RS-232 Code Set

1. Preparing for RS-232 Connectivity

The Evolution 707 can be controlled remotely via an RS-232 connection. All of the features and functions of the unit can be accessed via RS-232 command strings.

NOTE: The Evolution 707 can only recognize the "1pwrz" command while in stand-by mode. This insures that the unit is energized and ready to accept command strings. Once the unit is active, then commands can be sent. Feedback can be received when the unit is in stand-by mode.

A. The Evolution 707 and All Krell components require a straight non-nulling RS-232 cable.

2. Settings

The RS-232 protocol settings for status and control are as follows:

9600 Baud, 8 Data Bits, 1 Stop Bit, No Parity

3. DB-9 Pin-out

A. Data Carrier Detect

B. Received Data

C. Transmitted Data

D. Data Terminal Ready

E. Signal Ground

F. Data Set Ready

G. Request To Send

H. Clear To Send

I. Ring Indicator

Notes

A. The decode preferences are dependant on the source data, not all formats are available to every input stream.

COMMAND	RS-232 COMMAND
Menu Commands	
Up	UPZ
Down	DWNZ
Left	LFTZ
Right	RGTZ
Menu	MENZ
Enter	ENTZ
Previous	PRVZ
Auto-Status Commands	
Disable Auto Status	ASTDZ
Enable Auto Status	ASTEZ
Get Status	STAZ
Device Select Commands	
Dvd Device Select	DVDZ
DVDR Device Select	DVDRZ
Satellite Device Select	SATZ
VCR Device Select	VCRZ
TV Device Select	TVZ
CD Device Select	CDZ
Tuner Device Select	TUNZ
DVR Device Select	DVRZ
Game Device Select	GAMEZ
Tape Monitor Select	TPZ
Level Commands	
Up	UPZ
Down	DWNZ
Main Speaker Volume (000 - 152)	XXXMVLZ
Remote Zone Speaker Volume (000 - 152)	XXXRVLZ
Center Trim Select (then use UPZ and DWNZ) (must be on main zone)	ICVLZ
Surround Trim Select (then use UPZ and DWNZ) (Send Twice for Back Trim Select)(must be on main zone)	IRVLZ
Sub Trim Select (then use UPZ and DWNZ)(must be on main zone)	ISUBZ
Center speaker trim (000 - 020, sets -10 to +10 dB)	XXXCVLZ
Surround speaker trim (000 - 020, sets -10 to +10 dB)	XXXSRLZ
Back speaker trim (000 - 020, sets -10 to +10 dB)	XXXBVLZ
Subwoofer #1 trim (000 - 020, sets -10 to +10 dB)	XXXSVLZ
Subwoofer #2 trim (000 - 020, sets -10 to +10 dB)	XXXS2LZ
Subwoofer #3 trim (000 - 020, sets -10 to +10 dB)	XXXS3LZ
Subwoofer #4 trim (000 - 020, sets -10 to +10 dB)	XXXS4LZ
Current Zone Balance Select (then use UPZ and DWNZ)	IBALZ
Balance (000 - 026, sets right off, left +6, through right +6, left off 1/2 dB steps)	XXBALZ
Remote Zone Balance (then use UPZ and DWNZ)	BRLZ
Mute Current Zone	MUTZ
Mute Main Zone	MUTMZ
Mute Remote Zone	MUTRZ
Night Compression	NTCZ
Normal Compression	NMCZ
Max Compression	MXCZ
Generic Zone Direct Select Commands (works on current zone)	
7.1 Input select	AMCZ
Analog Audio Input-1	AS1Z
Analog Audio Input-2	AS2Z
Analog Audio Input-3	AS3Z
Analog Audio Input-4	AS4Z
Analog Audio Input-5	AS5Z
Analog Audio Input-6	AS6Z
Analog Audio Input-7	AS7Z
Analog Balanced Input	AB1Z
Analog Tape Select	ATPAZ
Analog VCR Select	AVCAZ
Coax-1 Digital Audio Input Select	CO1Z
Coax-2 Digital Audio Input Select	CO2Z
Coax-3 Digital Audio Input Select	CO3Z
Coax-4 Digital Audio Input Select	CO4Z
Optical-1 Digital Audio Input Select	OPT1Z
Optical-2 Digital Audio Input Select	OPT2Z
Optical-3 Digital Audio Input Select	OPT3Z
Optical-4 Digital Audio Input Select	OPT4Z

Video Direct Select Commands (works on selected zone)	
Select Main Zone for Video Direct Select	DIMZ
Select Zone 2 for Video Direct Select	DI2Z
HDMI video-1	HM1Z
HDMI video-2	HM2Z
HDMI video-3	HM3Z
HDMI video-4	HM4Z
Component video-1	CM1Z
Component video-2	CM2Z
Component video-3	CM3Z
Composite video-1	CS1Z
Composite video-2	CS2Z
Composite video-3	CS3Z
Composite video-4	CS4Z
S video-1	SV1Z
S video-2	SV2Z
S video-3	SV3Z
S video-4	SV4Z
Main Zone Direct Select Commands (main zone must be on)	
Main Analog Audio Input-1	AS1MZ
Main Analog Audio Input-2	AS2MZ
Main Analog Audio Input-3	AS3MZ
Main Analog Audio Input-4	AS4MZ
Main Analog Audio Input-5	AS5MZ
Main Analog Audio Input-6	AS6MZ
Main Analog Audio Input-7	AS7MZ
Main Analog Balanced Input	AB1MZ
Main Analog Tape Select	TPAMZ
Main Analog VCR Select	VCAMZ
Main DVR Device Select	DVRMZ
Main Game Device Select	GAMMZ
Main CD Device Select	CDMZ
Main DVD Device Select	DVDMZ
Main DVDR Device Select	VDRMZ
Main Satellite Device Select	SATMZ
Main Tape Device Select	TPMZ
Main Tuner Device Select	TUNMZ
Main TV Device Select	TVMZ
Main VCR Device Select	VCRMZ
Remote Zone Direct S+A72elect Commands (use only when both zones are on)	
Remote Analog Audio Input-1	AS1RZ
Remote Analog Audio Input-2	AS2RZ
Remote Analog Audio Input-3	AS3RZ
Remote Analog Audio Input-4	AS4RZ
Remote Analog Audio Input-5	AS5RZ
Remote Analog Audio Input-6	AS6RZ
Remote Analog Audio Input-7	AS7RZ
Remote Analog Balanced Input	AB1RZ
Remote Analog Tape Select	TPARZ
Remote Analog VCR Select	VCARZ
Remote DVR	VDRZ
Remote Game	GAMRZ
Remote CD	CDRZ
Remote DVD	DVDRZ
Remote DVDR	DRDRZ
Remote Satellite	SATRZ
Remote Tape	TPRZ
Remote Tuner	TUNRZ
Remote TV	TVRZ
Remote VCR	VCRRZ
Power Commands	
Power On	1PWRZ
Power Off	0PWRZ
Zone Select Commands	
Main Zone	MANZ
Remote Zone (Zone 2 Power toggle If Main Zone Is Off)	REMZ
Room EQ Commands	
Room EQ Select (xxx = 000-004) (000 = off) (001-004 selects memory 1-4)	xxxEQMZ
Trigger Commands	

Trigger-1 (OFF)	0TR1Z	021 Front Row Mode	
Trigger-1 (ON)	1TRIZ	022 On Stage Mode	
Trigger-2 (OFF)	0TR2Z	023 Enhanced Stereo Mode	
Trigger-2 (ON)	1TR2Z	024 Orchestra Mode	
Trigger-3 (OFF)	0TR3Z	025 Mezzanine Mode	
Trigger-3 (ON)	1TR3Z	026 Full Range + Sub Mode	
Trigger-4 (OFF)	0TR4Z	027 Monophonic Mode	
Trigger-4 (ON)	1TR4Z	028 Pre Amp mode	
Decode Mode Select Commands		029 2496 decode mode	
Mode 1	MS1Z		
Mode 2	MS2Z		
Prologic	MVZ		
Stereo	STZ		
Preamp	PAZ		
Numeric Mode Select Commands			
Mode Set (000 - 029, sets mode) (see below)	XXXMODZ		
000 Dolby Digital 5.1			
001 AC3 2/0 Stereo Mode (Pass Mode)			
002 AC3 2/0 Pro-Logic II Movie Mode			
003 AC3 2/0 Pro-Logic II Music Mode			
004 AC3 2/0 Pro-Logic II Matrix Mode			
005 AC3 2/0 Pro-Logic II Emulation Mode			
006 AC3 2/0 Pro-Logic II Virtual			
007 DTS 5.1 Music			
008 DTS 5.1 Movie			
009 DTS 5.1 Matrix			
010 DTS 6.1 Discrete			
011 Stereo Mode (Pass Mode)			
012 Pro-Logic II Movie Mode			
013 Pro-Logic II Music Mode			
014 Pro-Logic II Matrix Mode			
015 Pro-Logic II Emulation Mode			
016 Pro-Logic II Virtual			
017 DTS Neo:6 Cinema 6 Mode			
018 DTS Neo:6 Music Mode			
019 Party Mode			
020 General Admission Mode			

RS-232 Feedback

OVERVIEW

The Evolution 707 is equipped with a system that can report back its operational status via the RS-232 port. The system reports it's operational status by transmitting a block of status data. The block is configured as 18, 8 bit words. The first and last word always contains hexadecimal code 55 to facilitate message framing and synchronization. When the data block is sent through an RS-232 port, each 8 bit word transmitted will also have 1 stop bit associated with it.

The feedback system is only available via the RS-232 port. The Status can be activated in 2 ways. The first way is to ask for status to be sent by sending the RS-232 command "STAZ". The second way is to enable auto status by sending the RS-232 command "ASTEZ", Once this command is sent, the Evolution 707 will transmit a status block whenever the status changes. Auto Status is disabled by sending the RS-232 command "ASTDZ". Auto Status remains enabled until AC power is removed or turned off.

All numeric values described in the following are decimal values unless otherwise noted. The description of the eighteen 8 bit words are as follows:

WORD 1: Start of Message

Bit	7	6	5	4	3	2	1	0
	0	1	0	1	0	1	0	1

Bit 7 – 0: Hexadecimal 55

WORD 2: General Status I

Bit	7	6	5	4	3	2	1	0
	System Mute	User Mute	Zone 2 Mute	Current Zone	Input Trigger	Zone 2 Only	Zone 2 Power	Main Power

Bit 7: System Mute 1 = Internal mute is active

Bit 6: Main Mute 1 = Main mute is active

Bit 5: Zone 2 Mute 1 = Zone 2 mute is active

Bit 4: Current Zone 1 = Zone 2 is active

Bit 3: Input Trigger 1 = 12V input trigger is active

Bit 2: Zone 2 Only 1 = Only Zone 2 power is on

Bit 1: Zone 2 Power 1 = Zone2 power is on

Bit 0: Main Power 1 = Main power is on

WORD 3: General Status II

Bit	7	6	5	4	3	2	1	0
	Menu Mode	Auto Status Enabled	PLL Locked	Trigger 4 On	Trigger 3 On	Trigger 2 On	Trigger 1 On	DSP Running

Bit 7: Menu mode 1 = Menu mode is active

Bit 6: Auto Status 1 = Auto Status Enabled

Bit 5: PLL Locked 1 = PLL is locked (Valid Digital input signal detected)

Bit 4: Trigger 4 on 1 = Trigger 4 is on

Bit 3: Trigger 3 on 1 = Trigger 3 is on

Bit 2: Trigger 2 on 1 = Trigger 2 is on

Bit 1: Trigger 1 on 1 = Trigger 1 is on

Bit 0: DSP Running 1 = DSPs are not reset

WORD 4: Current Device

Bit	7	6	5	4	3	2	1	0
	Z2 CD3	Z2 CD2	Z2 CD1	Z2 CD0	MN CD3	MN CD2	MN CD1	MN CD0

Bits 7 - 4: Zone 2 Current Device

Bits 3 - 0: Main Zone Current Device

Devices

0 DVD

1 DVDR

2 SAT

3 VCR

4 TV

5 CD

6 TUNER

7 DVR

8 GAME

9 TAPE

WORD 5: Main Volume

Bit	7	6	5	4	3	2	1	0
	VOL 7	VOL 6	VOL 5	VOL 4	VOL 3	VOL 2	VOL 1	VOL 0

Bit 7 - 0: Current Main Volume setting 0 - 152

WORD 6: Zone 2 Volume

Bit	7	6	5	4	3	2	1	0
	VOL 7	VOL 6	VOL 5	VOL 4	VOL 3	VOL 2	VOL 1	VOL 0

Bit 7 - 0: Current Zone 2 Volume setting 0 - 152

WORD 7: Video Input

Bit	7	6	5	4	3	2	1	0
	VID IN 7	VID IN 6	VID IN 5	VID IN 4	VID IN 3	VID IN 2	VID IN 1	VID IN 0

Bit 7 - 0: Current Video Input

Video Inputs

1 S-Video 1

2 S-Video 2

3 S-Video 3

4 S-Video 4

5 Component Video 1

6 Component Video 2

7 Component Video 3

8 Composite Video 1

9 Composite Video 2

10 Composite Video 3

11 Composite Video 4

12 Composite Video 5

13 Composite Video 6

14 HDMI Video 1

15 HDMI Video 2

16 HDMI Video 3

17 HDMI Video 4

WORD 8: Main Zone Audio Input

Bit	7	6	5	4	3	2	1	0
	MN AUD IN 7	MN AUD IN 6	MN AUD IN 5	MN AUD IN 4	MN AUD IN 3	MN AUD IN 2	MN AUD IN 1	MN AUD IN 0

Bit 7 - 0: Main Zone Audio Input

Audio Inputs

1 Digital: COAX 1

2 Digital: COAX 2

3 Digital: COAX 3

4 Digital: COAX 4

5 Digital: Optical 1

6 Digital: Optical 2

7 Digital: Optical 3

8 Digital: Optical 4

9 HDMI SPDIF

10 HDMI AUTO

11 Analog: B1

12 Analog: S1

13 Analog: S2

14 Analog: S3

15 Analog: S4

16 Analog: S5

17 Analog: Tape

18 Analog: VCR

19 Analog: Cast 1

20 Analog: Cast 2

21 5.1 Input Digital

22 5.1 Input Analog Preamp

WORD 9: Zone 2 Audio Input

Bit	7	6	5	4	3	2	1	0
	Z2 AUD IN 7	Z2 AUD IN 6	Z2 AUD IN 5	Z2 AUD IN 4	Z2 AUD IN 3	Z2 AUD IN 2	Z2 AUD IN 1	Z2 AUD IN 0

Bit 7 - 0: Zone 2 Audio Input

Audio Inputs

11 Analog: B1

12 Analog: S1

13 Analog: S2

15 Analog: S3

15 Analog: S4

16 Analog: S5

17 Analog: Tape

23 Analog: VCR

24 Analog: Cast 1

25 Analog: Cast 2

WORD 10: Speakers / Current Audio Decode Mode

Bit	7	6	5	4	3	2	1	0
	Back Enabled	Sub Enabled	Surround Enabled	Center Enabled	Input Stream 3	Input Stream 2	Input Stream 1	Input Stream 0

Bit 7: Back Enabled 1 = Back Speaker(s) is(are) enabled

Bit 6: Sub Enabled 1 = Subwoofer is enabled

Bit 5: Surround Enabled 1 = Surround Speakers are enabled

Bit 4: Center Enabled 1 = Center Speaker is enabled

Bits 3-0 Current Input Stream Mode

Input Stream Modes

1	PCM
2	Dolby Digital 2.0
3	Dolby Digital 5.1
4	DTS 5.1
5	24 Bit, 96KHz PCM
6	PCM Digital Input
7	PCM Analog Input
8	Dolby Digital X/Y
9	5.1 (6 Channel Discrete)
10	DTS 6.1 ES Matrix
11	DTS 6.1 ES Discrete
12	DTS 6.1 ES Matrix & Discrete
13	DTS 2496
14	AAC 2.0
15	AAC 5.1
16	AAC XY
17	AAC 1+1
18	Multi Channel Preamp
19	HDMI IIS
20	HDMI PCM2

WORD 11: Current Audio Decode Modes

Bit	7	6	5	4	3	2	1	0
	CAD 7	CAD 6	CAD 5	CAD 4	CAD 3	CAD 2	CAD 1	CAD 0

Bit 7 - 0: Current Audio Decode Modes

	Hex	Decimal	
IF Stream ID =	6	6	**PCM Digital**
Stereo Mode (Pass Mode)	1	1	
Pro-Logic IIX Movie Mode	2	2	
Pro-Logic IIX Music Mode	3	3	
Pro-Logic IIX Matrix Mode	4	4	
Pro-Logic IIX Emulation Mode	5	5	
Pro-Logic IIX Virtual	6	6	
Multi-Channel Input Mode	7	7	
DTS Neo:6 Cinema 6 Mode	9	9	
2496 decode mode	0A	10	
DTS Neo:6 Music Mode	0B	11	
DTS Neo:6 Cinema 6 + THX Mode	0C	12	
Party Mode	0E	14	

General Admission Mode	0F	15	**PCM Digital CONT...**
Front Row Mode	10	16	
On Stage Mode	11	17	
Enhanced Stereo Mode	12	18	
Orchestra Mode	13	19	
Mezzanine Mode	14	20	
Full Range + Sub Mode	15	21	
Monophonic Mode	16	22	
Analog only preamp mode	17	23	
IF Stream ID =	7	7	**ANALOG**
Stereo Mode (Pass Mode)	1	1	
Pro-Logic IIX Movie Mode	2	2	
Pro-Logic IIX Music Mode	3	3	
Pro-Logic IIX Matrix Mode	4	4	
Pro-Logic IIX Emulation Mode	5	5	
Pro-Logic IIX Virtual	6	6	
Multi-Channel Input Mode	7	7	
DTS Neo:6 Cinema 6 Mode	9	9	
2496 decode mode	0A	10	
DTS Neo:6 Music Mode	0B	11	
DTS Neo:6 Cinema 6 + THX Mode	0C	12	
Party Mode	0E	14	
General Admission Mode	0F	15	
Front Row Mode	10	16	
On Stage Mode	11	17	
Enhanced Stereo Mode	12	18	
Orchestra Mode	13	19	
Mezzanine Mode	14	20	
Full Range + Sub Mode	15	21	
Monophonic Mode	16	22	
Analog only preamp mode	17	23	
	7	7	
IF Stream is AC320, Stream ID =	2	2	**AC3 2.0**
Stereo Mode (Pass Mode)	18	24	
Pro-Logic II Movie Mode	19	25	
Pro-Logic II Music Mode	1a	26	
Pro-Logic II Matrix Mode	1b	27	
Pro-Logic II Emulation Mode	1c	28	
Pro-Logic II Virt	1d	29	
IF Stream is Dolby Digital 5.1, Stream ID =	3	3	**AC3**
Dolby Digital 5.1	2f	47	
Dolby Digital 5.1 + PLIIX MOVIE	30	48	
Dolby Digital 5.1 + PLIIX MUSIC	b1	177	
Dolby Digital 5.1 EX	c7	199	
Dolby Digital Plus	d8	216	

Dolby Digital 1+1	41	65	**AC3 CONT...**
Dolby Digital 1/0	42	66	
Dolby Digital 3/0	43	67	
Dolby Digital 2/1	44	68	
Dolby Digital 3/1	45	69	
Dolby Digital 2/2	46	70	
IF Stream is DTS, Stream ID =	4	4	**DTS**
DTS 5.1 Music	35	53	
DTS 5.1 Movie	32	50	
DTS 5.1 MATRIX	b3	179	
DTS 5.1 DISCRETE	b7	183	
DTS 96K 24 Bit	48	72	
IF Stream is AAC 20, Stream ID =	E	14	**AAC 2.0**
AAC 2.0	4b	75	
IF Stream is AAC 51, Stream ID =	E	14	**AAC 5.1**
AAC 5.1	4f	79	
IF Stream is AAC 11, Stream ID =	11	17	**AAC 1+1**
AAC 1+1	4a	74	
AAC 1L1	55	85	
AAC 1R1	56	86	
IF Stream is AAC XY, Stream ID =	10	16	**AAC XY**
AAC 1/0	58	88	
AAC 3/0	4c	76	
AAC 3/1	4d	77	
AAC 3/2	4e	78	
AAC 7.1	50	80	
IF Stream is HDMI, Stream ID =	13	19	**HDMI Auto**
HDMI PCM 2 Channel	D8	216	
HDMI PCM 5.1 Channel	DD	221	
HDMI PCM 7.1 Channel	DE	222	
Dolby TrueHD 48K	D9	217	
Dolby TrueHD 96K	DA	218	
Dolby Digital Plus	DB	219	
DTS MA	DC	220	
DTS HRA	DF	223	
DTS LBR	E0	224	

IF Stream ID =	14	20	**HDMI SPDIF**
Stereo Mode (Pass Mode)	1	1	
Pro-Logic IIX Movie Mode	2	2	
Pro-Logic IIX Music Mode	3	3	
Pro-Logic IIX Matrix Mode	4	4	
Pro-Logic IIX Emulation Mode	5	5	
Pro-Logic IIX Virtual	6	6	
Multi-Channel Input Mode	7	7	
DTS Neo:6 Cinema 6 Mode	9	9	
2496 decode mode	0A	10	
DTS Neo:6 Music Mode	0B	11	
DTS Neo:6 Cinema 6 + THX Mode	0C	12	
Party Mode	0E	14	
General Admission Mode	0F	15	
Front Row Mode	10	16	
On Stage Mode	11	17	
Enhanced Stereo Mode	12	18	
Orchestra Mode	13	19	
Mezzanine Mode	14	20	
Full Range + Sub Mode	15	21	
Monophonic Mode	16	22	
Analog only preamp mode	17	23	

WORD 12: Main Zone Balance / Compression Mode

Bit	7	6	5	4	3	2	1	0
	Reserved	Cmode 1	Cmode 0	BAL 4	BAL 3	BAL 2	BAL 1	BAL 0

Bits 4 - 0: Balance Setting 0 – 26

Bits 5 - 6: Compression Mode

Balance Settings

0	Right Off	9	Left +2.0	18	Right +2.5
1	Left +6	10	Left +1.5	19	Right +3.0
2	Left +5.5	11	Left +1.0	20	Right +3.5
3	Left +5.0	12	Left +0.5	21	Right +4.0
4	Left +4.5	13	Centered	22	Right +4.5
5	Left +4.0	14	Right +0.5	23	Right +5.0
6	Left +3.5	15	Right +1.0	24	Right +5.5
7	Left +3.0	16	Right +1.5	25	Right +6.0
8	Left +2.5	17	Right +2.0	26	Left Off

Compression Modes

1 Max

2 Normal

3 Night

WORD 13: Room EQ/Zone 2 Balance

Bit	7	6	5	4	3	2	1	0
	Room EQ 2	Room EQ 1	Room EQ 0	BAL 4	BAL 3	BAL 2	BAL 1	BAL 0

Bit 7 - 5: Room EQ Setting

Room EQ Setting

0 Room EQ OFF

1 Room EQ Memory 1

2 Room EQ Memory 2

3 Room EQ Memory 3

4 Room EQ Memory 4

Bits 4 - 0: Balance Setting 0 – 26

Balance Settings

0	Right Off	9	Left +2.0	18	Right +2.5
9	Left +6	10	Left +1.5	19	Right +3.0
10	Left +5.5	11	Left +1.0	20	Right +3.5
11	Left +5.0	12	Left +0.5	21	Right +4.0
12	Left +4.5	13	Centered	22	Right +4.5
13	Left +4.0	14	Right +0.5	23	Right +5.0
14	Left +3.5	15	Right +1.0	24	Right +5.5
15	Left +3.0	16	Right +1.5	25	Right +6.0
16	Left +2.5	17	Right +2.0	26	Left Off

WORD 14: Center Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	CT 4	CT 3	CT 2	CT 1	CT 0

Bits 4 - 0: Center Trim

Trim Settings

0	-10 dB	6	-4 dB	12	+2 dB	18	+8 dB
1	-9 dB	7	-3 dB	13	+3 dB	19	+9 dB
2	-8 dB	8	-2 dB	14	+4 dB	20	+10 dB
3	-7 dB	9	-1 dB	15	+5 dB		
4	-6 dB	10	0 dB	16	+6 dB		
5	-5 dB	11	+1 dB	17	+7 dB		

WORD 15: Surround Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	RT 4	RT 3	RT 2	RT 1	RT 0

Bits 4 - 0: Surround Trim

Trim Settings

0	-10 dB	6	-4 dB	12	+2 dB	18	+8 dB
1	-9 dB	7	-3 dB	13	+3 dB	19	+9 dB
2	-8 dB	8	-2 dB	14	+4 dB	20	+10 dB
3	-7 dB	9	-1 dB	15	+5 dB		
4	-6 dB	10	0 dB	16	+6 dB		
5	-5 dB	11	+1 dB	17	+7 dB		

WORD 16: Back Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	BT 4	BT 3	BT 2	BT 1	BT 0

Bits 4 - 0: Back Trim

Trim Settings

0	-10 dB	6	-4 dB	12	+2 dB	18	+8 dB
1	-9 dB	7	-3 dB	13	+3 dB	19	+9 dB
2	-8 dB	8	-2 dB	14	+4 dB	20	+10 dB
3	-7 dB	9	-1 dB	15	+5 dB		
4	-6 dB	10	0 dB	16	+6 dB		
5	-5 dB	11	+1 dB	17	+7 dB		

WORD 17: Sub Trim

Bit	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	ST 4	ST 3	ST 2	ST 1	ST 0

Bits 4 - 0: Sub Trim

Trim Settings

0	-10 dB	6	-4 dB	12	+2 dB	18	+8 dB
1	-9 dB	7	-3 dB	13	+3 dB	19	+9 dB
2	-8 dB	8	-2 dB	14	+4 dB	20	+10 dB
3	-7 dB	9	-1 dB	15	+5 dB		
4	-6 dB	10	0 dB	16	+6 dB		
5	-5 dB	11	+1 dB	17	+7 dB		

WORD 18: End of Message

Bit	7	6	5	4	3	2	1	0
	0	1	0	1	0	1	0	1

Bit 7 – 0: Hexadecimal 55