QNX® LICENSE GUIDE
Version 2.17

(see Publication History for version details)

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1. **Introduction**

This License Guide describes the contents and corresponding licensing attributes of version 6.5.0 Service Pack 1 of the QNX Momentics Tool Suite, the QNX Neutrino® RTOS Runtime Components, and the QNX Middleware Products (the entire collection of QNX products is referred to as the QNX Product Portfolio). It is also designed to present, in a convenient manner, the third party licensing considerations that apply to the QNX Product Portfolio.

The QNX Momentics Tool Suite and the QNX Neutrino® RTOS Runtime Components (collectively, the "QNX Software Development Platform" or "SDP") and the optional QNX Middleware Products are licensed to you by QNX Software Systems Limited ("QSS") under a QNX developer license, copies of which were provided with the QNX Product Portfolio and which have also been published at the respective URL below (collectively the "QNX Developer Licenses" or the "QDLs"), which include, without limitation the following: (1) the QNX Commercial Software License Agreement ("CSLA"), for commercial developers – see http://licensing.qnx.com/csla/; (2) the QNX Partner & Consultant Software License Agreement ("PSLA"), for members of the QNX eco-system – see http://licensing.qnx.com/psla/; (3) the QNX Evaluation, Non-Commercial & Academic End User License Agreement ("NCEULA"), for non-commercial developers, including evaluators, hobbyists, students and academic faculty members – see http://licensing.qnx.com/nceula/ and (4) the Acoustics Commercial Software License Agreement ("ACSLA") for the QNX Aviage Acoustic Processing Kit, QNX Aviage Acoustic Processing Core and QNX Acoustics SDK for Active Noise Control products where the Runtime Components are hosted on non-QNX operating systems or directly on Digital Signal Processors – see http://licensing.qnx.com/document-archive/). If version 6.5.0 Service Pack 1 is no longer the most current release of the QNX Product Portfolio then you will find your QDL posted at: http://licensing.qnx.com/document-archive/.

This License Guide is broken down into separate tables for each QNX Product Portfolio product type, with each table containing a series of columns used to link the applicable attributes to the relevant components. Section 3 describes tools, section 4 describes re-distributable Runtime Components (as defined in the QDLs) and section 5 describes optional middleware (which is a combination of tools and Runtime Components). Most of the Runtime Components come bundled in binary form with the QNX Software Development Platform. Except for the optional QNX Middleware Products, the Runtime Components are broken out into their own section to highlight which components are redistributable and how they are grouped for royalty purposes. Note that general export information is provided at the end of this License Guide, along with contact particulars for more specific export questions.

The QNX Product Portfolio includes everything you need to build and maintain a QNX Neutrino RTOS-based embedded system.

Major components included within the QNX Software Development Platform are:

- QNX Momentics Tool Suite: This is your toolbox. The included Integrated Development Environment (IDE) task-oriented interface helps you quickly set up your project, choose your programming language, choose a target processor, compile your code, connect to your target, transfer your application to your target, run it, debug it, profile it and fine-tune it. If you prefer an old school approach, you can use command-line tools to do your development.

- QNX Neutrino RTOS Runtime Components: You will select a number of these components to ship in your target system. They include the kernel, system libraries, adaptive partitioning, multi-core support, utilities, TCP/IP networking (v4 and v6), network security, file systems, instrumentation, high availability framework, instant device activation and supporting BSPs and device drivers.

After installing your QNX Software Development Platform, you will be entitled to download additional Board Support Packages (BSPs) from Foundry27 and from the myQNX download center.

BSPs help you get the QNX Neutrino RTOS and your applications running on specific evaluation boards, allowing you to target your platform of choice for building your target system. They are provided in binary form and, except where restricted by our third party licensors, also in source code form. Developers usually modify these components to make them work with or optimize their performance on their custom hardware platforms.

Other specialized components are separately available, depending on the form of your QNX Development License.

- QNX Middleware Products: These are kits that augment the base QNX Neutrino Base Runtime Components with specialized, value-added technologies. They are packaged separately and licensed on a "Project" basis for the QNX-based systems you build. QNX Aviage products are not considered part of the QNX Software Development Platform but are optional "add-on" components.

Like all other operating system technology providers in the embedded marketplace, QSS includes a number of third party software contributions in its products. Examples include our Eclipse-based Integrated Development Environment, our GNU-based compiler, linker & debugger tools, our NetBSD-based TCP/IP stack, various standard development and runtime utilities, and a host of drivers that incorporate third party code supplied by the vendors of the hardware for which they were written. Third party license terms are a fact of life in any embedded development project. Before adopting QNX tools or Runtime Components, your developers can review this License Guide and the Third Party License Terms List ("TPLTL", available at http://licensing.qnx.com/third-party-terms/, a copy of which has also been included in the QNX Software Development Platform installation media) to determine the applicable open source license terms or special considerations that apply to the QNX products they plan to use. The TPLTL contains the full text of the open source licenses.

Except for published source code files that are expressly identified by QSS as open source software, the Software IS NOT OPEN SOURCE. To the extent permitted by applicable open source license(s), any License Guide/Third Party Terms List or other references identifying applicable open source license terms for the Software apply only to the original open source code used by or for QSS or its licensors and not to any pre-existing code modified using or combined with such open source code, or any new interests in derivative works created from such open source code. These other Software elements are licensed to you under the terms and conditions of your QNX Developer License.

To identify the open source license terms for a particular configuration of Runtime Components that you intend to use in your target system, you start by gathering the legal identification codes (Legal ID Codes) and/or QNX technology categories from the End-User Licenses column of this License Guide. From there, you can look-up the specific open source license terms for the relevant Legal ID Codes (e.g. "BSD-4C:70" or "UL:61") in the main body of the TPLTL. For QNX technology categories (e.g. "Neutrino Core OS") you go to the Third Party License Binary Mapping file that has been attached as Appendix A to the TPLTL. This lists all of the Legal ID Codes that apply to the referenced QNX technology categories, which can then be cross-referenced to the specific open source license terms in the main body of the TPLTL. Note that in addition to Legal ID Codes for runtime modules, you will also need to take into account Legal ID Codes for any static link libraries used by your developers to create their own executable files. As noted on page 7 below, these are ELF files ending in an ".a" extension. They are found in the QNX Momentics Tool Suite section, as they are only redistributed

as part of the larger work that they are used to create. They have also been included in the Third Party License Binary Mapping file for ease of reference.

You can use Appendix A of the TPLTL to identify open source license terms that apply to one or more particular binary files (e.g., to identify the Legal ID Codes that apply to the subset of Runtime Module files that you intend to ship). This file is a tool QSS is working on to map Legal ID Codes to binary files that have been built using the applicable source code files and libraries. Currently, the Third Party License Binary Mapping file only addresses section 4 of the License Guide (the QNX Neutrino RTOS Runtime Components) and certain components (including static link libraries) of section 3 (the QNX Momentics Tools Suite). Please contact licensing@qnx.com for any updates to the Third Party License Binary Mapping file, or if it would be helpful for you to have the file in a different format (e.g., Excel format).

If a Legal ID Code is referred to generically in the License Guide as one of the families of open source licenses listed in the TPLTL (for example, "BSD-3C" or "UL" without any specific notice numbers), then refer to the Third Party License Binary Mapping file for the specific references, or contact licensing@qnx.com for further assistance. Please note that the naming of Legal ID Codes has been revised in this version of the License Guide in order to simplify the presentation of TPLTL content. Contact licensing@qnx.com if you would like a mapping of the old Legal ID Codes to those used in this License Guide.

If your developers have downloaded other code from Foundry27 or the myQNX download center, then you must also check for additional restrictions or licensing considerations identified there or in the source code they obtained.

Notwithstanding any fees paid by you for a QNX Software Development Platform license under the CSLA, no license fees are payable for any components identified in this License Guide as licensed under the GPL or LGPL, and source code for all of this GPL/LGPL software is available for free download at ftp://ftp.qnx.com/usr/free. If you have any difficulty locating or accessing this source code, email licensing@qnx.com and we will send you a copy for a nominal charge (i.e., the cost of physically performing the source distribution). QSS is not allowed to sub-license the GNU software to you. Instead, you are deemed to have your own direct license from the original licensee, as follows. Any terms of the CSLA that differ from the terms of these licenses are offered to you by QSS alone.

   (1)   The GNU development tools and certain other utilities noted in this License Guide are licensed to you under the GNU General Public License – Version 2, or Version 3, copies of which have been reproduced in the Third Party License Terms List.

   (2)   Certain libraries (e.g., GNU C++) noted in this License Guide are licensed to you under the terms of the GNU Lesser General Public License – Version 2.0 and Version 2.1, copies of which have been reproduced in the Third Party License Terms List. To meet its obligations under the GNU LGPL, QSS only dynamically links to such libraries.

You are not authorized to: (a) statically link any part of the QNX Product Portfolio software licensed under any QDL to any code licensed under the LGPL, or (b) statically or dynamically link any part of the of the QNX Product Portfolio software licensed under any QDL to any code licensed under the GPL, or (c) otherwise use any GPL or LGPL licensed code with other parts of the QNX Product Portfolio software in a manner that would require redistribution of such software under any version of either of those licenses.

A license to distribute Runtime Components that you want to embed in your product is now available from QSS as part of the QNX Commercial Software License Agreement (See Schedule C) or in a custom OEM License Agreement. For more information see http://licensing.qnx.com/oem-distribution/).

Changes from QNX Software Development Platform 6.4.1

With the release of the QNX Software Development Platform version 6.5.0, runtime components have been significantly simplified. Runtime components for all the core OS functionalities now fall into the QNX Neutrino RTOS Runtime Components. The primary component is the QNX Neutrino Core. Two additional variants provide access to Photon and to support for Asian languages. As noted above, all of these Runtime Components are distributed bundled with QNX Momentics Tool Suite but are licensed separately for distribution as Runtime Components, as described in Section 4. The table below shows the mapping between runtime components defined in 6.5.0 and previous releases.

Runtime Components in 6.4.1	Mapping to Runtime Components in 6.5.0
Core Operating System	Included in QNX Neutrino Core
Mass Storage Filesystem	Included in QNX Neutrino Core
Multicore	Included in QNX Neutrino Core
Adaptive Partitioning	Included in QNX Neutrino Core
Extended Networking	Included in QNX Neutrino Core
Instant Device Activation	Included in QNX Neutrino Core
Core Graphics	Included in QNX Neutrino Core with Photon
Photon	Included in QNX Neutrino Core with Photon
Asian Language	Included in QNX Neutrino Core with Photon and Asian Language
Browser	Included in QNX Neutrino Core

2. Interpretation of Column References

The information provided in any row of a product description applies to all of its constituent components, unless otherwise expressly stated.

Column	Content Description
Version	Indicates the version number of the referenced product.
Part Number(s)	Indicates the QSS part number of the referenced product.
Code	Indicates the form of software code provided. References to "Source" indicate that "source code is included", rather than "comprehensive source code for every elements of the product is included". "Object" means binaries in object or executable form.
Type	(i) "**Type I Software**" means any Commercially Released Software other than Type II or Type III Software (see your QDL for the definition of "Commercially Released Software") It typically includes QSS proprietary code and may include some third party proprietary and open source code elements. (ii) "**Type II Software**" means any Commercially Released Software which may be licensed by QSS under alternative, or sublicensed by QSS under amended, license terms. It may include third party proprietary and open source code elements. (iii) "**Type III Software**" **or "As Is Code"** means any Commercially Released software which is licensed, or sublicensed by QSS strictly on an "as is" basis, and may be licensed by QSS under alternative, or sublicensed by QSS under amended, license terms. It may include third party proprietary and open source code elements.
Support	Indicates the level of support provided for the referenced products. "Enhanced" means services provided under a QNX Priority Support Plan, QNX Custom Services Plan or other similar QSS premium support arrangement. "Full" means Standard support and Enhanced support. "Limited" means there are limits imposed on QSS's support – "Limited (Source)" means the limits relate to support of source code, "Limited (3rd Party)" means the limits relate to QSS reliance on third parties for support and "Limited (Integration)" means QSS will support issues relating to integration of a third party component with QNX but does not provide support for the integrated component itself. "Unsupported" means QSS does not provide support for the referenced component(s).
End-User Licenses	Indicates the end user license terms or where to find such terms, including any flow-through terms referenced in the consolidated Third Party License Terms List ("TPLTL") which is published at http://licensing.qnx.com/third-party-terms/.

* Copies of the QSS QDLs and the TPLTL may also be obtained directly from QNX Software Systems Limited.

3. <u>QNX Momentics Tool Suite</u>

The QNX Momentics Tool Suite is comprised of development tools and software development kits that are not redistributable, except as expressly provided under the corresponding QNX Neutrino Base Runtime Component descriptions in Section 4. In particular, libraries are provided in several different forms. Each type has different redistribution rules, as follows:

- Static archives: portions of these libraries are incorporated directly into executables during linking. Like header files, they may only be redistributed as part of the larger work that they are used to create. These are ELF files ending in an ".a" extension.
- Dynamic (shared) libraries: these libraries are loaded independently at runtime as needed by executables, in a process that automatically occurs when the application is run. These libraries are redistributable, subject to proper licensing of the corresponding module(s) described in the QNX Neutrino Base Runtime Component tables. These are ELF files ending in a ".so" extension. Shared libraries are usually found in a directory named "lib".
- Dynamic link libraries (a.k.a. plug-ins): these libraries are loaded on demand under control of the application itself. These libraries are also redistributable under the same terms as dynamic libraries. These are ELF files ending in an ".so" or "dll" extension. Dynamic link libraries are usually found in a directory named "dll".

3.1 Base QNX Momentics Tool Suite

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
6.5.0	910454 (perpetual license) 910457 (subscription license) 910461 (floating perpetual license) 910474 (floating subscription license) 910510 (SP1 Update Media)	Complete set of development tools, associated configuration files (e.g., header files for APIs), static libraries and documentation for creating applications for the QNX Neutrino RTOS.	Object	Type I, except as noted	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		A. GNU Tools				GPL, LGPL - see individual files for

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						copyright notice(s) and specific GPL version that applies.
		A1. GNU Compiler Collection (GCC): Complete set of development tools, associated configuration files and static libraries for compiling applications for QNX Neutrino RTOS.				BSD-4C:70
		A2. GNU binutils: Assembler (gas), Linker (ld) – Tools for manipulation of binary (executable, object) files in development environments.				
		B. GNU Debugger: GNU debugger (GDB) with remote debugging capability				GPL – see individual files for copyright notice(s) and specific GPL version that applies.
		B1. Utilities: Tools used with GDB				
		C. Systems libraries and headers				
		C1. QNX system library for OS API				See Neutrino Core OS section in Appendix A.
		C2. Device driver interface: headers and libraries for use with device drivers				LGPL - lib/asound only BSD-3C:176 – lib/asound only
		C3. Legacy libraries: libraries from previous versions of the QNX Neutrino RTOS and Photon GUI Technology				
		C4. QNX/Dinkum C library				See Neutrino Core OS section in Appendix A.
		C5. Dinkum C++ library and template support				See Neutrino Core OS section in Appendix A.
		C6. Embedded C++ library and template				See Neutrino Core

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		support (Dinkum abridged library)				OS section in Appendix A.
		C7. Networking library				See Networking Technology section in Appendix A.
		C8. Compression libraries		Type II		See Neutrino Core OS section in Appendix A.
		C9. XML library				See Neutrino Core OS section in Appendix A.
		C10. Encryption libraries				See Networking Technology section in Appendix A.

Contact QSS at licensing@qnx.com for details on specific encryption-enabling utilities. |
		C11. Image handling libraries: libraries for reading image formats.		Type III	Limited (3rd party)	See Core Graphics section in Appendix A.
		C12. GNU C++ legacy library: GNU libstdc ++ library from previous versions of the QNX Neutrino RTOS, for compatibility		Type III	Unsupported	See Neutrino Core OS section in Appendix A.
		D. Utilities: Command line development tools for object files and executable file manipulation, and utilities tools primarily provided for development purposes.				
		D1. SDK utilities: Tools used for creating applications and boot images				

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		D2. QNX development utilities: developer productivity tools				BSD-3C:177 BSD-4C: 14 UL: 61, 62 ZLIB:3 BSD-3C BSD-4C BSD-EY GPL ISC LGPL MD MIT UL ZLIB For specific TPLTL references, contact licensing@qnx.com.
		D3. QNX development utilities: self-hosted environment utilities (includes Mozilla Web browser)				BSD-3C:178 BSD-4C:14, 26, 71, 72, 73; BSD-V:26, 29, 46 UL: 63 MPL - For specific TPLTL references, contact licensing@qnx.com.
		D4. TCPI/IP Development utilities (rpcgen – only for QNX (self) hosted development)				
		D5. Runtime utilities (See the QNX Neutrino Base Runtime Component tables)				
		D6. GNU Development Utilities: version control and other development services				GPL, LGPL For specific TPLTL references, contact licensing@qnx.com.
		D7. GNU Development Utilities: used in development for data transfer				GPL For specific TPLTL references, contact licensing@qnx.com.
		D8. GNU Development Utilities: optional/convenience development tools				GPL UL For specific TPLTL

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						references, contact licensing@qnx.com.
		E. Cross-Hosted Development: Provides complete support for QNX Neutrino RTOS development under either Windows NT (including Windows Vista, XP, Windows 2000) or Linux (various distributions) operating systems.				
		E1. Windows host environment: Operating environment for development tools				
		F. Processor Support: Provides complete support for developing QNX Neutrino RTOS applications targeting a variety of processor architectures (32 bit MMU).				
		G. Embedding Tools: Provides complete support for creating boot images for embedded devices, based on single-board computers or custom board designs. Adds features for reduced memory footprint on the target device.				
		G1. Target system development utilities				BSD-3C:179
		G2. Utilities (mkifs, mkefs, mkimage, mkrec, dumpifs)				MD UL ZLIB For specific TPLTL references, contact licensing@qnx.com.
		H. GUI Connectivity: Photon MicroGUI connectivity tools for the development environment (also known as Phindows software)				ISC-V:14
		I. Sample code			Unsupported	

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
1.1.0		J. Flash File Systems: Resilient file system support for flash media, including support for decompression and compression tools. Resilient to failure, support for NAND or NOR, allows use of POSIX file system modules with flash media (devb-nand). Flash file system support is not required for embedded images (IFS).	Object and source	Type I	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		J1. Flash file system — Read/write file systems for different flash parts.				See Embedding/Flash section in Appendix A.
		J2. FFSv3 — NOR flash file system with added resilience features.				See Embedding/Flash section in Appendix A.
		J3. ETFS— Resilient transactional file system for flash media.				See Embedding/Flash section in Appendix A.
		J4. Inflator tool — on-the-fly decompressor.				UL For specific TPLTL references, contact licensing@qnx.com.
		J5. Deflator tool — off-line compression utility.				
1.0.1		K. High Availability Technology: Source code to the QNX critical process monitor (HAM) and guardian, for tailoring to specific OEM use. Supersedes HA Customization Kit. Pre-compiled runtime binaries are included with a Development Seat for the QNX Software Development Platform.	Source	Type I	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		K1. Development components and				

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		documentation required to write a critical process monitor for managing service/application availability				
		K2. Headers and libraries				See High Availability section in Appendix A.
		K3. Documentation				
		K4. Regression tests				
		K5. Source code to HA manager CPM, and associated components				
		L. Neutrino Core Graphics 3D Graphics OpenGL ES Source Kit		Type II	Limited (Source)	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. ISC: 16
		L1. Source code OpenGL ES to libraries				
		M. Adaptive Partitioning Technology: development component	Object	Type 1	Full	QSS QDL
		N. Multi-Core Technology: development component	Object	Type 1	Full	QSS QDL
		O. Instant Device Activation Technology: Enable instant device activation and device control before QNX kernel has booted. This technology includes additional source code to startup routines as well as sample code illustrating use. CPU targets in 1.0.0 version include PPC, ARM and SH4.	See below.	Type I, unless otherwise noted below.	Limited (Source)	QSS QDL
		O1. Source Code				
		O1.1 Source development components	Source			

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		required to implement Instant Device Activation (aka 'Minidriver') on all supported target CPUs. This includes header files and startup source code.				
		O1.2 Documentation				
		O1.3 Source code samples specific to BSPs. With version 1.0.0, BSP samples include: Renesas Biscayne, Freescale MPC5200, TI OMAP 5912 and TI DaVinci. Note that this source code is provided as working examples and is not mandatory.	Source	Type III	Limited. Some techniques for interacting with hardware are specific to CPU and BSP and may include source code from CPU vendor. See individual license headers on source files for details.	
		O1.4 Sample source code not specific to BSPs <u>illustrating the techniques of data management and device interaction for all processors</u>	Source			
		P. Web Browser Engine: This is a web browser engine based on the WebKit project (see http://webkit.org/). The QNX version has been developed on Foundy27.	Object	Type III	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		P1. WebKit Browser Engine Core – consists of JavaScriptCore, WebCore (layout /				OWB code is open source software

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		parsing), and various tools and test facilities. The code ported to QNX was sourced from the Sand-Labs Origyn Web Browser project ("OWB", revision no. 845) which was based on code sourced from webkit.org (revision no. 40778). See http://www.sand-labs.org/owb for more information. Note also that all Webkit Browser Engine Core source code is published on the Foundry27 website (Web Browser Project) for myQNX registrants. P2. QNX Gf porting layer – consists of class methods that were implemented to provide a platform-specific layer for WebCore. P3. QNX WebKit "WebView" API – is a software layer used by a browser or other HTML based application to call into the WebKit Browser Core and get notifications and callbacks in the other direction P4. Build Infrastructure Code and Scripts – consists of cmake-based build infrastructure, including configuration scripts **N.B. QSS does not offer any third party patent licenses or related intellectual property infringement indemnification for the Web Browser Engine**.				licensed under LGPL and BSD licenses. Complete OWB (& WebKit) license and copyright information is available within the referenced in the original code published at http://www.sand-labs.org/owb.html. Complete open source license and copyright information for the QNX Web Browser Engine is referenced in the source code published on the Foundry27 website (Web Browser Project) at http://community.qnx.com/sf/sfmain/do/viewProject/projects.web_browsers. **No third party patent licenses provided.**
		Q. BSPs — Source code, binaries and documentation to board support packages for QSS-specified reference designs. The content of each BSP will vary according to the vertical market focus. The BSPs generally include:				
		Q1. Board bring-up libraries (IPL, Startup, flash) and headers				See Core Libraries section in Appendix

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						A.
		Q2. Embedding Source				
		Q3. Source code to board bring-up libraries				
		Q4. Source code to driver libraries				
		Q5. Validation environments — Source code and pre-compiled debug versions of board support packages for QNX reference platforms.				
		BSP-specific information is provided in the QNX Board Support Package tables below.				

3.2 QNX Momentics Integrated Development Environment (IDE - included in the QNX Momentics Tool Suite)

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
6.0.0	See 3.1	QNX Momentics Integrated Development Environment (IDE) provides a cross-platform, integrated development environment as an added value to the QNX Momentics Base Development Kit. The IDE provides complete development life cycle tools for QNX Momentics RTOS applications, as well as the ability to "plug in" third party tools in an integrated manner.	Object	Type I, except as noted	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. Licensed on a Licensed Seat or Floating Licensed Seat basis.
		A. Eclipse Platform: Platform for creation of integrated development environments				See note in Description column re 3rd party contributions in Eclipse See also NOTE: 11
		B. Eclipse CDT: Platform for creation of C/C++ integrated development environments				See note in Description column re 3rd party contributions in Eclipse See also NOTE: 11
		Information about 3rd party contributions (and their license terms) for the Eclipse IDE may be referenced from the IDE as follows: "Help -> About QNX Momentics IDE -> Plug-In Details", select each plug-in then "More Info".				
		C. QNX Momentics IDE Components				

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		C1. QNX project management: Provides Eclipse project integration to QNX projects				
		C2. QNX debugger integration: Provides Eclipse/CDT debugger integration with QNX gdb debugger (remote via tcp/ip and serial)				
		C3. System builder: Provides an editor for building QNX Neutrino RTOS boot images and filesystems				
		C4. Remote target management: Provides qconn connectivity to the IDE tools				
		C5. Remote target system information tool: Provides System/Process/Thread information from a running target				
		C6. Application profiler: For both real-time and post-mortem analysis				
		C7. Code coverage tool: For both real-time and post-mortem analysis				
		C8. System Profiler: Visualization tool for viewing instrumented kernel log files				
		C9. Memory analysis tool: Visualization tool for viewing allocation/de-allocation patterns from a running process, including leak detection and memory overflow/underflow detection				BSD-V:85
		C9.1. Derby Database engine				APACHE
		C9.2 HSQL Database engine				BSD-3C:180
		D. Target Agent: target resource request broker				BSD-4C:74
		E. Java Virtual Machine				
		E1. Sun JVM (except QNX Neutrino RTOS host)				NOTE:12

3.3 Photon MicroGUI Development Kit (included in the QNX Momentics Tool Suite)

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
6.5.0	See 3.1	Development tools, configuration files, static libraries and documentation for creating MicroGUI (Photon) graphical applications.	Object	Type I	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. Licensed on a Licensed Seat or Floating Seat basis.
		A. Photon Application Builder (PhAB): Visual design and code generation tool for graphical applications.				
		A1. Layout of user interface from palette of components (widgets)				
		A2. Resource editors for controlling the properties of any user interface element (widget, icons, bitmaps, etc.)				
		A3. Automated code generation				
		B. Utilities				BSD-4C:69, 75
		C. Photon MicroGUI libraries				
		C1. Graphics				ISC-V:14
		C2. Widget				
		C3. Application Builder intrinsics				
		C4. Plug-in libraries (images)				

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		D. Photon MicroGUI Application Builder for Windows host operating system — (not available for Solaris or Linux hosts)				
		E. Photon Samples			Limited (3rd party)	
		E1. Demos				
		E2. Games				
		F. Neutrino Core Graphics technology (see Section 4.2D)				

3.4 Neutrino Core Graphics Development Kit (included in the QNX Momentics Tool Suite)

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
6.5.0	See 3.1	2D graphics libraries, open standards-based 3D libraries and use of accelerated 3D graphics drivers. Includes OpenGL® ES API Common Profile version 1.0 libraries and OpenGL® ES API Common Lite Profile version 1.0 libraries for ARM processors, certified by Khronos Group (www.khronos.org). Supported targets include x86, SH4, PPC and ARM. Note that update rights do not provide automatic entitlement to new technologies that may be developed such as OpenVG or Java bindings. **Note: OpenGL is a trademark of Silicon Graphics, Inc. Contact QSS for details on how to/whether you can present this trademark with your product.**	See below.	Type II	Limited (Source)	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		A. Development Components	Object and some Source			
		A1. GF library. Static only				
		A2. Open GL ES Common Profile library. Dynamic only				See Core Graphics section in Appendix A.
		A3. Open GL ES Common Lite Profile library, Dynamic only, ARM only				See Core Graphics section in Appendix A.
		A4. Image support library. Static only				See Core Graphics and Photon GUI sections in Appendix A.
		A5. header files for gf, GLES_CM, GLES_CL and img libraries				
		A6. header files for Font Fusion libraries 2D and 3D sample code including but not limited to gears, tunnels, etc.				

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		B. 3D Graphics OpenGL ES Source Kit	Source	Type II	Limited (Source)	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. Licensed on a Single Project, Platform and Field of Use basis. ISC:16
		C. Composition Manager Composition Manager is a tool that provides user the capability to perform standard-based graphical layering to QNX Core Graphics. It is based on OpenKODE and allows a user to mix different UI technologies via a layered graphics engine. It enables the separation of application, time/mission critical and downloadable content on the same hardware.				
		C1. io-win mgr				See Core Graphics section in Appendix A.
		C2. EGL API header and shared object				See Core Graphics section in Appendix A.
		C3. OpenKODE windowing, event and input header and library				See Core Graphics section in Appendix A.
		C4. WFD library				See Core Graphics section in Appendix A.

4. QNX Neutrino RTOS Runtime Components

The following tables identify QNX Neutrino RTOS Runtime Component technologies that are bundled for development purposes as part of the QNX Software Development Platform.

Contact an authorized QNX sales representative for runtime distribution license information.

4.1 QNX Neutrino Core Runtime Component

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
6.5.0	70208	Standalone OS functionality, allowing either embedded ROM (e.g. Flash) deployment or network booting. Suitable for either sealed device or connected device configurations. Includes the kernel, core facilities (libraries, services), frameworks, networking, multicore support, instant device activation and adaptive partitioning. In the case of hardware-specific components, third party code is provided to you only for use in association with hardware from that manufacturer.	Object	Type I, except as noted	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. Runtime Royalty Bearing
		A. Kernel: Provides fundamental IPC, scheduling and process management services.				
		A1. microkernel				See Neutrino Core OS section in Appendix A.
		A2. process manager				See Neutrino Core OS section in Appendix A.
		B. System libraries				See Neutrino Core OS section in Appendix A.
		B1. QNX system library for OS API				See Neutrino Core

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						OS section in Appendix A.
		B2. QNX/Dinkum C library				See Neutrino Core OS section in Appendix A.
		B3. Dinkum C++ library and template support				See Neutrino Core OS section in Appendix A.
		B4. Embedded C++ library and template support (Dinkum abridged library)				See Neutrino Core OS section in Appendix A.
		B5. Networking library				See Networking Technology section in Appendix A.
		B6. Compression libraries		Type II		See Neutrino Core OS section in Appendix A.
		B7. XML library				See Neutrino Core OS section in Appendix A.
		B8. Encryption libraries				See Networking Technology section in Appendix A.
		B9. Image handling libraries: libraries for reading image formats		Type III	Limited (3rd party)	See Core Graphics section in Appendix A.
		B10. GNU C++ legacy library: GNU libstdc++ library from previous versions of the QNX Neutrino RTOS, for compatibility		Type III	Unsupported	See Neutrino Core OS section in Appendix A.
		C. Frameworks: Frameworks for extending the services of the OS. Individual frameworks providing customizable support for specific categories of services.				
		C1. Core services				See Neutrino Core OS section in Appendix A.
		C2. Facilities & resource manager framework				See Neutrino Core OS section in

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						Appendix A.
		C3. File systems (fsys)				See Mass Storage File System section in Appendix A.
		C4. Networking (io-net)				See Networking Technology section in Appendix A.
		C5. Power management (client/driver interfaces)				See Neutrino Core OS section in Appendix A.
		C6. Device Driver interfaces				LGPL – lib/asound only BSD1: 98 – lib/asound only See Neutrino Core OS section in Appendix A. **N.B. Redistribution of devb-* drivers requires payment of Filesystems royalties or purchase of the applicable Flash File System TDK license**
		C7. Input and graphics				See Core Graphics section in Appendix A.
		C8. Graphics tools				See Photon GUI section in Appendix A.
		C9. USB				See Neutrino Core OS section in Appendix A.
		C10. Printing				See Neutrino Core OS section in

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						Appendix A.
		C11. Audio (io-audio)				See Neutrino Core OS section in Appendix A.
		C12. Multimedia (Basic)				See Neutrino Core OS section in Appendix A.
		C13. Add-on Interface library				See Core Libraries section in Appendix A.
		C14. mixer				See Neutrino Core OS section in Appendix A.
		C15. restore				See Neutrino Core OS section in Appendix A.
		C16. file / stream readers				See Neutrino Core OS section in Appendix A.
		C17. output renderers (e.g. Photon window)				See Photon GUI section in Appendix A.
		D. Hardware Support				
		D2. Core peripherals, and any drivers associated with base OS frameworks.				See Neutrino Core OS section in Appendix A.
		D4. Driver binaries: See BSP and DDK chart for details				See Neutrino Core OS section in Appendix A.
		D5. Graphics				See Core Graphics section in Appendix A.
		D6. Audio				See Neutrino Core OS section in Appendix A.
		D7. Network				See Networking Technology section in Appendix A.
		D8. HID (mice, keyboards, USB)				See Neutrino Core

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						OS section in Appendix A.
		D9. Printers				See Neutrino Core OS section in Appendix A.
		E. Utilities: POSIX command line environment, all POSIX utilities, including shells, file and text manipulation and other utilities.				
		E1. Base utilities: POSIX and QNX Neutrino RTOS utilities.				See Neutrino Core OS section in Appendix A.
		E2. POSIX utilities		Type I		See Neutrino Core OS section in Appendix A.
		E3. Other QNX and third-party utilities		Type I (except bzip – Type II)		See Neutrino Core OS section in Appendix A. BSD-V: 83, 84 GPL2: 334, 355, 336, 337, 338, 339 GPL3: 42, 43, 44, 45 UL: 61, 62, 64,
		F. TCP / IP Networking				See Networking Technology section in Appendix A.
		F1. PPP client (PPP, PPPoE) & server				See Networking Technology section in Appendix A.
		F2. DHCP client				See Networking Technology section in Appendix A.
		F3. Utilities and Services (RPC, telnet, ftpd, telnetd, rshd, inetd, etc.)				See Networking Technology section in Appendix A.
		F4. Remote file systems access (NFS v.2, CIFS, etc.)				See Networking Technology section

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						in Appendix A.
		Note: includes encryption software				**Contact QSS for details on specific encryption-enabled utilities.**
		F5. Networking Drivers – excludes wireless Wi-Fi drivers which are unique to the Advanced Runtime Bundle or the Extended Networking Runtime (See section 4.1L)				See Networking Technology section in Appendix A.
		F6. SSH suite Secure Shell is a network protocol that allows data to be exchanged using a secure channel between two networked devices.				See Networking Technology section in Appendix A.
		G. Transparent distributed processing: Transparent distributed processing over IP networks				
		G1. npm-qnet: Qnet protocol module				See Networking Technology section in Appendix A.
		H. Instrumentation: Core ("SAT" runtime components) components for the capture, target manipulation, or distribution of instrumentation data (trace information). **Note: "Instrumented kernel" means any kernel with instrumentation feature enabled.**				
		H1. Trace utilities				See Instrumented Kernel section in Appendix A.
		H2. Trace libraries				See Instrumented Kernel section in Appendix A.
6.5.0		I. Flash File System: Covers all uses of resilient flash file systems (ffsv3, etfs) and technologies related to their use (inflator, deflator), as well as RAM file systems ("RAM	Object	Type I, except as noted below	Full	QSS QDL, except as noted below for Legal ID codes listed and/or

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		disk").				referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. No additional runtime royalty, part of Core OS Runtime
		I.1. Embedded file systems				See Embedding/Flash section in Appendix A.
		I.2. NAND: Block driver for use of NAND technology flash parts with supported formats.				See Embedding/Flash section in Appendix A.
		I.3. devf-* (FFSv3): Purpose-specific file systems for NOR technology flash parts.				See Embedding/Flash section in Appendix A.
		I.4. RAM: Standalone RAM ("RAM-disk") file system.				See Embedding/Flash section in Appendix A.
		I.5. inflator: on-the-fly decompressor				See Embedding/Flash section in Appendix A.
		I.6. inflator: on-the-fly decompressor				See Embedding/Flash section in Appendix A.
		I.7. POSIX : POSIX file semantics				See Neutrino Core OS section in Appendix A.
1.0.1		J. High Availability Technology:	Source	Type I	Full	QSS QDL, except as noted below for

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		J.1. HA manager				See High Availability section in Appendix A.
		J.2. Guardian				See High Availability section in Appendix A.
		J.3. Client connection library (recovery)				See High Availability section in Appendix A.
		K. Mass Storage File System File systems for mass storage devices, particularly either rotating media (platter, CD, etc.) or USB mass storage class.	Object	Type I	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. Runtime Royalty Bearing
		K.1 Block-based file systems:				
		K.1.1 io-block:				See Mass Storage File System section in Appendix A.
		K.1.2 CD ROM/ DVD (Support for ISO9660 file systems, supporting Rock Ridge extensions and Julliet)				See Mass Storage File System section in Appendix A.

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		K.1.3 DASD / disk				See Mass Storage File System section in Appendix A.
		K.1.4 USB mass storage				See Mass Storage File System section in Appendix A.
		K.1.5 disk-on-chip driver				See Mass Storage File System section in Appendix A. **N.B. This driver may only be used to support M-Systems DiskOnChip flash disks.**
		K.1.6 Power Safe file system (fs-qnx6)				See Mass Storage File System section in Appendix A.
		K.2 Formats				
		K.2.1 POSIX / QNX4 * (Full POSIX file semantics) * — Exception for limited use: NAND, RAM in conjunction with Flash file systems and Embedding license				See Neutrino Core OS section in Appendix A.
		K.2.2 Linux (Support for EXT2 file system partitions)				See Mass Storage File System section in Appendix A.
		K.2.3. DOS (Support for FAT12, FAT16 and FAT32 file systems)				See Mass Storage File System section in Appendix A.
		K.2.4 QNX 6 Power safe file system (fs-qnx6)				See Mass Storage File System section in Appendix A.

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		K.2.5 NTFS				See Mass Storage File System section in Appendix A.
		K.2.6 HFS+				See Mass Storage File System section in Appendix A.
		N.B. QSS does not offer any Microsoft FAT patent licenses or related intellectual property infringement indemnification.				**No 3rd party patent licenses provided.**
		K.3 Virtual file systems: Package (Virtual file system, supporting unioning of directories)			Unsupported	
		L. Extended networking technology: Ipv6, wireless Wi-Fi and private networking (IPSec, IKE2) technologies. Includes all protocol stacks, utilities and services for the corresponding domains and wireless drivers.	Object and source, except as noted below.	Type I, except as noted below.	Full, except as noted below.	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		L.1. Ipv6 Networking: Protocol stacks (including source code which is an extension to Platform Source).				
		L1.1 Stack				See Extended Networking section in Appendix A.
		L1.2 Utilities & Services				See Extended Networking section in Appendix A.
		L.2. Secure Private Networking (IPSec) — Protocol stacks (including source code which is an extension to Platform Source).				
		L2.1. Key management utilities				See Extended Networking section

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						in Appendix A.
		L2.2. Racoon (IKE daemon) N.B. Must be ordered separately.				See Extended Networking section in Appendix A.
		L2.3 Security utilities				See Extended Networking section in Appendix A.
		Note: includes encryption software				Contact QSS for details on specific encryption-enabled utilities.
		L.3. Wireless Networking – WiFi	Object	Type III	See below	
		L.3.1 Utilities and Libraries – note the that the TPLTL references listed here are in addition to the TPLTL references in Networking library – Section 4.1(F)			Full	See Networking Technology section in Appendix A.
		M. Adaptive Partitioning Technology: Includes all libraries and utilities for the adaptive partitioning scheduler for all processors.	Object	Type I	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		M.1. Utilities				See Adaptive Partitioning section in Appendix A.
		M.2. Library for Adaptive Partitioning Scheduler				See Adaptive Partitioning section in Appendix A.
		M.3 Header files for adaptive partitioning programming interface				See Adaptive Partitioning section in Appendix A.
		N. Multi-Core Technology: Transparent thread scheduling across processors for all multi-core (SMP) processors	Object	Type I	Full	QSS QDL, except as noted below for Legal ID codes

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		(i.e. MIPS, PowerPC and x86).				listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		N.1. Multi-core Enabled kernels: Alternate kernel implementations for building embedded system images.				See Multi-Core Technology section in Appendix A.
		N.2. Instrumented variants: Multi-core kernels with instrumentation enabled.				See Multi-Core Technology section in Appendix A.
		O. Instant Device Activation Technology runtime module	See below	Type I, unless otherwise noted below.	Limited (Source)	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		O.1. Source Code				
		O1.1 Source development components required to implement Instant Device Activation (aka 'Minidriver') on all supported target CPUs. This includes header files and startup source code.	Source			See Neutrino Core OS section in Appendix A.
		O.1.2 Documentation				
		P. Web Browser Engine P.1. WebKit Browser Engine Core – consists of JavaScriptCore, WebCore (layout / parsing), and various tools and test facilities. The code ported to QNX was sourced from the Sand-Labs Origyn Web Browser project ("OWB", revision no. 845) which was based on code	Object	Type III	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		sourced from webkit.org (revision no. 40778). See http://www.sand-labs.org/owb for more information. Note also that all Webkit Browser Engine Core source code is published on the Foundry27 website (Web Browser Project) for myQNX registrants. P.2. QNX Gf porting layer – consists of class methods that were implemented to provide a platform-specific layer for WebCore. P.3. QNX WebKit "WebView" API – is a software layer used by a browser or other HTML based application to call into the WebKit Browser Core and get notifications and callbacks in the other direction **N.B. QSS does not offer any third party patent licenses or related intellectual property infringement indemnification for the Web Browser Engine**.				specific mapping of Appendix A of the TPLTL. OWB code is open source software licensed under LGPL and BSD licenses. Complete OWB (& WebKit) license and copyright information is available within the referenced in the original code published at http://www.sand-labs.org/owb.html. Complete open source license and copyright information for the QNX Web Browser Engine is referenced in the source code published on the Foundry27 website (Web Browser Project) at http://community.qnx.com/sf/sfmain/do/viewProject/projects.web_browsers. **No third party patent licenses provided.**

4.2 Photon MicroGUI Technology

In the QNX Software Development Platform release 6.5.0, the Photon microGUI Technology is dependent upon the Neutrino Core Graphics Technology. Therefore in this release of the SDP the Photon MicroGUI Technology Runtime Component includes the formerly separate Neutrino Core Graphics Technology.

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
6.5.0	70209	QNX Neutrino Core Runtime Component with RTOS with Photon support	Object	Type I	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. Runtime Royalty Bearing.
		A. QNX Neutrino Core Runtime Components (see 4.1)				
		B. All Photon services, libraries and applications, except for graphics drivers themselves, which are covered by the "Platform Core" license.				
		B.1. Basic graphics facilities and services				See Core Graphics section in Appendix A.
		B.2. Libraries				See Core Graphics section in Appendix A.
		B.3. Font services				See Core Graphics section in Appendix A.
		B.4. Photon server				See Photon GUI section in Appendix A.
		B.5. Window manager				See Photon GUI section in

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						Appendix A.
		B.6.　Task-bar				See Photon GUI section in Appendix A.
		C.　Applications and Services				
		C.1.　Full-scale embedded graphics for a standalone device				See Photon GUI section in Appendix A.
		C.2.　Applications				See Photon GUI section in Appendix A.
		C.3.　Utilities (configuration, etc.)				See Photon GUI section in Appendix A.
		C.4.　All productivity applications (dialer, etc.)				See Photon GUI section in Appendix A.
		D. Neutrino Core Graphics technology 2D graphics libraries, open standards-based 3D libraries and use of accelerated 3D graphics drivers. Includes OpenGL® ES API Common Profile version 1.0 libraries and OpenGL® ES API Common Lite Profile version 1.0 libraries for ARM processors, certified by Khronos Group (www.khronos.org). Supported targets include x86, SH4, PPC and ARM. Note that update rights do not provide automatic entitlement to new technologies that may be developed such as OpenVG or Java bindings. **Note: OpenGL is a trademark of Silicon Graphics, Inc. Contact QSS for details on how to/whether you can present this trademark with your product.**	See below.	Type II, except as noted below	Limited (Source), except as noted below	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL.
		D.1.　Runtime Components	Object			
		D.1.1.　Open GL ES Common Profile library. Dynamic only				See Core Graphics section in

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						Appendix A.
		D.1.2. Open GL ES Common Lite Profile library, Dynamic only, ARM only				See Core Graphics section in Appendix A.
		D.1.3. Image support dynamic libraries: bmp, gif, jpg, png, tga				See Core Graphics section in Appendix A.
		D.1.4. Io-display monitor process				See Core Graphics section in Appendix A.
		D.1.5. Accelerated graphic drivers				See Core Graphics section in Appendix A.
		A5.1 Intel® System Controller Hub US15W (formerly Poulsbo) Graphics Driver **Note: The graphics driver for the Intel System Controller HUB US15W chipset (devg-poulsbo.so) is restricted for use only with Intel® System Controller Hub US15W hardware.**		Type III	Full	
		D.1.6. Pre-compiled sample applications built from sample source code				See Core Graphics section in Appendix A.
		D.2. Composition Manager Composition Manager is a tool that provides user the capability to perform standard-based graphical layering to QNX Core Graphics. It is based on OpenKODE and allows a user to mix different UI technologies via a layered graphics engine. It enables the separation of application, time/mission critical and downloadable content on the same hardware.				
		D.2.1. io-win mgr				See Core Graphics section in Appendix A.
		D.2.2. EGL API header and shared object				See Core Graphics section in Appendix A.
		D.2.3. OpenKODE windowing, event and				See Core Graphics

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		input header and library				section in Appendix A.
		D.2.4. WFD library				See Core Graphics section in Appendix A.

4.3 Asian Language Technology

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
6.5.0	70210	QNX Neutrino Core Runtime Component with Photon support and Asian language technology				
		A. QNX Neutrino RTOS (see 4.1)				See 4.1
		B. QNX Photon Micro GUI (see 4.2)				See 4.2
		C. Asian language technology: Support for non-European languages, including Unicode font sets, input methods for character composition (for languages with large character sets).	Object	See below.	Full	QSS QDL, except as noted below for Legal ID codes listed and/or referenced in indicated sections of the binary-file-specific mapping of Appendix A of the TPLTL. Runtime Royalty Bearing
		C.1. Fonts		Type II		
		C.1.1. Japanese Stroke Fonts				See Core Graphics section in Appendix A.
		C.1.2. Chinese Stroke Fonts (Traditional)				See Core Graphics section in Appendix A.
		C.1.3. Chinese Stroke Fonts (Simplified)				See Core Graphics section in Appendix A.
		C.1.4. Chinese Stroke Font (Hong Kong Extension)				See Core Graphics section in Appendix A.
		C.1.5. Korean Stroke Fonts				See Core Graphics section in Appendix A.
		C.1.6. Asian Stroke Font Bundle				See Core Graphics section in

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						Appendix A.
		C.1.7. Japanese Truetype Font Bundle				See Core Graphics section in Appendix A.
		C.2. Input Methods		Type II		
		C.2.1. Chinese				See Chinese Input Method section in Appendix A.
		C.2.2. Japanese				See Japanese Input Method section in Appendix A.
		C.2.3. Korean				See Korean Input Method section in Appendix A.
		N.B. QSS does not offer any third party patent licenses or related patent infringement indemnification for Input Methods.				**No third party patent licenses provided**

5. QNX Middleware Products

QNX Aviage is a portfolio of middleware products that help customers develop applications quickly. The Aviage product line provides a set of software building blocks that work in conjunction with the QNX Neutrino RTOS and the QNX Momentics Development Suite.

In addition to the QDL, these products may be subject to supplemental QSS licensing terms, as indicated in the relevant product tables. Your signature may be required as evidence of acceptance of these supplemental licensing terms.

5.1 QNX Aviage HMI Suite 2.0

The QNX Aviage HMI Suite 2.0 provides a system integrator with the ability to render Flash content and interact with Flash content using input devices. The HMI Player is built from a licensed source base from Adobe Systems Incorporated and in certain circumstances may therefore require certification using the Adobe Acceptance Test Suite to ensure conformance to Flash standards. Support includes audio output, FLV playback using licensed codecs, socket support and optimized font rendering.

Flash Lite component libraries (see B below) contain Adobe® Flash® Lite™ technology by Adobe Systems Incorporated. The Adobe Flash Player (e.g. Adobe Flash Lite) software is under license from Adobe Systems Incorporated, Copyright © 1995-2009 Adobe Macromedia Software LLC. All rights reserved. Adobe and Flash are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Version Number	Part Number(s)	Description and Additional Licensing Terms	Code Provided	Type of Software	Support Provided	End-User Licenses
2.0	910416 (development) 910417 (partner) 010337 (runtime)	Provides playback of Adobe Flash Lite 3 and compatible content including audio and FLV movies. Consists of a QNX Aviage HMI Player (which includes Flash Player launcher and Flash Lite component libraries) and Aviage HMI Suite component libraries and services. The QNX Aviage HMI Suite includes binaries targeting x86, ARM, SHLE and PPCBE CPUs.	Object	Type II	Full	QSS QDL, subject to the additional licensing restrictions noted in the Description column and in any TPLTL references below. Runtime Royalty Bearing. Licensed on a Project basis for commercial development.
		A. Flash Player launcher (executable and				MIT-V: 11, 24

Version Number	Part Number(s)	Description and Additional Licensing Terms	Code Provided	Type of Software	Support Provided	End-User Licenses
		library that loads and runs the Flash Player library)				
		B. Flash Lite component libraries				
		B1. Flash Player rendering library (shared object that executes .swf content) There are multiple versions of this library provided that support different output pixel formats. Each version bears a separate royalty.				BSD-3C: 181 MD: 1 ZLIB: 4, 10
		B2. On2 codec (shared object that decodes On2 FLV video streams)				
		B3. Sorenson video decoder (shared object that decodes Sorenson FLV video streams)				
		B4. Sound Decoder (shared object that decodes MP3/ADPCM sound)				
		C. Aviage HMI Suite component libraries and services				BSD-3C: 182 CCPL: 1 MIT: 33
		C1. Aviage HMI Library				
		C2. Aviage HMI Remote				
		C3. ActionScript extension (ase) libraries				
		License Restrictions. Notwithstanding anything to the contrary in the QDL, the following terms apply to the Flash Lite component libraries (the "Flash Software"):				
		1. The Flash Software contains 4 sets of binaries targeting 4 different CPUs. You may use only one (1) binary set on one (1) Target System per License Key or Floating License Key.				
		2. You may not use the Flash Software for real time or live broadcasts.				
		3. You may not distribute the Flash Software to any third party, and not restricting the generality of the foregoing, you may not share				

Version Number	Part Number(s)	Description and Additional Licensing Terms	Code Provided	Type of Software	Support Provided	End-User Licenses
		or distribute the Flash Software as contemplated in section 4 of the QDL.				
		4. You may not modify or create derivative works of the Flash Software.				
		5. Certain verification and certification requirements that are typically imposed on products that incorporate or are used in conjunction with Adobe's technology may be waived and will result in your assumption of liability if you choose to distribute the QNX Aviage HMI Suite 2.0. The Flash Software is only licensed for use to execute .swf files for the dedicated purpose of providing a user interface or display for a device for which the device manufacturer controls the content to be played by the device and for no other purpose. If you wish to license the Flash Software for any other purpose you must contact QSS for details and written authorization, which may subject you to additional terms.				

5.2 QNX Aviage Multimedia Suite

This section of the License Guide is broken down into three parts. The Introduction & Software Packaging Overview (s.5.2.1) seeks to illustrate how the various components of the Multimedia Suite get used together. The Engagement Models and Licensing Considerations Matrix (s. 5.2.2) presents information to help you navigate the various third party licensing considerations that will impact your multimedia product's commercial development, distribution, or both. Lastly, the Component Details (s. 5.2.3) provides the core License Guide information that you will now be familiar with from having reviewed other parts of this document for information on other QNX technologies.

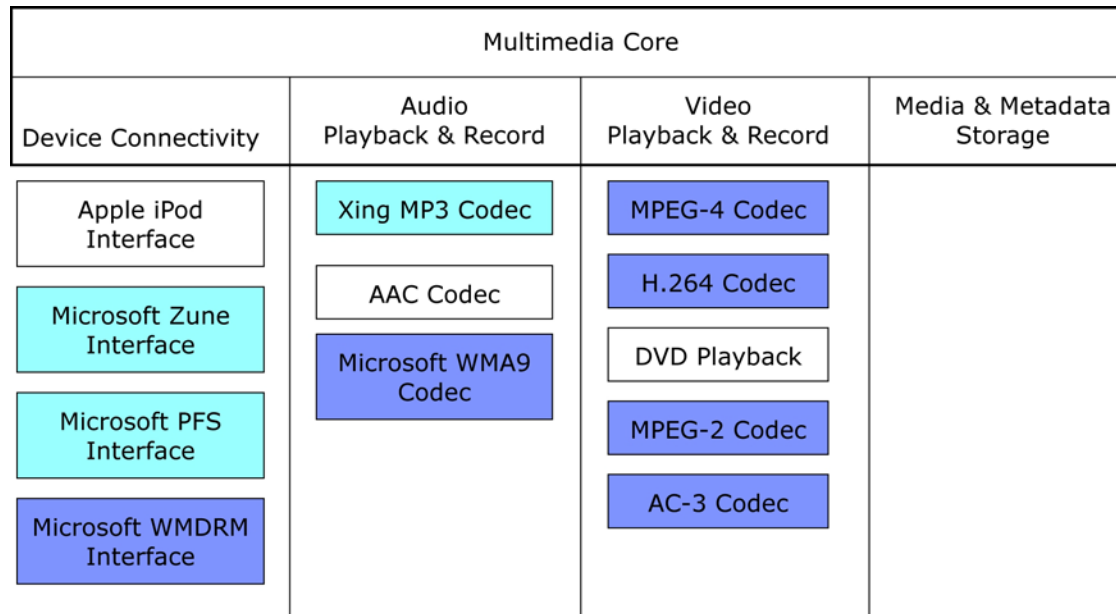### 5.2.1 QNX Aviage Multimedia Suite – Introduction & Software Packaging Overview

The QNX Aviage Multimedia Suite is made up of a number of components that can be assembled into a final digital multimedia product.

Customers can select a set of components based on:
- the specific product features they want to implement; and
- the hardware platform they have selected.

Since QSS implements these components using a variety of QSS proprietary, open source and third party technologies, the software licensing and delivery arrangements can vary by component. This section provides License Guide details for these components, as well as a separate Licensing Considerations Matrix below.

The following Figure provides a simplified overview of the relationship of a sample subset of the current QNX Aviage Multimedia Suite software packages.

Multimedia Core			
Device Connectivity	**Audio Playback & Record**	**Video Playback & Record**	**Media & Metadata Storage**
Apple iPod Interface	Xing MP3 Codec	MPEG-4 Codec	
Microsoft Zune Interface	AAC Codec	H.264 Codec	
Microsoft PFS Interface	Microsoft WMA9 Codec	DVD Playback	
Microsoft WMDRM Interface		MPEG-2 Codec	
		AC-3 Codec	

Engagement Model

☐ 1. QSS Licensed Code

☐ 2. QSS Sublicensed Code

☐ 3. 3rd-Party Licensed Code

The QNX Aviage Multimedia Suite components are separately packaged into one of the following product categories:

Multimedia Core – This component provides the overall control and sequencing of the various multimedia components, as well as identification, data access and storage of digital media and associated metadata. The Multimedia Core provides a base set of software features that can be extended by a number of optional components in the following categories:

Device Connectivity – components in this category provide interfaces to external intelligent devices, such as media players.

Playback and Record – components in these categories provide the software needed to encode or decode various digital media formats. Codec licensing is complex. **Careful attention should be paid to the licensing considerations presented below**.

Media and Metadata Storage – components in this category provide additional software and data to help identify and organize digital media content.

5.2.2. QNX Aviage Multimedia Suite – Engagement Models & Licensing Considerations Matrix

The QNX Aviage Multimedia Suite integrates a variety of QSS proprietary, open source and third party technologies in order to deliver a broad range of multimedia capabilities to embedded developers. In order to develop and ship devices that offer such functionality it is necessary to understand the various technology and content stakeholders and how to obtain the requisite intellectual property license rights. This can be a complicated picture. It will depend on a number of factors, including the hardware platform to be used, the device's desired capabilities, its intended use(s), and the markets in which the device is to be manufactured, distributed and sold.

The information in this License Guide is not intended to be a comprehensive guide to multimedia licensing. It provides an explanation of the license rights being offered by QSS, as well as other third party licensing considerations that QSS is aware of that may impact the development of QNX Aviage Multimedia Suite-based embedded devices. None of this information should be construed as legal advice. Customers must consult their own legal advisors to determine and satisfy their own licensing obligations. Please note that no attempt has been made to identify any of the multimedia content licensing considerations that may need to be taken into account.

To simplify the explanation, QSS has broken the licensing of QNX Aviage Multimedia Suite components down into the following 3 types of engagement models:

1. **QSS Licensed Code** – Most of the QNX Aviage Multimedia Suite is QSS authored code. QSS licenses all of its intellectual property rights to this type of software to QNX Aviage Multimedia Suite customers as part of the standard QSS development and distribution license agreements described at the beginning of this License Guide. QSS Licensed Code is primarily written by QSS; however, it may include elements of open source software (as noted below), may embody confidential third party specifications or minor code contributions, and may embody or enable patented functionality. As a result, depending on the QNX Aviage Multimedia Suite components chosen, there may be other licensing considerations to be taken into account (e.g., to obtain requisite patent license rights – as in the case of the QSS authored AAC Codec; or, to obtain the right to use confidential specifications embodied in the QSS code – as in the case of the QSS authored Apple iPod Interface). The third party licensing considerations known to QSS are further described in the Licensing Considerations Matrix below.

2. **QSS Sublicensed Code** – Some components of the QNX Aviage Multimedia Suite contain primarily 3rd party code licensed by QSS, which may have been modified or supplemented by QSS to make it suitable for use in the QNX Aviage Multimedia Suite. To the extent permitted by its 3rd party license, QSS sub-licenses its intellectual property license rights to this type of software to QNX Aviage Multimedia Suite customers as part of the standard QSS license agreements described above. Any deviations from QSS standard license terms are identified in the tables below and/or in a special supplement to QSS' distribution license agreement terms. As with QSS Licensed Code, any QSS rights in QSS Sublicensed Code are also licensed by QSS under the standard QSS license agreements. There may also be additional licensing considerations to be taken into account. Those known to QSS are described in the Licensing Considerations Matrix below.

3. **3rd Party Licensed Code** – These are other components of the QNX Aviage Multimedia Suite that contain primarily 3rd party code licensed by QSS, which also may have been modified or supplemented by QSS to make them suitable for use in the QNX Aviage Multimedia Suite. Any QSS IP rights, or sub-licensable rights, in 3rd Party Licensed Code are licensed/sublicensed by QSS under the standard QSS license agreements. However, unlike QSS Sublicensed Code, 3rd Party Licensed Code must be licensed, in whole or in part, directly from another technology supplier. For example, while QSS delivers a QNX version of the Microsoft WMA9 Media Player software codec, customers must first license the original WMA9 code directly from Microsoft. In another example, while QSS sublicenses modified Texas Instruments (TI) code to interface to certain Digital Signal Processor (DSP)-based media processors (i.e., typically used for audio and video encode/decode capabilities), the software to be embedded on the DSP hardware itself must be licensed from TI.

QSS may have limited rights to provide 3rd Party Licensed Code to customers for evaluation and prototype development. However, in most cases QSS may not deliver its ported 3rd party code for commercial development or distribution until it has confirmed the intended licensee has their own direct license in place.

The following Licensing Considerations Matrix summarizes the QNX software licensing dependencies, license engagement model, primary technology stakeholder, and licensing fulfillment considerations for each QNX Aviage Multimedia Suite component. Also see the QNX Multimedia Engine – Component Details below for the usual detailed License Guide information, including End User License particulars.

Product	Prerequisite Products	Engage-ment Model	Primary Owner of Technology	Product Delivered by	Additional Licensing Considerations
Multimedia Core Products					
QNX Aviage Multimedia Core	None	1	QSS	QSS	Certain third parties claim patent rights in connecting portable media devices into other sound systems (e.g., such as in an automobile). Third party patent licenses may be required to make, import, use or sell products featuring such capabilities.
Device Connectivity Products					
QNX Aviage Multimedia Interface for iPod	Multimedia Core (see exceptions in Note #1 below)	1	QSS	QSS (separate package & delivery)	QSS licenses its Apple iPod Interface module rights under its standard development and distribution license agreements. Apple licenses their iPod interface technology (upon which the Apple iPod Interface module is based) directly to customers (see http://developer.apple.com/ipod/accessories.html). QSS may not deliver its Apple iPod Interface module until customers provide proof of their own Made for iPod License Agreement. Please note that QSS may be required to identify customers and their projects to Apple.
QNX Aviage Multimedia Interface for PlaysForSure	Multimedia Core + WMA (see exceptions in Note #1 below)	2	Microsoft	QSS (separate package & delivery)	For information on Microsoft's PlaysForSure logo program qualification see http://www.microsoft.com/windows/windowsmedia/licensing/Licensing_Consumer_Devices_PFS.aspx

QNX Aviage Multimedia Interface for WMDRM10-ND	Multimedia Core + Multimedia Software Codec for WMA9	3	Microsoft This product includes technology owned by Microsoft and cannot be used or distributed further without a license from Microsoft.	QSS (separate package & delivery)	Microsoft licenses their WMDRM technology directly to customers (see http://www.microsoft.com/windows/windowsmedia/licensing/Licensing_DRM_Chips.aspx). QSS licenses its Multimedia Interface for WMDRM10-ND rights under its standard development and distribution license agreements. QSS may not deliver its Multimedia Interface for WMDRM10-ND module until customers provide proof of their own WDRM10 For Devices Final Product Distribution Agreement or WMDRM 10 for Devices Development and Interim Product Distribution Agreement. Please note that QSS may be required to identify customers and their projects to Microsoft.
QNX Aviage Multimedia Interface for Zune	Multimedia Core + Multimedia Interface for PlaysForSure	2	Microsoft	QSS (separate package & delivery)	Licensees will require a Zune Commercial Agreement with Microsoft before they can ship or sell products with Zune connectivity.

Record and Playback Products

QNX Aviage Multimedia Software Codec for WMA9	Multimedia Core	3	Microsoft This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from Microsoft Licensing, GP.	QSS (separate package & delivery)	Microsoft licenses their WMA9 technology directly to customers (see http://www.microsoft.com/windows/windowsmedia/licensing/distribute.aspx). QSS licenses its Multimedia Software Codec for WMA9 rights under its standard development and distribution license agreements. QSS may not deliver its Multimedia Software Codec for WMA9 module until customers provide proof of their own Windows Media Format Component Distribution Agreement or Windows Media Components Interim Product Agreement. Please note that QSS may be required to identify customers and their projects to Microsoft.
QNX Aviage Multimedia Software Codec for MP3 (MP3 Audio –	Multimedia Core	2	Fixed Point – Thomson; Floating Point – Xing	QSS (separate package & delivery)	QSS may not deliver its Multimedia Software Codec for MP3 product until customers provide proof of license from Thomson Licensing S.A. Please note that QSS may be required to identify customers and their projects to Thomson.

ISO-11172, Layer 1,2,3)					Customers may require additional patent rights from other entities to make, import, use or sell products featuring MP3 capabilities, including some who are not currently active in enforcing their rights.
QNX Aviage Multimedia Software Codec for AAC	Multimedia Core	1	QSS	QSS (separate package & delivery)	Certain third parties claim patent rights in the AAC Codec technology and patent licenses may be required to make, import, use or sell products featuring such capabilities.
QNX Aviage Multimedia Software Codecs for Intel IPP (Codecs for H.264, MPEG-4 video, MPEG-2 video (DVD), H.263 and AC-3 (DVD) decode).	Multimedia Core	3	Intel® These components include Intel technology and cannot be distributed without a license from Intel.	QSS (separate package & delivery)	Intel directly licenses the distribution of Integrated Performance Primitive (IPP) code (see sample distribution licenses at http://www.intel.com/cd/software/products/asmo-na/eng/219967.htm#vac) . QSS licenses its Multimedia Software Codec for Intel IPP rights under its standard development and distribution license agreements. It also sublicenses its rights from Intel under the QDL solely for development purposes. Distribution of Multimedia Software Codec for Intel IPP also requires a direct license from Intel (and possibly from other third parties, as specified by Intel). Certain third parties claim patent rights in the IPP sample code technologies and patent licenses may be required for the creation of an end user product using such technologies. These include, but are not limited to, codecs for: H.264, MPEG-4 video, MPEG-2 video (DVD), H.263 and AC-3 (DVD) decode. Please note that QSS may be required to identify customers and their projects to Intel.
QNX Aviage Multimedia Interface for TI OMAP Codec Engine Includes DSP BIOS/Link (TI DSP Link); codec engine (TI Codec Engine), and sample DSP codec engine image (TI	Multimedia Core	2 (TI DSP Link) 2 (TI Codec Engine) 3 (TI Sample DSP Image)	Includes Texas Instruments Incorporated (TI) technology.	QSS (separate package & delivery)	A. TI DSP Link and TI Codec Engine (collectively, "TI OMAP Codec Engine") The TI OMAP Codec Engine may be used only with DSP devices manufactured by or for TI that include a TI DSP core. B. TI Sample DSP Image The TI Sample DSP Image is packaged and for use together with the TI OMAP Codec Engine. It may be used only with OMAP3530 processing devices manufactured by TI. It is for internal demonstration/evaluation purposes only and may not be modified. If you are installing the QNX Aviage Multimedia Interface for TI OMAP Codec Engine, after the installation has completed you must also launch `dsp-bins/omap3530image.exe`. You will be required to

Sample DSP Image) (Codecs for the TI Sample DSP Image: <u>MP3</u>, <u>AAC</u> and <u>WMA</u> decode) (this product may not be available at time of release of QNX Aviage Multimedia Suite)					accept the terms of a click-through license agreement with Texas Instruments Incorporated (TI), applicable to the TI Sample DSP Image, before installation on your host. The TI Sample DSP Image is licensed directly to you by TI and QSS is not licensing this component to you. Certain third parties claim intellectual property rights in the codecs that form part of the TI Sample DSP Image. Licenses may be required to make, import, use or sell products featuring codec capabilities. These capabilities include those of codecs for MP3, AAC and WMA decoders. For codec licenses see licensing considerations above, and other License Guide information below, for the equivalent QNX Aviage Multimedia Software Codecs, which considerations and information apply equally to these TI codecs. **N.B. QSS does not offer any third party licenses or intellectual property infringement indemnification for the TI Sample DSP Image codecs.** Please note that QSS may be required to identify customers and their projects to TI and its licensors.

Note #1:

The Multimedia Core (runtime part # 010287 is required except if a customer wishes to use either or both of the Multimedia Interface for <u>iPod</u> or the Multimedia Interface for <u>PlaysForSure</u> as filesystems on their own, rather than using them in association with the Multimedia core component. For example, the customer may have their own media management software and their own decoding software and therefore don't want to use Multimedia core for these functions. In these cases, use and distribution of either the Multimedia Interface for <u>iPod</u> or the Multimedia Interface for <u>PlaysForSure</u> will require the licensing of a runtime part number along with possible additional royalties.

Also, Multimedia Software Codec for WMA9 is not required as a prerequisite to Multimedia Interface for <u>PlaysForSure</u> (PFS) when PFS is used as a Prerequisite Product to Multimedia Interface for Zune.

5.2.3 QNX Aviage Multimedia Suite – Component Details

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
Multimedia Core Products						
1.2	910431 (development) 910441 (partner) 010287 (runtime)	A. **QNX Aviage Multimedia Core** The Multimedia Core provides the overall control and sequencing of the multimedia experience including identification of digital media source and content, organization and selection of digital content based on metadata and rendering of the digital content. The core includes: • APIs for building a customized Audio player/recorder and Digital Jukebox • Extendable databases • High performance filesystems (io-fs): RAM and expandability for iPod and PFS • High-level HMIs for command and control • OggVorbis audio decoder and encoder (see release notes for target support) • M4A / MP4 parser (to work with either AAC Software decoder or AAC DSP decode) • Support for following processor architectures: ARMLE, SHLE, PPCBE, X86 **N.B. QSS does not offer any third party patent licenses or patent infringement indemnification for encoders or decoders provided with this software, or for connecting portable media players into other sound systems.**	Object	Type I, except as noted below.	Full, except as noted below.	QSS QDL, except as noted in any TPLTL references or other notes below. Licensed on a Project basis for commercial development. Runtime royalty bearing. **No third party patent licenses provided for encoders or decoders, or for connecting portable media players into other sound systems.** TPLTL references: BSD-3C: 83, 183, 184, 185 BSD-V: 1 ISC: 6 ISC-V: 9, 22, 23, 24, 25, 93, 94 MIT: 25 MIT-V: 25 MPL: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 NOTE: 13

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
						UL:52

Device Connectivity Components

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses

1.2	910432 (development)
	
	910442 (partner)
	
	010294 (runtime, only applicable under Note #1 conditions)
		B. **QNX Aviage Multimedia Interface for iPod**
		
		The Apple iPod Interface provides the communications protocols necessary for control and playback on Apple iPod devices.
		
		• Support for iAP (iPod Access Protocol – see product documentation for specifics)
		• Command and control through serialized interface (e.g. serial port or usb serial class driver) and analog audio appears on output (at Omni connector on bottom of iPod)
		• Supported devices include: 3G ver2.0, mini ver 1.0, 4G ver2.0, photo ver1.0, nano ver1.0, 5G ver1.0 (see product documentation for extended set)
		• Support Apple iPod: Authentication IC
		  o iPod USB direct connect (2 wire special cable with authentication IC) dual wire solution using IC embedded in cable (or on mainboard) that provides authentication
		  o support a reference design that has authentication IC with 2-wire (usb command+control, analog output)
		• Support for following processor architectures: ARMLE, SHLE, PPCBE, X86
		
		License Restrictions. Notwithstanding anything to the contrary in the QSS QDL, the following terms apply to the QNX Aviage
			Object	Type I	Full	QSS QDL, except as noted in any TPLTL references or other notes below.
						
						See Apple iPod license prerequisites above & License Restrictions.
						
						Licensed on a Project basis for commercial development.
						
						Runtime royalty bearing.
						
						No third party patent licenses provided.

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		Multimedia Interface for iPod (the "iPod Interface Software"): 1. The iPod Interface Software is only available on the terms described in the Licensing Considerations Matrix above. 2. Your use of the iPod Interface Software is subject to all terms and conditions of your Made for iPod License. 3. As a result of 2., and not restricting the generality of the foregoing, you may not share or distribute the iPod Interface Software as contemplated under the QSS QDL. 4. Your QSS QDL rights to the iPod Interface Software will end upon termination of your Made for iPod License for any reason. **N.B. QSS does not offer any third party patent licenses or patent infringement indemnification for this software.**				
1.2	910433 (development) 910443 (partner) 010289 (runtime, only applicable under Note #1 conditions)	C. **QNX Aviage Multimedia Interface for PlaysForSure** The Microsoft PlaysForSure Interface provides the communications protocols necessary for content query and digital file retrieval from Microsoft PlaysForSure certified devices. • Support for Media Transfer Protocol (see product documentation for MTP version(s)) • Only PlaysForSure devices that support 'Get Partial Object' are supported. Devices that only support 'Get Full Object' are not supported • Read-only **N.B. QSS does not offer any third party patent licenses or patent infringement**	Object	Type II	Full	QSS QDL, except as noted in any TPLTL references or other notes below. Licensed on a Project basis for commercial development. Runtime royalty bearing. **No third party patent licenses provided.** TPLTL reference: ISC:6

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		indemnification for this software.				
1.2	910434 (development) 910444 (partner) 010296 (runtime)	D. **QNX Aviage Multimedia Interface for WMDRM10-ND** The Microsoft WMDRM10-ND Interface provides the Digital Rights Management (DRM) software that can be used in conjunction with Microsoft PlaysForSure certified devices. • Support for Windows Media DRM 10 for Network Devices (WMDRM10-ND) in Receiver mode **License Restrictions**. Notwithstanding anything to the contrary in the QSS QDL, the following terms apply to the QNX Aviage Multimedia Interface for WMDRM10-ND (the "WMDRM10 Interface Software"): 1. The WMDRM10 Interface Software is only available on the terms described in the Licensing Considerations Matrix above. 2. Your use of the WMDRM10 Interface Software is also subject to all terms and conditions of your WDRM10 For Devices Final Product Distribution Agreement or WMDRM 10 for Devices Development and Interim Product Distribution Agreement. 3. As a result of 2., and not restricting the generality of the foregoing, you may not share or distribute the WMDRM10 Interface Software as contemplated under the QSS QDL. 4. Your QSS QDL rights to the WMDRM10 Interface Software will end upon termination for any reason of your WDRM10 For Devices Final Product Distribution Agreement or WMDRM 10 for Devices Development and Interim Product Distribution Agreement.	Object	Type III	Full	QSS QDL, except as noted in any TPLTL references or other notes below. See Microsoft WMDRM10 license prerequisites above & License Restrictions. Licensed on a Project basis for commercial development. Runtime royalty bearing. **No third party licenses provided.** TPLTL reference: UL:33

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		N.B. QSS does not offer any third party licenses or intellectual property infringement indemnification for this software.				
1.2	910435 (development) 910445 (partner)	E. **QNX Aviage Multimedia Interface for Zune** The Multimedia Interface for Zune provides the communications protocols necessary for the query and validation of Microsoft Zune certificates. QNX Aviage Multimedia Interface for Zune works in conjunction with QNX Aviage Multimedia Interface for PlaysForSure (see Prerequisite Products above) **N.B. QSS does not offer any third party patent licenses or patent infringement indemnification for this software.**	Object	Type II	Full	QSS QDL, except as noted. Licensed on a Project basis for commercial development. Runtime royalty bearing. **No third party patent licenses provided.**

Record and Playback Components

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
1.2	910438 (development) 910448 (partner) 010293 (runtime)	E. **QNX Aviage Multimedia Software Codec for MP3** The MP3 Software Code component provides software decode for MP3 audio files and streams. MP3 Standard (ISO-11172 Layer 1,2,3) software decoder - Floating point for all processors, fixed point available for ARMLE - MPEG-2 Audio Layer 1,2,3 (ISO-13818) decode - Floating point - MPEG-2.5 decode - Floating point - MPEG Surround decode (in legacy	Object	Type II	Full	QSS QDL, except as noted. See Thomson license prerequisites above & License Restrictions. Licensed on a Project basis for commercial development. Runtime royalty bearing.

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses

		mode)
		    o Floating point
		• ID3v1, ID3v22, ID3v23, ID3v24
		    o Including album art
		• VBR and CBR, mono and two-channel stereo
		• Support for sample frequencies of 48, 44.1 and 32 KHz
		• Support for following processor architectures: ARMLE, SHLE, PPCBE, X86
		
		License Restrictions. Notwithstanding anything to the contrary in the QSS QDL, the following terms apply to the QNX Aviage Multimedia Software Codec for MP3 (the "MP3 Software"):
		
		0. MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.
		
		1. The MP3 Software is only available on the terms described in the Licensing Considerations Matrix above.
		
		2. QSS licenses you to install one instance of the MP3 Codec for use as an end user.
		
		3. Any further use of the MP3 Codec is also subject to all terms and conditions of your license from Thomson.
		
		4. As a result of 3, and not restricting the generality of the foregoing, you may not share or distribute the MP3 Codec as contemplated under the QSS QDL.
		
		5. Supply of this product does not convey a license under the relevant intellectual property of Thomson, Fraunhofer Gesellschaft and/or Coding Technologies nor imply any right to use this product in any finished end user or ready-to-use final product. An independent license for such use is required. For details, please
						No third party patent licenses provided.
						
						No third party license provided for Fixed Point – Thomson version.

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		visit http://www.mp3licensing.com." **N.B. QSS does not offer any third party patent licenses or patent infringement indemnification for this software.**				
1.2	910437 (development) 901447 (partner) 010291 (runtime)	F. **QNX Aviage Multimedia Software Codec for AAC** The AAC Software Codec component provides software decode for Advanced Audio Coding format files and streams. • AAC-LC Software decoder • Supports MPEG-2 Part 7 AAC (formerly ISO/IEC 13818-7) and MPEG-4 part -3 (ISO/IEC 14496-3) • Fully compliant to ISO/IEC -14496 part -4 (Accuracy compliance) • Floating point • Number of channels -2 • Modes: Stereo, Joint stereo (intensity stereo), dual channel, mono • Sampling frequencies: 8 – 96 KHz (8,11.025,12,16,22.05,24,32,44.1,48, 64,88.2,96) • M4A/MP4 parser is in the Core package • Support for following processor architectures: ARMLE, SHLE, PPCBE, X86 **License Restrictions**. Notwithstanding anything to the contrary in the QSS QDL, the following terms apply to the QNX Aviage Multimedia Software Codec for AAC (the "AAC Codec"): 1. The AAC Codec is only available on the terms described in the Licensing Considerations Matrix above. 2. The AAC Codec package contains 4 binaries targeting 4 different CPUs. You may use only	Object	Type II	Full	QSS QDL, except as noted in any TPLTL references or other notes below. See VIA Technologies license prerequisites above & License Restrictions. Licensed on a Project basis for commercial development. Runtime royalty bearing. **No third party patent licenses provided.**

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		one (1) binary on one (1) Target System per License Key or Floating License Key. 3. You may not share or distribute the AAC Codec as contemplated under the QSS QDL. 4. **N.B. QSS does not offer any third party patent licenses or patent infringement indemnification for this software.**				

1.2	910439 (development)
	
	910449 (partner)
	
	010292 (runtime)
		G. **QNX Aviage Multimedia Software Codec for WMA9**
		
		The WMA9 Software Codec component provides software decode for Microsoft Windows Media Audio 9 format files and streams.
		
		• WMA9 Standard software decoder
		   o Floating and fixed point
		• WMA9 Lossless decode
		   o Floating and fixed point
		• VBR and CBR, mono and two-channel stereo
		• 44.1 and 48 KHz, with bitrates ranging from 64 to 128 Kbps
		• WMA, ASF parsing including album art
		• Support for following processor architectures: ARMLE, SHLE, PPCBE, X86
		
		License Restrictions. Notwithstanding anything to the contrary in the QSS QDL, the following terms apply to the QNX Aviage Multimedia Software Codec for WMA9 (the "WMA9 Codec Software"):
		
		1. The WMA9 Codec Software is only available on the terms described in the Licensing Considerations Matrix above.
		
		2. Your use of the WMA9 Codec Software is also subject to all terms and conditions of your Windows Media Format Component Distribution
			Object	Type III	Full	QSS QDL, except as noted.
						
						See Microsoft WMA9 license prerequisites above & License Restrictions.
						
						Licensed on a Project basis for commercial development.
						
						Runtime royalty bearing.
						
						No third party licenses provided.

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		Agreement. 3. As a result of 2., and not restricting the generality of the foregoing, you may not share or distribute the WMA9 Codec Software as contemplated under the QSS QDL. 4. Your QSS QDL rights to the WMA9 Codec Software will end upon termination of your Windows Media Format Component Distribution Agreement for any reason. **N.B. QSS does not offer any third party licenses or intellectual property infringement indemnification for this software.**				
1.2	910388 (development) 910397 (partner) 010287 (runtime)	H. **QNX Aviage Multimedia Software Codecs for Intel IPP.** These are Intel-optimized demonstration / evaluation codecs for Intel's Integrated Performance Primitives (IPP). In this version of the QNX Aviage Multimedia Suite the following codecs are available as part of the base QNX Aviage Multimedia Core component (as a separate QSS download): • H.264 (Mpeg-4 Part 10) • MPEG-4 Video • MPEG-2 Video (DVD) • H.263 • AC-3 (DVD). **N.B. QSS does not offer any third party patent licenses or intellectual property infringement indemnification for this software.**	Object	Type III	Limited (Integration)	QSS QDL, except as noted. Licensed as part of the QNX Aviage Multimedia Core See Intel IPP license requirements above. **No third party patent licenses provided.**
1.2	910440 (development) 910450	I. **QNX Aviage Multimedia DVD Playback** This package provides the ability to play DVDs including DVD navigator software. DVD audio	Object	Type I	Full	QSS QDL

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
	(partner) TBD (runtime)	and video codecs are provided separately.				
1.2	910436 (development) 910446 (partner)	J. **QNX Aviage Multimedia Interface for TI OMAP Codec Engine** (may not be available at time of release of QNX Aviage Multimedia Suite) This package provides the software necessary to integrate the Texas Instruments Incorporated (TI) OMAP codec engine into the QNX Aviage Multimedia Suite. This provides the ability to communicate with the codec engine and to load the codec engine software. This package contains: (a) TI DSP BIOS/Link software (TI DSP Link); (b) TI codec engine software (TI Codec Engine); (c) TI sample DSP codec engine image software (TI Sample DSP Image); (d) QSS software to integrate the TI codecs running on the TI Codec Engine into the QNX Aviage Multimedia framework. This software contains media filters to direct digital media streams to the codec engine used for processing. In this version of the QNX Aviage Multimedia Suite only the following codecs are available as part of the TI Sample DSP Image: • MP3 • WMA • AAC (see licensing considerations for each of these codecs above) **License Restrictions**. **A. TI DSP Link and TI Codec Engine (TI OMAP Codec Engine):**	Object	Type III	Limited (Integration)	QSS QDL, except as noted. See TI OMAP Codec Engine and TI Sample DSP Image license requirements above and License Restrictions. Licensed on a Project basis for commercial development. **For TI Sample DSP Image, no third party licenses provided for the codecs.**

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		Notwithstanding anything to the contrary in the QSS QDL, the following terms apply: 1. The TI OMAP Codec Engine may be used only with DSP processing devices manufactured by or for TI that include a TI DSP core. **B. TI Sample DSP Image:** Notwithstanding anything to the contrary in the QSS QDL, the following terms apply: 1. The TI Sample DSP Image is only available on the terms described in the Licensing Considerations Matrix above. 2. The TI Sample DSP Image may only be used for internal demonstration/evaluation purposes. You may not modify, share or distribute the TI Sample DSP Image as contemplated under the QSS QDL. If you are installing the QNX Aviage Multimedia Interface for TI OMAP Codec Engine, after the installation has completed you must also launch `dsp-bins/omap3530image.exe`. You will be required to accept the terms of a click-through license agreement with Texas Instruments Incorporated (TI), applicable to the TI Sample DSP Image, before installation on your host. The TI Sample DSP Image is licensed directly to you by TI and QSS is not licensing this component to you. 3. The TI Sample DSP Image may be used only with and execute solely and exclusively on an OMAP3530 processing device manufactured by or for TI. 4. **N.B. QSS does not offer any third party licenses for the codecs or intellectual property infringement indemnification for this software.**				

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		Please note that QSS may be required to identify customers and their projects to TI and its licensors.				

Media and Metadata Storage Components

A number of multimedia ecosystem partners will have technology that can easily be integrated in to the QNX Aviage Multimedia Suite. These technologies will have specific licensing terms that should be considered outside of the QNX Aviage Multimedia Suite and will be delivered through QSS Custom Engineering.

Note #1:

The Multimedia Core (runtime part # 010287) is required except if a customer wishes to use either or both of the Multimedia Interface for iPod or the Multimedia Interface for PlaysForSure as filesystems on their own, rather than using them in association with the Multimedia core component. For example, the customer may have their own media management software and their own decoding software and therefore don't want to use Multimedia core for these functions. In these cases, use and distribution of either the Multimedia Interface for iPod or the Multimedia Interface for PlaysForSure will require the licensing of a runtime part number along with possible additional royalties.

Also, Multimedia Software Codec for WMA9 is not required as a prerequisite to Multimedia Interface for PlaysForSure (PFS) when PFS is used as a Prerequisite Product to Multimedia Interface for Zune.

6. QNX Acoustics Products

6.1 QNX Aviage Acoustic Processing Kit 2.0
(includes both development tool and runtime components)

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
2.0	910502 (development) 010413 (runtime)	Acoustic echo cancellation & noise reduction package for in-car handsfree speech applications. Floating-point and fixed-point versions included. Supported hardware targets are CPU variants of: SH4 – floating-point PPC – floating point X86 – floating point ARM9 – fixed-point ARM Cortex-A8 – fixed-point	Object	Type I	Enhanced	QSS QDL, except as noted in any TPLTL references below. Licensed on a Project basis for commercial development. Runtime royalty bearing.

		A. Acoustic Processing Library
		  A.1 Multi-channel Acoustic Echo Cancellation and Noise Reduction
		  A.2 Dynamic Noise Reduction
		  A.3 Low Frequency Reconstruction
		  A.4 Automatic Delay Compensation
		  A.5 Automatic Gain Control
		  A.6 Send Parametric Equalization
		  A.7 High Frequency Encoding
		  A.8 Wind Buffet Suppression
		  A.9 Send Dynamic Limiter
		  A.10 Diagnostic module
		  A.11 QWALive graphical control tool
		  A.12 Dual channel complex mixer
		  A.13 Off-Axis Rejection
		  A.14 Receive Parametric Equalization
		  A.15 Receive Noise Compensation
		  A.16 Receive Automatic Gain Control
		  A.17 Receive Dynamic Level Control
		  A.18 Receive Bandwidth Extension
		  A.19 Receive Dynamic Limiter				

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
		A.20 Wideband Telephony Support A.21 Receive Electrical Noise Suppression A.22 Send Dynamic Parametric Equalization				
		B. Documentation, including sample code				

6.2 QNX Aviage Acoustic Processing Core 1.0 (includes both development tool and runtime components)

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
1.0	910549 (development) 010465 (runtime)	Acoustic echo cancellation & noise reduction package for in-car handsfree speech applications. Floating-point and fixed-point versions included. Supported hardware targets are CPU variants of: ARM9 – fixed-point ARM Cortex-A8 – fixed-point ARM Cortex-A9 – floating-point	Object	Type I	Enhanced	QSS QDL, except as noted in any TPLTL references below. Licensed on a Project basis for commercial development. Runtime royalty bearing.

		A. Acoustic Processing Library
		  A.1 Single-channel Acoustic Echo Cancellation and Noise Reduction
		  A.2 Automatic Gain Control
		  A.3 Send Parametric Equalization
		  A.4 Send Dynamic Limiter
		  A.5 Diagnostic module
		  A.6 Binary configuration files creation using QWALive graphical control tool
		  A.7 Receive Parametric Equalization
		  A.8 Receive Automatic Gain Control
		  A.9 Receive Dynamic Limiter
		  A.10 Wideband Telephony Support				

		B. Documentation, including sample code				

6.3   QNX Acoustics SDK for Active Noise Control 1.0
(includes both development tool and runtime components)

Version Number	Part Number(s)	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
1.0	910576 (development) 010466 (runtime)	Acoustic active noise control for reducing low-frequency engine tones or "boom" The following hardware architectures are supported: • Intel x64 (Microsoft Windows 7 SP1; floating-point and fixed-point versions of Acoustics ANC Library) •Analog Devices' SHARC ADSP 21xxx family (floating point version of Acoustics ANC Library) For the purposes of the ACSLA, the "Testing Platform" is Microsoft Windows 7 SP1 running on a compatible Intel x64 based PC and refers to run file-based testing of the Acoustics ANC Library.	Object	Type I	Enhanced	QSS QDL, except as noted in any TPLTL references below. Licensed on a Project basis for commercial development. Runtime royalty bearing.

		A. Acoustics ANC Library
		    A.1 Supports 1-6 microphones inputs
		    A.2 Supports 1-6 loudspeaker outputs
		    A.3 Supports tachometer input or RPM input
		    A.4 Supports 8kHz and 48kHz sample rate audio signals
		    A.5 Calibration module
		    A.6 Supports binary configuration files				

		B. Documentation, including sample code				

6. QNX Board Support Packages

Except as expressly noted below, at the download site(s) or in the associated source code, QNX Board Support Packages ("BSPs") bundled in the QNX Software Development Platform, or downloaded from either Foundry27 or the myQNX download center may be used by QNX Software Development Platform licensees under the terms of their QDLs and may be distributed by OEM or Runtime License Agreement licensees under the terms of their QNX distribution licenses.

Whenever possible, BSP files are made available in source code and are under the Apache License Version 2 ("Apache 2"). Some BSPs contain third party confidential information and/or proprietary code which prohibits such licensing.

Unless otherwise expressly indicated, any BSP component provided only in binary form, or that is only available from a private Foundry27 Project or as a restricted myQNX download, is: (i) restricted to use solely in association with the QNX Neutrino RTOS and the particular hardware product for which the BSP has been made available, and (ii) should be assumed to contain confidential information of QSS or its licensor(s).

The following BSPs are considered "Reference Platforms" for the purpose of the QDLs.

Note that some BSPs may have been originally packaged and released under various versions of the former Momentics End User License Agreement ("MEULA") and their associated License Guides. Copies of all these documents are available at http://licensing.qnx.com/document-archive/. [For more information see http://www.qnx.com/legal/licensing/dev_license/eula/License.Guide.1-05d.updated.Nov19-07b.pdf]

Version Number	Description	Code Provided	Type of Software	Support Provided	End-User Licenses
	Board Support Packages for Reference Platforms	Object and Source	Type III	Limited (Source), unless otherwise noted	Except as noted in any TPLTL references or other notes below, all files in source code are licensed under the Apache 2 license and all files in binary form are licensed under the terms of the applicable QSS QDL.
1.20	QNX Neutrino 6.5.0 BSP for Texas Instruments AM335 Beaglebone			Limited (3rd Party)	
1.0.0	QNX Neutrino 6.5.0 BSP for the Texas Instruments AM335x EVM			Limited (3rd Party)	
1.0.4	QNX Neutrino 6.5.0 BSP for the Texas Instruments OMAP3730 Beagleboard-XM			Limited (3rd Party)	
1.40	QNX Neutrino 6.5.0 BSP for the Freescale i.MX28 EVK			Limited (3rd Party)	
1.40	QNX Neutrino 6.5.0 BSP for the Freescale i.MX53 Quick Start Board (QSB)			Limited (3rd Party)	Note: This BSP may only be used to support a Freescale integrated circuit incorporating the Z160 or Z430 graphics core.
1.1.1	QNX Neutrino 6.5.0 BSP for the Freescale P1010RDB			Limited (3rd Party)	

1.0.2	QNX Neutrino 6.5.0 BSP for the Freescale P1020RDB-PA			Limited (3rd Party)	
1.10	QNX Neutrino 6.5.0 BSP for the Freescale P2020RDB-PA			Limited (3rd Party)	
1.0.0	QNX Neutrino 6.5.0 BSP for the Freescale P4080-DS			Limited (3rd Party)	Note: This BSP may only be used in association with Power Architecture silicon chips manufactured and sold by Freescale Semiconductor Inc., or other software, hardware or other technology product licensed or sold by Freescale.

7. Export/Import Information

This QNX Software Development Platform may not be imported or exported to or from any country in contravention of the laws of that country, or the laws of Canada or the United States. Without restricting the foregoing, the QNX Software Development Platform may not be transferred to: (i) any country prohibited by United States and/or Canadian laws and regulations (presently including Belarus, Cuba, Iran, Myanmar (Burma), North Korea, Sudan and Syria); (ii) any person or entity prohibited from receiving United States and/or Canadian exports (including, but not limited to, those involved with missile technology or nuclear, chemical or biological weapons) and those on US government restricted persons/entities lists – see http://www.bis.doc.gov/complianceandenforcement/liststocheck.htm); or (iii) any country which requires an import or use license, permit or authorization for encryption technology ("Import License"), except after obtaining such Import License.

Please contact licensing@qnx.com for more information.

Publication History

Version	Date Issued	Reason for Update
2.0	September 12, 2007	QNX Development Suite v6.3.2
2.1	November 29, 2007	QNX Aviage HMI Player for Adobe Flash Lite 3
2.2	December 3, 2007	QNX Multimedia Suite
2.3	January 18, 2008	QNX Aviage Acoustic Processing Kit
2.4	March 24, 2008	Patch for Printing Framework for QNX Neutrino RTOS Runtime
2.5	July 3, 2008	QNX Aviage HMI Player for Adobe Flash Lite 3 Version 1.1 and update of section 4.1, F4
2.6	June 27, 2008	QNX Aviage Acoustic Processing Kit v1.2
2.7	October 30, 2008	QNX Software Development Platform v6.4.0
2.8	November 6, 2008	QNX Multimedia Suite v1.1
2.9	January 22, 2009	QNX Aviage Acoustic Processing Kit v1.3
2.10	March 27, 2009	QNX Aviage HMI Suite v2.0
2.11	May 8, 2009	QNX Software Development Platform v6.4.1 and QNX Multimedia Suite v1.2
2.12	June 9, 2010	QNX Software Development Platform v6.5
2.13	July 15, 2011	QNX Aviage Acoustic Processing Kit v2.0
2.14	June 22, 2012	QNX Neutrino Real Time Operating System v6.5 Service Pack 1
2.15	November 30, 2012	QNX CAR 2 Software Development Platform and application platform
2.16	February 7, 2013	QNX Aviage Acoustic Processing Core 1.0
2.17	July 23, 2013	QNX Acoustics SDK for Active Noise Control

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