

**Appendix 6**  
**Control Plane**

Sub-system	Device/Class	Attributes/Properties	
		In	Out
Emission Mgr.	Video Encoder	H Res V Res T Res I/P Aspect Ratio Taking Points/White Points Gamma Chroma Res Input Port Time (now) Transition Time Self Ident (Device ID, Physical Location) Splice point time User Data Source (VBI / Port / ANC) User Data Type (608 / 708 / Other) Stat Mux quality Stat Mux Group Association Film Detect on/off Scene Change Detection on/off Field/Frame/Dual Prime Processing Pan/Scan Source (Port/ANC) Pan/Scan utilization Pre-processor control (elaborate) Control Extensions	H Res V Res T Res I/P Aspect Ratio Use of Pan/Scan Bit Rate GOP Structure (m,n) CVR / BVR Stat Mux (y/n) Stat Mux (min/max) Self Ident Status / Health (elaborate)
	Audio Encoder	Port Configuration Channel Config. (mono/stereo/5.1...) Input type (Analog/Dolby E/PCM...) Sampling Rate Sample Resolution (word length) AC-3 Compression Parameters (elaborate) Self Ident (Device ID, Physical Location) Time (now) Transition Time	Bit Rate Status / Health
Program	Multiplexer (Single PMT Transport Stream Output PES Input)	Stream Type & Number of Each Input Data Rate for each Input Time (now) Output Rate Input PIDs for Data Remapping by Port Transition Time Self ID	Output PIDs Status / Health
Emission	Multiplexer (ATSC)	Number of Input Streams Type of Inputs (priority/opportunistic) Data Rate for each Input Time (now) Output Rate Input PIDs for Data Remapping by Port Transition Time Self ID PCR Type (Embedded/separate PID)	Output PIDs Status / Health Flow control
	Stat MUX Arbitrator	Associated Encoders List (grouping) Max Bit Rate for each Encoder	Status / Health

		Min Bit Rate for each Encoder Total Bandwidth Nominal Bit Rate for each Encoder Encoder Priority / quality number Self ID	
	PSI Generator	PAT Repetition Rate PMT Repetition Rate CAT On / Off and Repetition Rate PAT / PMT / CAT Data (including allowed descriptors) PID Assignments Self ID	Status / Health
	PSIP Generator	Time (now) Transition time MGT / VCT / RRT / EIT / ETT / DIT / SDT / NRT – data Required & Allowed Descriptors Local Time Offset Daylight Savings Time Transitions PID Assignments Self ID	Status / Health
	UPID Generator	PID Assignments Time (now) Transition Time UPID Data UPID Data Source(s) Program Segment Timing* & Type Self ID	Status / Health
	CA Generator (EMM / ECM / CW)	PID Assignments Time (now) Transition Time EMM Data ECM Data Self ID	CW Data to Scrambler(s) Status / Health
Output	Format Converter	Input Format (H/V/T/P-I/AR/Colorimet) Output Format Pan & Scan / Zoom / Tilt Time (now) Transition Time Aspect Ratio Conversion Mode Self ID	Status / Health

**NOTES:**

\*UPIDs are inserted at random times varying between 30 sec and 2 min, and just prior to end of commercial insertions.