



**ANSI E1.33 (RDMnet)**  
**Message Transport and Management for ANSI E1.20 (RDM)**  
**compatible and similar devices over IP Networks**

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## Table of Contents

<b>NOTICE and DISCLAIMER</b> .....	<b><i>i</i></b>
<b>The ESTA Technical Standards Program</b> .....	<b><i>ii</i></b>
<b>Investors in Innovation, supporters of ESTA's Technical Standards Program</b> .....	<b><i>iii</i></b>
<b>Contact Information</b> .....	<b><i>vi</i></b>
<b>Acknowledgments</b> .....	<b><i>vii</i></b>
<b>Table of Contents</b> .....	<b><i>x</i></b>
<b>List of Tables</b> .....	<b><i>1</i></b>
<b>List of Figures</b> .....	<b><i>3</i></b>
<b>1 Introduction</b> .....	<b><i>5</i></b>
<b>1.1 Components</b> .....	<b><i>5</i></b>
<b>1.2 Document Scope</b> .....	<b><i>6</i></b>
1.2.1 Low-Level Recovery Protocol (LLRP).....	<i>6</i>
1.2.2 Broker Protocol .....	<i>6</i>
1.2.3 RDM Packet Transport (RPT).....	<i>7</i>
1.2.4 Extensible Packet Transport (EPT) .....	<i>7</i>
<b>1.3 Standard Compliance</b> .....	<b><i>7</i></b>
<b>2 Applicability of other Standards and References</b> .....	<b><i>9</i></b>
<b>2.1 Relationship to RDM (ANSI E1.20)</b> .....	<b><i>9</i></b>
<b>2.2 Relationship to ACN (ANSI E1.17)</b> .....	<b><i>9</i></b>
<b>2.3 Relationship to Streaming ACN (ANSI E1.31)</b> .....	<b><i>10</i></b>
<b>2.4 Normative References</b> .....	<b><i>11</i></b>
<b>2.5 Informative References</b> .....	<b><i>14</i></b>
<b>3 Addressing</b> .....	<b><i>15</i></b>
<b>3.1 Component Identifiers</b> .....	<b><i>15</i></b>
<b>3.2 Responder Identifiers</b> .....	<b><i>15</i></b>
<b>3.3 UIDs</b> .....	<b><i>15</i></b>
3.3.1 Static and Dynamic UIDs .....	<i>16</i>
3.3.2 Dynamic UID Request .....	<i>17</i>
<b>3.4 Endpoint Identifiers</b> .....	<b><i>17</i></b>
<b>4 Packet Structure Inherited From ACN</b> .....	<b><i>18</i></b>
<b>4.1 PDU Structure</b> .....	<b><i>19</i></b>
4.1.1 ACN PDU Flags .....	<i>19</i>

---

4.1.2 ACN PDU Length (Informative) .....	19
4.1.3 ACN PDU Vector (Informative) .....	19
4.1.4 ACN PDU Header (Informative).....	20
4.1.5 ACN PDU Data (Informative).....	20
<b>4.2 TCP Preamble .....</b>	<b>20</b>
4.2.1 ACN Packet Identifier.....	20
4.2.2 PDU Block Size.....	20
4.2.3 PDU Block Restrictions.....	21
<b>4.3 Root Layer PDU .....</b>	<b>21</b>
4.3.1 Flags & Length.....	21
4.3.2 Vector.....	22
4.3.3 CID (Component Identifier).....	22
<b>4.4 Postamble .....</b>	<b>22</b>
<b>5 Low Level Recovery Protocol (LLRP) .....</b>	<b>23</b>
<b>5.1 Nomenclature .....</b>	<b>23</b>
5.1.1 LLRP Manager.....	23
5.1.2 LLRP Target.....	23
<b>5.2 Setup with LLRP .....</b>	<b>23</b>
5.2.1 LLRP Discovery .....	24
5.2.2 LLRP Configuration.....	24
<b>5.3 LLRP Transport .....</b>	<b>25</b>
5.3.1 Multicast Group Management.....	25
5.3.2 Multicast Messaging .....	25
5.3.3 TTL.....	25
<b>5.4 Packet Structure.....</b>	<b>26</b>
5.4.1 General Format.....	26
5.4.1.1 Preamble .....	26
5.4.1.2 Root Layer PDU .....	27
5.4.1.3 LLRP PDU .....	27
5.4.2 LLRP Message Types .....	28
5.4.2.1 Probe Request PDU .....	28
5.4.2.2 Probe Reply PDU .....	29
5.4.2.3 RDM Command PDU .....	31
<b>5.5 Allowed Parameter Messages .....</b>	<b>32</b>
<b>5.6 Manager Requirements .....</b>	<b>32</b>
5.6.1 Manager UID.....	32
5.6.2 General .....	33
5.6.3 Discovery .....	33
5.6.4 Dynamic and Duplicate Target UIDs .....	33
5.6.5 Configuration of Per-Host Properties.....	34
5.6.6 Configuration of Per-Component Properties .....	34
5.6.7 RDM GET_COMMAND and RDM SET_COMMAND Requirements .....	34
<b>5.7 Target Requirements.....</b>	<b>34</b>
5.7.1 Target UID .....	34
5.7.2 General .....	35
5.7.3 Discovery .....	35

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5.7.4 Configuration.....	35
5.7.5 Network Interface Changes .....	36
<b>6 Broker Protocol.....</b>	<b>37</b>
<b>6.1 Nomenclature .....</b>	<b>37</b>
6.1.1 Scope.....	37
6.1.2 Broker .....	37
6.1.3 Client.....	37
6.1.4 Client Protocol.....	37
<b>6.2 Topology .....</b>	<b>37</b>
6.2.1 Scopes .....	38
6.2.1.1 Broker Scope.....	38
6.2.1.2 Client Scope .....	38
6.2.2 Locating a Broker.....	38
6.2.3 Broker Discovery Using DNS.....	39
6.2.3.1 Multicast Address and Port .....	39
6.2.3.2 DNS-SD Service Type.....	39
6.2.3.3 Search Domain .....	40
6.2.3.4 Hostnames .....	41
6.2.3.5 Service Instance Names.....	41
6.2.3.6 DNS-SD TXT Records.....	42
6.2.3.6.1 TxtVers Key/Value Pair .....	42
6.2.3.6.2 E133Scope Key/Value Pair.....	43
6.2.3.6.3 E133Vers Key/Value Pair.....	43
6.2.3.6.4 CID Key/Value Pair .....	43
6.2.3.6.5 UID Key/Value Pair .....	43
6.2.3.6.6 Model Key/Value Pair.....	43
6.2.3.6.7 Manuf Key/Value Pair .....	43
6.2.4 Use of TCP .....	44
6.2.4.1 Health Checked TCP Connections.....	44
6.2.4.1.1 Heartbeat Messages.....	44
6.2.4.1.2 Connection Setup .....	44
6.2.4.1.3 Steady State Operation.....	44
6.2.5 Connections .....	45
6.2.5.1 Client Start-up.....	45
6.2.5.2 Connection Establishment.....	46
6.2.5.3 Connection Outcomes .....	46
6.2.5.3.1 Connection Failure, Timeout or Error Condition.....	46
6.2.5.3.2 Redirect.....	47
6.2.5.3.3 Successful Connect .....	47
6.2.5.4 Redirection After Successful Connection .....	47
6.2.5.5 Connection Termination .....	47
<b>6.3 Packet Structure.....</b>	<b>48</b>
6.3.1 Broker PDU.....	48
6.3.1.1 Common PDU Elements .....	49
6.3.1.1.1 Flags & Length.....	50
6.3.1.1.2 Vector.....	50
6.3.1.1.3 PDU Data.....	51
6.3.1.2 Client Connect (VECTOR_BROKER_CONNECT) .....	51
6.3.1.3 Connect Reply (VECTOR_BROKER_CONNECT_REPLY) .....	52
6.3.1.4 Client Entry Update (VECTOR_BROKER_CLIENT_ENTRY_UPDATE).....	52
6.3.1.5 Client Redirect IPv4 (VECTOR_BROKER_REDIRECT_V4) .....	53
6.3.1.6 Client Redirect IPv6 (VECTOR_BROKER_REDIRECT_V6) .....	53

---

6.3.1.7 Fetch Client List (VECTOR_BROKER_FETCH_CLIENT_LIST) .....	54
6.3.1.8 Connected Client List (VECTOR_BROKER_CONNECTED_CLIENT_LIST) .....	54
6.3.1.9 Client Incremental Addition (VECTOR_BROKER_CLIENT_ADD) .....	54
6.3.1.10 Client Incremental Deletion (VECTOR_BROKER_CLIENT_REMOVE) .....	55
6.3.1.11 Client Entry Change (VECTOR_BROKER_CLIENT_ENTRY_CHANGE) .....	55
6.3.1.12 Request Dynamic UID Assignment (VECTOR_BROKER_REQUEST_DYNAMIC_UIDS) .....	55
6.3.1.13 Dynamic UID Assignment List (VECTOR_BROKER_ASSIGNED_DYNAMIC_UIDS) .....	56
6.3.1.14 Fetch Dynamic UID Assignment List (VECTOR_BROKER_FETCH_DYNAMIC_UID_LIST) .....	57
6.3.1.15 Client Disconnect (VECTOR_BROKER_DISCONNECT) .....	58
6.3.1.16 Null (VECTOR_BROKER_NULL) .....	58
6.3.2 Client Entry PDU .....	58
6.3.2.1 Common PDU Elements .....	59
6.3.2.1.1 Flags & Length .....	60
6.3.2.1.2 Vector .....	60
6.3.2.1.3 CID (Component Identifier) .....	60
6.3.2.1.4 PDU Data .....	60
6.3.2.2 RPT Client Entry (CLIENT_PROTOCOL_RPT) .....	60
6.3.2.3 EPT Client Entry (CLIENT_PROTOCOL_EPT) .....	61
<b>7 RDM Packet Transport (RPT) .....</b>	<b>63</b>
<b>7.1 Nomenclature .....</b>	<b>63</b>
7.1.1 RPT Client .....	63
7.1.2 Controller .....	63
7.1.3 Device .....	63
7.1.4 Gateway .....	64
7.1.5 RPT Responder and Default Responder .....	64
7.1.6 Endpoint .....	64
7.1.6.1 Physical Endpoints .....	65
7.1.6.2 Virtual Endpoints .....	65
7.1.6.3 Endpoint IDs .....	65
<b>7.2 Common Requirements .....</b>	<b>65</b>
7.2.1 Default Responder .....	65
7.2.2 Responses to Request PDUs .....	66
7.2.3 Prohibited RDM Parameter messages .....	67
7.2.4 Dynamic UID Mappings .....	67
<b>7.3 Device Requirements .....</b>	<b>67</b>
7.3.1 Broker TCP Connection .....	67
7.3.1.1 Connection Statistics .....	68
7.3.2 Endpoints .....	68
7.3.2.1 Relationship to E1.31 Universes .....	69
7.3.2.1.1 Unpatched .....	69
7.3.2.1.2 Standard Universe .....	70
7.3.2.1.3 Composite Universe .....	70
7.3.2.2 Virtual Endpoints .....	70
7.3.2.3 Examples (Informative) .....	70
7.3.2.3.1 4-Port Ethernet Gateway (Informative) .....	70
7.3.2.3.2 Moving Light Consuming One Universe of Data (Informative) .....	71
7.3.2.3.3 Video Wall Consuming Multiple Universes of Data (Informative) .....	71
7.3.2.3.4 Monitoring Device (Informative) .....	71

7.3.2.3.5 Lighting Console with Physical DMX512-A/RDM Ports (Informative).....	72
7.3.3 Responders with Dynamic UIDs .....	72
7.3.4 RDM Command Handling .....	72
7.3.4.1 RPT PDUs .....	72
7.3.4.2 Default Responder.....	73
7.3.4.3 Discovery Commands .....	73
7.3.4.4 Invalid RDM Requests.....	73
7.3.4.5 Response Timeout .....	74
7.3.4.6 Invalid RDM Responses .....	74
7.3.4.7 Broadcast Handling .....	74
7.3.4.8 Get and Set Commands .....	74
7.3.4.9 Unsolicited Responses .....	75
7.3.5 Gateways .....	76
7.3.5.1 Physical Endpoint / RDM Port UID Requirements .....	76
7.3.5.2 Physical Endpoint Configuration Changes .....	76
7.3.5.3 RDM Packet Rewriting .....	76
7.3.5.4 ACK_TIMER and ACK_OVERFLOW .....	77
7.3.5.5 Gateway Example (Informative) .....	77
<b>7.4 Controller Requirements.....</b>	<b>78</b>
7.4.1 Controller's UID.....	78
7.4.2 Controller Endpoints .....	78
7.4.3 Broker TCP Connection .....	78
7.4.3.1 Connection Statistics .....	79
7.4.3.2 RPT Sequence Number .....	79
7.4.4 Client Discovery .....	79
7.4.5 Device Endpoint Enumeration .....	80
7.4.6 RDM Responder Discovery .....	80
7.4.7 Broadcast Commands .....	80
7.4.7.1 Scope Broadcast .....	80
7.4.7.2 Device Broadcast .....	81
7.4.7.3 Endpoint Broadcast .....	81
7.4.8 Default Responder .....	81
7.4.9 Request PDU Handling.....	81
7.4.10 RDM Command Response Handling.....	82
7.4.11 Notifications .....	82
<b>7.5 Packet Structure.....</b>	<b>82</b>
7.5.1 RPT PDU .....	84
7.5.1.1 Flags & Length .....	85
7.5.1.2 Vector .....	85
7.5.1.3 Source UID .....	85
7.5.1.4 Source Endpoint ID .....	85
7.5.1.5 Destination UID .....	85
7.5.1.6 Destination Endpoint ID.....	86
7.5.1.7 Sequence Number.....	86
7.5.1.7.1 Request Sequence Numbers .....	86
7.5.1.7.2 Response Sequence Numbers .....	86
7.5.1.8 Reserved .....	86
7.5.1.9 Data .....	86
7.5.2 Request PDU .....	87
7.5.2.1 Flags and Length.....	87
7.5.2.2 Vector .....	88

---

7.5.2.3 Data .....	88
7.5.3 RPT Status PDU .....	88
7.5.3.1 Common PDU Elements .....	90
7.5.3.1.1 Flags & Length .....	90
7.5.3.1.2 Vector .....	90
7.5.3.1.3 Status String .....	91
7.5.3.2 Unknown RPT UID (VECTOR_RPT_STATUS_UNKNOWN_RPT_UID) .....	91
7.5.3.3 RDM Timeout (VECTOR_RPT_STATUS_RDM_TIMEOUT) .....	91
7.5.3.4 Invalid RDM Response (VECTOR_RPT_STATUS_RDM_INVALID_RESPONSE) .....	92
7.5.3.5 Unknown RDM UID (VECTOR_RPT_STATUS_UNKNOWN_RDM_UID) .....	92
7.5.3.6 Unknown Endpoint (VECTOR_RPT_STATUS_UNKNOWN_ENDPOINT) .....	93
7.5.3.7 Broadcast Complete (VECTOR_RPT_STATUS_BROADCAST_COMPLETE) ..	93
7.5.3.8 Unknown Vector (VECTOR_RPT_STATUS_UNKNOWN_VECTOR) .....	93
7.5.3.9 Malformed Request (VECTOR_RPT_STATUS_INVALID_MESSAGE) .....	94
7.5.3.10 Invalid Command Class (VECTOR_RPT_STATUS_INVALID_COMMAND_CLASS) .....	94
7.5.4 Notification PDU .....	94
7.5.4.1 Flags and Length .....	95
7.5.4.2 Vector .....	95
7.5.4.3 Data .....	95
7.5.5 RDM Command PDU .....	96
7.5.5.1 Flags & Length .....	99
7.5.5.2 Vector .....	99
7.5.5.3 RDM Data .....	99
<b>7.6 Parameter Messages for RPT Component Configuration .....</b>	<b>100</b>
7.6.1 Get / Set Client Search Domain (SEARCH_DOMAIN) .....	100
7.6.2 Get / Set Component Scope (COMPONENT_SCOPE) .....	101
7.6.3 Get / Set TCP Communication Status (TCP_COMMS_STATUS) .....	105
7.6.4 Get / Set Broker Status (BROKER_STATUS) .....	107
<b>8 Extensible Packet Transport (EPT) .....</b>	<b>109</b>
<b>8.1 Nomenclature .....</b>	<b>109</b>
8.1.1 EPT Client .....	109
<b>8.2 Component Requirements .....</b>	<b>109</b>
8.2.1 Broker TCP Connection .....	109
8.2.2 Higher-Level Protocols .....	109
8.2.3 EPT Client Discovery .....	110
8.2.4 EPT Message Routing .....	110
<b>8.3 Packet Structure .....</b>	<b>110</b>
8.3.1 EPT PDU Structure .....	110
8.3.2 EPT PDU .....	111
8.3.2.1 Flags & Length .....	111
8.3.2.2 Vector .....	112
8.3.2.3 Destination CID .....	112
8.3.2.4 Data .....	112
8.3.3 EPT Data PDU .....	112
8.3.3.1 Flags & Length .....	113
8.3.3.2 Vector .....	113
8.3.3.3 Opaque Data .....	113

---



8.3.4 EPT Status PDU .....	113
8.3.4.1 Common PDU Elements .....	114
8.3.4.1.1 Flags & Length .....	115
8.3.4.1.2 Vector .....	115
8.3.4.1.3 Status String .....	115
8.3.4.2 Unknown CID (VECTOR_EPT_STATUS_UNKNOWN_CID) .....	116
8.3.4.3 Unknown Vector (VECTOR_EPT_STATUS_UNKNOWN_VECTOR) .....	116
<b>9 Broker Functional Requirements .....</b>	<b>117</b>
<b>9.1 Common.....</b>	<b>117</b>
9.1.1 IPv4 and IPv6 Support .....	117
9.1.2 Configuration .....	117
9.1.3 Broker Distribution .....	117
9.1.4 Startup and Discovery .....	118
9.1.5 TCP Connections .....	119
9.1.6 The Connected Client List .....	120
9.1.7 Client Protocols .....	121
9.1.8 Broker Disable .....	121
9.1.9 Broker Shutdown .....	121
<b>9.2 RPT .....</b>	<b>122</b>
9.2.1 Broker's UID .....	122
9.2.2 Default Responder .....	122
9.2.3 Dynamic UID Assignment .....	122
9.2.4 Dynamic UID Mapping .....	124
9.2.5 RPT PDU Handling .....	124
9.2.6 RPT PDUs Addressed to the Broker .....	125
9.2.7 RDM Command Forwarding .....	125
9.2.8 Device Responses .....	126
9.2.9 Splitting and Joining Root Layer PDUs.....	126
9.2.10 Request Scheduling and Fair Queuing.....	126
<b>9.3 EPT .....</b>	<b>126</b>
9.3.1 EPT PDU Handling .....	126
9.3.2 EPT PDU Forwarding .....	127
9.3.3 Splitting and Joining Root Layer PDUs.....	127
9.3.4 Broker Processing of EPT PDUs .....	127
<b>Appendix A: Defined Parameters (Normative) .....</b>	<b>128</b>
A.1 Broadcast UID Defines .....	128
A.2 LLRP Constants .....	129
A.3 Root Layer PDU Vector .....	129
A.4 LLRP PDU Vector.....	129
A.5 LLRP Probe Request PDU Vector .....	129
A.6 LLRP Probe Reply PDU Vector.....	130
A.7 Broker PDU Vector .....	130
A.8 RPT PDU Vector .....	130
A.9 RPT Request Vector.....	130
A.10 RPT Status PDU Vector .....	131
A.11 Notification PDU Vector.....	131
A.12 RDM Command PDU Vector.....	131
A.13 EPT PDU Vector.....	131
A.14 EPT Status PDU Vector .....	131

---

A.15 RDM Parameter ID .....	132
A.16 Additional Response NACK Reason Codes .....	132
A.17 Static Config Type for COMPONENT_SCOPE Parameter Message .....	133
A.18 Broker State Definitions for BROKER_STATUS Parameter Message .....	133
A.19 Connection Status Codes for Broker Connect .....	133
A.20 Status Codes for Dynamic UID Mapping.....	134
A.21 Client Protocol Codes.....	134
A.22 RPT Client Type Codes.....	134
A.23 LLRP Component Type Codes .....	134
A.24 Client Disconnect Reason Codes.....	135
<b>Appendix B: Definitions and Reference (Informative).....</b>	<b>136</b>
<b>B.1 Definitions .....</b>	<b>136</b>
B.1.1 Broker .....	136
B.1.2 Client .....	136
B.1.3 Client Protocol .....	136
B.1.4 Component.....	136
B.1.5 Controller .....	136
B.1.6 Default Responder.....	136
B.1.7 Device.....	136
B.1.8 Dynamic UID .....	136
B.1.9 Endpoint .....	136
B.1.10 Endpoint ID.....	137
B.1.11 EPT Client .....	137
B.1.12 Gateway .....	137
B.1.13 LLRP Manager .....	137
B.1.14 LLRP Target .....	137
B.1.15 Physical Endpoint.....	137
B.1.16 RPT Client .....	137
B.1.17 RPT Responder.....	137
B.1.18 Scope .....	137
B.1.19 Virtual Endpoint .....	137
<b>B.2 Reference for Implementation of Specific Component Types .....</b>	<b>138</b>
<b>Appendix C: Informative Overview of DNS-SD and mDNS .....</b>	<b>139</b>
<b>C.1 DNS Service Discovery.....</b>	<b>139</b>
<b>C.2 Multicast DNS.....</b>	<b>139</b>
<b>C.3 Service Discovery Examples.....</b>	<b>139</b>
C.3.1 Basic Service Discovery Example.....	139
C.3.2 Subtype Discovery Example .....	140
C.3.3 Subtype Discovery Full Example .....	142
<b>Appendix D: Examples .....</b>	<b>143</b>
<b>D.1 LLRP Discovery of Many Targets .....</b>	<b>143</b>
<b>D.2 Discovery and Scope Configuration.....</b>	<b>144</b>
<b>D.3 Example System .....</b>	<b>145</b>
<b>D.4 Device Discovery and Enumeration Example.....</b>	<b>145</b>
D.4.1 Device Discovery.....	146

---

---

D.4.2 Endpoint Enumeration.....	146
D.4.3 Endpoint Direction .....	146
D.4.4 Endpoint Universe Mapping .....	147
D.4.5 Endpoint RDM Responder Enumeration.....	147
D.4.6 RDM Request.....	147
<b>D.5 Example Heartbeat Message.....</b>	<b>147</b>
<b>D.6 RPT Device Examples.....</b>	<b>148</b>
D.6.1 2-port Gateway.....	148
D.6.2 Simplest Device.....	149
D.6.3 Device with only Virtual Endpoints and Multiple RPT Responders.....	150
<b>D.7 Example Notification PDU .....</b>	<b>151</b>
D.7.1 Notification PDU Instigated by RDM SET_COMMAND .....	151
D.7.2 Notification PDU Instigated By Queued Message .....	154
<b>D.8 Sample Network Topologies .....</b>	<b>156</b>
D.8.1 Single Controller Network .....	156
D.8.2 Multi-Controller Network.....	157
D.8.3 Network with Distributed Broker.....	158
D.8.4 Multi-Controller Network with Monitoring Controller.....	159
D.8.5 Multiply-Scoped Network .....	160
D.8.6 Network with EPT Clients.....	161
<b>D.9 Example EPT Messages .....</b>	<b>162</b>
D.9.1 EPT Message with One Sender and One Recipient.....	162
D.9.2 EPT Message with One Sender and Multiple Recipients .....	163

---

## List of Tables

Table 1-1: Requirements for Standard Compliance .....	8
Table 2-1: Byte Ordering.....	10
Table 3-1: Endpoint ID Allocation.....	17
Table 4-1: TCP Preamble (Informative) .....	20
Table 4-2: Root Layer PDU Format .....	21
Table 5-1: LLRP UDP Packet .....	26
Table 5-2: Probe Request PDU .....	28
Table 5-3: Probe Reply PDU .....	30
Table 5-4: RDM Command PDU Format .....	31
Table 5-5: Allowed Parameter Messages over LLRP .....	32
Table 6-1: Subtype Examples.....	40
Table 6-2: Search Domain Examples .....	40
Table 6-3: List of Broker PDU Vectors .....	49
Table 6-4: Broker PDU Format .....	50
Table 6-5: Client Connect Format.....	51
Table 6-6: Connect Reply Format.....	52
Table 6-7: Client Entry Update Format .....	53
Table 6-8: Client Redirect IPv4 Format.....	53
Table 6-9: Client Redirect IPv6 Format.....	54
Table 6-10: Request Dynamic UID Assignment Format .....	55
Table 6-11: Dynamic UID Assignment List Format .....	56
Table 6-12: Fetch Dynamic UID Assignment List Format .....	57
Table 6-13: Client Disconnect Format.....	58
Table 6-14: Client Entry PDU Format .....	59
Table 6-15: RPT Client Entry Format.....	61
Table 6-16: EPT Client Entry Format.....	61
Table 7-1: Required E1.20 Parameter IDs for the Default Responder .....	66
Table 7-2: Disallowed Parameter Messages .....	67
Table 7-3: Endpoint Modes.....	69
Table 7-4: RPT PDU Format.....	84
Table 7-5: Request PDU Format.....	87
Table 7-6: List of RPT Status PDU Vectors .....	89
Table 7-7: RPT Status PDU Format.....	90
Table 7-8: Unknown RPT UID Message .....	91
Table 7-9: RDM Timeout Message .....	91
Table 7-10: Invalid RDM Response Message.....	92
Table 7-11: Unknown RDM UID Message .....	92
Table 7-12: Unknown Endpoint Message .....	93
Table 7-13: Broadcast Complete Message.....	93

---

Table 7-14: Unknown Vector Message .....	93
Table 7-15: Notification PDU Format .....	95
Table 7-16: RDM Command PDU Format .....	99
Table 8-1: EPT PDU Format.....	111
Table 8-2: EPT Data PDU Format .....	112
Table 8-3: EPT Status PDU Format.....	114
Table 8-4: Unknown CID Format .....	116
Table 8-5: Unknown Vector Format .....	116
Table A-1: Broadcast UID Defines .....	128
Table A-2: LLRP Constants .....	129
Table A-3: Vector Defines for Root Layer PDU.....	129
Table A-4: Vector Defines for LLRP PDU .....	129
Table A-5: Vector Defines for LLRP Probe Request PDU .....	129
Table A-6: Vector Defines for LLRP Probe Reply PDU.....	130
Table A-7: Vector Defines for Broker PDU.....	130
Table A-8: Vector Defines for RPT PDU .....	130
Table A-9: Vector Defines for Request PDU .....	130
Table A-10: Vector Defines for RPT Status PDU .....	131
Table A-11: Vector Defines for Notification PDU.....	131
Table A-12: Vector Defines for RDM Command PDU.....	131
Table A-13: Vector Defines for EPT PDU .....	131
Table A-14: Vector Defines for EPT Status PDU .....	131
Table A-15: RDM Parameter ID Defines.....	132
Table A-16: Additional Response NACK Reason Codes .....	132
Table A-17: Static Config Type Definitions for COMPONENT_SCOPE Parameter Message .....	133
Table A-18: Broker State Definitions for BROKER_STATUS Parameter Message .....	133
Table A-19: Connection Status Codes for Broker Connect.....	133
Table A-20: Status Codes for Dynamic UID Mapping .....	134
Table A-21: Client Protocol Codes.....	134
Table A-22: RPT Client Type Codes.....	134
Table A-23: LLRP Component Type Codes.....	134
Table A-24: Client Disconnect Reason Codes.....	135
Table B-1: Guide for Implementing Specific Component Types .....	138
Table D-1: LLRP Discovery Sequence Example .....	143
Table D-2: Example UID Component Mapping.....	144
Table D-3: Example UID Component Mapping.....	145
Table D-4: Example Heartbeat Message .....	148
Table D-5: Notification Packet Example.....	152
Table D-6: Notification Packet Example.....	154
Table D-7: EPT Message Example.....	162
Table D-8: EPT Message Example.....	163

## List of Figures

Figure 2-1: Protocol Stack .....	10
Figure 3-1: UID Format for Use in E1.33 .....	16
Figure 3-2: Dynamic UID Request Format.....	17
Figure 4-1: ACN Packet.....	18
Figure 4-2: Root Layer PDUs in an ACN Packet .....	18
Figure 4-3: RLP Flags and Length.....	21
Figure 5-1: LLRP Discovery .....	24
Figure 5-2: LLRP GET_COMMAND .....	24
Figure 5-3: LLRP SET_COMMAND.....	24
Figure 5-4: Probe Request PDU Flags and Length.....	29
Figure 5-5: Probe Reply PDU Flags and Length.....	30
Figure 5-6: RDM Command PDU Flags and Length.....	31
Figure 6-1: Broker PDU Nesting .....	48
Figure 6-2: Broker PDU Flags and Length.....	50
Figure 6-3: Dynamic UID Request List.....	56
Figure 6-4: The Dynamic UID Request Pair structure.....	56
Figure 6-5: Dynamic UID Mapping List .....	57
Figure 6-6: The Dynamic UID Mapping structure.....	57
Figure 6-7: PDU Encapsulation for Client Entry PDU Blocks .....	59
Figure 6-8: Client Entry PDU Flags and Length .....	60
Figure 6-9: EPT Sub-Protocol List .....	62
Figure 6-10: The EPT Sub-Protocol Entry Structure .....	62
Figure 7-1: Device Example.....	63
Figure 7-2: Gateway Example .....	64
Figure 7-3: Gateway Example .....	77
Figure 7-4: RPT PDU Stack.....	83
Figure 7-5: RPT PDU Nesting.....	84
Figure 7-6: RPT PDU Flags and Length .....	85
Figure 7-7: Request PDU Nesting.....	87
Figure 7-8: Request PDU Flags and Length .....	87
Figure 7-9: RPT Status PDU Nesting.....	88
Figure 7-10: RPT Status PDU Flags and Length .....	90
Figure 7-11: Notification PDU Nesting .....	94
Figure 7-12: Notification PDU Flags and Length.....	95
Figure 7-13: RDM Command PDU GET_COMMAND or SET_COMMAND Nesting .....	96

---

Figure 7-14: RDM Command PDU GET_COMMAND_RESPONSE or SET_COMMAND_RESPONSE Nesting .....	96
Figure 7-15: RDM Command PDU GET_COMMAND_RESPONSE or SET_COMMAND_RESPONSE Nesting With Instigating Command .....	97
Figure 7-16: Multiple SET_COMMAND Packing and ACK_OVERFLOW Response Nesting .....	98
Figure 7-17: RDM Command PDU Flags and Length .....	99
Figure 7-18: The TCP Comms Entry Structure .....	106
Figure 8-1: EPT Protocol Vector Format .....	109
Figure 8-2: EPT PDU Nesting .....	111
Figure 8-3: EPT PDU Flags and Length .....	111
Figure 8-4: EPT PDU Flags and Length .....	113
Figure 8-5: EPT Status PDU Nesting .....	114
Figure 8-6: EPT Status PDU Flags and Length .....	115
Figure D-1: LLRP Discovery and Scope Configuration .....	144
Figure D-2: Example RDMnet System with RPT Components .....	145
Figure D-3: Controller, Broker, and Device Example (Discovery and Enumeration) .....	146
Figure D-4: 2-port Gateway .....	149
Figure D-5: Simplest Device .....	150
Figure D-6: Device with Multiple RPT Responders .....	151
Figure D-7: Notification Example .....	152
Figure D-8: Network Diagram for a Basic Single Controller Network .....	156
Figure D-9: Network Diagram for a Multi-Controller Network .....	157
Figure D-10: Network Diagram for a Distributed Broker .....	158
Figure D-11: Network Diagram for Multi-Controller with Monitor .....	159
Figure D-12: Network Diagram for a Multiply-Scoped System .....	160
Figure D-13: Network Diagram for a Network with EPT Clients .....	161

# 1 Introduction

## *Document Overview*

This standard defines a method for carrying E1.20 (RDM) messages over IP networks. It also defines a scalable architecture for RDM message transmission that allows multi-controller environments with tens of thousands of RDM Responders. Additionally, a minimal protocol is defined for carrying non-RDM data over the same architecture.

Section 1 provides an introduction and covers the scope of this standard.

Section 2 covers the applicability of existing standards.

Section 3 covers the various addressing identifiers used in this standard.

Section 4 describes the ACN packet structure and its use in this standard.

Section 5 defines the Low Level Recovery Protocol (LLRP), including functional requirements, network transport and packet format.

Section 6 defines the Broker Protocol, which provides a scalable network architecture for discovery and message transport.

Section 7 defines the RDM Packet Transport (RPT) protocol, including topology, functional requirements for Controllers and Devices, packet format, and additional RDM parameter messages for configuring Components.

Section 8 defines the Extensible Packet Transport (EPT) protocol, including functional requirements and packet format.

Section 9 defines the functional requirements for Broker implementations.

## **1.1 Components**

Each distinct entity transmitting or receiving protocol messages defined in this standard is called a *Component*. Each Component has a unique number associated with it termed a CID, or Component Identifier.

There is no limit to the number of Components which may run on the same host, nor are there relationships implied between Components running on the same host (e.g.: disabling one Component should not affect another).

A single Component may implement multiple protocols defined in this standard, subject to the requirements of each protocol, and may also implement additional ACN protocols that are outside the scope of this standard. Note that individual protocols may place further restrictions on the role of a Component. Throughout this document, Components that implement a specific protocol are referred to by putting the protocol name in front of the term Component (i.e. LLRP Component, RPT Component).