUTS.CD.RECTRIM
133	0x0085	PARAM.INPUTS.CD.SPDIF
134	0x0086	PARAM.INPUTS.CD.ANLGBYPASS
135	0x0087	PARAM.INPUTS.CD.DIGBYPASS
136	0x0088	PARAM.INPUTS.CD.TRIGGER1
137	0x0089	PARAM.INPUTS.CD.TRIGGER2
138	0x008A	PARAM.INPUTS.CD.COMPONENTIN
139	0x008B	PARAM.INPUTS.CD.SVID_16_9
140	0x008C	PARAM.INPUTS.CD.RECBLOCK
141	0x008D	PARAM.INPUTS.CD.SVIDOSD_4_3
142	0x008E	PARAM.INPUTS.CD._51_AD_EFFECT
143	0x008F	PARAM.INPUTS.CD.COMPNTOSD
144	0x0090	PARAM.INPUTS.CD.LIVEEFFCT
145	0x0091	PARAM.INPUTS.CD.TRANSITION_TIME
146	0x0092	PARAM.INPUTS.CD.HDMIOSD
147	0x0093	PARAM.INPUTS.TAPE
148	0x0094	PARAM.INPUTS.TAPE.INPNAME
149	0x0095	PARAM.INPUTS.TAPE.HDMIIN
150	0x0096	PARAM.INPUTS.TAPE.DIGIN
151	0x0097	PARAM.INPUTS.TAPE.ANLGIN
152	0x0098	PARAM.INPUTS.TAPE.ANLGTRIM

153	0x0099	PARAM.INPUTS.TAPE.TRIMMODE
154	0x009A	PARAM.INPUTS.TAPE.VIDEOIN
155	0x009B	PARAM.INPUTS.TAPE.CH2EFFCT
156	0x009C	PARAM.INPUTS.TAPE.DDEFFCT
157	0x009D	PARAM.INPUTS.TAPE.DTSEFFCT
158	0x009E	PARAM.INPUTS.TAPE.MSRCMODE
159	0x009F	PARAM.INPUTS.TAPE.RSRCMODE
160	0x00A0	PARAM.INPUTS.TAPE.ZSRCMODE
161	0x00A1	PARAM.INPUTS.TAPE.RECTRIM
162	0x00A2	PARAM.INPUTS.TAPE.SPDIF
163	0x00A3	PARAM.INPUTS.TAPE.ANLGBYPASS
164	0x00A4	PARAM.INPUTS.TAPE.DIGBYPASS
165	0x00A5	PARAM.INPUTS.TAPE.TRIGGER1
166	0x00A6	PARAM.INPUTS.TAPE.TRIGGER2
167	0x00A7	PARAM.INPUTS.TAPE.COMPONENTIN
168	0x00A8	PARAM.INPUTS.TAPE.SVID_16_9
169	0x00A9	PARAM.INPUTS.TAPE.RECBLOCK
170	0x00AA	PARAM.INPUTS.TAPE.SVIDOSD_4_3
171	0x00AB	PARAM.INPUTS.TAPE._51_AD_EFFECT
172	0x00AC	PARAM.INPUTS.TAPE.COMPNTOSD
173	0x00AD	PARAM.INPUTS.TAPE.LIVEEFFCT
174	0x00AE	PARAM.INPUTS.TAPE.TRANSITION_TIME
175	0x00AF	PARAM.INPUTS.TAPE.HDMIOSD
176	0x00B0	PARAM.INPUTS.TUNER
177	0x00B1	PARAM.INPUTS.TUNER.INPNAME
178	0x00B2	PARAM.INPUTS.TUNER.HDMIIN
179	0x00B3	PARAM.INPUTS.TUNER.DIGIN
180	0x00B4	PARAM.INPUTS.TUNER.ANLGIN
181	0x00B5	PARAM.INPUTS.TUNER.ANLGTRIM
182	0x00B6	PARAM.INPUTS.TUNER.TRIMMODE
183	0x00B7	PARAM.INPUTS.TUNER.VIDEOIN
184	0x00B8	PARAM.INPUTS.TUNER.CH2EFFCT
185	0x00B9	PARAM.INPUTS.TUNER.DDEFFCT
186	0x00BA	PARAM.INPUTS.TUNER.DTSEFFCT
187	0x00BB	PARAM.INPUTS.TUNER.MSRCMODE
188	0x00BC	PARAM.INPUTS.TUNER.RSRCMODE
189	0x00BD	PARAM.INPUTS.TUNER.ZSRCMODE
190	0x00BE	PARAM.INPUTS.TUNER.RECTRIM
191	0x00BF	PARAM.INPUTS.TUNER.SPDIF
192	0x00C0	PARAM.INPUTS.TUNER.ANLGBYPASS
193	0x00C1	PARAM.INPUTS.TUNER.DIGBYPASS
194	0x00C2	PARAM.INPUTS.TUNER.TRIGGER1
195	0x00C3	PARAM.INPUTS.TUNER.TRIGGER2
196	0x00C4	PARAM.INPUTS.TUNER.COMPONENTIN
197	0x00C5	PARAM.INPUTS.TUNER.SVID_16_9
198	0x00C6	PARAM.INPUTS.TUNER.RECBLOCK
199	0x00C7	PARAM.INPUTS.TUNER.SVIDOSD_4_3
200	0x00C8	PARAM.INPUTS.TUNER._51_AD_EFFECT
201	0x00C9	PARAM.INPUTS.TUNER.COMPNTOSD
202	0x00CA	PARAM.INPUTS.TUNER.LIVEEFFCT
203	0x00CB	PARAM.INPUTS.TUNER.TRANSITION_TIME

204	0x00CC	PARAM.INPUTS.TUNER.HDMIOSD
205	0x00CD	PARAM.INPUTS.TV
206	0x00CE	PARAM.INPUTS.TV.INPNAME
207	0x00CF	PARAM.INPUTS.TV.HDMIIN
208	0x00D0	PARAM.INPUTS.TV.DIGIN
209	0x00D1	PARAM.INPUTS.TV.ANLGIN
210	0x00D2	PARAM.INPUTS.TV.ANLGTRIM
211	0x00D3	PARAM.INPUTS.TV.TRIMMODE
212	0x00D4	PARAM.INPUTS.TV.VIDEOIN
213	0x00D5	PARAM.INPUTS.TV.CH2EFFCT
214	0x00D6	PARAM.INPUTS.TV.DDEFFCT
215	0x00D7	PARAM.INPUTS.TV.DTSEFFCT
216	0x00D8	PARAM.INPUTS.TV.MSRCMODE
217	0x00D9	PARAM.INPUTS.TV.RSRCMODE
218	0x00DA	PARAM.INPUTS.TV.ZSRCMODE
219	0x00DB	PARAM.INPUTS.TV.RECTRIM
220	0x00DC	PARAM.INPUTS.TV.SPDIF
221	0x00DD	PARAM.INPUTS.TV.ANLGBYPASS
222	0x00DE	PARAM.INPUTS.TV.DIGBYPASS
223	0x00DF	PARAM.INPUTS.TV.TRIGGER1
224	0x00E0	PARAM.INPUTS.TV.TRIGGER2
225	0x00E1	PARAM.INPUTS.TV.COMPONENTIN
226	0x00E2	PARAM.INPUTS.TV.SVID_16_9
227	0x00E3	PARAM.INPUTS.TV.RECBLOCK
228	0x00E4	PARAM.INPUTS.TV.SVIDOSD_4_3
229	0x00E5	PARAM.INPUTS.TV._51_AD_EFFECT
230	0x00E6	PARAM.INPUTS.TV.COMPNTOSD
231	0x00E7	PARAM.INPUTS.TV.LIVEEFFCT
232	0x00E8	PARAM.INPUTS.TV.TRANSITION_TIME
233	0x00E9	PARAM.INPUTS.TV.HDMIOSD
234	0x00EA	PARAM.INPUTS.VCR
235	0x00EB	PARAM.INPUTS.VCR.INPNAME
236	0x00EC	PARAM.INPUTS.VCR.HDMIIN
237	0x00ED	PARAM.INPUTS.VCR.DIGIN
238	0x00EE	PARAM.INPUTS.VCR.ANLGIN
239	0x00EF	PARAM.INPUTS.VCR.ANLGTRIM
240	0x00F0	PARAM.INPUTS.VCR.TRIMMODE
241	0x00F1	PARAM.INPUTS.VCR.VIDEOIN
242	0x00F2	PARAM.INPUTS.VCR.CH2EFFCT
243	0x00F3	PARAM.INPUTS.VCR.DDEFFCT
244	0x00F4	PARAM.INPUTS.VCR.DTSEFFCT
245	0x00F5	PARAM.INPUTS.VCR.MSRCMODE
246	0x00F6	PARAM.INPUTS.VCR.RSRCMODE
247	0x00F7	PARAM.INPUTS.VCR.ZSRCMODE
248	0x00F8	PARAM.INPUTS.VCR.RECTRIM
249	0x00F9	PARAM.INPUTS.VCR.SPDIF
250	0x00FA	PARAM.INPUTS.VCR.ANLGBYPASS
251	0x00FB	PARAM.INPUTS.VCR.DIGBYPASS
252	0x00FC	PARAM.INPUTS.VCR.TRIGGER1
253	0x00FD	PARAM.INPUTS.VCR.TRIGGER2
254	0x00FE	PARAM.INPUTS.VCR.COMPONENTIN

255	0x00FF	PARAM.INPUTS.VCR.SVID_16_9
256	0x0100	PARAM.INPUTS.VCR.RECBLOCK
257	0x0101	PARAM.INPUTS.VCR.SVIDOSD_4_3
258	0x0102	PARAM.INPUTS.VCR.COMPNTOSD
259	0x0103	PARAM.INPUTS.VCR._51_AD_EFFECT
260	0x0104	PARAM.INPUTS.VCR.LIVEEFFCT
261	0x0105	PARAM.INPUTS.VCR.TRANSITION_TIME
262	0x0106	PARAM.INPUTS.VCR.HDMIOSD
263	0x0107	PARAM.INPUTS.PVR
264	0x0108	PARAM.INPUTS.PVR.INPNAME
265	0x0109	PARAM.INPUTS.PVR.HDMIIN
266	0x010A	PARAM.INPUTS.PVR.DIGIN
267	0x010B	PARAM.INPUTS.PVR.ANLGIN
268	0x010C	PARAM.INPUTS.PVR.ANLGTRIM
269	0x010D	PARAM.INPUTS.PVR.TRIMMODE
270	0x010E	PARAM.INPUTS.PVR.VIDEOIN
271	0x010F	PARAM.INPUTS.PVR.CH2EFFCT
272	0x0110	PARAM.INPUTS.PVR.DDEFFCT
273	0x0111	PARAM.INPUTS.PVR.DTSEFFCT
274	0x0112	PARAM.INPUTS.PVR.MSRCMODE
275	0x0113	PARAM.INPUTS.PVR.RSRCMODE
276	0x0114	PARAM.INPUTS.PVR.ZSRCMODE
277	0x0115	PARAM.INPUTS.PVR.RECTRIM
278	0x0116	PARAM.INPUTS.PVR.SPDIF
279	0x0117	PARAM.INPUTS.PVR.ANLGBYPASS
280	0x0118	PARAM.INPUTS.PVR.DIGBYPASS
281	0x0119	PARAM.INPUTS.PVR.TRIGGER1
282	0x011A	PARAM.INPUTS.PVR.TRIGGER2
283	0x011B	PARAM.INPUTS.PVR.COMPONENTIN
284	0x011C	PARAM.INPUTS.PVR.SVID_16_9
285	0x011D	PARAM.INPUTS.PVR.RECBLOCK
286	0x011E	PARAM.INPUTS.PVR.SVIDOSD_4_3
287	0x011F	PARAM.INPUTS.PVR._51_AD_EFFECT
288	0x0120	PARAM.INPUTS.PVR.COMPNTOSD
289	0x0121	PARAM.INPUTS.PVR.LIVEEFFCT
290	0x0122	PARAM.INPUTS.PVR.TRANSITION_TIME
291	0x0123	PARAM.INPUTS.PVR.HDMIOSD
292	0x0124	PARAM.INPUTS.SAT
293	0x0125	PARAM.INPUTS.SAT.INPNAME
294	0x0126	PARAM.INPUTS.SAT.HDMIIN
295	0x0127	PARAM.INPUTS.SAT.DIGIN
296	0x0128	PARAM.INPUTS.SAT.ANLGIN
297	0x0129	PARAM.INPUTS.SAT.ANLGTRIM
298	0x012A	PARAM.INPUTS.SAT.TRIMMODE
299	0x012B	PARAM.INPUTS.SAT.VIDEOIN
300	0x012C	PARAM.INPUTS.SAT.CH2EFFCT
301	0x012D	PARAM.INPUTS.SAT.DDEFFCT
302	0x012E	PARAM.INPUTS.SAT.DTSEFFCT
303	0x012F	PARAM.INPUTS.SAT.MSRCMODE
304	0x0130	PARAM.INPUTS.SAT.RSRCMODE
305	0x0131	PARAM.INPUTS.SAT.ZSRCMODE

306	0x0132	PARAM.INPUTS.SAT.RECTRIM
307	0x0133	PARAM.INPUTS.SAT.SPDIF
308	0x0134	PARAM.INPUTS.SAT.ANLGBYPASS
309	0x0135	PARAM.INPUTS.SAT.DIGBYPASS
310	0x0136	PARAM.INPUTS.SAT.TRIGGER1
311	0x0137	PARAM.INPUTS.SAT.TRIGGER2
312	0x0138	PARAM.INPUTS.SAT.COMPONENTIN
313	0x0139	PARAM.INPUTS.SAT.SVID_16_9
314	0x013A	PARAM.INPUTS.SAT.RECBLOCK
315	0x013B	PARAM.INPUTS.SAT.SVIDOSD_4_3
316	0x013C	PARAM.INPUTS.SAT._51_AD_EFFECT
317	0x013D	PARAM.INPUTS.SAT.COMPNTOSD
318	0x013E	PARAM.INPUTS.SAT.LIVEEFFCT
319	0x013F	PARAM.INPUTS.SAT.TRANSITION_TIME
320	0x0140	PARAM.INPUTS.SAT.HDMIOSD
321	0x0141	PARAM.INPUTS.GAME
322	0x0142	PARAM.INPUTS.GAME.INPNAME
323	0x0143	PARAM.INPUTS.GAME.HDMIIN
324	0x0144	PARAM.INPUTS.GAME.DIGIN
325	0x0145	PARAM.INPUTS.GAME.ANLGIN
326	0x0146	PARAM.INPUTS.GAME.ANLGTRIM
327	0x0147	PARAM.INPUTS.GAME.TRIMMODE
328	0x0148	PARAM.INPUTS.GAME.VIDEOIN
329	0x0149	PARAM.INPUTS.GAME.CH2EFFCT
330	0x014A	PARAM.INPUTS.GAME.DDEFFCT
331	0x014B	PARAM.INPUTS.GAME.DTSEFFCT
332	0x014C	PARAM.INPUTS.GAME.MSRCMODE
333	0x014D	PARAM.INPUTS.GAME.RSRCMODE
334	0x014E	PARAM.INPUTS.GAME.ZSRCMODE
335	0x014F	PARAM.INPUTS.GAME.RECTRIM
336	0x0150	PARAM.INPUTS.GAME.SPDIF
337	0x0151	PARAM.INPUTS.GAME.ANLGBYPASS
338	0x0152	PARAM.INPUTS.GAME.DIGBYPASS
339	0x0153	PARAM.INPUTS.GAME.TRIGGER1
340	0x0154	PARAM.INPUTS.GAME.TRIGGER2
341	0x0155	PARAM.INPUTS.GAME.COMPONENTIN
342	0x0156	PARAM.INPUTS.GAME.SVID_16_9
343	0x0157	PARAM.INPUTS.GAME.RECBLOCK
344	0x0158	PARAM.INPUTS.GAME.SVIDOSD_4_3
345	0x0159	PARAM.INPUTS.GAME._51_AD_EFFECT
346	0x015A	PARAM.INPUTS.GAME.COMPNTOSD
347	0x015B	PARAM.INPUTS.GAME.LIVEEFFCT
348	0x015C	PARAM.INPUTS.GAME.TRANSITION_TIME
349	0x015D	PARAM.INPUTS.GAME.HDMIOSD
350	0x015E	PARAM.INPUTS.AUX
351	0x015F	PARAM.INPUTS.AUX.INPNAME
352	0x0160	PARAM.INPUTS.AUX.HDMIIN
353	0x0161	PARAM.INPUTS.AUX.DIGIN
354	0x0162	PARAM.INPUTS.AUX.ANLGIN
355	0x0163	PARAM.INPUTS.AUX.ANLGTRIM
356	0x0164	PARAM.INPUTS.AUX.TRIMMODE

357	0x0165	PARAM.INPUTS.AUX.VIDEOIN
358	0x0166	PARAM.INPUTS.AUX.CH2EFFCT
359	0x0167	PARAM.INPUTS.AUX.DDEFFCT
360	0x0168	PARAM.INPUTS.AUX.MSRCMODE
361	0x0169	PARAM.INPUTS.AUX.DTSEFFCT
362	0x016A	PARAM.INPUTS.AUX.RSRCMODE
363	0x016B	PARAM.INPUTS.AUX.ZSRCMODE
364	0x016C	PARAM.INPUTS.AUX.RECTRIM
365	0x016D	PARAM.INPUTS.AUX.SPDIF
366	0x016E	PARAM.INPUTS.AUX.ANLGBYPASS
367	0x016F	PARAM.INPUTS.AUX.DIGBYPASS
368	0x0170	PARAM.INPUTS.AUX.TRIGGER1
369	0x0171	PARAM.INPUTS.AUX.TRIGGER2
370	0x0172	PARAM.INPUTS.AUX.COMPONENTIN
371	0x0173	PARAM.INPUTS.AUX.SVID_16_9
372	0x0174	PARAM.INPUTS.AUX.RECBLOCK
373	0x0175	PARAM.INPUTS.AUX.SVIDOSD_4_3
374	0x0176	PARAM.INPUTS.AUX.COMPNTOSD
375	0x0177	PARAM.INPUTS.AUX._51_AD_EFFECT
376	0x0178	PARAM.INPUTS.AUX.LIVEEFFCT
377	0x0179	PARAM.INPUTS.AUX.TRANSITION_TIME
378	0x017A	PARAM.INPUTS.AUX.HDMIOSD
379	0x017B	PARAM.INPUTS.ANLGCONFIG
380	0x017C	PARAM.INPUTS.LEVELS
381	0x017D	PARAM.INPUTS.LEVELS.INLEFT
382	0x017E	PARAM.INPUTS.LEVELS.INRIGHT
383	0x017F	PARAM.INPUTS.LEVELS.INCENTER
384	0x0180	PARAM.INPUTS.LEVELS.SIDELEFT
385	0x0181	PARAM.INPUTS.LEVELS.INLFE
386	0x0182	PARAM.INPUTS.LEVELS.SIDERIGHT
387	0x0183	PARAM.INPUTS.LEVELS.REARLEFT
388	0x0184	PARAM.INPUTS.LEVELS.REARRIGHT
389	0x0185	PARAM.INPUTS.LEVELS.PEAK
390	0x0186	PARAM.INPUTS.AUTOTRIM
391	0x0187	PARAM.MAIN
392	0x0188	PARAM.MAIN.OUTPUTS
393	0x0189	PARAM.MAIN.OUTPUTS.FRONT
394	0x018A	PARAM.MAIN.OUTPUTS.FRONT.HP_XOVER
395	0x018B	PARAM.MAIN.OUTPUTS.FRONT.LEFT
396	0x018C	PARAM.MAIN.OUTPUTS.FRONT.LEFT.DISTANCE
397	0x018D	PARAM.MAIN.OUTPUTS.FRONT.LEFT.OUTLEVEL
398	0x018E	PARAM.MAIN.OUTPUTS.FRONT.RIGHT
399	0x018F	PARAM.MAIN.OUTPUTS.FRONT.RIGHT.DISTANCE
400	0x0190	PARAM.MAIN.OUTPUTS.FRONT.RIGHT.OUTLEVEL
401	0x0191	PARAM.MAIN.OUTPUTS.FRONT.FULL_AND_SUB
402	0x0192	PARAM.MAIN.OUTPUTS.CENTER
403	0x0193	PARAM.MAIN.OUTPUTS.CENTER.HP_XOVER
404	0x0194	PARAM.MAIN.OUTPUTS.CENTER.DISTANCE
405	0x0195	PARAM.MAIN.OUTPUTS.CENTER.OUTLEVEL
406	0x0196	PARAM.MAIN.OUTPUTS.CENTER.FULL_AND_SUB
407	0x0197	PARAM.MAIN.OUTPUTS.SIDE

408	0x0198	PARAM.MAIN.OUTPUTS.SIDE.HP_XOVER
409	0x0199	PARAM.MAIN.OUTPUTS.SIDE.LEFT
410	0x019A	PARAM.MAIN.OUTPUTS.SIDE.LEFT.DISTANCE
411	0x019B	PARAM.MAIN.OUTPUTS.SIDE.LEFT.OUTLEVEL
412	0x019C	PARAM.MAIN.OUTPUTS.SIDE.RIGHT
413	0x019D	PARAM.MAIN.OUTPUTS.SIDE.RIGHT.DISTANCE
414	0x019E	PARAM.MAIN.OUTPUTS.SIDE.RIGHT.OUTLEVEL
415	0x019F	PARAM.MAIN.OUTPUTS.SIDE.FULL_AND_SUB
416	0x01A0	PARAM.MAIN.OUTPUTS.REAR
417	0x01A1	PARAM.MAIN.OUTPUTS.REAR.HP_XOVER
418	0x01A2	PARAM.MAIN.OUTPUTS.REAR.LEFT
419	0x01A3	PARAM.MAIN.OUTPUTS.REAR.LEFT.DISTANCE
420	0x01A4	PARAM.MAIN.OUTPUTS.REAR.LEFT.OUTLEVEL
421	0x01A5	PARAM.MAIN.OUTPUTS.REAR.RIGHT
422	0x01A6	PARAM.MAIN.OUTPUTS.REAR.RIGHT.DISTANCE
423	0x01A7	PARAM.MAIN.OUTPUTS.REAR.RIGHT.OUTLEVEL
424	0x01A8	PARAM.MAIN.OUTPUTS.REAR.FULL_AND_SUB
425	0x01A9	PARAM.MAIN.OUTPUTS.SUB
426	0x01AA	PARAM.MAIN.OUTPUTS.SUB.LP_XOVER
427	0x01AB	PARAM.MAIN.OUTPUTS.SUB.LEFT
428	0x01AC	PARAM.MAIN.OUTPUTS.SUB.LEFT.DISTANCE
429	0x01AD	PARAM.MAIN.OUTPUTS.SUB.LEFT.OUTLEVEL
430	0x01AE	PARAM.MAIN.OUTPUTS.SUB.RIGHT
431	0x01AF	PARAM.MAIN.OUTPUTS.SUB.RIGHT.DISTANCE
432	0x01B0	PARAM.MAIN.OUTPUTS.SUB.RIGHT.OUTLEVEL
433	0x01B1	PARAM.MAIN.OUTPUTS.SUB.CONFIG
434	0x01B2	PARAM.MAIN.OUTPUTS.SUB.LIMITEN
435	0x01B3	PARAM.MAIN.OUTPUTS.SUB.LIMITADJ
436	0x01B4	PARAM.MAIN.OUTPUTS.LFE
437	0x01B5	PARAM.MAIN.OUTPUTS.LFE.DISTANCE
438	0x01B6	PARAM.MAIN.OUTPUTS.LFE.OUTLEVEL
439	0x01B7	PARAM.MAIN.OUTPUTS.LFE.LIMITEN
440	0x01B8	PARAM.MAIN.OUTPUTS.LFE.LIMITADJ
441	0x01B9	PARAM.MAIN.OUTPUTS.LFE.PRESENT
442	0x01BA	PARAM.MAIN.OUTPUTS.DISTUNITS
443	0x01BB	PARAM.MAIN.OUTPUTS.SUBNOISE
444	0x01BC	PARAM.MAIN.OUTPUTS.THX_ULTRA2_SUB
445	0x01BD	PARAM.MAIN.OUTPUTS.THX_BGC
446	0x01BE	PARAM.MAIN.OUTPUTS.THX_ASA
447	0x01BF	PARAM.MAIN.DATA_STREAM
448	0x01C0	PARAM.MAIN.DATA_STREAM.SAMPLE_RATE
449	0x01C1	PARAM.MAIN.DATA_STREAM.DATA_TYPE
450	0x01C2	PARAM.MAIN.DATA_STREAM.CHANNELS
451	0x01C3	PARAM.MAIN.INPUT
452	0x01C4	PARAM.MAIN.HDMIINPUT
453	0x01C5	PARAM.MAIN.EFFECT
454	0x01C6	PARAM.MAIN.VOLUME
455	0x01C7	PARAM.MAIN.BALANCE
456	0x01C8	PARAM.MAIN.FADER
457	0x01C9	PARAM.MAIN.PWRONVOL
458	0x01CA	PARAM.MAIN.MUTEBY

459	0x01CB	PARAM.MAIN.BASS
460	0x01CC	PARAM.MAIN.TREBLE
461	0x01CD	PARAM.MAIN.TILT
462	0x01CE	PARAM.MAIN.MUTE
463	0x01CF	PARAM.MAIN.MODE
464	0x01D0	PARAM.MAIN.LOUDNESS
465	0x01D1	PARAM.MAIN.DOLBYDATA
466	0x01D2	PARAM.MAIN.DOLBYDATA.DD_CHAN
467	0x01D3	PARAM.MAIN.DOLBYDATA.ENCODING
468	0x01D4	PARAM.MAIN.DOLBYDATA.REF_OFFSET
469	0x01D5	PARAM.MAIN.DOLBYDATA.DDBITRATE
470	0x01D6	PARAM.MAIN.DOLBYDATA.EXDETECT
471	0x01D7	PARAM.MAIN.DOLBYDATA.ROOMTYPE
472	0x01D8	PARAM.MAIN.DOLBYDATA.CLEV
473	0x01D9	PARAM.MAIN.DOLBYDATA.SLEV
474	0x01DA	PARAM.MAIN.DTSDATA
475	0x01DB	PARAM.MAIN.DTSDATA.DTS_CHAN
476	0x01DC	PARAM.MAIN.DTSDATA.ES_FLAG
477	0x01DD	PARAM.MAIN.DTSDATA.DTSBITRATE
478	0x01DE	PARAM.MAIN.DTSDATA.WORDLEN
479	0x01DF	PARAM.MAIN.DTSDATA.SFREQ
480	0x01E0	PARAM.MAIN.DTSDATA._9624FLAG
481	0x01E1	PARAM.MAIN.MAXVOLUME
482	0x01E2	PARAM.MAIN.HDMIDATA
483	0x01E3	PARAM.MAIN.HDMIDATA.VIDEO_FORMAT
484	0x01E4	PARAM.MAIN.HDMIDATA.VERTICAL_RATE
485	0x01E5	PARAM.MAIN.HDMIDATA.AUDIO_FORMAT
486	0x01E6	PARAM.MAIN.HDMIDATA.CHANNELS
487	0x01E7	PARAM.MAIN.HDMIDATA.SAMPLE_RATE
488	0x01E8	PARAM.MAIN.HDMIDATA.HDCP_STATUS
489	0x01E9	PARAM.MAIN.HDMIDATA.VSYNC_TYPE
490	0x01EA	PARAM.MAIN.HDMIDATA.HDMIAUDIOIN
491	0x01EB	PARAM.RECORD
492	0x01EC	PARAM.RECORD.DATA_STREAM
493	0x01ED	PARAM.RECORD.DATA_STREAM.SAMPLE_RATE
494	0x01EE	PARAM.RECORD.DATA_STREAM.DATA_TYPE
495	0x01EF	PARAM.RECORD.DATA_STREAM.CHANNELS
496	0x01F0	PARAM.RECORD.INPUT
497	0x01F1	PARAM.RECORD.VOLUME
498	0x01F2	PARAM.RECORD.BALANCE
499	0x01F3	PARAM.RECORD.PWRONVOL
500	0x01F4	PARAM.RECORD.MUTE
501	0x01F5	PARAM.RECORD.TRIGGER2
502	0x01F6	PARAM.RECORD.TRIGGER1
503	0x01F7	PARAM.ZONE
504	0x01F8	PARAM.ZONE.DATA_STREAM
505	0x01F9	PARAM.ZONE.DATA_STREAM.SAMPLE_RATE
506	0x01FA	PARAM.ZONE.DATA_STREAM.DATA_TYPE
507	0x01FB	PARAM.ZONE.DATA_STREAM.CHANNELS
508	0x01FC	PARAM.ZONE.INPUT
509	0x01FD	PARAM.ZONE.VOLUME

510	0x01FE	PARAM.ZONE.BALANCE
511	0x01FF	PARAM.ZONE.PWRONVOL
512	0x0200	PARAM.ZONE.MUTE
513	0x0201	PARAM.ZONE.TRIGGER1
514	0x0202	PARAM.ZONE.TRIGGER2
515	0x0203	PARAM.EFFECTS
516	0x0204	PARAM.EFFECTS.INT_NOISE
517	0x0205	PARAM.EFFECTS.INT_NOISE.NAME
518	0x0206	PARAM.EFFECTS.INT_NOISE.OUTPUTLEVELS
519	0x0207	PARAM.EFFECTS.INT_NOISE.OUTPUTLEVELS.CNTROUTLEVEL
520	0x0208	PARAM.EFFECTS.INT_NOISE.OUTPUTLEVELS.SIDEOUTLEVEL
521	0x0209	PARAM.EFFECTS.INT_NOISE.OUTPUTLEVELS.REAROUTLEVEL
522	0x020A	PARAM.EFFECTS.INT_NOISE.OUTPUTLEVELS.SUBOUTLEVEL
523	0x020B	PARAM.EFFECTS.INT_NOISE.OUTPUTLEVELS.LFEOUTLEVEL
524	0x020C	PARAM.EFFECTS.INT_NOISE.TRIGGER1
525	0x020D	PARAM.EFFECTS.INT_NOISE.TRIGGER2
526	0x020E	PARAM.EFFECTS.INT_NOISE.FRONTOUTLEVEL
527	0x020F	PARAM.EFFECTS.LOGIC7
528	0x0210	PARAM.EFFECTS.LOGIC7.NAME
529	0x0211	PARAM.EFFECTS.LOGIC7.OUTPUTLEVELS
530	0x0212	PARAM.EFFECTS.LOGIC7.OUTPUTLEVELS.CNTROUTLEVEL
531	0x0213	PARAM.EFFECTS.LOGIC7.OUTPUTLEVELS.SIDEOUTLEVEL
532	0x0214	PARAM.EFFECTS.LOGIC7.OUTPUTLEVELS.REAROUTLEVEL
533	0x0215	PARAM.EFFECTS.LOGIC7.OUTPUTLEVELS.SUBOUTLEVEL
534	0x0216	PARAM.EFFECTS.LOGIC7.OUTPUTLEVELS.LFEOUTLEVEL
535	0x0217	PARAM.EFFECTS.LOGIC7.AUTOAZIMUTH
536	0x0218	PARAM.EFFECTS.LOGIC7.VOCALENH
537	0x0219	PARAM.EFFECTS.LOGIC7.FRONTSTEER
538	0x021A	PARAM.EFFECTS.LOGIC7.REEQ
539	0x021B	PARAM.EFFECTS.LOGIC7.SOUNDSTAGE
540	0x021C	PARAM.EFFECTS.LOGIC7.FIVESPKRENH
541	0x021D	PARAM.EFFECTS.LOGIC7.BASSENH
542	0x021E	PARAM.EFFECTS.LOGIC7.SURRROLLOFF
543	0x021F	PARAM.EFFECTS.LOGIC7.REARDLYOFF
544	0x0220	PARAM.EFFECTS.LOGIC7.CENTERONOFF
545	0x0221	PARAM.EFFECTS.LOGIC7.SEVENCHANNEL
546	0x0222	PARAM.EFFECTS.LOGIC7.MONODETECT_ON
547	0x0223	PARAM.EFFECTS.LOGIC7.SURRONOFF
548	0x0224	PARAM.EFFECTS.LOGIC7.TRIGGER1
549	0x0225	PARAM.EFFECTS.LOGIC7.TRIGGER2
550	0x0226	PARAM.EFFECTS.LOGIC7.HIFRONT_REARROLLOFF
551	0x0227	PARAM.EFFECTS.LOGIC7.AUTOBALON
552	0x0228	PARAM.EFFECTS.TV_LOGIC
553	0x0229	PARAM.EFFECTS.TV_LOGIC.NAME
554	0x022A	PARAM.EFFECTS.TV_LOGIC.OUTPUTLEVELS
555	0x022B	PARAM.EFFECTS.TV_LOGIC.OUTPUTLEVELS.CNTROUTLEVEL
556	0x022C	PARAM.EFFECTS.TV_LOGIC.OUTPUTLEVELS.SIDEOUTLEVEL
557	0x022D	PARAM.EFFECTS.TV_LOGIC.OUTPUTLEVELS.REAROUTLEVEL
558	0x022E	PARAM.EFFECTS.TV_LOGIC.OUTPUTLEVELS.SUBOUTLEVEL
559	0x022F	PARAM.EFFECTS.TV_LOGIC.OUTPUTLEVELS.LFEOUTLEVEL
560	0x0230	PARAM.EFFECTS.TV_LOGIC.AUTOAZIMUTH

561	0x0231	PARAM.EFFECTS.TV_LOGIC.VOCALENH
562	0x0232	PARAM.EFFECTS.TV_LOGIC.FRONTSTEER
563	0x0233	PARAM.EFFECTS.TV_LOGIC.REEQ
564	0x0234	PARAM.EFFECTS.TV_LOGIC.SOUNDSTAGE
565	0x0235	PARAM.EFFECTS.TV_LOGIC.FIVESPKRENH
566	0x0236	PARAM.EFFECTS.TV_LOGIC.BASSENH
567	0x0237	PARAM.EFFECTS.TV_LOGIC.SURRROLLOFF
568	0x0238	PARAM.EFFECTS.TV_LOGIC.REARDLYOFF
569	0x0239	PARAM.EFFECTS.TV_LOGIC.CENTERONOFF
570	0x023A	PARAM.EFFECTS.TV_LOGIC.SEVENCHANNEL
571	0x023B	PARAM.EFFECTS.TV_LOGIC.MONODETECT_ON
572	0x023C	PARAM.EFFECTS.TV_LOGIC.SURRONOFF
573	0x023D	PARAM.EFFECTS.TV_LOGIC.TRIGGER1
574	0x023E	PARAM.EFFECTS.TV_LOGIC.TRIGGER2
575	0x023F	PARAM.EFFECTS.TV_LOGIC.HIFRONT_REARROLLOFF
576	0x0240	PARAM.EFFECTS.TV_LOGIC.AUTOBALON
577	0x0241	PARAM.EFFECTS.MUSIC_LOGIC
578	0x0242	PARAM.EFFECTS.MUSIC_LOGIC.NAME
579	0x0243	PARAM.EFFECTS.MUSIC_LOGIC.OUTPUTLEVELS
580	0x0244	PARAM.EFFECTS.MUSIC_LOGIC.OUTPUTLEVELS.CNTROUTLEVEL
581	0x0245	PARAM.EFFECTS.MUSIC_LOGIC.OUTPUTLEVELS.SIDEOUTLEVEL
582	0x0246	PARAM.EFFECTS.MUSIC_LOGIC.OUTPUTLEVELS.REAROUTLEVEL
583	0x0247	PARAM.EFFECTS.MUSIC_LOGIC.OUTPUTLEVELS.SUBOUTLEVEL
584	0x0248	PARAM.EFFECTS.MUSIC_LOGIC.OUTPUTLEVELS.LFEOUTLEVEL
585	0x0249	PARAM.EFFECTS.MUSIC_LOGIC.AUTOAZIMUTH
586	0x024A	PARAM.EFFECTS.MUSIC_LOGIC.VOCALENH
587	0x024B	PARAM.EFFECTS.MUSIC_LOGIC.FRONTSTEER
588	0x024C	PARAM.EFFECTS.MUSIC_LOGIC.REEQ
589	0x024D	PARAM.EFFECTS.MUSIC_LOGIC.SOUNDSTAGE
590	0x024E	PARAM.EFFECTS.MUSIC_LOGIC.FIVESPKRENH
591	0x024F	PARAM.EFFECTS.MUSIC_LOGIC.BASSENH
592	0x0250	PARAM.EFFECTS.MUSIC_LOGIC.SURRROLLOFF
593	0x0251	PARAM.EFFECTS.MUSIC_LOGIC.REARDLYOFF
594	0x0252	PARAM.EFFECTS.MUSIC_LOGIC.CENTERONOFF
595	0x0253	PARAM.EFFECTS.MUSIC_LOGIC.SEVENCHANNEL
596	0x0254	PARAM.EFFECTS.MUSIC_LOGIC.MONODETECT_ON
597	0x0255	PARAM.EFFECTS.MUSIC_LOGIC.SURRONOFF
598	0x0256	PARAM.EFFECTS.MUSIC_LOGIC.TRIGGER1
599	0x0257	PARAM.EFFECTS.MUSIC_LOGIC.TRIGGER2
600	0x0258	PARAM.EFFECTS.MUSIC_LOGIC.HIFRONT_REARROLLOFF
601	0x0259	PARAM.EFFECTS.MUSIC_LOGIC.AUTOBALON
602	0x025A	PARAM.EFFECTS.THX_CINEMA
603	0x025B	PARAM.EFFECTS.THX_CINEMA.NAME
604	0x025C	PARAM.EFFECTS.THX_CINEMA.OUTPUTLEVELS
605	0x025D	PARAM.EFFECTS.THX_CINEMA.OUTPUTLEVELS.CNTROUTLEVEL
606	0x025E	PARAM.EFFECTS.THX_CINEMA.OUTPUTLEVELS.SIDEOUTLEVEL
607	0x025F	PARAM.EFFECTS.THX_CINEMA.OUTPUTLEVELS.REAROUTLEVEL
608	0x0260	PARAM.EFFECTS.THX_CINEMA.OUTPUTLEVELS.SUBOUTLEVEL
609	0x0261	PARAM.EFFECTS.THX_CINEMA.OUTPUTLEVELS.LFEOUTLEVEL
610	0x0262	PARAM.EFFECTS.THX_CINEMA.TWO_CH_MUX
611	0x0263	PARAM.EFFECTS.THX_CINEMA.TWOCHCNTRMIX

612	0x0264	PARAM.EFFECTS.THX_CINEMA.CENTERDELAY
613	0x0265	PARAM.EFFECTS.THX_CINEMA.MONOREARON
614	0x0266	PARAM.EFFECTS.THX_CINEMA.DECORRELATE
615	0x0267	PARAM.EFFECTS.THX_CINEMA.VOCALENH
616	0x0268	PARAM.EFFECTS.THX_CINEMA.REEQ
617	0x0269	PARAM.EFFECTS.THX_CINEMA.SURDLY10_25
618	0x026A	PARAM.EFFECTS.THX_CINEMA.TIMBRE
619	0x026B	PARAM.EFFECTS.THX_CINEMA.THXMODEON
620	0x026C	PARAM.EFFECTS.THX_CINEMA.TRIGGER1
621	0x026D	PARAM.EFFECTS.THX_CINEMA.TRIGGER2
622	0x026E	PARAM.EFFECTS.THX_CINEMA.REARTIMBRE
623	0x026F	PARAM.EFFECTS.PROLOGIC
624	0x0270	PARAM.EFFECTS.PROLOGIC.NAME
625	0x0271	PARAM.EFFECTS.PROLOGIC.OUTPUTLEVELS
626	0x0272	PARAM.EFFECTS.PROLOGIC.OUTPUTLEVELS.CNTROUTLEVEL
627	0x0273	PARAM.EFFECTS.PROLOGIC.OUTPUTLEVELS.SIDEOUTLEVEL
628	0x0274	PARAM.EFFECTS.PROLOGIC.OUTPUTLEVELS.REAROUTLEVEL
629	0x0275	PARAM.EFFECTS.PROLOGIC.OUTPUTLEVELS.SUBOUTLEVEL
630	0x0276	PARAM.EFFECTS.PROLOGIC.OUTPUTLEVELS.LFEOUTLEVEL
631	0x0277	PARAM.EFFECTS.PROLOGIC.TWO_CH_MUX
632	0x0278	PARAM.EFFECTS.PROLOGIC.TWOCHCNTRMIX
633	0x0279	PARAM.EFFECTS.PROLOGIC.CENTERDELAY
634	0x027A	PARAM.EFFECTS.PROLOGIC.MONOREARON
635	0x027B	PARAM.EFFECTS.PROLOGIC.DECORRELATE
636	0x027C	PARAM.EFFECTS.PROLOGIC.VOCALENH
637	0x027D	PARAM.EFFECTS.PROLOGIC.REEQ
638	0x027E	PARAM.EFFECTS.PROLOGIC.SURDLY10_25
639	0x027F	PARAM.EFFECTS.PROLOGIC.TRIGGER1
640	0x0280	PARAM.EFFECTS.PROLOGIC.TRIGGER2
641	0x0281	PARAM.EFFECTS.PROLOGIC2
642	0x0282	PARAM.EFFECTS.PROLOGIC2.NAME
643	0x0283	PARAM.EFFECTS.PROLOGIC2.OUTPUTLEVELS
644	0x0284	PARAM.EFFECTS.PROLOGIC2.OUTPUTLEVELS.CNTROUTLEVEL
645	0x0285	PARAM.EFFECTS.PROLOGIC2.OUTPUTLEVELS.SIDEOUTLEVEL
646	0x0286	PARAM.EFFECTS.PROLOGIC2.OUTPUTLEVELS.REAROUTLEVEL
647	0x0287	PARAM.EFFECTS.PROLOGIC2.OUTPUTLEVELS.SUBOUTLEVEL
648	0x0288	PARAM.EFFECTS.PROLOGIC2.OUTPUTLEVELS.LFEOUTLEVEL
649	0x0289	PARAM.EFFECTS.PROLOGIC2.SURDLY10_25
650	0x028A	PARAM.EFFECTS.PROLOGIC2.TWO_CH_MUX
651	0x028B	PARAM.EFFECTS.PROLOGIC2.TWOCHCNTRMIX
652	0x028C	PARAM.EFFECTS.PROLOGIC2.CENTERDELAY
653	0x028D	PARAM.EFFECTS.PROLOGIC2.MONOREARON
654	0x028E	PARAM.EFFECTS.PROLOGIC2.DECORRELATE
655	0x028F	PARAM.EFFECTS.PROLOGIC2.VOCALENH
656	0x0290	PARAM.EFFECTS.PROLOGIC2.REEQ
657	0x0291	PARAM.EFFECTS.PROLOGIC2.TRIGGER1
658	0x0292	PARAM.EFFECTS.PROLOGIC2.TRIGGER2
659	0x0293	PARAM.EFFECTS.PL2MUSIC
660	0x0294	PARAM.EFFECTS.PL2MUSIC.NAME
661	0x0295	PARAM.EFFECTS.PL2MUSIC.OUTPUTLEVELS
662	0x0296	PARAM.EFFECTS.PL2MUSIC.OUTPUTLEVELS.CNTROUTLEVEL

663	0x0297	PARAM.EFFECTS.PL2MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
664	0x0298	PARAM.EFFECTS.PL2MUSIC.OUTPUTLEVELS.REAROUTLEVEL
665	0x0299	PARAM.EFFECTS.PL2MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
666	0x029A	PARAM.EFFECTS.PL2MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
667	0x029B	PARAM.EFFECTS.PL2MUSIC.SIDEREAR10DELAY
668	0x029C	PARAM.EFFECTS.PL2MUSIC.TWO_CH_MUX
669	0x029D	PARAM.EFFECTS.PL2MUSIC.TWOCHCNTRMIX
670	0x029E	PARAM.EFFECTS.PL2MUSIC.CENTERDELAY
671	0x029F	PARAM.EFFECTS.PL2MUSIC.MONOREARON
672	0x02A0	PARAM.EFFECTS.PL2MUSIC.DECORRELATE
673	0x02A1	PARAM.EFFECTS.PL2MUSIC.VOCALENH
674	0x02A2	PARAM.EFFECTS.PL2MUSIC.REEQ
675	0x02A3	PARAM.EFFECTS.PL2MUSIC.PL2PAN
676	0x02A4	PARAM.EFFECTS.PL2MUSIC.CNTRWIDTH
677	0x02A5	PARAM.EFFECTS.PL2MUSIC.DIMENSION
678	0x02A6	PARAM.EFFECTS.PL2MUSIC.TRIGGER1
679	0x02A7	PARAM.EFFECTS.PL2MUSIC.TRIGGER2
680	0x02A8	PARAM.EFFECTS.PARTY
681	0x02A9	PARAM.EFFECTS.PARTY.NAME
682	0x02AA	PARAM.EFFECTS.PARTY.OUTPUTLEVELS
683	0x02AB	PARAM.EFFECTS.PARTY.OUTPUTLEVELS.CNTROUTLEVEL
684	0x02AC	PARAM.EFFECTS.PARTY.OUTPUTLEVELS.SIDEOUTLEVEL
685	0x02AD	PARAM.EFFECTS.PARTY.OUTPUTLEVELS.REAROUTLEVEL
686	0x02AE	PARAM.EFFECTS.PARTY.OUTPUTLEVELS.SUBOUTLEVEL
687	0x02AF	PARAM.EFFECTS.PARTY.OUTPUTLEVELS.LFEOUTLEVEL
688	0x02B0	PARAM.EFFECTS.PARTY.AUTOAZIMUTH
689	0x02B1	PARAM.EFFECTS.PARTY.VOCALENH
690	0x02B2	PARAM.EFFECTS.PARTY.REEQ
691	0x02B3	PARAM.EFFECTS.PARTY.MONOCNTR
692	0x02B4	PARAM.EFFECTS.PARTY.TRIGGER1
693	0x02B5	PARAM.EFFECTS.PARTY.TRIGGER2
694	0x02B6	PARAM.EFFECTS.STEREO
695	0x02B7	PARAM.EFFECTS.STEREO.NAME
696	0x02B8	PARAM.EFFECTS.STEREO.OUTPUTLEVELS
697	0x02B9	PARAM.EFFECTS.STEREO.OUTPUTLEVELS.CNTROUTLEVEL
698	0x02BA	PARAM.EFFECTS.STEREO.OUTPUTLEVELS.SIDEOUTLEVEL
699	0x02BB	PARAM.EFFECTS.STEREO.OUTPUTLEVELS.REAROUTLEVEL
700	0x02BC	PARAM.EFFECTS.STEREO.OUTPUTLEVELS.SUBOUTLEVEL
701	0x02BD	PARAM.EFFECTS.STEREO.OUTPUTLEVELS.LFEOUTLEVEL
702	0x02BE	PARAM.EFFECTS.STEREO.AUTOAZIMUTH
703	0x02BF	PARAM.EFFECTS.STEREO.VOCALENH
704	0x02C0	PARAM.EFFECTS.STEREO.REEQ
705	0x02C1	PARAM.EFFECTS.STEREO.MONOCNTR
706	0x02C2	PARAM.EFFECTS.STEREO.TRIGGER1
707	0x02C3	PARAM.EFFECTS.STEREO.TRIGGER2
708	0x02C4	PARAM.EFFECTS.MONO_LOGIC
709	0x02C5	PARAM.EFFECTS.MONO_LOGIC.NAME
710	0x02C6	PARAM.EFFECTS.MONO_LOGIC.MONOENH
711	0x02C7	PARAM.EFFECTS.MONO_LOGIC.MAINLEVEL
712	0x02C8	PARAM.EFFECTS.MONO_LOGIC.ACADEMY
713	0x02C9	PARAM.EFFECTS.MONO_LOGIC.SURRROLLOFF

714	0x02CA	PARAM.EFFECTS.MONO_LOGIC.EFFECTLEVEL
715	0x02CB	PARAM.EFFECTS.MONO_LOGIC.OUTPUTLEVELS
716	0x02CC	PARAM.EFFECTS.MONO_LOGIC.OUTPUTLEVELS.CNTROUTLEVEL
717	0x02CD	PARAM.EFFECTS.MONO_LOGIC.OUTPUTLEVELS.SIDEOUTLEVEL
718	0x02CE	PARAM.EFFECTS.MONO_LOGIC.OUTPUTLEVELS.REAROUTLEVEL
719	0x02CF	PARAM.EFFECTS.MONO_LOGIC.OUTPUTLEVELS.SUBOUTLEVEL
720	0x02D0	PARAM.EFFECTS.MONO_LOGIC.OUTPUTLEVELS.LFEOUTLEVEL
721	0x02D1	PARAM.EFFECTS.MONO_LOGIC.VOCALENH
722	0x02D2	PARAM.EFFECTS.MONO_LOGIC.REEQ
723	0x02D3	PARAM.EFFECTS.MONO_LOGIC.USEREVERB
724	0x02D4	PARAM.EFFECTS.MONO_LOGIC.TRIGGER1
725	0x02D5	PARAM.EFFECTS.MONO_LOGIC.TRIGGER2
726	0x02D6	PARAM.EFFECTS.MONO
727	0x02D7	PARAM.EFFECTS.MONO.NAME
728	0x02D8	PARAM.EFFECTS.MONO.OUTPUTLEVELS
729	0x02D9	PARAM.EFFECTS.MONO.OUTPUTLEVELS.CNTROUTLEVEL
730	0x02DA	PARAM.EFFECTS.MONO.OUTPUTLEVELS.SIDEOUTLEVEL
731	0x02DB	PARAM.EFFECTS.MONO.OUTPUTLEVELS.REAROUTLEVEL
732	0x02DC	PARAM.EFFECTS.MONO.OUTPUTLEVELS.SUBOUTLEVEL
733	0x02DD	PARAM.EFFECTS.MONO.OUTPUTLEVELS.LFEOUTLEVEL
734	0x02DE	PARAM.EFFECTS.MONO.USEREVERB
735	0x02DF	PARAM.EFFECTS.MONO.FRONTOUTLEVEL
736	0x02E0	PARAM.EFFECTS.MONO.TRIGGER1
737	0x02E1	PARAM.EFFECTS.MONO.TRIGGER2
738	0x02E2	PARAM.EFFECTS.MONO_SURROUND
739	0x02E3	PARAM.EFFECTS.MONO_SURROUND.NAME
740	0x02E4	PARAM.EFFECTS.MONO_SURROUND.OUTPUTLEVELS
741	0x02E5	PARAM.EFFECTS.MONO_SURROUND.OUTPUTLEVELS.CNTROUTLEVEL
742	0x02E6	PARAM.EFFECTS.MONO_SURROUND.OUTPUTLEVELS.SIDEOUTLEVEL
743	0x02E7	PARAM.EFFECTS.MONO_SURROUND.OUTPUTLEVELS.REAROUTLEVEL
744	0x02E8	PARAM.EFFECTS.MONO_SURROUND.OUTPUTLEVELS.SUBOUTLEVEL
745	0x02E9	PARAM.EFFECTS.MONO_SURROUND.OUTPUTLEVELS.LFEOUTLEVEL
746	0x02EA	PARAM.EFFECTS.MONO_SURROUND.USEREVERB
747	0x02EB	PARAM.EFFECTS.MONO_SURROUND.TRIGGER1
748	0x02EC	PARAM.EFFECTS.MONO_SURROUND.TRIGGER2
749	0x02ED	PARAM.EFFECTS._51_LOGIC7
750	0x02EE	PARAM.EFFECTS._51_LOGIC7.NAME
751	0x02EF	PARAM.EFFECTS._51_LOGIC7.OUTPUTLEVELS
752	0x02F0	PARAM.EFFECTS._51_LOGIC7.OUTPUTLEVELS.CNTROUTLEVEL
753	0x02F1	PARAM.EFFECTS._51_LOGIC7.OUTPUTLEVELS.SIDEOUTLEVEL
754	0x02F2	PARAM.EFFECTS._51_LOGIC7.OUTPUTLEVELS.REAROUTLEVEL
755	0x02F3	PARAM.EFFECTS._51_LOGIC7.OUTPUTLEVELS.SUBOUTLEVEL
756	0x02F4	PARAM.EFFECTS._51_LOGIC7.OUTPUTLEVELS.LFEOUTLEVEL
757	0x02F5	PARAM.EFFECTS._51_LOGIC7.VOCALENH
758	0x02F6	PARAM.EFFECTS._51_LOGIC7.FIVESPKRENH
759	0x02F7	PARAM.EFFECTS._51_LOGIC7.BASSENH
760	0x02F8	PARAM.EFFECTS._51_LOGIC7.REEQ
761	0x02F9	PARAM.EFFECTS._51_LOGIC7.REARDLYOFF
762	0x02FA	PARAM.EFFECTS._51_LOGIC7.COMPRESSION
763	0x02FB	PARAM.EFFECTS._51_LOGIC7.SOUNDSTAGE51
764	0x02FC	PARAM.EFFECTS._51_LOGIC7.LFEMIX

765	0x02FD	PARAM.EFFECTS._51_LOGIC7.FRONTSTEER51
766	0x02FE	PARAM.EFFECTS._51_LOGIC7.SURREX
767	0x02FF	PARAM.EFFECTS._51_LOGIC7.SEVENCHANNEL
768	0x0300	PARAM.EFFECTS._51_LOGIC7.TRIGGER1
769	0x0301	PARAM.EFFECTS._51_LOGIC7.TRIGGER2
770	0x0302	PARAM.EFFECTS._51_LOGIC7.MONOREARON51
771	0x0303	PARAM.EFFECTS._51_LOGIC7.SURRROLLOFF
772	0x0304	PARAM.EFFECTS._51_LOGIC7.CENTERONOFF
773	0x0305	PARAM.EFFECTS._51_LOGIC7.SURRONOFF
774	0x0306	PARAM.EFFECTS._51_MUSIC
775	0x0307	PARAM.EFFECTS._51_MUSIC.NAME
776	0x0308	PARAM.EFFECTS._51_MUSIC.OUTPUTLEVELS
777	0x0309	PARAM.EFFECTS._51_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
778	0x030A	PARAM.EFFECTS._51_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
779	0x030B	PARAM.EFFECTS._51_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
780	0x030C	PARAM.EFFECTS._51_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
781	0x030D	PARAM.EFFECTS._51_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
782	0x030E	PARAM.EFFECTS._51_MUSIC.VOCALENH
783	0x030F	PARAM.EFFECTS._51_MUSIC.FIVESPKRENH
784	0x0310	PARAM.EFFECTS._51_MUSIC.BASSENH
785	0x0311	PARAM.EFFECTS._51_MUSIC.REEQ
786	0x0312	PARAM.EFFECTS._51_MUSIC.REARDLYOFF
787	0x0313	PARAM.EFFECTS._51_MUSIC.COMPRESSION
788	0x0314	PARAM.EFFECTS._51_MUSIC.SOUNDSTAGE51
789	0x0315	PARAM.EFFECTS._51_MUSIC.LFEMIX
790	0x0316	PARAM.EFFECTS._51_MUSIC.FRONTSTEER51
791	0x0317	PARAM.EFFECTS._51_MUSIC.SURREX
792	0x0318	PARAM.EFFECTS._51_MUSIC.SEVENCHANNEL
793	0x0319	PARAM.EFFECTS._51_MUSIC.TRIGGER1
794	0x031A	PARAM.EFFECTS._51_MUSIC.TRIGGER2
795	0x031B	PARAM.EFFECTS._51_MUSIC.MONOREARON51
796	0x031C	PARAM.EFFECTS._51_MUSIC.SURRROLLOFF
797	0x031D	PARAM.EFFECTS._51_MUSIC.CENTERONOFF
798	0x031E	PARAM.EFFECTS._51_MUSIC.SURRONOFF
799	0x031F	PARAM.EFFECTS._51_TV_LOGIC
800	0x0320	PARAM.EFFECTS._51_TV_LOGIC.NAME
801	0x0321	PARAM.EFFECTS._51_TV_LOGIC.OUTPUTLEVELS
802	0x0322	PARAM.EFFECTS._51_TV_LOGIC.OUTPUTLEVELS.CNTROUTLEVEL
803	0x0323	PARAM.EFFECTS._51_TV_LOGIC.OUTPUTLEVELS.SIDEOUTLEVEL
804	0x0324	PARAM.EFFECTS._51_TV_LOGIC.OUTPUTLEVELS.REAROUTLEVEL
805	0x0325	PARAM.EFFECTS._51_TV_LOGIC.OUTPUTLEVELS.SUBOUTLEVEL
806	0x0326	PARAM.EFFECTS._51_TV_LOGIC.OUTPUTLEVELS.LFEOUTLEVEL
807	0x0327	PARAM.EFFECTS._51_TV_LOGIC.VOCALENH
808	0x0328	PARAM.EFFECTS._51_TV_LOGIC.FIVESPKRENH
809	0x0329	PARAM.EFFECTS._51_TV_LOGIC.BASSENH
810	0x032A	PARAM.EFFECTS._51_TV_LOGIC.REEQ
811	0x032B	PARAM.EFFECTS._51_TV_LOGIC.REARDLYOFF
812	0x032C	PARAM.EFFECTS._51_TV_LOGIC.COMPRESSION
813	0x032D	PARAM.EFFECTS._51_TV_LOGIC.LFEMIX
814	0x032E	PARAM.EFFECTS._51_TV_LOGIC.SOUNDSTAGE51
815	0x032F	PARAM.EFFECTS._51_TV_LOGIC.FRONTSTEER51

816	0x0330	PARAM.EFFECTS._51_TV_LOGIC.SURREX
817	0x0331	PARAM.EFFECTS._51_TV_LOGIC.SEVENCHANNEL
818	0x0332	PARAM.EFFECTS._51_TV_LOGIC.TRIGGER1
819	0x0333	PARAM.EFFECTS._51_TV_LOGIC.TRIGGER2
820	0x0334	PARAM.EFFECTS._51_TV_LOGIC.MONOREARON51
821	0x0335	PARAM.EFFECTS._51_TV_LOGIC.SURRROLLOFF
822	0x0336	PARAM.EFFECTS._51_TV_LOGIC.CENTERONOFF
823	0x0337	PARAM.EFFECTS._51_TV_LOGIC.SURRONOFF
824	0x0338	PARAM.EFFECTS._51_THX
825	0x0339	PARAM.EFFECTS._51_THX.NAME
826	0x033A	PARAM.EFFECTS._51_THX.OUTPUTLEVELS
827	0x033B	PARAM.EFFECTS._51_THX.OUTPUTLEVELS.CNTROUTLEVEL
828	0x033C	PARAM.EFFECTS._51_THX.OUTPUTLEVELS.SIDEOUTLEVEL
829	0x033D	PARAM.EFFECTS._51_THX.OUTPUTLEVELS.REAROUTLEVEL
830	0x033E	PARAM.EFFECTS._51_THX.OUTPUTLEVELS.SUBOUTLEVEL
831	0x033F	PARAM.EFFECTS._51_THX.OUTPUTLEVELS.LFEOUTLEVEL
832	0x0340	PARAM.EFFECTS._51_THX.COMPRESSION
833	0x0341	PARAM.EFFECTS._51_THX.LFEMIX
834	0x0342	PARAM.EFFECTS._51_THX.TWO_CH_MUX
835	0x0343	PARAM.EFFECTS._51_THX.TWOCHCNTRMIX
836	0x0344	PARAM.EFFECTS._51_THX.CENTERDELAY
837	0x0345	PARAM.EFFECTS._51_THX.MONOREARON
838	0x0346	PARAM.EFFECTS._51_THX.DECORRELATE
839	0x0347	PARAM.EFFECTS._51_THX.VOCALENH
840	0x0348	PARAM.EFFECTS._51_THX.REEQ
841	0x0349	PARAM.EFFECTS._51_THX.TIMBRE
842	0x034A	PARAM.EFFECTS._51_THX.SURREX
843	0x034B	PARAM.EFFECTS._51_THX.THXMODEON
844	0x034C	PARAM.EFFECTS._51_THX.TRIGGER1
845	0x034D	PARAM.EFFECTS._51_THX.TRIGGER2
846	0x034E	PARAM.EFFECTS._51_THX.REARTIMBRE
847	0x034F	PARAM.EFFECTS.DOLBY_DIGITAL
848	0x0350	PARAM.EFFECTS.DOLBY_DIGITAL.NAME
849	0x0351	PARAM.EFFECTS.DOLBY_DIGITAL.OUTPUTLEVELS
850	0x0352	PARAM.EFFECTS.DOLBY_DIGITAL.OUTPUTLEVELS.CNTROUTLEVEL
851	0x0353	PARAM.EFFECTS.DOLBY_DIGITAL.OUTPUTLEVELS.SIDEOUTLEVEL
852	0x0354	PARAM.EFFECTS.DOLBY_DIGITAL.OUTPUTLEVELS.REAROUTLEVEL
853	0x0355	PARAM.EFFECTS.DOLBY_DIGITAL.OUTPUTLEVELS.SUBOUTLEVEL
854	0x0356	PARAM.EFFECTS.DOLBY_DIGITAL.OUTPUTLEVELS.LFEOUTLEVEL
855	0x0357	PARAM.EFFECTS.DOLBY_DIGITAL.COMPRESSION
856	0x0358	PARAM.EFFECTS.DOLBY_DIGITAL.LFEMIX
857	0x0359	PARAM.EFFECTS.DOLBY_DIGITAL.TWO_CH_MUX
858	0x035A	PARAM.EFFECTS.DOLBY_DIGITAL.TWOCHCNTRMIX
859	0x035B	PARAM.EFFECTS.DOLBY_DIGITAL.CENTERDELAY
860	0x035C	PARAM.EFFECTS.DOLBY_DIGITAL.DECORRELATE
861	0x035D	PARAM.EFFECTS.DOLBY_DIGITAL.VOCALENH
862	0x035E	PARAM.EFFECTS.DOLBY_DIGITAL.REEQ
863	0x035F	PARAM.EFFECTS.DOLBY_DIGITAL.TRIGGER1
864	0x0360	PARAM.EFFECTS.DOLBY_DIGITAL.TRIGGER2
865	0x0361	PARAM.EFFECTS.DOLBY_DIGITAL.MONOREARON
866	0x0362	PARAM.EFFECTS.DOLBY_DIGITAL.EX

867	0x0363	PARAM.EFFECTS._51_2CHANNEL
868	0x0364	PARAM.EFFECTS._51_2CHANNEL.NAME
869	0x0365	PARAM.EFFECTS._51_2CHANNEL.OUTPUTLEVELS
870	0x0366	PARAM.EFFECTS._51_2CHANNEL.OUTPUTLEVELS.CNTROUTLEVEL
871	0x0367	PARAM.EFFECTS._51_2CHANNEL.OUTPUTLEVELS.SIDEOUTLEVEL
872	0x0368	PARAM.EFFECTS._51_2CHANNEL.OUTPUTLEVELS.REAROUTLEVEL
873	0x0369	PARAM.EFFECTS._51_2CHANNEL.OUTPUTLEVELS.SUBOUTLEVEL
874	0x036A	PARAM.EFFECTS._51_2CHANNEL.OUTPUTLEVELS.LFEOUTLEVEL
875	0x036B	PARAM.EFFECTS._51_2CHANNEL.COMPRESSION
876	0x036C	PARAM.EFFECTS._51_2CHANNEL.LFEMIX_2CH
877	0x036D	PARAM.EFFECTS._51_2CHANNEL.TWO_CH_MUX
878	0x036E	PARAM.EFFECTS._51_2CHANNEL.TWOCHCNTRMIX
879	0x036F	PARAM.EFFECTS._51_2CHANNEL.CENTERDELAY
880	0x0370	PARAM.EFFECTS._51_2CHANNEL.DECORRELATE
881	0x0371	PARAM.EFFECTS._51_2CHANNEL.VOCALENH
882	0x0372	PARAM.EFFECTS._51_2CHANNEL.REEQ
883	0x0373	PARAM.EFFECTS._51_2CHANNEL.SURRMIX
884	0x0374	PARAM.EFFECTS._51_2CHANNEL.MASTERLEVEL
885	0x0375	PARAM.EFFECTS._51_2CHANNEL.TRIGGER1
886	0x0376	PARAM.EFFECTS._51_2CHANNEL.TRIGGER2
887	0x0377	PARAM.EFFECTS._51_2CHANNEL.MONOREARON
888	0x0378	PARAM.EFFECTS._51_MONO_SURROUND
889	0x0379	PARAM.EFFECTS._51_MONO_SURROUND.NAME
890	0x037A	PARAM.EFFECTS._51_MONO_SURROUND.OUTPUTLEVELS
891	0x037B	PARAM.EFFECTS._51_MONO_SURROUND.OUTPUTLEVELS.CNTROUTLEVEL
892	0x037C	PARAM.EFFECTS._51_MONO_SURROUND.OUTPUTLEVELS.SIDEOUTLEVEL
893	0x037D	PARAM.EFFECTS._51_MONO_SURROUND.OUTPUTLEVELS.REAROUTLEVEL
894	0x037E	PARAM.EFFECTS._51_MONO_SURROUND.OUTPUTLEVELS.SUBOUTLEVEL
895	0x037F	PARAM.EFFECTS._51_MONO_SURROUND.OUTPUTLEVELS.LFEOUTLEVEL
896	0x0380	PARAM.EFFECTS._51_MONO_SURROUND.USEREVERB
897	0x0381	PARAM.EFFECTS._51_MONO_SURROUND.TRIGGER1
898	0x0382	PARAM.EFFECTS._51_MONO_SURROUND.TRIGGER2
899	0x0383	PARAM.EFFECTS._51_MONO_LOGIC
900	0x0384	PARAM.EFFECTS._51_MONO_LOGIC.NAME
901	0x0385	PARAM.EFFECTS._51_MONO_LOGIC.OUTPUTLEVELS
902	0x0386	PARAM.EFFECTS._51_MONO_LOGIC.OUTPUTLEVELS.CNTROUTLEVEL
903	0x0387	PARAM.EFFECTS._51_MONO_LOGIC.OUTPUTLEVELS.SIDEOUTLEVEL
904	0x0388	PARAM.EFFECTS._51_MONO_LOGIC.OUTPUTLEVELS.REAROUTLEVEL
905	0x0389	PARAM.EFFECTS._51_MONO_LOGIC.OUTPUTLEVELS.SUBOUTLEVEL
906	0x038A	PARAM.EFFECTS._51_MONO_LOGIC.OUTPUTLEVELS.LFEOUTLEVEL
907	0x038B	PARAM.EFFECTS._51_MONO_LOGIC.EFFECTLEVEL
908	0x038C	PARAM.EFFECTS._51_MONO_LOGIC.ACADEMY
909	0x038D	PARAM.EFFECTS._51_MONO_LOGIC.SURRROLLOFF
910	0x038E	PARAM.EFFECTS._51_MONO_LOGIC.USEREVERB
911	0x038F	PARAM.EFFECTS._51_MONO_LOGIC.TRIGGER1
912	0x0390	PARAM.EFFECTS._51_MONO_LOGIC.TRIGGER2
913	0x0391	PARAM.EFFECTS._51_AD_FILM
914	0x0392	PARAM.EFFECTS._51_AD_FILM.NAME
915	0x0393	PARAM.EFFECTS._51_AD_FILM.OUTPUTLEVELS
916	0x0394	PARAM.EFFECTS._51_AD_FILM.OUTPUTLEVELS.CNTROUTLEVEL
917	0x0395	PARAM.EFFECTS._51_AD_FILM.OUTPUTLEVELS.SIDEOUTLEVEL

918	0x0396	PARAM.EFFECTS._51_AD_FILM.OUTPUTLEVELS.REAROUTLEVEL
919	0x0397	PARAM.EFFECTS._51_AD_FILM.OUTPUTLEVELS.SUBOUTLEVEL
920	0x0398	PARAM.EFFECTS._51_AD_FILM.OUTPUTLEVELS.LFEOUTLEVEL
921	0x0399	PARAM.EFFECTS._51_AD_FILM.VOCALENH
922	0x039A	PARAM.EFFECTS._51_AD_FILM.FIVESPKRENH
923	0x039B	PARAM.EFFECTS._51_AD_FILM.BASSENH
924	0x039C	PARAM.EFFECTS._51_AD_FILM.REEQ
925	0x039D	PARAM.EFFECTS._51_AD_FILM.REARDLYOFF
926	0x039E	PARAM.EFFECTS._51_AD_FILM.LFEMIX
927	0x039F	PARAM.EFFECTS._51_AD_FILM.SOUNDSTAGE51
928	0x03A0	PARAM.EFFECTS._51_AD_FILM.FRONTSTEER51
929	0x03A1	PARAM.EFFECTS._51_AD_FILM.SURREX
930	0x03A2	PARAM.EFFECTS._51_AD_FILM.SEVENCHANNEL
931	0x03A3	PARAM.EFFECTS._51_AD_FILM.TRIGGER1
932	0x03A4	PARAM.EFFECTS._51_AD_FILM.TRIGGER2
933	0x03A5	PARAM.EFFECTS._51_AD_FILM.MONOREARON51
934	0x03A6	PARAM.EFFECTS._51_AD_FILM.SURRROLLOFF
935	0x03A7	PARAM.EFFECTS._51_AD_FILM.CENTERONOFF
936	0x03A8	PARAM.EFFECTS._51_AD_FILM.SURRONOFF
937	0x03A9	PARAM.EFFECTS._51_AD_FILM.ANLGCENTERONOFF
938	0x03AA	PARAM.EFFECTS._51_AD_FILM.ANLGSURRONOFF
939	0x03AB	PARAM.EFFECTS._20_ANALOG_BYPASS
940	0x03AC	PARAM.EFFECTS._20_ANALOG_BYPASS.NAME
941	0x03AD	PARAM.EFFECTS._20_ANALOG_BYPASS.OUTPUTLEVELS
942	0x03AE	PARAM.EFFECTS._20_ANALOG_BYPASS.OUTPUTLEVELS.CNTROUTLEVEL
943	0x03AF	PARAM.EFFECTS._20_ANALOG_BYPASS.OUTPUTLEVELS.SIDEOUTLEVEL
944	0x03B0	PARAM.EFFECTS._20_ANALOG_BYPASS.OUTPUTLEVELS.REAROUTLEVEL
945	0x03B1	PARAM.EFFECTS._20_ANALOG_BYPASS.OUTPUTLEVELS.SUBOUTLEVEL
946	0x03B2	PARAM.EFFECTS._20_ANALOG_BYPASS.OUTPUTLEVELS.LFEOUTLEVEL
947	0x03B3	PARAM.EFFECTS._20_ANALOG_BYPASS.TRIGGER1
948	0x03B4	PARAM.EFFECTS._20_ANALOG_BYPASS.TRIGGER2
949	0x03B5	PARAM.EFFECTS._51_ANALOG_BYPASS
950	0x03B6	PARAM.EFFECTS._51_ANALOG_BYPASS.NAME
951	0x03B7	PARAM.EFFECTS._51_ANALOG_BYPASS.OUTPUTLEVELS
952	0x03B8	PARAM.EFFECTS._51_ANALOG_BYPASS.OUTPUTLEVELS.CNTROUTLEVEL
953	0x03B9	PARAM.EFFECTS._51_ANALOG_BYPASS.OUTPUTLEVELS.SIDEOUTLEVEL
954	0x03BA	PARAM.EFFECTS._51_ANALOG_BYPASS.OUTPUTLEVELS.REAROUTLEVEL
955	0x03BB	PARAM.EFFECTS._51_ANALOG_BYPASS.OUTPUTLEVELS.SUBOUTLEVEL
956	0x03BC	PARAM.EFFECTS._51_ANALOG_BYPASS.OUTPUTLEVELS.LFEOUTLEVEL
957	0x03BD	PARAM.EFFECTS._51_ANALOG_BYPASS.TRIGGER1
958	0x03BE	PARAM.EFFECTS._51_ANALOG_BYPASS.TRIGGER2
959	0x03BF	PARAM.EFFECTS._51_MONO
960	0x03C0	PARAM.EFFECTS._51_MONO.NAME
961	0x03C1	PARAM.EFFECTS._51_MONO.OUTPUTLEVELS
962	0x03C2	PARAM.EFFECTS._51_MONO.OUTPUTLEVELS.CNTROUTLEVEL
963	0x03C3	PARAM.EFFECTS._51_MONO.OUTPUTLEVELS.SIDEOUTLEVEL
964	0x03C4	PARAM.EFFECTS._51_MONO.OUTPUTLEVELS.REAROUTLEVEL
965	0x03C5	PARAM.EFFECTS._51_MONO.OUTPUTLEVELS.SUBOUTLEVEL
966	0x03C6	PARAM.EFFECTS._51_MONO.OUTPUTLEVELS.LFEOUTLEVEL
967	0x03C7	PARAM.EFFECTS._51_MONO.USEREVERB
968	0x03C8	PARAM.EFFECTS._51_MONO.FRONTOUTLEVEL

969	0x03C9	PARAM.EFFECTS._51_MONO.TRIGGER1
970	0x03CA	PARAM.EFFECTS._51_MONO.TRIGGER2
971	0x03CB	PARAM.EFFECTS.DTS
972	0x03CC	PARAM.EFFECTS.DTS.NAME
973	0x03CD	PARAM.EFFECTS.DTS.OUTPUTLEVELS
974	0x03CE	PARAM.EFFECTS.DTS.OUTPUTLEVELS.CNTROUTLEVEL
975	0x03CF	PARAM.EFFECTS.DTS.OUTPUTLEVELS.SIDEOUTLEVEL
976	0x03D0	PARAM.EFFECTS.DTS.OUTPUTLEVELS.REAROUTLEVEL
977	0x03D1	PARAM.EFFECTS.DTS.OUTPUTLEVELS.SUBOUTLEVEL
978	0x03D2	PARAM.EFFECTS.DTS.OUTPUTLEVELS.LFEOUTLEVEL
979	0x03D3	PARAM.EFFECTS.DTS.LFEMIX
980	0x03D4	PARAM.EFFECTS.DTS.TWO_CH_MUX
981	0x03D5	PARAM.EFFECTS.DTS.TWOCHCNTRMIX
982	0x03D6	PARAM.EFFECTS.DTS.CENTERDELAY
983	0x03D7	PARAM.EFFECTS.DTS.MONOREARON
984	0x03D8	PARAM.EFFECTS.DTS.DECORRELATE
985	0x03D9	PARAM.EFFECTS.DTS.VOCALENH
986	0x03DA	PARAM.EFFECTS.DTS.REEQ
987	0x03DB	PARAM.EFFECTS.DTS.TRIGGER1
988	0x03DC	PARAM.EFFECTS.DTS.TRIGGER2
989	0x03DD	PARAM.EFFECTS.DTS.DTS_ES_DETECT
990	0x03DE	PARAM.EFFECTS.DTS_LOGIC7
991	0x03DF	PARAM.EFFECTS.DTS_LOGIC7.NAME
992	0x03E0	PARAM.EFFECTS.DTS_LOGIC7.OUTPUTLEVELS
993	0x03E1	PARAM.EFFECTS.DTS_LOGIC7.OUTPUTLEVELS.CNTROUTLEVEL
994	0x03E2	PARAM.EFFECTS.DTS_LOGIC7.OUTPUTLEVELS.SIDEOUTLEVEL
995	0x03E3	PARAM.EFFECTS.DTS_LOGIC7.OUTPUTLEVELS.REAROUTLEVEL
996	0x03E4	PARAM.EFFECTS.DTS_LOGIC7.OUTPUTLEVELS.SUBOUTLEVEL
997	0x03E5	PARAM.EFFECTS.DTS_LOGIC7.OUTPUTLEVELS.LFEOUTLEVEL
998	0x03E6	PARAM.EFFECTS.DTS_LOGIC7.VOCALENH
999	0x03E7	PARAM.EFFECTS.DTS_LOGIC7.FIVESPKRENH
1000	0x03E8	PARAM.EFFECTS.DTS_LOGIC7.BASSENH
1001	0x03E9	PARAM.EFFECTS.DTS_LOGIC7.REEQ
1002	0x03EA	PARAM.EFFECTS.DTS_LOGIC7.REARDLYOFF
1003	0x03EB	PARAM.EFFECTS.DTS_LOGIC7.LFEMIX
1004	0x03EC	PARAM.EFFECTS.DTS_LOGIC7.SOUNDSTAGE51
1005	0x03ED	PARAM.EFFECTS.DTS_LOGIC7.FRONTSTEER51
1006	0x03EE	PARAM.EFFECTS.DTS_LOGIC7.SURREX
1007	0x03EF	PARAM.EFFECTS.DTS_LOGIC7.SEVENCHANNEL
1008	0x03F0	PARAM.EFFECTS.DTS_LOGIC7.TRIGGER1
1009	0x03F1	PARAM.EFFECTS.DTS_LOGIC7.TRIGGER2
1010	0x03F2	PARAM.EFFECTS.DTS_LOGIC7.MONOREARON51
1011	0x03F3	PARAM.EFFECTS.DTS_LOGIC7.DTS_ES_DETECT
1012	0x03F4	PARAM.EFFECTS.DTS_LOGIC7.SURRROLLOFF
1013	0x03F5	PARAM.EFFECTS.DTS_LOGIC7.CENTERONOFF
1014	0x03F6	PARAM.EFFECTS.DTS_LOGIC7.SURRONOFF
1015	0x03F7	PARAM.EFFECTS.DTS_THX
1016	0x03F8	PARAM.EFFECTS.DTS_THX.NAME
1017	0x03F9	PARAM.EFFECTS.DTS_THX.OUTPUTLEVELS
1018	0x03FA	PARAM.EFFECTS.DTS_THX.OUTPUTLEVELS.CNTROUTLEVEL
1019	0x03FB	PARAM.EFFECTS.DTS_THX.OUTPUTLEVELS.SIDEOUTLEVEL

1020	0x03FC	PARAM.EFFECTS.DTS_THX.OUTPUTLEVELS.REAROUTLEVEL
1021	0x03FD	PARAM.EFFECTS.DTS_THX.OUTPUTLEVELS.SUBOUTLEVEL
1022	0x03FE	PARAM.EFFECTS.DTS_THX.OUTPUTLEVELS.LFEOUTLEVEL
1023	0x03FF	PARAM.EFFECTS.DTS_THX.LFEMIX
1024	0x0400	PARAM.EFFECTS.DTS_THX.TWO_CH_MUX
1025	0x0401	PARAM.EFFECTS.DTS_THX.TWOCHCNTRMIX
1026	0x0402	PARAM.EFFECTS.DTS_THX.CENTERDELAY
1027	0x0403	PARAM.EFFECTS.DTS_THX.MONOREARON
1028	0x0404	PARAM.EFFECTS.DTS_THX.DECORRELATE
1029	0x0405	PARAM.EFFECTS.DTS_THX.VOCALENH
1030	0x0406	PARAM.EFFECTS.DTS_THX.REEQ
1031	0x0407	PARAM.EFFECTS.DTS_THX.TIMBRE
1032	0x0408	PARAM.EFFECTS.DTS_THX.SURREX
1033	0x0409	PARAM.EFFECTS.DTS_THX.THXMODEON
1034	0x040A	PARAM.EFFECTS.DTS_THX.TRIGGER1
1035	0x040B	PARAM.EFFECTS.DTS_THX.TRIGGER2
1036	0x040C	PARAM.EFFECTS.DTS_THX.REARTIMBRE
1037	0x040D	PARAM.EFFECTS.DTS_THX.DTS_ES_DETECT
1038	0x040E	PARAM.EFFECTS.DTS_MUSIC
1039	0x040F	PARAM.EFFECTS.DTS_MUSIC.NAME
1040	0x0410	PARAM.EFFECTS.DTS_MUSIC.OUTPUTLEVELS
1041	0x0411	PARAM.EFFECTS.DTS_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1042	0x0412	PARAM.EFFECTS.DTS_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1043	0x0413	PARAM.EFFECTS.DTS_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
1044	0x0414	PARAM.EFFECTS.DTS_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1045	0x0415	PARAM.EFFECTS.DTS_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1046	0x0416	PARAM.EFFECTS.DTS_MUSIC.VOCALENH
1047	0x0417	PARAM.EFFECTS.DTS_MUSIC.FIVESPKRENH
1048	0x0418	PARAM.EFFECTS.DTS_MUSIC.BASSENH
1049	0x0419	PARAM.EFFECTS.DTS_MUSIC.REEQ
1050	0x041A	PARAM.EFFECTS.DTS_MUSIC.REARDLYOFF
1051	0x041B	PARAM.EFFECTS.DTS_MUSIC.LFEMIX
1052	0x041C	PARAM.EFFECTS.DTS_MUSIC.SOUNDSTAGE51
1053	0x041D	PARAM.EFFECTS.DTS_MUSIC.FRONTSTEER51
1054	0x041E	PARAM.EFFECTS.DTS_MUSIC.SURREX
1055	0x041F	PARAM.EFFECTS.DTS_MUSIC.SEVENCHANNEL
1056	0x0420	PARAM.EFFECTS.DTS_MUSIC.TRIGGER1
1057	0x0421	PARAM.EFFECTS.DTS_MUSIC.TRIGGER2
1058	0x0422	PARAM.EFFECTS.DTS_MUSIC.MONOREARON51
1059	0x0423	PARAM.EFFECTS.DTS_MUSIC.DTS_ES_DETECT
1060	0x0424	PARAM.EFFECTS.DTS_MUSIC.SURRROLLOFF
1061	0x0425	PARAM.EFFECTS.DTS_MUSIC.CENTERONOFF
1062	0x0426	PARAM.EFFECTS.DTS_MUSIC.SURRONOFF
1063	0x0427	PARAM.EFFECTS.DTS_2CHANNEL
1064	0x0428	PARAM.EFFECTS.DTS_2CHANNEL.NAME
1065	0x0429	PARAM.EFFECTS.DTS_2CHANNEL.OUTPUTLEVELS
1066	0x042A	PARAM.EFFECTS.DTS_2CHANNEL.OUTPUTLEVELS.CNTROUTLEVEL
1067	0x042B	PARAM.EFFECTS.DTS_2CHANNEL.OUTPUTLEVELS.SIDEOUTLEVEL
1068	0x042C	PARAM.EFFECTS.DTS_2CHANNEL.OUTPUTLEVELS.REAROUTLEVEL
1069	0x042D	PARAM.EFFECTS.DTS_2CHANNEL.OUTPUTLEVELS.SUBOUTLEVEL
1070	0x042E	PARAM.EFFECTS.DTS_2CHANNEL.OUTPUTLEVELS.LFEOUTLEVEL

1071	0x042F	PARAM.EFFECTS.DTS_2CHANNEL.LFEMIX_2CH
1072	0x0430	PARAM.EFFECTS.DTS_2CHANNEL.TWO_CH_MUX
1073	0x0431	PARAM.EFFECTS.DTS_2CHANNEL.TWOCHCNTRMIX
1074	0x0432	PARAM.EFFECTS.DTS_2CHANNEL.CENTERDELAY
1075	0x0433	PARAM.EFFECTS.DTS_2CHANNEL.MONOREARON
1076	0x0434	PARAM.EFFECTS.DTS_2CHANNEL.DECORRELATE
1077	0x0435	PARAM.EFFECTS.DTS_2CHANNEL.VOCALENH
1078	0x0436	PARAM.EFFECTS.DTS_2CHANNEL.REEQ
1079	0x0437	PARAM.EFFECTS.DTS_2CHANNEL.SURRMIX
1080	0x0438	PARAM.EFFECTS.DTS_2CHANNEL.MASTERLEVEL
1081	0x0439	PARAM.EFFECTS.DTS_2CHANNEL.TRIGGER1
1082	0x043A	PARAM.EFFECTS.DTS_2CHANNEL.TRIGGER2
1083	0x043B	PARAM.EFFECTS.DTS_2CHANNEL.DTS_ES_DETECT
1084	0x043C	PARAM.EFFECTS.DTS_NEO_MUSIC
1085	0x043D	PARAM.EFFECTS.DTS_NEO_MUSIC.NAME
1086	0x043E	PARAM.EFFECTS.DTS_NEO_MUSIC.OUTPUTLEVELS
1087	0x043F	PARAM.EFFECTS.DTS_NEO_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1088	0x0440	PARAM.EFFECTS.DTS_NEO_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1089	0x0441	PARAM.EFFECTS.DTS_NEO_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
1090	0x0442	PARAM.EFFECTS.DTS_NEO_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1091	0x0443	PARAM.EFFECTS.DTS_NEO_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1092	0x0444	PARAM.EFFECTS.DTS_NEO_MUSIC.TRIGGER1
1093	0x0445	PARAM.EFFECTS.DTS_NEO_MUSIC.TRIGGER2
1094	0x0446	PARAM.EFFECTS.DTS_NEO_MUSIC.DECORRELATE
1095	0x0447	PARAM.EFFECTS.DTS_NEO_MUSIC.MONOREARON
1096	0x0448	PARAM.EFFECTS.DTS_NEO_FILM
1097	0x0449	PARAM.EFFECTS.DTS_NEO_FILM.NAME
1098	0x044A	PARAM.EFFECTS.DTS_NEO_FILM.OUTPUTLEVELS
1099	0x044B	PARAM.EFFECTS.DTS_NEO_FILM.OUTPUTLEVELS.CNTROUTLEVEL
1100	0x044C	PARAM.EFFECTS.DTS_NEO_FILM.OUTPUTLEVELS.SIDEOUTLEVEL
1101	0x044D	PARAM.EFFECTS.DTS_NEO_FILM.OUTPUTLEVELS.REAROUTLEVEL
1102	0x044E	PARAM.EFFECTS.DTS_NEO_FILM.OUTPUTLEVELS.SUBOUTLEVEL
1103	0x044F	PARAM.EFFECTS.DTS_NEO_FILM.OUTPUTLEVELS.LFEOUTLEVEL
1104	0x0450	PARAM.EFFECTS.DTS_NEO_FILM.TRIGGER1
1105	0x0451	PARAM.EFFECTS.DTS_NEO_FILM.TRIGGER2
1106	0x0452	PARAM.EFFECTS.DTS_NEO_FILM.DECORRELATE
1107	0x0453	PARAM.EFFECTS.DTS_NEO_FILM.MONOREARON
1108	0x0454	PARAM.EFFECTS.DTS_NEO_THX
1109	0x0455	PARAM.EFFECTS.DTS_NEO_THX.NAME
1110	0x0456	PARAM.EFFECTS.DTS_NEO_THX.OUTPUTLEVELS
1111	0x0457	PARAM.EFFECTS.DTS_NEO_THX.OUTPUTLEVELS.CNTROUTLEVEL
1112	0x0458	PARAM.EFFECTS.DTS_NEO_THX.OUTPUTLEVELS.SIDEOUTLEVEL
1113	0x0459	PARAM.EFFECTS.DTS_NEO_THX.OUTPUTLEVELS.REAROUTLEVEL
1114	0x045A	PARAM.EFFECTS.DTS_NEO_THX.OUTPUTLEVELS.SUBOUTLEVEL
1115	0x045B	PARAM.EFFECTS.DTS_NEO_THX.OUTPUTLEVELS.LFEOUTLEVEL
1116	0x045C	PARAM.EFFECTS.DTS_NEO_THX.TRIGGER1
1117	0x045D	PARAM.EFFECTS.DTS_NEO_THX.TRIGGER2
1118	0x045E	PARAM.EFFECTS.DTS_NEO_THX.DECORRELATE
1119	0x045F	PARAM.EFFECTS.DTS_NEO_THX.REEQ
1120	0x0460	PARAM.EFFECTS.DTS_NEO_THX.REARTIMBRE
1121	0x0461	PARAM.EFFECTS.DTS_NEO_THX.MONOREARON

1122	0x0462	PARAM.EFFECTS.DTS_NEO_THX.TIMBRE
1123	0x0463	PARAM.EFFECTS._51_AD_MUSIC
1124	0x0464	PARAM.EFFECTS._51_AD_MUSIC.NAME
1125	0x0465	PARAM.EFFECTS._51_AD_MUSIC.OUTPUTLEVELS
1126	0x0466	PARAM.EFFECTS._51_AD_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1127	0x0467	PARAM.EFFECTS._51_AD_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1128	0x0468	PARAM.EFFECTS._51_AD_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
1129	0x0469	PARAM.EFFECTS._51_AD_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1130	0x046A	PARAM.EFFECTS._51_AD_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1131	0x046B	PARAM.EFFECTS._51_AD_MUSIC.VOCALENH
1132	0x046C	PARAM.EFFECTS._51_AD_MUSIC.FIVESPKRENH
1133	0x046D	PARAM.EFFECTS._51_AD_MUSIC.BASSENH
1134	0x046E	PARAM.EFFECTS._51_AD_MUSIC.REEQ
1135	0x046F	PARAM.EFFECTS._51_AD_MUSIC.REARDLYOFF
1136	0x0470	PARAM.EFFECTS._51_AD_MUSIC.LFEMIX
1137	0x0471	PARAM.EFFECTS._51_AD_MUSIC.SOUNDSTAGE51
1138	0x0472	PARAM.EFFECTS._51_AD_MUSIC.FRONTSTEER51
1139	0x0473	PARAM.EFFECTS._51_AD_MUSIC.SURREX
1140	0x0474	PARAM.EFFECTS._51_AD_MUSIC.SEVENCHANNEL
1141	0x0475	PARAM.EFFECTS._51_AD_MUSIC.TRIGGER1
1142	0x0476	PARAM.EFFECTS._51_AD_MUSIC.TRIGGER2
1143	0x0477	PARAM.EFFECTS._51_AD_MUSIC.MONOREARON51
1144	0x0478	PARAM.EFFECTS._51_AD_MUSIC.SURRROLLOFF
1145	0x0479	PARAM.EFFECTS._51_AD_MUSIC.CENTERONOFF
1146	0x047A	PARAM.EFFECTS._51_AD_MUSIC.SURRONOFF
1147	0x047B	PARAM.EFFECTS._51_AD_MUSIC.ANLGCENTERONOFF
1148	0x047C	PARAM.EFFECTS._51_AD_MUSIC.ANLGSURRONOFF
1149	0x047D	PARAM.EFFECTS._51_AD_2CHANNEL
1150	0x047E	PARAM.EFFECTS._51_AD_2CHANNEL.NAME
1151	0x047F	PARAM.EFFECTS._51_AD_2CHANNEL.OUTPUTLEVELS
1152	0x0480	PARAM.EFFECTS._51_AD_2CHANNEL.OUTPUTLEVELS.CNTROUTLEVEL
1153	0x0481	PARAM.EFFECTS._51_AD_2CHANNEL.OUTPUTLEVELS.SIDEOUTLEVEL
1154	0x0482	PARAM.EFFECTS._51_AD_2CHANNEL.OUTPUTLEVELS.REAROUTLEVEL
1155	0x0483	PARAM.EFFECTS._51_AD_2CHANNEL.OUTPUTLEVELS.SUBOUTLEVEL
1156	0x0484	PARAM.EFFECTS._51_AD_2CHANNEL.OUTPUTLEVELS.LFEOUTLEVEL
1157	0x0485	PARAM.EFFECTS._51_AD_2CHANNEL.LFEMIX_2CH
1158	0x0486	PARAM.EFFECTS._51_AD_2CHANNEL.TWO_CH_MUX
1159	0x0487	PARAM.EFFECTS._51_AD_2CHANNEL.TWOCHCNTRMIX
1160	0x0488	PARAM.EFFECTS._51_AD_2CHANNEL.CENTERDELAY
1161	0x0489	PARAM.EFFECTS._51_AD_2CHANNEL.DECORRELATE
1162	0x048A	PARAM.EFFECTS._51_AD_2CHANNEL.VOCALENH
1163	0x048B	PARAM.EFFECTS._51_AD_2CHANNEL.REEQ
1164	0x048C	PARAM.EFFECTS._51_AD_2CHANNEL.SURRMIX
1165	0x048D	PARAM.EFFECTS._51_AD_2CHANNEL.MASTERLEVEL
1166	0x048E	PARAM.EFFECTS._51_AD_2CHANNEL.TRIGGER1
1167	0x048F	PARAM.EFFECTS._51_AD_2CHANNEL.TRIGGER2
1168	0x0490	PARAM.EFFECTS._51_AD_2CHANNEL.MONOREARON
1169	0x0491	PARAM.EFFECTS._51_AD
1170	0x0492	PARAM.EFFECTS._51_AD.NAME
1171	0x0493	PARAM.EFFECTS._51_AD.OUTPUTLEVELS
1172	0x0494	PARAM.EFFECTS._51_AD.OUTPUTLEVELS.CNTROUTLEVEL

1173	0x0495	PARAM.EFFECTS._51_AD.OUTPUTLEVELS.SIDEOUTLEVEL
1174	0x0496	PARAM.EFFECTS._51_AD.OUTPUTLEVELS.REAROUTLEVEL
1175	0x0497	PARAM.EFFECTS._51_AD.OUTPUTLEVELS.SUBOUTLEVEL
1176	0x0498	PARAM.EFFECTS._51_AD.OUTPUTLEVELS.LFEOUTLEVEL
1177	0x0499	PARAM.EFFECTS._51_AD.VOCALENH
1178	0x049A	PARAM.EFFECTS._51_AD.REEQ
1179	0x049B	PARAM.EFFECTS._51_AD.TRIGGER1
1180	0x049C	PARAM.EFFECTS._51_AD.DECORRELATE
1181	0x049D	PARAM.EFFECTS._51_AD.TRIGGER2
1182	0x049E	PARAM.EFFECTS._51_AD.ANLGCENTERONOFF
1183	0x049F	PARAM.EFFECTS._51_AD.ANLGSURRONOFF
1184	0x04A0	PARAM.EFFECTS._51_AD_THX
1185	0x04A1	PARAM.EFFECTS._51_AD_THX.NAME
1186	0x04A2	PARAM.EFFECTS._51_AD_THX.OUTPUTLEVELS
1187	0x04A3	PARAM.EFFECTS._51_AD_THX.OUTPUTLEVELS.CNTROUTLEVEL
1188	0x04A4	PARAM.EFFECTS._51_AD_THX.OUTPUTLEVELS.SIDEOUTLEVEL
1189	0x04A5	PARAM.EFFECTS._51_AD_THX.OUTPUTLEVELS.REAROUTLEVEL
1190	0x04A6	PARAM.EFFECTS._51_AD_THX.OUTPUTLEVELS.SUBOUTLEVEL
1191	0x04A7	PARAM.EFFECTS._51_AD_THX.OUTPUTLEVELS.LFEOUTLEVEL
1192	0x04A8	PARAM.EFFECTS._51_AD_THX.LFEMIX
1193	0x04A9	PARAM.EFFECTS._51_AD_THX.TWO_CH_MUX
1194	0x04AA	PARAM.EFFECTS._51_AD_THX.TWOCHCNTRMIX
1195	0x04AB	PARAM.EFFECTS._51_AD_THX.CENTERDELAY
1196	0x04AC	PARAM.EFFECTS._51_AD_THX.MONOREARON
1197	0x04AD	PARAM.EFFECTS._51_AD_THX.DECORRELATE
1198	0x04AE	PARAM.EFFECTS._51_AD_THX.VOCALENH
1199	0x04AF	PARAM.EFFECTS._51_AD_THX.REEQ
1200	0x04B0	PARAM.EFFECTS._51_AD_THX.TIMBRE
1201	0x04B1	PARAM.EFFECTS._51_AD_THX.SURREXA
1202	0x04B2	PARAM.EFFECTS._51_AD_THX.THXMODEON
1203	0x04B3	PARAM.EFFECTS._51_AD_THX.TRIGGER1
1204	0x04B4	PARAM.EFFECTS._51_AD_THX.TRIGGER2
1205	0x04B5	PARAM.EFFECTS._51_AD_THX.REARTIMBRE
1206	0x04B6	PARAM.EFFECTS._51_AD_THX.ANLGCENTERONOFF
1207	0x04B7	PARAM.EFFECTS._51_AD_THX.ANLGSURRONOFF
1208	0x04B8	PARAM.EFFECTS._51_AD_THX_MUSIC
1209	0x04B9	PARAM.EFFECTS._51_AD_THX_MUSIC.NAME
1210	0x04BA	PARAM.EFFECTS._51_AD_THX_MUSIC.OUTPUTLEVELS
1211	0x04BB	PARAM.EFFECTS._51_AD_THX_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1212	0x04BC	PARAM.EFFECTS._51_AD_THX_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1213	0x04BD	PARAM.EFFECTS._51_AD_THX_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
1214	0x04BE	PARAM.EFFECTS._51_AD_THX_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1215	0x04BF	PARAM.EFFECTS._51_AD_THX_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1216	0x04C0	PARAM.EFFECTS._51_AD_THX_MUSIC.LFEMIX
1217	0x04C1	PARAM.EFFECTS._51_AD_THX_MUSIC.TWO_CH_MUX
1218	0x04C2	PARAM.EFFECTS._51_AD_THX_MUSIC.TWOCHCNTRMIX
1219	0x04C3	PARAM.EFFECTS._51_AD_THX_MUSIC.CENTERDELAY
1220	0x04C4	PARAM.EFFECTS._51_AD_THX_MUSIC.MONOREARON
1221	0x04C5	PARAM.EFFECTS._51_AD_THX_MUSIC.DECORRELATE
1222	0x04C6	PARAM.EFFECTS._51_AD_THX_MUSIC.VOCALENH
1223	0x04C7	PARAM.EFFECTS._51_AD_THX_MUSIC.REEQ

1224	0x04C8	PARAM.EFFECTS._51_AD_THX_MUSIC.TIMBRE
1225	0x04C9	PARAM.EFFECTS._51_AD_THX_MUSIC.SURREX
1226	0x04CA	PARAM.EFFECTS._51_AD_THX_MUSIC.THXMODEON
1227	0x04CB	PARAM.EFFECTS._51_AD_THX_MUSIC.TRIGGER1
1228	0x04CC	PARAM.EFFECTS._51_AD_THX_MUSIC.TRIGGER2
1229	0x04CD	PARAM.EFFECTS._51_AD_THX_MUSIC.REARTIMBRE
1230	0x04CE	PARAM.EFFECTS._51_AD_THX_MUSIC.ANLGCENTERONOFF
1231	0x04CF	PARAM.EFFECTS._51_AD_THX_MUSIC.ANLGSURRONOFF
1232	0x04D0	PARAM.EFFECTS._51_THX_MUSIC
1233	0x04D1	PARAM.EFFECTS._51_THX_MUSIC.NAME
1234	0x04D2	PARAM.EFFECTS._51_THX_MUSIC.OUTPUTLEVELS
1235	0x04D3	PARAM.EFFECTS._51_THX_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1236	0x04D4	PARAM.EFFECTS._51_THX_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1237	0x04D5	PARAM.EFFECTS._51_THX_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
1238	0x04D6	PARAM.EFFECTS._51_THX_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1239	0x04D7	PARAM.EFFECTS._51_THX_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1240	0x04D8	PARAM.EFFECTS._51_THX_MUSIC.COMPRESSION
1241	0x04D9	PARAM.EFFECTS._51_THX_MUSIC.LFEMIX
1242	0x04DA	PARAM.EFFECTS._51_THX_MUSIC.TWO_CH_MUX
1243	0x04DB	PARAM.EFFECTS._51_THX_MUSIC.TWOCHCNTRMIX
1244	0x04DC	PARAM.EFFECTS._51_THX_MUSIC.CENTERDELAY
1245	0x04DD	PARAM.EFFECTS._51_THX_MUSIC.MONOREARON
1246	0x04DE	PARAM.EFFECTS._51_THX_MUSIC.DECORRELATE
1247	0x04DF	PARAM.EFFECTS._51_THX_MUSIC.VOCALENH
1248	0x04E0	PARAM.EFFECTS._51_THX_MUSIC.REEQ
1249	0x04E1	PARAM.EFFECTS._51_THX_MUSIC.TIMBRE
1250	0x04E2	PARAM.EFFECTS._51_THX_MUSIC.SURREX
1251	0x04E3	PARAM.EFFECTS._51_THX_MUSIC.THXMODEON
1252	0x04E4	PARAM.EFFECTS._51_THX_MUSIC.TRIGGER1
1253	0x04E5	PARAM.EFFECTS._51_THX_MUSIC.TRIGGER2
1254	0x04E6	PARAM.EFFECTS._51_THX_MUSIC.REARTIMBRE
1255	0x04E7	PARAM.EFFECTS.DTS_THX_MUSIC
1256	0x04E8	PARAM.EFFECTS.DTS_THX_MUSIC.NAME
1257	0x04E9	PARAM.EFFECTS.DTS_THX_MUSIC.OUTPUTLEVELS
1258	0x04EA	PARAM.EFFECTS.DTS_THX_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1259	0x04EB	PARAM.EFFECTS.DTS_THX_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1260	0x04EC	PARAM.EFFECTS.DTS_THX_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
1261	0x04ED	PARAM.EFFECTS.DTS_THX_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1262	0x04EE	PARAM.EFFECTS.DTS_THX_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1263	0x04EF	PARAM.EFFECTS.DTS_THX_MUSIC.LFEMIX
1264	0x04F0	PARAM.EFFECTS.DTS_THX_MUSIC.TWO_CH_MUX
1265	0x04F1	PARAM.EFFECTS.DTS_THX_MUSIC.TWOCHCNTRMIX
1266	0x04F2	PARAM.EFFECTS.DTS_THX_MUSIC.CENTERDELAY
1267	0x04F3	PARAM.EFFECTS.DTS_THX_MUSIC.MONOREARON
1268	0x04F4	PARAM.EFFECTS.DTS_THX_MUSIC.DECORRELATE
1269	0x04F5	PARAM.EFFECTS.DTS_THX_MUSIC.VOCALENH
1270	0x04F6	PARAM.EFFECTS.DTS_THX_MUSIC.REEQ
1271	0x04F7	PARAM.EFFECTS.DTS_THX_MUSIC.TIMBRE
1272	0x04F8	PARAM.EFFECTS.DTS_THX_MUSIC.SURREX
1273	0x04F9	PARAM.EFFECTS.DTS_THX_MUSIC.THXMODEON
1274	0x04FA	PARAM.EFFECTS.DTS_THX_MUSIC.TRIGGER1

1275	0x04FB	PARAM.EFFECTS.DTS_THX_MUSIC.TRIGGER2
1276	0x04FC	PARAM.EFFECTS.DTS_THX_MUSIC.REARTIMBRE
1277	0x04FD	PARAM.EFFECTS.DTS_THX_MUSIC.DTS_ES_DETECT
1278	0x04FE	PARAM.EFFECTS.AUTO_CAL
1279	0x04FF	PARAM.EFFECTS.AUTO_CAL.NAME
1280	0x0500	PARAM.EFFECTS.AUTO_CAL.OUTPUTLEVELS
1281	0x0501	PARAM.EFFECTS.AUTO_CAL.OUTPUTLEVELS.CNTROUTLEVEL
1282	0x0502	PARAM.EFFECTS.AUTO_CAL.OUTPUTLEVELS.SIDEOUTLEVEL
1283	0x0503	PARAM.EFFECTS.AUTO_CAL.OUTPUTLEVELS.REAROUTLEVEL
1284	0x0504	PARAM.EFFECTS.AUTO_CAL.OUTPUTLEVELS.SUBOUTLEVEL
1285	0x0505	PARAM.EFFECTS.AUTO_CAL.OUTPUTLEVELS.LFEOUTLEVEL
1286	0x0506	PARAM.EFFECTS.AUTO_CAL.TRIGGER1
1287	0x0507	PARAM.EFFECTS.AUTO_CAL.TRIGGER2
1288	0x0508	PARAM.EFFECTS.NIGHTCLUB
1289	0x0509	PARAM.EFFECTS.NIGHTCLUB.NAME
1290	0x050A	PARAM.EFFECTS.NIGHTCLUB.OUTPUTLEVELS
1291	0x050B	PARAM.EFFECTS.NIGHTCLUB.OUTPUTLEVELS.CNTROUTLEVEL
1292	0x050C	PARAM.EFFECTS.NIGHTCLUB.OUTPUTLEVELS.SIDEOUTLEVEL
1293	0x050D	PARAM.EFFECTS.NIGHTCLUB.OUTPUTLEVELS.REAROUTLEVEL
1294	0x050E	PARAM.EFFECTS.NIGHTCLUB.OUTPUTLEVELS.SUBOUTLEVEL
1295	0x050F	PARAM.EFFECTS.NIGHTCLUB.OUTPUTLEVELS.LFEOUTLEVEL
1296	0x0510	PARAM.EFFECTS.NIGHTCLUB.TRIGGER1
1297	0x0511	PARAM.EFFECTS.NIGHTCLUB.TRIGGER2
1298	0x0512	PARAM.EFFECTS.NIGHTCLUB.EFFECTLEVEL
1299	0x0513	PARAM.EFFECTS.NIGHTCLUB.SURRROLLOFF
1300	0x0514	PARAM.EFFECTS.NIGHTCLUB.SIZE
1301	0x0515	PARAM.EFFECTS.NIGHTCLUB.PREDELAY
1302	0x0516	PARAM.EFFECTS.NIGHTCLUB.MIDRT
1303	0x0517	PARAM.EFFECTS.NIGHTCLUB.SPEECHDETECT
1304	0x0518	PARAM.EFFECTS.NIGHTCLUB.CENTERDRYLEVEL
1305	0x0519	PARAM.EFFECTS.CONCERT_HALL
1306	0x051A	PARAM.EFFECTS.CONCERT_HALL.NAME
1307	0x051B	PARAM.EFFECTS.CONCERT_HALL.OUTPUTLEVELS
1308	0x051C	PARAM.EFFECTS.CONCERT_HALL.OUTPUTLEVELS.CNTROUTLEVEL
1309	0x051D	PARAM.EFFECTS.CONCERT_HALL.OUTPUTLEVELS.SIDEOUTLEVEL
1310	0x051E	PARAM.EFFECTS.CONCERT_HALL.OUTPUTLEVELS.REAROUTLEVEL
1311	0x051F	PARAM.EFFECTS.CONCERT_HALL.OUTPUTLEVELS.SUBOUTLEVEL
1312	0x0520	PARAM.EFFECTS.CONCERT_HALL.OUTPUTLEVELS.LFEOUTLEVEL
1313	0x0521	PARAM.EFFECTS.CONCERT_HALL.TRIGGER1
1314	0x0522	PARAM.EFFECTS.CONCERT_HALL.TRIGGER2
1315	0x0523	PARAM.EFFECTS.CONCERT_HALL.EFFECTLEVEL
1316	0x0524	PARAM.EFFECTS.CONCERT_HALL.SURRROLLOFF
1317	0x0525	PARAM.EFFECTS.CONCERT_HALL.SIZE
1318	0x0526	PARAM.EFFECTS.CONCERT_HALL.PREDELAY
1319	0x0527	PARAM.EFFECTS.CONCERT_HALL.MIDRT
1320	0x0528	PARAM.EFFECTS.CONCERT_HALL.SPEECHDETECT
1321	0x0529	PARAM.EFFECTS.CONCERT_HALL.CENTERDRYLEVEL
1322	0x052A	PARAM.EFFECTS.CHURCH
1323	0x052B	PARAM.EFFECTS.CHURCH.NAME
1324	0x052C	PARAM.EFFECTS.CHURCH.OUTPUTLEVELS
1325	0x052D	PARAM.EFFECTS.CHURCH.OUTPUTLEVELS.CNTROUTLEVEL

1326	0x052E	PARAM.EFFECTS.CHURCH.OUTPUTLEVELS.SIDEOUTLEVEL
1327	0x052F	PARAM.EFFECTS.CHURCH.OUTPUTLEVELS.REAROUTLEVEL
1328	0x0530	PARAM.EFFECTS.CHURCH.OUTPUTLEVELS.SUBOUTLEVEL
1329	0x0531	PARAM.EFFECTS.CHURCH.OUTPUTLEVELS.LFEOUTLEVEL
1330	0x0532	PARAM.EFFECTS.CHURCH.TRIGGER1
1331	0x0533	PARAM.EFFECTS.CHURCH.TRIGGER2
1332	0x0534	PARAM.EFFECTS.CHURCH.EFFECTLEVEL
1333	0x0535	PARAM.EFFECTS.CHURCH.SURRROLLOFF
1334	0x0536	PARAM.EFFECTS.CHURCH.SIZE2
1335	0x0537	PARAM.EFFECTS.CHURCH.PREDELAY
1336	0x0538	PARAM.EFFECTS.CHURCH.MIDRT
1337	0x0539	PARAM.EFFECTS.CHURCH.SPEECHDETECT
1338	0x053A	PARAM.EFFECTS.CHURCH.MONOLOGICFRONTEND
1339	0x053B	PARAM.EFFECTS.CHURCH.STEREORVB
1340	0x053C	PARAM.EFFECTS.CHURCH.BASSRT
1341	0x053D	PARAM.EFFECTS.CHURCH.CENTERDRYLEVEL
1342	0x053E	PARAM.EFFECTS.CATHEDRAL
1343	0x053F	PARAM.EFFECTS.CATHEDRAL.NAME
1344	0x0540	PARAM.EFFECTS.CATHEDRAL.OUTPUTLEVELS
1345	0x0541	PARAM.EFFECTS.CATHEDRAL.OUTPUTLEVELS.CNTROUTLEVEL
1346	0x0542	PARAM.EFFECTS.CATHEDRAL.OUTPUTLEVELS.SIDEOUTLEVEL
1347	0x0543	PARAM.EFFECTS.CATHEDRAL.OUTPUTLEVELS.REAROUTLEVEL
1348	0x0544	PARAM.EFFECTS.CATHEDRAL.OUTPUTLEVELS.SUBOUTLEVEL
1349	0x0545	PARAM.EFFECTS.CATHEDRAL.OUTPUTLEVELS.LFEOUTLEVEL
1350	0x0546	PARAM.EFFECTS.CATHEDRAL.TRIGGER1
1351	0x0547	PARAM.EFFECTS.CATHEDRAL.TRIGGER2
1352	0x0548	PARAM.EFFECTS.CATHEDRAL.EFFECTLEVEL
1353	0x0549	PARAM.EFFECTS.CATHEDRAL.SURRROLLOFF
1354	0x054A	PARAM.EFFECTS.CATHEDRAL.SIZE2
1355	0x054B	PARAM.EFFECTS.CATHEDRAL.PREDELAY
1356	0x054C	PARAM.EFFECTS.CATHEDRAL.MIDRT
1357	0x054D	PARAM.EFFECTS.CATHEDRAL.SPEECHDETECT
1358	0x054E	PARAM.EFFECTS.CATHEDRAL.MONOLOGICFRONTEND
1359	0x054F	PARAM.EFFECTS.CATHEDRAL.STEREORVB
1360	0x0550	PARAM.EFFECTS.CATHEDRAL.BASSRT
1361	0x0551	PARAM.EFFECTS.CATHEDRAL.CENTERDRYLEVEL
1362	0x0552	PARAM.EFFECTS.MUSIC_SURR
1363	0x0553	PARAM.EFFECTS.MUSIC_SURR.NAME
1364	0x0554	PARAM.EFFECTS.MUSIC_SURR.OUTPUTLEVELS
1365	0x0555	PARAM.EFFECTS.MUSIC_SURR.OUTPUTLEVELS.CNTROUTLEVEL
1366	0x0556	PARAM.EFFECTS.MUSIC_SURR.OUTPUTLEVELS.SIDEOUTLEVEL
1367	0x0557	PARAM.EFFECTS.MUSIC_SURR.OUTPUTLEVELS.REAROUTLEVEL
1368	0x0558	PARAM.EFFECTS.MUSIC_SURR.OUTPUTLEVELS.SUBOUTLEVEL
1369	0x0559	PARAM.EFFECTS.MUSIC_SURR.OUTPUTLEVELS.LFEOUTLEVEL
1370	0x055A	PARAM.EFFECTS.MUSIC_SURR.AUTOAZIMUTH
1371	0x055B	PARAM.EFFECTS.MUSIC_SURR.VOCALENH
1372	0x055C	PARAM.EFFECTS.MUSIC_SURR.FRONTSTEER
1373	0x055D	PARAM.EFFECTS.MUSIC_SURR.REEQ
1374	0x055E	PARAM.EFFECTS.MUSIC_SURR.SOUNDSTAGE
1375	0x055F	PARAM.EFFECTS.MUSIC_SURR.FIVESPKRENH
1376	0x0560	PARAM.EFFECTS.MUSIC_SURR.BASSENH

1377	0x0561	PARAM.EFFECTS.MUSIC_SURR.SURRROLLOFF
1378	0x0562	PARAM.EFFECTS.MUSIC_SURR.REARDLYOFF
1379	0x0563	PARAM.EFFECTS.MUSIC_SURR.CENTERONOFF
1380	0x0564	PARAM.EFFECTS.MUSIC_SURR.SEVENCHANNEL
1381	0x0565	PARAM.EFFECTS.MUSIC_SURR.MONODETECT_ON
1382	0x0566	PARAM.EFFECTS.MUSIC_SURR.SURRONOFF
1383	0x0567	PARAM.EFFECTS.MUSIC_SURR.TRIGGER1
1384	0x0568	PARAM.EFFECTS.MUSIC_SURR.TRIGGER2
1385	0x0569	PARAM.EFFECTS.MUSIC_SURR.HIFRONT_REARROLLOFF
1386	0x056A	PARAM.EFFECTS.MUSIC_SURR.AUTOBALON
1387	0x056B	PARAM.EFFECTS.PANORAMA
1388	0x056C	PARAM.EFFECTS.PANORAMA.NAME
1389	0x056D	PARAM.EFFECTS.PANORAMA.PANINPUTBAL
1390	0x056E	PARAM.EFFECTS.PANORAMA.EFFECTLEVEL
1391	0x056F	PARAM.EFFECTS.PANORAMA.SURRROLLOFF
1392	0x0570	PARAM.EFFECTS.PANORAMA.OUTPUTLEVELS
1393	0x0571	PARAM.EFFECTS.PANORAMA.OUTPUTLEVELS.CNTROUTLEVEL
1394	0x0572	PARAM.EFFECTS.PANORAMA.OUTPUTLEVELS.SIDEOUTLEVEL
1395	0x0573	PARAM.EFFECTS.PANORAMA.OUTPUTLEVELS.REAROUTLEVEL
1396	0x0574	PARAM.EFFECTS.PANORAMA.OUTPUTLEVELS.SUBOUTLEVEL
1397	0x0575	PARAM.EFFECTS.PANORAMA.OUTPUTLEVELS.LFEOUTLEVEL
1398	0x0576	PARAM.EFFECTS.PANORAMA.BASSWIDTH
1399	0x0577	PARAM.EFFECTS.PANORAMA.TRIGGER1
1400	0x0578	PARAM.EFFECTS.PANORAMA.TRIGGER2
1401	0x0579	PARAM.EFFECTS.PANORAMA.REARDLYOFF
1402	0x057A	PARAM.EFFECTS.PANORAMA.BASSCONTENT
1403	0x057B	PARAM.EFFECTS.PANORAMA.SPEAKERANGLE
1404	0x057C	PARAM.EFFECTS.PANORAMA.FINETIMEALIGN
1405	0x057D	PARAM.EFFECTS.PANORAMA.CALSOURCE
1406	0x057E	PARAM.EFFECTS.PANORAMA.CALIBRATEACTIVE
1407	0x057F	PARAM.EFFECTS.PROLOGIC_THX
1408	0x0580	PARAM.EFFECTS.PROLOGIC_THX.NAME
1409	0x0581	PARAM.EFFECTS.PROLOGIC_THX.OUTPUTLEVELS
1410	0x0582	PARAM.EFFECTS.PROLOGIC_THX.OUTPUTLEVELS.CNTROUTLEVEL
1411	0x0583	PARAM.EFFECTS.PROLOGIC_THX.OUTPUTLEVELS.SIDEOUTLEVEL
1412	0x0584	PARAM.EFFECTS.PROLOGIC_THX.OUTPUTLEVELS.REAROUTLEVEL
1413	0x0585	PARAM.EFFECTS.PROLOGIC_THX.OUTPUTLEVELS.SUBOUTLEVEL
1414	0x0586	PARAM.EFFECTS.PROLOGIC_THX.OUTPUTLEVELS.LFEOUTLEVEL
1415	0x0587	PARAM.EFFECTS.PROLOGIC_THX.TWO_CH_MUX
1416	0x0588	PARAM.EFFECTS.PROLOGIC_THX.TWOCHCNTRMIX
1417	0x0589	PARAM.EFFECTS.PROLOGIC_THX.CENTERDELAY
1418	0x058A	PARAM.EFFECTS.PROLOGIC_THX.MONOREARON
1419	0x058B	PARAM.EFFECTS.PROLOGIC_THX.DECORRELATE
1420	0x058C	PARAM.EFFECTS.PROLOGIC_THX.VOCALENH
1421	0x058D	PARAM.EFFECTS.PROLOGIC_THX.REEQ
1422	0x058E	PARAM.EFFECTS.PROLOGIC_THX.SURDLY10_25
1423	0x058F	PARAM.EFFECTS.PROLOGIC_THX.TRIGGER1
1424	0x0590	PARAM.EFFECTS.PROLOGIC_THX.TRIGGER2
1425	0x0591	PARAM.EFFECTS.PROLOGIC_THX.TIMBRE
1426	0x0592	PARAM.EFFECTS.PROLOGIC_THX.REARTIMBRE
1427	0x0593	PARAM.EFFECTS.PL2XMOVIE

1428	0x0594	PARAM.EFFECTS.PL2XMOVIE.NAME
1429	0x0595	PARAM.EFFECTS.PL2XMOVIE.OUTPUTLEVELS
1430	0x0596	PARAM.EFFECTS.PL2XMOVIE.OUTPUTLEVELS.CNTROUTLEVEL
1431	0x0597	PARAM.EFFECTS.PL2XMOVIE.OUTPUTLEVELS.SIDEOUTLEVEL
1432	0x0598	PARAM.EFFECTS.PL2XMOVIE.OUTPUTLEVELS.REAROUTLEVEL
1433	0x0599	PARAM.EFFECTS.PL2XMOVIE.OUTPUTLEVELS.SUBOUTLEVEL
1434	0x059A	PARAM.EFFECTS.PL2XMOVIE.OUTPUTLEVELS.LFEOUTLEVEL
1435	0x059B	PARAM.EFFECTS.PL2XMOVIE.SIDEREAR10DELAY
1436	0x059C	PARAM.EFFECTS.PL2XMOVIE.TWO_CH_MUX
1437	0x059D	PARAM.EFFECTS.PL2XMOVIE.TWOCHCNTRMIX
1438	0x059E	PARAM.EFFECTS.PL2XMOVIE.CENTERDELAY
1439	0x059F	PARAM.EFFECTS.PL2XMOVIE.MONOREARON
1440	0x05A0	PARAM.EFFECTS.PL2XMOVIE.DECORRELATE
1441	0x05A1	PARAM.EFFECTS.PL2XMOVIE.VOCALENH
1442	0x05A2	PARAM.EFFECTS.PL2XMOVIE.REEQ
1443	0x05A3	PARAM.EFFECTS.PL2XMOVIE.PL2PAN_PL2X
1444	0x05A4	PARAM.EFFECTS.PL2XMOVIE.CNTRWIDTH_PL2X
1445	0x05A5	PARAM.EFFECTS.PL2XMOVIE.DIMENSION_PL2X
1446	0x05A6	PARAM.EFFECTS.PL2XMOVIE.TRIGGER1
1447	0x05A7	PARAM.EFFECTS.PL2XMOVIE.TRIGGER2
1448	0x05A8	PARAM.EFFECTS.PL2XMOVIE.USENODECORDELAY
1449	0x05A9	PARAM.EFFECTS.PL2XMUSIC
1450	0x05AA	PARAM.EFFECTS.PL2XMUSIC.NAME
1451	0x05AB	PARAM.EFFECTS.PL2XMUSIC.OUTPUTLEVELS
1452	0x05AC	PARAM.EFFECTS.PL2XMUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1453	0x05AD	PARAM.EFFECTS.PL2XMUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1454	0x05AE	PARAM.EFFECTS.PL2XMUSIC.OUTPUTLEVELS.REAROUTLEVEL
1455	0x05AF	PARAM.EFFECTS.PL2XMUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1456	0x05B0	PARAM.EFFECTS.PL2XMUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1457	0x05B1	PARAM.EFFECTS.PL2XMUSIC.SIDEREAR10DELAY
1458	0x05B2	PARAM.EFFECTS.PL2XMUSIC.TWO_CH_MUX
1459	0x05B3	PARAM.EFFECTS.PL2XMUSIC.TWOCHCNTRMIX
1460	0x05B4	PARAM.EFFECTS.PL2XMUSIC.CENTERDELAY
1461	0x05B5	PARAM.EFFECTS.PL2XMUSIC.MONOREARON
1462	0x05B6	PARAM.EFFECTS.PL2XMUSIC.DECORRELATE
1463	0x05B7	PARAM.EFFECTS.PL2XMUSIC.VOCALENH
1464	0x05B8	PARAM.EFFECTS.PL2XMUSIC.REEQ
1465	0x05B9	PARAM.EFFECTS.PL2XMUSIC.PL2PAN_PL2X
1466	0x05BA	PARAM.EFFECTS.PL2XMUSIC.CNTRWIDTH_PL2X
1467	0x05BB	PARAM.EFFECTS.PL2XMUSIC.DIMENSION_PL2X
1468	0x05BC	PARAM.EFFECTS.PL2XMUSIC.TRIGGER1
1469	0x05BD	PARAM.EFFECTS.PL2XMUSIC.TRIGGER2
1470	0x05BE	PARAM.EFFECTS.PL2XMUSIC.USENODECORDELAY
1471	0x05BF	PARAM.EFFECTS.PL2XTHX
1472	0x05C0	PARAM.EFFECTS.PL2XTHX.NAME
1473	0x05C1	PARAM.EFFECTS.PL2XTHX.OUTPUTLEVELS
1474	0x05C2	PARAM.EFFECTS.PL2XTHX.OUTPUTLEVELS.CNTROUTLEVEL
1475	0x05C3	PARAM.EFFECTS.PL2XTHX.OUTPUTLEVELS.SIDEOUTLEVEL
1476	0x05C4	PARAM.EFFECTS.PL2XTHX.OUTPUTLEVELS.REAROUTLEVEL
1477	0x05C5	PARAM.EFFECTS.PL2XTHX.OUTPUTLEVELS.SUBOUTLEVEL
1478	0x05C6	PARAM.EFFECTS.PL2XTHX.OUTPUTLEVELS.LFEOUTLEVEL

1479	0x05C7	PARAM.EFFECTS.PL2XTHX.TWO_CH_MUX
1480	0x05C8	PARAM.EFFECTS.PL2XTHX.TWOCHCNTRMIX
1481	0x05C9	PARAM.EFFECTS.PL2XTHX.CENTERDELAY
1482	0x05CA	PARAM.EFFECTS.PL2XTHX.MONOREARON
1483	0x05CB	PARAM.EFFECTS.PL2XTHX.DECORRELATE
1484	0x05CC	PARAM.EFFECTS.PL2XTHX.VOCALENH
1485	0x05CD	PARAM.EFFECTS.PL2XTHX.REEQ
1486	0x05CE	PARAM.EFFECTS.PL2XTHX.SIDEREAR10DELAY
1487	0x05CF	PARAM.EFFECTS.PL2XTHX.TRIGGER1
1488	0x05D0	PARAM.EFFECTS.PL2XTHX.TRIGGER2
1489	0x05D1	PARAM.EFFECTS.PL2XTHX.TIMBRE
1490	0x05D2	PARAM.EFFECTS.PL2XTHX.REARTIMBRE
1491	0x05D3	PARAM.EFFECTS.PL2XTHX.USENODECORDELAY
1492	0x05D4	PARAM.EFFECTS._51_PL2X_MOVIE
1493	0x05D5	PARAM.EFFECTS._51_PL2X_MOVIE.NAME
1494	0x05D6	PARAM.EFFECTS._51_PL2X_MOVIE.OUTPUTLEVELS
1495	0x05D7	PARAM.EFFECTS._51_PL2X_MOVIE.OUTPUTLEVELS.CNTROUTLEVEL
1496	0x05D8	PARAM.EFFECTS._51_PL2X_MOVIE.OUTPUTLEVELS.SIDEOUTLEVEL
1497	0x05D9	PARAM.EFFECTS._51_PL2X_MOVIE.OUTPUTLEVELS.REAROUTLEVEL
1498	0x05DA	PARAM.EFFECTS._51_PL2X_MOVIE.OUTPUTLEVELS.SUBOUTLEVEL
1499	0x05DB	PARAM.EFFECTS._51_PL2X_MOVIE.OUTPUTLEVELS.LFEOUTLEVEL
1500	0x05DC	PARAM.EFFECTS._51_PL2X_MOVIE.COMPRESSION
1501	0x05DD	PARAM.EFFECTS._51_PL2X_MOVIE.LFEMIX
1502	0x05DE	PARAM.EFFECTS._51_PL2X_MOVIE.TWO_CH_MUX
1503	0x05DF	PARAM.EFFECTS._51_PL2X_MOVIE.TWOCHCNTRMIX
1504	0x05E0	PARAM.EFFECTS._51_PL2X_MOVIE.CENTERDELAY
1505	0x05E1	PARAM.EFFECTS._51_PL2X_MOVIE.DECORRELATE
1506	0x05E2	PARAM.EFFECTS._51_PL2X_MOVIE.VOCALENH
1507	0x05E3	PARAM.EFFECTS._51_PL2X_MOVIE.REEQ
1508	0x05E4	PARAM.EFFECTS._51_PL2X_MOVIE.TRIGGER1
1509	0x05E5	PARAM.EFFECTS._51_PL2X_MOVIE.TRIGGER2
1510	0x05E6	PARAM.EFFECTS._51_PL2X_MOVIE.MONOREARON
1511	0x05E7	PARAM.EFFECTS._51_PL2X_MOVIE.EX
1512	0x05E8	PARAM.EFFECTS._51_PL2X_MOVIE.USENODECORDELAY
1513	0x05E9	PARAM.EFFECTS._51_PL2X_MUSIC
1514	0x05EA	PARAM.EFFECTS._51_PL2X_MUSIC.NAME
1515	0x05EB	PARAM.EFFECTS._51_PL2X_MUSIC.OUTPUTLEVELS
1516	0x05EC	PARAM.EFFECTS._51_PL2X_MUSIC.OUTPUTLEVELS.CNTROUTLEVEL
1517	0x05ED	PARAM.EFFECTS._51_PL2X_MUSIC.OUTPUTLEVELS.SIDEOUTLEVEL
1518	0x05EE	PARAM.EFFECTS._51_PL2X_MUSIC.OUTPUTLEVELS.REAROUTLEVEL
1519	0x05EF	PARAM.EFFECTS._51_PL2X_MUSIC.OUTPUTLEVELS.SUBOUTLEVEL
1520	0x05F0	PARAM.EFFECTS._51_PL2X_MUSIC.OUTPUTLEVELS.LFEOUTLEVEL
1521	0x05F1	PARAM.EFFECTS._51_PL2X_MUSIC.COMPRESSION
1522	0x05F2	PARAM.EFFECTS._51_PL2X_MUSIC.LFEMIX
1523	0x05F3	PARAM.EFFECTS._51_PL2X_MUSIC.TWO_CH_MUX
1524	0x05F4	PARAM.EFFECTS._51_PL2X_MUSIC.TWOCHCNTRMIX
1525	0x05F5	PARAM.EFFECTS._51_PL2X_MUSIC.CENTERDELAY
1526	0x05F6	PARAM.EFFECTS._51_PL2X_MUSIC.DECORRELATE
1527	0x05F7	PARAM.EFFECTS._51_PL2X_MUSIC.VOCALENH
1528	0x05F8	PARAM.EFFECTS._51_PL2X_MUSIC.REEQ
1529	0x05F9	PARAM.EFFECTS._51_PL2X_MUSIC.TRIGGER1

1530	0x05FA	PARAM.EFFECTS._51_PL2X_MUSIC.TRIGGER2
1531	0x05FB	PARAM.EFFECTS._51_PL2X_MUSIC.MONOREARON
1532	0x05FC	PARAM.EFFECTS._51_PL2X_MUSIC.EX
1533	0x05FD	PARAM.EFFECTS._51_PL2X_MUSIC.CNTRWIDTH_PL2X
1534	0x05FE	PARAM.EFFECTS._51_PL2X_MUSIC.USENODECORDELAY
1535	0x05FF	PARAM.OSD
1536	0x0600	PARAM.OSD.STATUS
1537	0x0601	PARAM.OSD.POSITION
1538	0x0602	PARAM.OSD.FORMAT
1539	0x0603	PARAM.OSD.BACKGND
1540	0x0604	PARAM.OSD.COMPONENTON
1541	0x0605	PARAM.OSD.SHOWREMOTE
1542	0x0606	PARAM.FPD
1543	0x0607	PARAM.FPD.STATUS
1544	0x0608	PARAM.FPD.BRIGHT
1545	0x0609	PARAM.LOCKS
1546	0x060A	PARAM.LOCKS.FXLOCK
1547	0x060B	PARAM.LOCKS.AUDIOLCK
1548	0x060C	PARAM.LOCKS.SETUPLCK
1549	0x060D	PARAM.STANDBY
1550	0x060E	PARAM.CNAME
1551	0x060F	PARAM.CNAMEEN
1552	0x0610	PARAM.AVSYNC
1553	0x0611	PARAM.PRESETEN
1554	0x0612	PARAM.TRIGGER1MODE
1555	0x0613	PARAM.TRIGGER2MODE
1556	0x0614	PARAM.USERMESSAGE
1557	0x0615	PARAM.COM
1558	0x0616	PARAM.COM.CONFIGREG0
1559	0x0617	PARAM.TMPKEY
1560	0x0618	PARAM.ERRORS
1561	0x0619	PARAM.ERRORS.ERROR1
1562	0x061A	PARAM.ERRORS.ERROR2
1563	0x061B	PARAM.LANGUAGE
1564	0x061C	PARAM.LIVEEQ