



Rotel RSX-1058 RS232 HEX Protocol

Date	Version	Update Description
February 2, 2012	1.00	Original Specification

The RS232 protocol structure for the RSX-1058 is detailed below. This is a HEX based communication protocol.

Connection Settings

Baud Rate	Parity	Valid Data Bits	Stop Bit Value	Handshaking	Data Type
38400	N	8	1	None	String

All commands sent to the attached Rotel device must follow the command structure detailed below, unless specified otherwise. Send only the bytes only, no spaces, delimiter, etc.

Standard Command String Format

Start	Count	Device ID	Type	Key	Checksum
0xFE	0x03	0xC8	0x10	0xFF	0xFF

Note: The count byte only includes the ID, Type, and Key bytes; it does not include the Start or Checksum bytes.

Note 2: Do not include any carriage returns or line feeds after the commands

Communication Protocol

Command and response messages are included on the following pages. The standard response string of the unit mirrors the data that would be available on the front panel of the unit.

Any change to the status of the front display on the unit will prompt a feedback string mirroring that change.

Note that the spaces shown between hex bytes below are for clarity only; do not include spaces in the actual command sent to the unit.

Meta Encoding

The start byte for all command and response strings is FE. To keep the device from encountering the start byte FE in any position other than as the start byte, any occurrence of the bytes FD or FE in a command string must be converted to either FD 00 (for FD), or FD 01 (for FE). This will allow the string to pass while masking any occurrence of the byte FE except as the start byte. Commands that have Meta Encoding applied will be highlighted in red.

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Table 1 - Type 10 Primary Commands

RSX-1058 HEX	Command Description
POWER & VOLUME COMMANDS	
FE 03 C8 10 0A E5	Power Toggle
FE 03 C8 10 4A 25	Power Off
FE 03 C8 10 4B 26	Power On
FE 03 C8 10 0B E6	Volume Up
FE 03 C8 10 0C E7	Volume Down
FE 03 C8 10 1E F9	Mute Toggle
FE 03 C8 10 71 4C	Power Off All Zones
SOURCE SELECTION COMMANDS	
FE 03 C8 10 02 DC	Source CD
FE 03 C8 10 03 DD	Source Tuner
FE 03 C8 10 04 DE	Source Tape
FE 03 C8 10 05 E0	Source Video 1
FE 03 C8 10 06 E1	Source Video 2
FE 03 C8 10 07 E2	Source Video 3
FE 03 C8 10 08 E3	Source Video 4
FE 03 C8 10 09 E4	Source Video 5
FE 03 C8 10 15 E0	Source Multi Input
SURROUND MODE COMMANDS	
FE 03 C8 10 11 EC	Stereo
FE 03 C8 10 12 ED	Dolby 3 Stereo
FE 03 C8 10 13 EE	Dolby Pro Logic
FE 03 C8 10 14 EF	DSP Music Mode Toggle
FE 03 C8 10 53 2E	Dolby 3 Stereo / Pro Logic Toggle
FE 03 C8 10 54 2F	dts Neo:6 Music/Cinema Toggle
FE 03 C8 10 57 32	Music 1
FE 03 C8 10 58 33	Music 2
FE 03 C8 10 59 34	Music 3
FE 03 C8 10 5A 35	Music 4
FE 03 C8 10 5B 36	5 Channel Stereo

RSX-1058 HEX	Command Description
FE 03 C8 10 5C 37	7 Channel Stereo
FE 03 C8 10 5D 38	Dolby PLII Cinema
FE 03 C8 10 5E 39	Dolby PLII Music
FE 03 C8 10 74 4F	Dolby PLII Game
FE 03 C8 10 5F 3A	Dolby Pro Logic
FE 03 C8 10 60 3B	dts Neo:6 Music
FE 03 C8 10 61 3C	dts Neo:6 Cinema
FE 03 C8 10 62 3D	PLII Panorama Toggle
FE 03 C8 10 63 3E	PLII Dimension Up
FE 03 C8 10 64 3F	PLII Dimension Down
FE 03 C8 10 65 40	PLII Center Width Up
FE 03 C8 10 66 41	PLII Center Width Down
FE 03 C8 10 68 43	Dolby Digital EX Toggle
FE 03 C8 10 22 FD 00	Next Surround Mode
TONE CONTROL COMMANDS	
FE 03 C8 10 0D E8	Treble Up
FE 03 C8 10 0E E9	Treble Down
FE 03 C8 10 0F EA	Bass Up
FE 03 C8 10 10 EB	Bass Down
FE 03 C8 10 67 42	Tone Control Select
OSD MENU COMMANDS	
FE 03 C8 10 18 F3	OSD Menu
FE 03 C8 10 19 F4	Enter
FE 03 C8 10 1A F5	Cursor Right
FE 03 C8 10 1B F6	Cursor Left
FE 03 C8 10 1C F7	Cursor Up
FE 03 C8 10 1D F8	Cursor Down
TUNER COMMANDS	
FE 03 C8 10 28 03	Tune Up
FE 03 C8 10 29 04	Tune Down
FE 03 C8 10 6F 4A	Preset Up
FE 03 C8 10 70 4B	Preset Down
FE 03 C8 10 72 4D	Frequency Up
FE 03 C8 10 73 4E	Frequency Down
FE 03 C8 10 27 02	Memory
FE 03 C8 10 24 FF	Band Toggle
FE 03 C8 10 56 31	AM
FE 03 C8 10 55 30	FM
FE 03 C8 10 20 FB	Tune / Preset
FE 03 C8 10 69 44	Tuning Mode Select
FE 03 C8 10 6A 45	Preset Mode Select
FE 03 C8 10 25 00	Frequency Direct

RSX-1058 HEX	Command Description
FE 03 C8 10 21 FC	Preset Scan
FE 03 C8 10 44 1F	Tuner Display
FE 03 C8 10 45 20	RDS PTY
FE 03 C8 10 46 21	RDS TP
FE 03 C8 10 47 22	RDS TA
FE 03 C8 10 26 01	FM Mono
NUMERIC KEY COMMANDS	
FE 03 C8 10 2A 05	Number 1
FE 03 C8 10 2B 06	Number 2
FE 03 C8 10 2C 07	Number 3
FE 03 C8 10 2D 08	Number 4
FE 03 C8 10 2E 09	Number 5
FE 03 C8 10 2F 0A	Number 6
FE 03 C8 10 30 0B	Number 7
FE 03 C8 10 31 0C	Number 8
FE 03 C8 10 32 0D	Number 9
FE 03 C8 10 33 0E	Number 0
OTHER COMMANDS	
FE 03 C8 10 17 F2	Record Function Select
FE 03 C8 10 16 F1	Dynamic Range
FE 03 C8 10 1F FA	Digital Input Select
FE 03 C8 10 23 FD 01	Zone 2 / Main
FE 03 C8 10 4C 27	Temporary Center Trim
FE 03 C8 10 4D 28	Temporary Subwoofer Trim
FE 03 C8 10 4E 29	Temporary Surround Trim
FE 03 C8 10 4F 2A	Cinema EQ Toggle
FE 03 C8 10 52 2D	Front Display On/Off
FE 03 C8 10 FF DA	Display Refresh
FE 03 C8 10 6E 49	Party Mode Toggle
FE 03 C8 10 75 50	Output Resolution
FE 03 C8 10 78 53	HDMI Amp Mode
FE 03 C8 10 79 54	HDMI TV Mode

Table 2 - Type 14 Main Zone Commands

NOTE: These commands are duplicate functions of the primary commands in the table above bearing the same name, but are discrete for the main zone only. For multi-zone installation applications, it is recommended that the below commands be used where applicable rather than the type 10 commands to avoid zone conflicts.

RSX-1058 HEX	Command Description
MAIN ZONE POWER & VOLUME COMMANDS	
FE 03 C8 14 0A E9	Main Zone Power Toggle
FE 03 C8 14 4A 29	Main Zone Power Off
FE 03 C8 14 4B 2A	Main Zone Power On
FE 03 C8 14 00 DF	Main Zone Volume Up
FE 03 C8 14 01 E0	Main Zone Volume Down
FE 03 C8 14 1E FD 00	Main Zone Mute Toggle
FE 03 C8 14 6C 4B	Main Zone Mute On
FE 03 C8 14 6D 4C	Main Zone Mute Off
MAIN ZONE SOURCE SELECTION COMMANDS	
FE 03 C8 14 02 E1	Main Zone Source CD
FE 03 C8 14 03 E2	Main Zone Source Tuner
FE 03 C8 14 04 E3	Main Zone Source Tape
FE 03 C8 14 05 E4	Main Zone Source Video 1
FE 03 C8 14 06 E5	Main Zone Source Video 2
FE 03 C8 14 07 E6	Main Zone Source Video 3
FE 03 C8 14 08 E7	Main Zone Source Video 4
FE 03 C8 14 09 E8	Main Zone Source Video 5

Table 3 - Type 15 Record Source Commands

RSX-1058 HEX	Command Description
RECORD SOURCE SELECTION COMMANDS	
FE 03 C8 15 02 E2	Record Source CD
FE 03 C8 15 03 E3	Record Source Tuner
FE 03 C8 15 04 E4	Record Source Tape
FE 03 C8 15 05 E5	Record Source Video 1
FE 03 C8 15 06 E6	Record Source Video 2
FE 03 C8 15 07 E7	Record Source Video 3
FE 03 C8 15 08 E8	Record Source Video 4
FE 03 C8 15 09 E9	Record Source Video 5
FE 03 C8 15 6B 4B	Record Follow Main Zone Source

Table 4 - Type 16 Zone 2 Commands

RSX-1058 HEX	Command Description
ZONE 2 POWER & VOLUME COMMANDS	
FE 03 C8 16 0A EB	Zone 2 Power Toggle
FE 03 C8 16 4A 2B	Zone 2 Power Off
FE 03 C8 16 4B 2C	Zone 2 Power On
FE 03 C8 16 00 E1	Zone 2 Volume Up
FE 03 C8 16 01 E2	Zone 2 Volume Down
FE 03 C8 16 1E FF	Zone 2 Mute Toggle
FE 03 C8 16 6C 4D	Zone 2 Mute On
FE 03 C8 16 6D 4E	Zone 2 Mute Off
FE 03 C8 16 71 52	Power Off All Zones
ZONE 2 SOURCE SELECTION COMMANDS	
FE 03 C8 16 02 E3	Zone 2 Source CD
FE 03 C8 16 03 E4	Zone 2 Source Tuner
FE 03 C8 16 04 E5	Zone 2 Source Tape
FE 03 C8 16 05 E6	Zone 2 Source Video 1
FE 03 C8 16 06 E7	Zone 2 Source Video 2
FE 03 C8 16 07 E8	Zone 2 Source Video 3
FE 03 C8 16 08 E9	Zone 2 Source Video 4
FE 03 C8 16 09 EA	Zone 2 Source Video 5
FE 03 C8 16 6B 4C	Zone 2 Follow Main Zone Source
ZONE 2 TUNER COMMANDS	
FE 03 C8 16 28 09	Zone 2 Tune Up
FE 03 C8 16 29 0A	Zone 2 Tune Down
FE 03 C8 16 6F 50	Zone 2 Preset Up
FE 03 C8 16 70 51	Zone 2 Preset Down
FE 03 C8 16 72 53	Zone 2 Frequency Up
FE 03 C8 16 73 54	Zone 2 Frequency Down
FE 03 C8 16 24 05	Zone 2 Band Toggle
FE 03 C8 16 56 37	Zone 2 AM
FE 03 C8 16 55 36	Zone 2 FM
FE 03 C8 16 20 01	Zone 2 Tune / Preset
FE 03 C8 16 69 4A	Zone 2 Tuning Mode Select
FE 03 C8 16 6A 4B	Zone 2 Preset Mode Select
FE 03 C8 16 21 02	Zone 2 Preset Scan
FE 03 C8 16 26 07	Zone 2 FM Mono
ZONE 2 NUMERIC KEY COMMANDS	
FE 03 C8 16 2A 0B	Zone 2 Number 1
FE 03 C8 16 2B 0C	Zone 2 Number 2
FE 03 C8 16 2C 0D	Zone 2 Number 3
FE 03 C8 16 2D 0E	Zone 2 Number 4

RSX-1058 HEX	Command Description
FE 03 C8 16 2E 0F	Zone 2 Number 5
FE 03 C8 16 2F 10	Zone 2 Number 6
FE 03 C8 16 30 11	Zone 2 Number 7
FE 03 C8 16 31 12	Zone 2 Number 8
FE 03 C8 16 32 13	Zone 2 Number 9
FE 03 C8 16 33 14	Zone 2 Number 0
ZONE 2 OTHER COMMANDS	
FE 03 C8 16 6E 4F	Party Mode Toggle

Table 5 - Type 17 Zone 3 Commands

RSX-1058 HEX	Command Description
ZONE 3 POWER & VOLUME COMMANDS	
FE 03 C8 17 0A EC	Zone 3 Power Toggle
FE 03 C8 17 4A 2C	Zone 3 Power Off
FE 03 C8 17 4B 2D	Zone 3 Power On
FE 03 C8 17 00 E2	Zone 3 Volume Up
FE 03 C8 17 01 E3	Zone 3 Volume Down
FE 03 C8 17 1E 00	Zone 3 Mute Toggle
FE 03 C8 17 6C 4E	Zone 3 Mute On
FE 03 C8 17 6D 4F	Zone 3 Mute Off
FE 03 C8 17 71 53	Power Off All Zones
ZONE 3 SOURCE SELECTION COMMANDS	
FE 03 C8 17 02 E4	Zone 3 Source CD
FE 03 C8 17 03 E5	Zone 3 Source Tuner
FE 03 C8 17 04 E6	Zone 3 Source Tape
FE 03 C8 17 05 E7	Zone 3 Source Video 1
FE 03 C8 17 06 E8	Zone 3 Source Video 2
FE 03 C8 17 07 E9	Zone 3 Source Video 3
FE 03 C8 17 08 EA	Zone 3 Source Video 4
FE 03 C8 17 09 EB	Zone 3 Source Video 5
FE 03 C8 17 6B 4D	Zone 3 Follow Main Zone Source
ZONE 3 TUNER COMMANDS	
FE 03 C8 17 28 0A	Zone 3 Tune Up
FE 03 C8 17 29 0B	Zone 3 Tune Down
FE 03 C8 17 6F 51	Zone 3 Preset Up
FE 03 C8 17 70 52	Zone 3 Preset Down
FE 03 C8 17 72 54	Zone 3 Frequency Up
FE 03 C8 17 73 55	Zone 3 Frequency Down
FE 03 C8 17 24 06	Zone 3 Band Toggle
FE 03 C8 17 56 38	Zone 3 AM
FE 03 C8 17 55 37	Zone 3 FM
FE 03 C8 17 20 02	Zone 3 Tune / Preset

RSX-1058 HEX	Command Description
FE 03 C8 17 69 4B	Zone 3 Tuning Mode Select
FE 03 C8 17 6A 4C	Zone 3 Preset Mode Select
FE 03 C8 17 21 03	Zone 3 Preset Scan
FE 03 C8 17 26 08	Zone 3 FM Mono
ZONE 3 NUMERIC KEY COMMANDS	
FE 03 C8 17 2A 0C	Zone 3 Number 1
FE 03 C8 17 2B 0D	Zone 3 Number 2
FE 03 C8 17 2C 0E	Zone 3 Number 3
FE 03 C8 17 2D 0F	Zone 3 Number 4
FE 03 C8 17 2E 10	Zone 3 Number 5
FE 03 C8 17 2F 11	Zone 3 Number 6
FE 03 C8 17 30 12	Zone 3 Number 7
FE 03 C8 17 31 13	Zone 3 Number 8
FE 03 C8 17 32 14	Zone 3 Number 9
FE 03 C8 17 33 15	Zone 3 Number 0
ZONE 3 OTHER COMMANDS	
FE 03 C8 17 6E 50	Party Mode Toggle

Table 6 - Type 18 Zone 4 Commands

RSX-1058 HEX	Command Description
ZONE 4 POWER & VOLUME COMMANDS	
FE 03 C8 18 0A ED	Zone 4 Power Toggle
FE 03 C8 18 4A 2D	Zone 4 Power Off
FE 03 C8 18 4B 2E	Zone 4 Power On
FE 03 C8 18 00 E3	Zone 4 Volume Up
FE 03 C8 18 01 E4	Zone 4 Volume Down
FE 03 C8 18 1E 01	Zone 4 Mute Toggle
FE 03 C8 18 6C 4F	Zone 4 Mute On
FE 03 C8 18 6D 50	Zone 4 Mute Off
FE 03 C8 18 71 54	Power Off All Zones
ZONE 4 SOURCE SELECTION COMMANDS	
FE 03 C8 18 02 E5	Zone 4 Source CD
FE 03 C8 18 03 E6	Zone 4 Source Tuner
FE 03 C8 18 04 E7	Zone 4 Source Tape
FE 03 C8 18 05 E8	Zone 4 Source Video 1
FE 03 C8 18 06 E9	Zone 4 Source Video 2
FE 03 C8 18 07 EA	Zone 4 Source Video 3
FE 03 C8 18 08 EB	Zone 4 Source Video 4
FE 03 C8 18 09 EC	Zone 4 Source Video 5
FE 03 C8 18 6B 4E	Zone 4 Follow Main Zone Source
ZONE 4 TUNER COMMANDS	
FE 03 C8 18 28 0B	Zone 4 Tune Up

RSX-1058 HEX	Command Description
FE 03 C8 18 29 0C	Zone 4 Tune Down
FE 03 C8 18 6F 52	Zone 4 Preset Up
FE 03 C8 18 70 53	Zone 4 Preset Down
FE 03 C8 18 72 55	Zone 4 Frequency Up
FE 03 C8 18 73 56	Zone 4 Frequency Down
FE 03 C8 18 24 07	Zone 4 Band Toggle
FE 03 C8 18 56 39	Zone 4 AM
FE 03 C8 18 55 38	Zone 4 FM
FE 03 C8 18 20 03	Zone 4 Tune / Preset
FE 03 C8 18 69 4C	Zone 4 Tuning Mode Select
FE 03 C8 18 6A 4D	Zone 4 Preset Mode Select
FE 03 C8 18 21 04	Zone 4 Preset Scan
FE 03 C8 18 26 09	Zone 4 FM Mono
ZONE 4 NUMERIC KEY COMMANDS	
FE 03 C8 18 2A 0D	Zone 4 Number 1
FE 03 C8 18 2B 0E	Zone 4 Number 2
FE 03 C8 18 2C 0F	Zone 4 Number 3
FE 03 C8 18 2D 10	Zone 4 Number 4
FE 03 C8 18 2E 11	Zone 4 Number 5
FE 03 C8 18 2F 12	Zone 4 Number 6
FE 03 C8 18 30 13	Zone 4 Number 7
FE 03 C8 18 31 14	Zone 4 Number 8
FE 03 C8 18 32 15	Zone 4 Number 9
FE 03 C8 18 33 16	Zone 4 Number 0
ZONE 4 OTHER COMMANDS	
FE 03 C8 18 6E 51	Party Mode Toggle

Table 7 - Type 30 Volume Direct Commands

NOTE: Volume direct commands range from hex 00 – 60; below is a sample of the commands available.

RSX-1058 HEX	Command Description
VOLUME DIRECT COMMANDS	
FE 03 C8 30 00 FB	Volume Min
FE 03 C8 30 01 FC	Volume 1
FE 03 C8 30 02 FD 00	Volume 2
FE 03 C8 30 03 FD 01	Volume 3
FE 03 C8 30 04 FF	Volume 4
FE 03 C8 30 05 00	Volume 5
FE 03 C8 30 06 01	Volume 6
FE 03 C8 30 07 02	Volume 7
FE 03 C8 30 08 03	Volume 8
FE 03 C8 30 09 04	Volume 9

RSX-1058 HEX	Command Description
FE 03 C8 30 0A 05	Volume 10
FE 03 C8 30 0B 06	Volume 11
FE 03 C8 30 0C 07	Volume 12
FE 03 C8 30 0D 08	Volume 13
FE 03 C8 30 0E 09	Volume 14
FE 03 C8 30 0F 0A	Volume 15
FE 03 C8 30 10 0B	Volume 16
FE 03 C8 30 20 1B	Volume 32
FE 03 C8 30 30 2B	Volume 48
FE 03 C8 30 40 3B	Volume 64
FE 03 C8 30 50 4B	Volume 80
FE 03 C8 30 5F 5A	Volume 95

Table 8 - Type 32 Zone 2 Volume Direct Commands

RSX-1058 HEX	Command Description
ZONE 2 VOLUME DIRECT COMMANDS	
FE 03 C8 32 00 FD 00	Zone 2 Volume Min
FE 03 C8 32 01 FD 01	Zone 2 Volume 1
FE 03 C8 32 02 FF	Zone 2 Volume 2
FE 03 C8 32 03 00	Zone 2 Volume 3
FE 03 C8 32 04 01	Zone 2 Volume 4
FE 03 C8 32 05 02	Zone 2 Volume 5
FE 03 C8 32 06 03	Zone 2 Volume 6
FE 03 C8 32 07 04	Zone 2 Volume 7
FE 03 C8 32 08 05	Zone 2 Volume 8
FE 03 C8 32 09 06	Zone 2 Volume 9
FE 03 C8 32 0A 07	Zone 2 Volume 10
FE 03 C8 32 0B 08	Zone 2 Volume 11
FE 03 C8 32 0C 09	Zone 2 Volume 12
FE 03 C8 32 0D 0A	Zone 2 Volume 13
FE 03 C8 32 0E 0B	Zone 2 Volume 14
FE 03 C8 32 0F 0C	Zone 2 Volume 15
FE 03 C8 32 10 0D	Zone 2 Volume 16
FE 03 C8 32 20 1D	Zone 2 Volume 32
FE 03 C8 32 30 2D	Zone 2 Volume 48
FE 03 C8 32 40 3D	Zone 2 Volume 64
FE 03 C8 32 50 4D	Zone 2 Volume 80
FE 03 C8 32 5F 56	Zone 2 Volume 89

Table 9 - Type 33 Zone 3 Volume Direct Commands

RSX-1058 HEX	Command Description
ZONE 3 VOLUME DIRECT COMMANDS	
FE 03 C8 33 00 FD 01	Zone 3 Volume Min
FE 03 C8 33 01 FF	Zone 3 Volume 1
FE 03 C8 33 02 00	Zone 3 Volume 2
FE 03 C8 33 03 01	Zone 3 Volume 3
FE 03 C8 33 04 02	Zone 3 Volume 4
FE 03 C8 33 05 03	Zone 3 Volume 5
FE 03 C8 33 06 04	Zone 3 Volume 6
FE 03 C8 33 07 05	Zone 3 Volume 7
FE 03 C8 33 08 06	Zone 3 Volume 8
FE 03 C8 33 09 07	Zone 3 Volume 9
FE 03 C8 33 0A 08	Zone 3 Volume 10
FE 03 C8 33 10 0E	Zone 3 Volume 16
FE 03 C8 33 20 1E	Zone 3 Volume 32
FE 03 C8 33 30 2E	Zone 3 Volume 48
FE 03 C8 33 40 3E	Zone 3 Volume 64
FE 03 C8 33 50 4E	Zone 3 Volume 80
FE 03 C8 33 5F 57	Zone 3 Volume 89

Table 10 - Type 34 Zone 4 Volume Direct Commands

RSX-1058 HEX	Command Description
ZONE 4 VOLUME DIRECT COMMANDS	
FE 03 C8 34 00 FF	Zone 4 Volume Min
FE 03 C8 34 01 00	Zone 4 Volume 1
FE 03 C8 34 02 01	Zone 4 Volume 2
FE 03 C8 34 03 02	Zone 4 Volume 3
FE 03 C8 34 04 03	Zone 4 Volume 4
FE 03 C8 34 05 04	Zone 4 Volume 5
FE 03 C8 34 06 05	Zone 4 Volume 6
FE 03 C8 34 07 06	Zone 4 Volume 7
FE 03 C8 34 08 07	Zone 4 Volume 8
FE 03 C8 34 09 08	Zone 4 Volume 9
FE 03 C8 34 0A 09	Zone 4 Volume 10
FE 03 C8 34 10 0F	Zone 4 Volume 16
FE 03 C8 34 20 1F	Zone 4 Volume 32
FE 03 C8 34 30 2F	Zone 4 Volume 48
FE 03 C8 34 40 3F	Zone 4 Volume 64
FE 03 C8 34 50 4F	Zone 4 Volume 80

Section 2: Feedback String Format

Standard Response String Format

Start	Count	ID	Type	Data						Checksum
0xFE	0x17	0xC8	0x20	Char1	...	Char13	Flag1	...	Flag 8	0xXX

The feedback string is a representation of the display of the unit.

The Char1 - Char13 data bytes contain ASCII data representing the text that appears across the front display. It can contain source input, volume, and surround mode data and should be parsed to obtain this information.

The Flag1 - Flag8 data bytes contain data on which of the various icons on the front display are currently illuminated.

The display status uses 2 bits in Flag6 to confirm if the front display is On or Off.

Note: The Zone 2/3/4 bits were added with Main software V1.2.0. These bits will toggle when their respective Zone is active so zone power status can be tracked.

Flag1 - Flag4 Data

	Flag1	Flag2	Flag3	Flag4
Bit0	char1_dot	char8_dot	TAPEM	Tuned
Bit1	char2_dot	char9_dot	MULTI	St (Tuner)
Bit2	char3_dot	char10_dot	4	PTY
Bit3	char4_dot	char11_dot	3	TA
Bit4	char5_dot	char12_dot	2	TP
Bit5	char6_dot	char13_dot	1	RT
Bit6	char7_dot	char8_colon	Coaxial	RDS
Bit7	Zone 2	Zone 3	Optical	RBDS

Flag5 - Flag8 Data

	Flag5	Flag6	Flag7	Flag8
Bit0	Zone	Display Mode 1	SBR	CB
Bit1	Dynamic Range	Display Mode 0	SBL	S
Bit2	DSP	Zone 4	EX	LFE
Bit3	HDCD	Standby LED	Sur	SR
Bit4	Dolby 3 Stereo	OSD	THX	SL
Bit5	Dolby PLII	Auto	dts ES	FR
Bit6	Dolby Pro Logic	Memory	dts	C
Bit7	Dolby Digital	Preset	MPEG	FL

Display Status

	Display On	Display Off
Display Mode 1	0	1
Display Mode 0	0	0