

Appendix I

REVISION HISTORY



Revision History

Part A / Radio Specification

Rev	Date	Comments
0.8	Jan 21st 1999	<ul style="list-style-type: none"> • System ambient temperature range • Power control step size • Transmit Spectrum mask • Frequency drift in a packet • New paragraph "Receiver susceptibility to frequency drift" • Adjacent interference levels • Measurement frequency for intermodulation test • Maximum useable level defined • New paragraph "Reference Interference-Signal Definition"
0.9	April 30th 1999	<ul style="list-style-type: none"> • Eye-diagram added • Out-of band blocking included • RSSI included
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> • Appendix A and B added, (extreme conditions definition and test conditions) • Tolerances of the Eye-diagram added
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> • Revised from a linguistic point of view. • Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part B / Baseband Specification

Rev	Date	Comments
0.7	Oct 19th 1998	<ul style="list-style-type: none"> • Minor changes in chapter 1-9. • "Link Monitoring" chapter removed (chapter 12 in v0.6). • Most parts of chapter 10 - 14 re-written.
0.8	Jan 21st 1999	<ul style="list-style-type: none"> • Some editorial changes in chapter 1-13. • Chapter 14 revised and partly re-written.
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> • Please see revision bars in document.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> • Revised from a linguistic point of view. • Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part C / Link Manager Protocol

Rev	Date	Comments
0.7	Oct 19th 1998	<ul style="list-style-type: none"> • EEE address ⇒ BD_ADDR (or BD address) • M_ADDR ⇒ AM_ADDR • response nbr ⇒ PM_ADDR • Added section 3.1.4 • Added section 3.4 "Change the current link key" • Changed section 3.5 "Encryption". Added negotiation for encryption mode and encryption key size. • 3.14 "Sniff mode". Removed author's note in italic. It is now decided how to determine the first sniff slot. • 3.15 "Park mode". This section is totally changed. • 3.18 "Quality of Service". Added a parameter N_{BC} in one of the LMP messages. • 3.19 "SCO links". Removed author's note in italic. It is now decided how to determine the first SCO slot. • Added section 4 "Connection establishment" • 5.1 "Description of parameters" The length, type and unit of many parameters changed. Especially, all time-parameters are now measured in slots. • Added section 6 "Test modes"
0.8	Jan 21st 1999	<ul style="list-style-type: none"> • general: Changed "PDU nbr" to OpCode throughout the document. Two errors found in 0.80 were corrected. Table 5.1: It says that the length of LMP_SCO_link_req is 7. This should be 8. Table 5.2: It says that the length of hold_time is 1. This should be 2. • 2. Added transactionID in bit0 of the byte in the payload where we have the OpCode. • 3.1 Removed LMP_accepted/not_accepted after receiving LMP_sres (3.1). • 3.1.2 Removed the last sentence "It the claimant is Ö initiate pairing, see 3.2.1" • 3.2 Major change since the initiator of the pairing procedure does not have to be the master. • 3.2.3 Minor clarification. • 3.3 Clarified that if the unit key is changed, the units must go through the initialisation procedure in order to change the link key. • 3.5.3 Modified the calculation of Kc according to changes in chapter 14 of the Baseband Specification. • 3.10 Switch can now be done anytime during the connection and it can be initiated by both master and slave. • 3.15 Clarified that the broadcast scan window is only valid for the current beacon. • 3.19.5 Added description that the PDU includes a reason parameter with information about why the SCO link is removed. • 3.21 This section was removed. Instead error handling is described in a separate chapter (CH. 7) • 4. Added LMP_host_connection_req and removed the LMP_accepted or LMP_not_accepted that the slave sends after the paging procedure. • 5.1 Added reason "invalid parameters" • 6. Added sequences. The slave can return LMP_not_accepted if not allowed to enter test or if not in test mode. Changed OpCodes for the two test mode PDU

0.9	April 30th 1999	<ul style="list-style-type: none"> Name request procedure: Coding of the characters was changed from ASCII to UTF-8. The length of the name parameter was increased from 16 bytes to 248 bytes. The detach reason and the reason parameter were merged into one parameter (reason). The coding of this parameter was changed and is now the same as in HCI. Sniff procedure: Sniff interval and sniff offset parameters were changed from one byte to two bytes. Two parameters, sniff offset and sniff timeout, were also added. The PDU LMP_slot_offset was added. The PDU LMP_page_mode_req was added. The PDU LMP_page_scan_mode_req was added. Caption text was added to all figures, tables and sequences where such text was missing. A maximum reply time was defined for response messages in LMP procedures. The pairing procedure was modified to allow a claimant with fixed PIN to request to become verifier. Changed some parameters in LMP_test_control to match the latest revision of "Bluetooth test modes". The PDU LMP_supervision_timeout was added. The parameter user data rate was removed from the PDU LMP_SCO_link request. The length of the parameters Compld and SubVersNr included in the PDU LMP_version_req/res was increased to two bytes. Some editorial changes and clarifications were made here and there.
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Added figure 3 explaining sequence diagram conventions (Section 3). Modified procedure to negotiate encryption key size to match changes in the Baseband specification (Section 3.6.2). Added further description about the parameters in the version request (Section 3.10). Clarified name request procedure and changed parameter name from "name" to "name fragment" (Section 3.13). Added description that test mode can also be ended by sending LMP_test_control (Section 6.1). Some editorial comments. Decoupled RSSI and power control in the features parameter. Changed parameter "TBD" to "for future use". Rewrote Section 3.20.
1.0a	July 26th 1999	<ul style="list-style-type: none"> Correction of Table 5.3: Byte 1/Bit 1 "and power control" deleted Byte 2/Bit 2 "power control" added
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

**Part D
Logical Link Control and Adaptation Protocol Specification**

Rev	Date	Comments
0.8	Jan 21st 1999	<ul style="list-style-type: none"> Changes include the addition of an operational overview section, increasing CID lengths to 16 bits and removing the source CID from normal data flow. Moved all connection, termination, and configuration commands to a separate "CID". Changed the name of the "Connection ID" to the "Channel ID". Added the state machine Re-defined the timers to more clearly indicate their responsibilities. New Flags field in Configuration Request packet defined. Several minor editorial corrections.
0.9	April 30th 1999	<ul style="list-style-type: none">
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Replaced all references to "termination" with "disconnection". KTX timer removed - link loss results in channel loss. OSI naming terms applied to state machine. State machine table revised to remove superfluous states. Added some message sequence charts for clarification. Service interface defined in more detail and no longer specified as a guideline - this interface still needs work to complete. Service interface revised corrections to state machine added, and security key management removed from service interface. Editorial cleanup of various sections with the majority of the edits being in the state machine and service interface. Added L2CA_Response service primitives. Clean up of state machined, closed outstanding issues dealing with MTU, Implements major editorial changes to the configuration process (section 6.3), replacing SCID and DCID with RCID and LCID, removal of flush signalling PDU, and editorial comments from reviewers.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part E / Service Discovery Protocol (SDP)

Rev	Date	Comments
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Removed the Icon10 attribute and the Icon data element type. Re-assigned the IconURL attribute ID to be 0x000C. Updated Example 3. Removed "notes to reviewers". Removed the list of TBD items, since it is empty. A few corrections to example 3. Modified the BluetoothProfileList attribute to become the BluetoothProfileDescriptorList attribute, which contains a version number for each profile as well as the profile's UUID Added a description of the protocol version number included in the BluetoothProfileDescriptorList attribute. No change to the 'phonebook' and 'calendar' data store indicators as the values in example 3 already match those of the synchronization profile. Replaced the browse hierarchy diagram in 2.8.1 because the previous version triggered a bug in MS-Word.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part F:1 / RFCOMM with TS 0710

Rev	Date	Comments
0.8	Jan 21st 1999	<ul style="list-style-type: none"> Table 2.1 corrected. Revised section 2.3. Revised chapter 3. Revised section 5.2, 5.3. Clarifications added to Figure 5.1. Changed title and contents of section 5.4 (old section 5.4 not needed any more). Text removed from section 5.5 and 5.6. Added text on Service Discovery in section 7.3.
0.9	April 30th 1999	<ul style="list-style-type: none"> Lots of editorial changes and clarifications. Added statement on baud rate settings vs. RFCOMM throughput in chapter 2. Removed section 7.2 on flow control (information duplicated in TS 07.10). Added DLC parameter negotiation command support (section 4.3, 5.7) Added clarifications on session closure handling in section 5.2. Major update regarding SDP; section 7.2. Added section 7.3 on lower layer dependencies.
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Editorial changes and clarifications in chapters 5 and 7. Removed sections implying possibility to have more than one RFCOMM entity in a device.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part F:2 / IrDA Interoperability

Rev	Date	Comments
0.9	April 30th 1999	<ul style="list-style-type: none"> Many linguistic changes made, Bluetooth OBEX related specifications chapter added, Separate Application profile chapters gathered into one chapter, OBEX operation requirements moved into the profile specifications, Refers to COMM-ports removed. Service Records moved into the profile specifications, and added clarification for the use of connection-oriented OBEX
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Changed reference to new version of IrOBEX specification, corrected wrong TCP port number, reference list updated Updated Chapter 3.2
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

Part F:3 / Telephony Control Specification (TCS)

Rev	Date	Comments
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Version for 1.0 Release, only editorial changes since 0.9
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars. Figure A and Figure B in Appendix are replaced.

**Part F:4
Interoperability Requirements for Bluetooth as a WAP Bearer**

Rev	Date	Comments
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

Part H:1 Bluetooth Host Controller Interface Functional Specification

Rev	Date	Comments
0.8	Jan 21st 1999	<ul style="list-style-type: none"> Many editorial corrections
0.9	April 30th 1999	<ul style="list-style-type: none">
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Flow control for data changed. Format of HCI Data Packet header changed. Command Pending Event replaced by Command Status Event and functionality regarding which event should be returned when a command involving LMP actions can not start to execute due to an error changed. Some commands and events have been renamed. Changed parameters, descriptions and functionality for many commands and events. Many new commands have been added. HCI_Store_Clock_Offset command has been removed. This information is now provided at connection set up or name request as a parameter together with other new baseband related parameters. Some new events have been added. Descriptions of error codes added.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part H:2 / HCI USB Transport Layer

Rev	Date	Comments
0.8	Jan 21st 1999	<ul style="list-style-type: none"> Added info about 64 byte isochronous endpoints. Added a section detailing one of the mail messages - that discussed how SCO traffic would travel across the interface
0.9	April 30th 1999	<ul style="list-style-type: none"> Updated revision # & HCI Header sizes
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Updated endpoint information, interface information relating to isoch, and Device Firmware Upgrade Requirements Tidied up table describing interface/endpoint/alternate setting information
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part H:3 / HCI RS232 Transport Layer

Rev	Date	Comments
0.9	April 30th 1999	<ul style="list-style-type: none"> Assumption about error free link has been removed. A simple error recovery, negotiation scheme and a resynchronisation/error indication scheme using RTS/CTS were added as proposed by IBM. New document outline. Added synchronisation using delimiters with COBS. Added a support for CCITT-CRC. Available Baud Rate Changed. Only 8 bit data length is valid. HCI Event packet type is added. Available error type has been modified. Editorial changes.
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Assumption about error free link has been removed. A simple error recovery, negotiation scheme and a resynchronisation/error indication scheme using RTS/CTS were added . New document outline. Added synchronisation using delimiters with COBS. Added a support for CCITT-CRC Available Baud Rate Changed. Only 8 bit data length is valid. HCI Event packet type is added. Available error type has been modified. Editorial changes.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

**Part H:4
HCI UART Transport Layer**

Rev	Date	Comments
0.9	April 30th 1999	<ul style="list-style-type: none"> was not a part of 0.8 First revision. Based on HCI RS232 Transport Layer 0.80. Added Default Settings, HW flow control and Error Recovery. Improved description of RTS/CTS Changed HCI packet indicator for HCI event packet
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> No changes since 0.9
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

Part I:1 / Test Mode

Rev	Date	Comments
0.9	April 30th 1999	<ul style="list-style-type: none"> • Transmitter Test: added pseudorandom bit sequence • Corresponding changes for LMP messages • Editorial Changes: Explanatory paragraph and figure added to the test packet format of the transmitter test • Proposal of a loopback alternative that has less demanding time constraints. • Reduced Hopping Sequence added • Modification/Clearification of TX packet format • Editorial changes • Statement in introduction that test mode may be used also for regulatory approval. • Description of delayed loopback added • proposed timing for reduced hopping scheme from Ericsson • timing for reduced hopping scheme refined • Loopback: transmission of NULL packet on failed HEC is not mandatory. • Added AUX1 packet explicitly to Figure 3 • Included AUX1 to Table 3 • Mentioned delayed loopback in first paragraph of Section 2.2 • Features request command is allowed, while in test mode. • Added codes for LMP packets according to LMP V0.9 review document • Changed maximum packet length in Table 3 • FH timing: clarify that clock of tester is used • editorial changes • Clearifications about Whitening for both TX and Loopback mode • Clearification that RX and TX in the control command refer to the DUT. • Clearification in Table 3: For ACL packets a maximum length is given, for HV3 the exact length is given. • Editorial Changes
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> • Description over use of whitening in transmitter test mode. • Added an exit command in the test mode control. • Editorial changes to whitening in transmitter test.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> • Revised from a linguistic point of view. • Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Part I:2 Bluetooth Compliance Requirements

Rev	Date	Comments
1.0A	July 26th 1999	<ul style="list-style-type: none"> • The text in Section 6.6.1 "Definition of Bluetooth components" first paragraph has been revised.
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> • Revised from a linguistic point of view.

Part I:3 Test Control Interface

Rev	Date	Comments
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

Appendix IV / Sample Data

Rev	Date	Comments
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

Appendix V / Bluetooth Audio

Rev	Date	Comments
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

Appendix VI / Baseband Timers

Rev	Date	Comments
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Appendix VII /Optional Paging Scheme

Rev	Date	Comments
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view.

Appendix VIII / Bluetooth Assigned Numbers

Rev	Date	Comments
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> Renamed some of the service class mnemonics. Added a bit to indicate if a node is in Limited Discoverable Mode (useful in a reply to GIAC). Updated after review. Added the IAC LAP codes. Minor editorial and clarifications, including section "Universally Unique Identifier (UUID) short forms".
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> Revised from a linguistic point of view. Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars.

Appendix IX / Message Sequence Charts

Rev	Date	Comments
1.0 draft	July 5th 1999	<ul style="list-style-type: none"> • Command and Parameter updated; Chapter 7 added; Local- and Remote Hold-Mode removed; Chapter 8 clarified; No HCI-Num-Completed-Packets-Event in ACL- and SCO-Connection creation; LMP-feature-req/-res added in ACL-Connection-Setup; LMP-feature-req/-res removed in SCO-Connection-Setup • MSC "Onetime-Inquiry" and "Periodic-Inquiry" clarified with additional ID-Packet; • MSC "Local Loopback-Mode" exited with HCI_Write_Loopback_Mode instead with HCI_Reset; • MSC "Remote Loopback-Mode" exited with HCI_Write_Loopback_Mode instead with HCI_Reset; • MSC "Switch Role" updated with LMP_clkoffset_req/-res and LMP_slot_offset; • Editorial changes; • MSC "Switch Role": subscenario 2 added; Modified as Toru's proposal; • MSC "ACL-Connection Request": slot-offset and clock-offset exchange subscenario3; • Figure 4: no loopback to Page/Page-Res in case of Role-Switch; • LMP_features_req/-res: added in MSC "Pairing" and MSC "Authentication", removed in MSC "Encryption and Setup Complete"; • MSC "Local Loopback Mode": two additional SCO-Connections added;
1.0B	Dec 1st 1999	<ul style="list-style-type: none"> • Revised from a linguistic point of view. • Errata items previously published on the web has been included. These corrections and clarifications are marked with correction bars. The following figures are modified: 3.2, 3.3, 4.3 and 4.9