ISO/IEC 13818-1:2013-06 (E)

Information technology - Generic coding of moving pictures and associated audio information: Systems

Contents

Page

1.1 Scope ... 1
1.2 Normative references ... 1
2.1 Definitions ... 2
2.2 Symbols and abbreviations ... 7
2.3 Method of describing bit stream syntax ... 9
2.4 Transport stream bitstream requirements ... 10
2.5 Program stream bitstream requirements ... 55
2.6 Program and program element descriptors ... 69
2.7 Restrictions on the multiplexed stream semantics ... 108
2.8 Compatibility with ISO/IEC 11172 ... 113
2.9 Registration of copyright identifiers ... 113
2.10 Registration of private data format ... 114
2.11 Carriage of ISO/IEC 14496 data ... 114
2.12 Carriage of metadata ... 126
2.13 Carriage of ISO 15938 data ... 134
2.14 Carriage of Rec. ITU-T H.264 | ISO/IEC 14496-10 video ... 134
2.15 Carriage of ISO/IEC 14496-17 text streams ... 150
2.16 Carriage of auxiliary video streams ... 151

Annex A – CRC decoder model ... 152
A.1 CRC decoder model ... 152

Annex B – Digital Storage Medium Command and Control (DSM-CC) ... 153
B.1 Introduction ... 153
B.2 General elements ... 154
B.3 Technical elements ... 156

Annex C – Program-specific information ... 162
C.1 Explanation of program-specific information in transport streams ... 162
C.2 Introduction ... 162
C.3 Functional mechanism ... 162
C.4 The mapping of sections into transport stream packets ... 163
C.5 Repetition rates and random access ... 163
C.6 What is a program? ... 164
C.7 Allocation of program_number ... 164
C.8 Usage of PSI in a typical system ... 164
C.9 The relationships of PSI structures ... 165
C.10 Bandwidth utilization and signal acquisition time ... 167

Annex D – Systems timing model and application implications of this Recommendation | International Standard ... 170
D.1 Introduction ... 170

Annex E – Data transmission applications ... 179
E.1 General considerations ... 179
E.2 Suggestion ... 179

Annex F – Graphics of syntax for this Recommendation | International Standard 180
F.1 Introduction 180
Annex G – General information 184
G.1 General information 184
Annex H – Private data 185
H.1 Private data 185
Annex I – Systems conformance and real-time interface 186
I.1 Systems conformance and real-time interface 186
Annex J – Interfacing jitter-inducing networks to MPEG-2 decoders 187
J.1 Introduction 187
J.2 Network compliance models 187
J.3 Network specification for jitter smoothing 188
J.4 Example decoder implementations 189
Annex K – Splicing transport streams 190
K.1 Introduction 190
K.2 The different types of splicing point 190
K.3 Decoder behaviour on splices 191
Annex L – Registration procedure (see 2.9) 193
L.1 Procedure for the request of a Registered Identifier (RID) 193
L.2 Responsibilities of the Registration Authority 193
L.3 Responsibilities of parties requesting an RID 193
L.4 Appeal procedure for denied applications 194
Annex M – Registration application form (see 2.9) 195
M.1 Contact information of organization requesting a Registered Identifier (RID) 195
M.2 Statement of an intention to apply the assigned RID 195
M.3 Date of intended implementation of the RID 195
M.4 Authorized representative 195
M.5 For official use only of the Registration Authority 195
Annex N – Registration Authority diagram of administration structure (see 2.9) 196
Annex O – Registration procedure (see 2.10) 197
O.1 Procedure for the request of an RID 197
O.2 Responsibilities of the Registration Authority 197
O.3 Contact information for the Registration Authority 197
O.4 Responsibilities of parties requesting an RID 197
O.5 Appeal procedure for denied applications 197
Annex P – Registration application form 199
P.1 Contact information of organization requesting an RID 199
P.2 Request for a specific RID 199
P.3 Short description of RID that is in use and date system that was implemented 199
P.4 Statement of an intention to apply the assigned RID 199
P.5 Date of intended implementation of the RID 199
P.6 Authorized representative 199
P.7 For official use of the Registration Authority 199
Annex Q – T-STD and P-STD buffer models for ISO/IEC 13818-7 ADTS 200
Q.1 Introduction 200
Q.2 Leak rate from Transport Buffer 200
Q.3 Buffer size 200
Q.4 Conclusion 201
Annex R – Carriage of ISO/IEC 14496 scenes in Rec. ITU-T H.222.0 | ISO/IEC 13818-1 203
R.1 Content access procedure for ISO/IEC 14496 program components within a program stream 203
R.2 Content access procedure for ISO/IEC 14496 program components within a transport stream 204
Annex S – Carriage of JPEG 2000 part 1 video over MPEG-2 transport streams 206
S.1 Introduction 206
S.2 J2K video access unit, J2K video elementary stream, J2K video sequence and J2K still picture 206
S.3 Elementary stream header (elsm) and mapping to PES packets 206
S.4 J2K transport constraints 208
S.5 Interpretation of flags in adaptation and PES headers for J2K video elementary streams 208
S.6 T-STD extension for J2K video elementary streams 209
Bibliography 211