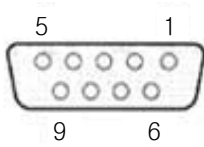


R-771 Audio RS232 Communication Protocol

Application model : R-771

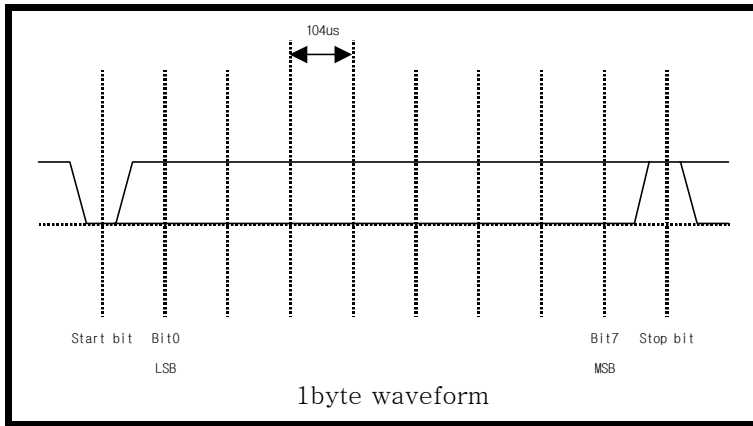
1. Connection



- Pin 1 : NC
- Pin 2 : TxD
- Pin 3 : RxD
- Pin 5 : Common(GND)
- Pin 4, 6, 7, 8, 9 : NC

2. Communication format

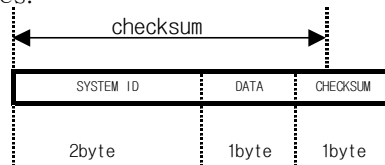
- Communication speed : 9600BPS
- Character length : 8bits
- Parity Bit : None
- Error check : Checksum
- Start bit : 1bit("0")
- Stop bit : 1bit("1")
- Bit length : 104us



3. Message Structure

A. COMMAND :

The message sent to a system(Model 990) from a controller.
It is consist of 4bytes.



a. SYSTEM ID : 0x8345

The message started with this code is a command for controlling our system.

b. CHECKSUM :

8bits beneath sum of all data from SYSTEM ID to DATA.

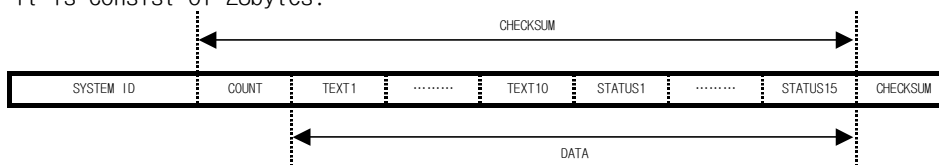
c. DATA :

DATA	OPERATION
0x01	Power On
0x02	Standby On
0x03	"TUNER" input select
0x04	"CD" input select
0x05	"AUX" input select
0x06	
0x07	"VCR1" input select
0x08	"VCR2" input select
0x09	"VCR3" input select
0x0a	
0x0b	
0x0c	
0x0d	
0x0e	EXT IN input select On / OFF
0x0f	Master volume up
0x10	Master volume down
0x11	Main mute On/Off
0x12	Channel select ON/ OFF
0x13	
0x14	
0x15	OSD On/Off
0x16	
0x17	OSD Cursor move up
0x18	OSD Cursor move down
0x19	OSD Cursor move left
0x1a	OSD Cursor move right
0x1b	Sleep On, sleep time adjust and Off
0x1c	System display dimmer, Off and On
0x1d	
0x1e	
0x1f	Test tone On/Off
0x20	
0x21	
0x22	
0x23	
0x24	
0x25	
0x26	Digital/Analog input select
0x27	Stereo(Downmix) On
0x28	Surround mode select up.
0x29	Surround mode select down
0x2a	
0x2b	
0x2c	
0x2d	
0x2e	
0x2f	No. 0
0x30	No. 1

DATA	OPERATION
0x31	No. 2
0x32	No. 3
0x33	No. 4
0x34	No. 5
0x35	No. 6
0x36	No. 7
0x37	No. 8
0x38	No. 9
0x39	Tuner Preset scan
0x3a	Tuner preset up
0x3b	Tuner preset down
0x3c	Tuner tune up
0x3d	Tuner tune down
0x3e	OSD Enter or Memory
0x3f	Zone2 On/Off
0x40	
0x41	Zone2 volume up
0x42	Zone2 volume down
0x43	
0x44	
0x45	
0x46	
0x47	
0x48	
0x49	
0x4a	
0x4b	
0x4c	
0x4d	
0x4e	
0x4f	
0x50	
0x51	
0x52	
0x53	
0x54	Master Volume Level : Low (0)
0x55	Master Volume Level : Middle (60)
0x56	Master Volume Level : High (70)

B. EVENT :

The message sent to a controller from a system(Model 990).
 It includes most of system status
 and is sent to a controller each time the status of system is changed.
 It is consist of 28bytes.



a. SYSTEM ID :

0x8345.

b. COUNT :

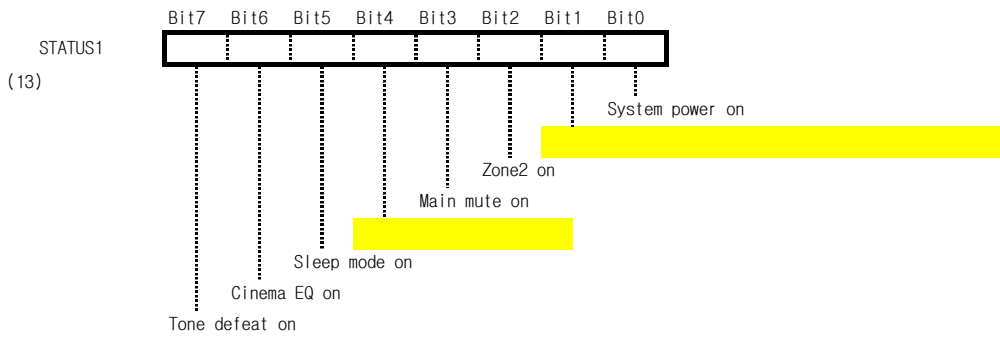
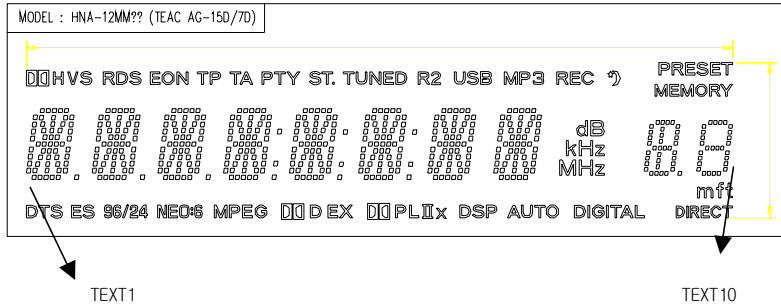
The Number of bytes in the DATA field.

c. CHECKSUM :

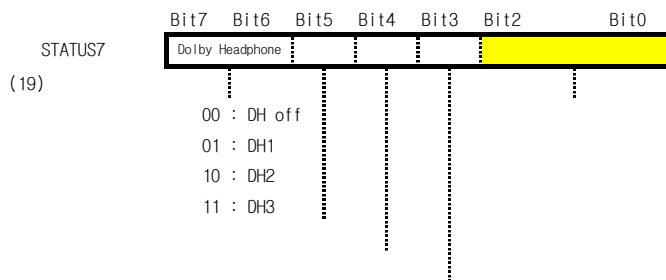
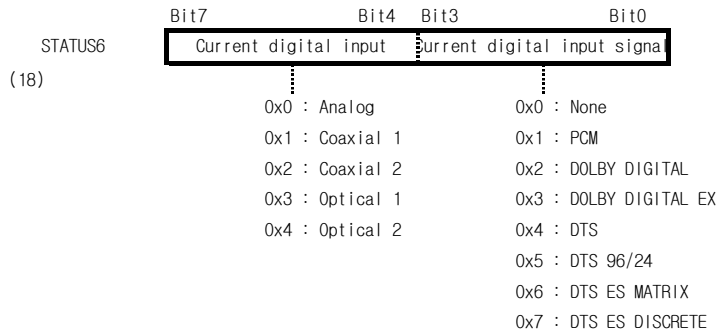
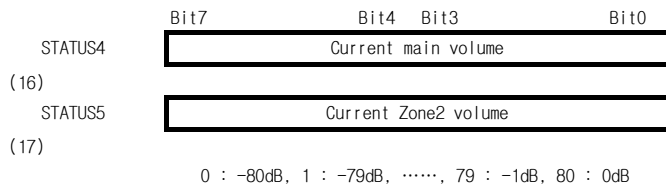
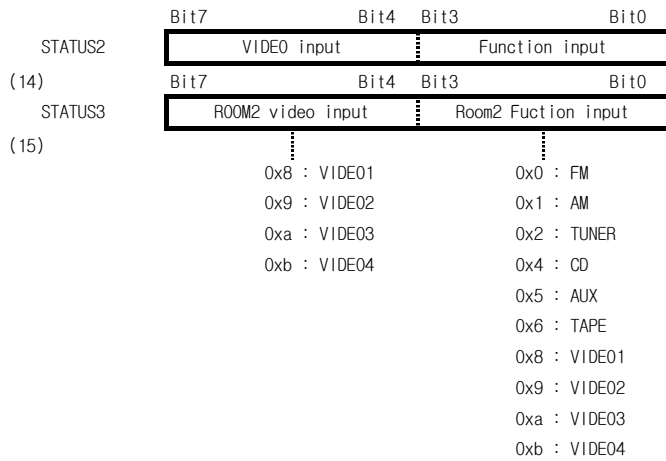
8bits beneath sum of all data from COUNT to STATUS15.

d. DATA

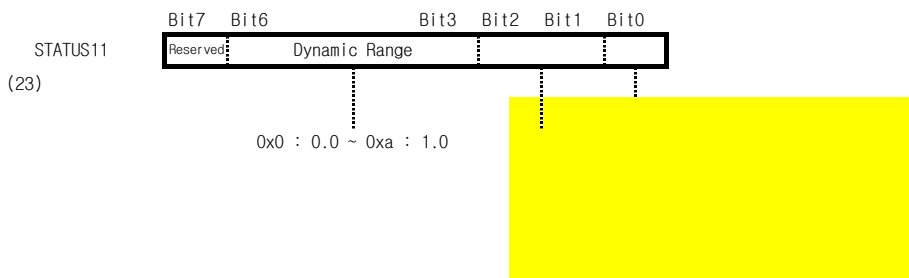
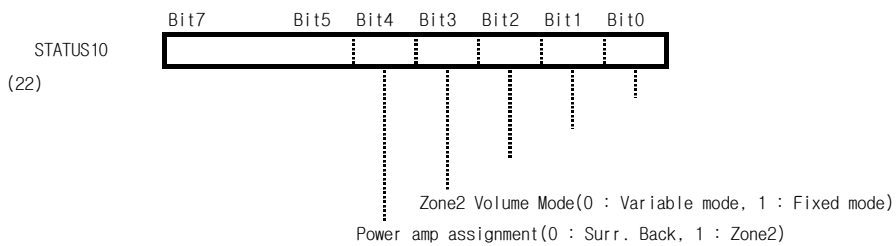
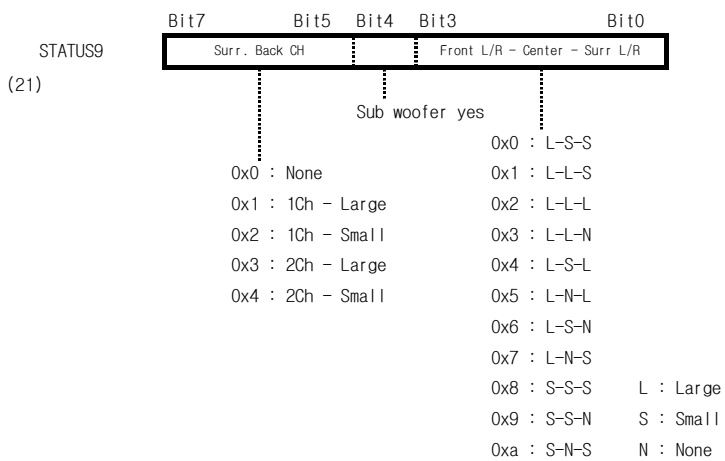
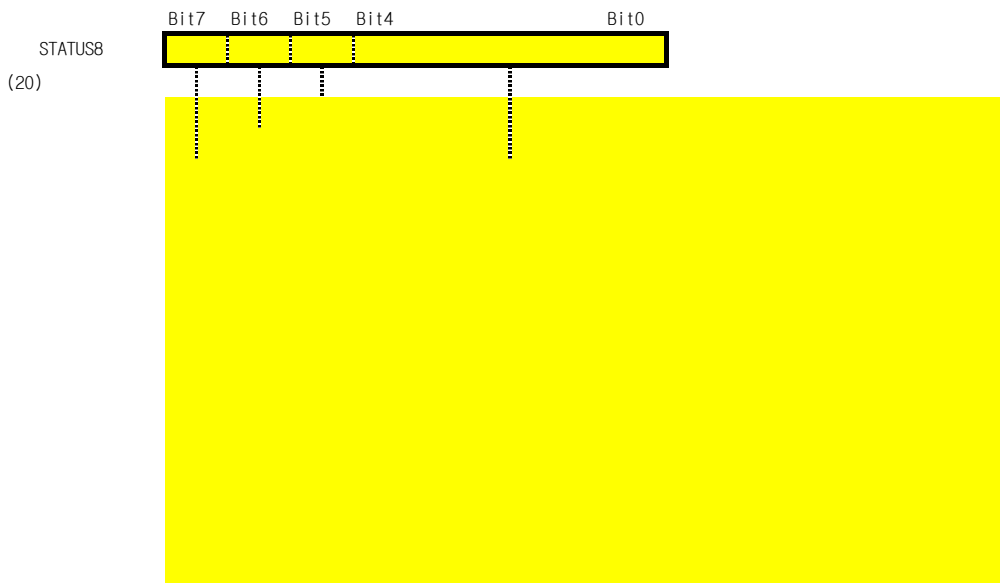
TEXT1 ~ TEXT10 are ascii characters and the very same characters displayed on fluorescent display of oursystem.



-Sherwood RS232 protocol-



-Sherwood RS232 protocol-



-Sherwood RS232 protocol-

	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
STATUS12 (24)	Front Crossover Freq.							
STATUS13 (25)	Center Crossover Freq.							
STATUS14 (26)	Surrond Crossover Freq.							
STATUS15 (27)	Surround Back Crossover Freq.							
	0x00	: 40Hz		0x0a	: 140Hz			
	0x01	: 50Hz		0x0b	: 15Hz			
	0x02	: 60Hz		0x0c	: 160Hz			
	0x03	: 70Hz		0x0d	: 170Hz			
	0x04	: 80Hz		0x0e	: 180Hz			
	0x05	: 90Hz		0x0f	: 190Hz			
	0x06	: 100Hz		0x10	: 200Hz			
	0x07	: 110Hz						
	0x08	: 120Hz						
	0x09	: 130Hz						