

THIRD PARTY OPEN SOURCE SOFTWARE NOTICE

Please note we provide an open source software notice for the third party open source software along with this software and/or this software component contributed by Huawei (in the following just "this SOFTWARE"). The open source software licenses are granted by the respective right holders.

Warranty Disclaimer

THE OPEN SOURCE SOFTWARE IN THIS SOFTWARE IS DISTRIBUTED IN THE HOPE THAT IT WILL BE USEFUL, BUT WITHOUT ANY WARRANTY, WITHOUT EVEN THE IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SEE THE APPLICABLE LICENSES FOR MORE DETAILS.

Copyright Notice and License Texts

License: Apache License Version 2.0

Apache License Version 2.0, January 2004 http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

2020-12-03 HUAWEI Confidential Page 1, Total 11



"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of

2020-12-03 HUAWEI Confidential Page 2, Total 11



- this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
- 3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
- 4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained



within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

- 5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
- 6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
- 7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any



risks associated with Your exercise of permissions under this License.

- 8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
- 9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

2020-12-03 HUAWEI Confidential Page5, Total11



You may obtain a copy of the License at

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Software: Android Support Library 28.0.0

Copyright notice:

```
Copyright 2006, The Android Open Source Project
Copyright 2016, The Android Open Source Project
Copyright 2017, The Android Open Source Project
Copyright 2015, The Android Open Source Project
Copyright 2006, Google Inc.
Copyright 2009, Google Inc.
Copyright (C) 2018 The Android Open Source Project
Copyright (C) 2015 The Android Open Source Project
Copyright (C) 2007 The Android Open Source Project
Copyright (C) 2008 The Android Open Source Project
Copyright (C) 2014 The Android Open Source Project
Copyright (C) 2016 The Android Open Source Project
Copyright (C) 2010 The Android Open Source Project
Copyright 2009, The Android Open Source Project
Copyright 2012, The Android Open Source Project
Copyright 2013, The Android Open Source Project
Copyright (C) 2017 The Android Open Source Project
Copyright (C) 2012 The Android Open Source Project
Copyright 2010, The Android Open Source Project
Copyright 2007, The Android Open Source Project
Copyright 2011, The Android Open Source Project
Copyright 2014, The Android Open Source Project
Copyright (C) 2011 The Android Open Source Project
Copyright (C) 2006 The Android Open Source Project
Copyright 2018, The Android Open Source Project
Copyright (c) 2018, The Android Open Source Project
Copyright 2005-2008 The Android Open Source Project
Copyright 2006 The Apache Software Foundation
Copyright (c) 1995-2009 International Business Machines Corporation and others
                             HUAWEI Confidential
2020-12-03
                                                                        Page6, Total11
```

OPEN SOURCE SOFTWARE NOTICE



copyright license to reproduce, prepare derivative works of,

publicly display, publicly perform, distribute and sublicense

sufficient copyright rights in its Contribution, if any, to

Copyright (c) 2002, 2003, Stefan Haustein, Oberhausen, Rhld., Germany

Copyright (c) 2000 World Wide Web Consortium, (Massachusetts Institute

COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1995-2008 International Business Machines Corporation and others

Copyright לישיל 1991-2007 Unicode, Inc. All rights reserved. Distributed under

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

"copyright" line and a pointer to where the full notice is found.

Copyright (c) 2013 The Chromium Authors. All rights reserved.

Copyright (c) 1991, 2000, 2001 by Lucent Technologies.

Copyright (c) 2008-2009, Google Inc.

Copyright (c) 2006, Google Inc.

Copyright (C) 2000-2008 Julian Seward. All rights reserved.

Copyright (c) 2007 Red Hat, inc

Copyright 2003-2005 Colin Percival

 $2. \ \,$ Grant of Copyright License. Subject to the terms and conditions of

copyright license to reproduce, prepare Derivative Works of,

publicly display, publicly perform, sublicense, and distribute the

(c) You must retain, in the Source form of any Derivative Works

You may add Your own copyright statement to Your modifications and

may provide additional or different license terms and conditions

Copyright 2007-2009 Google Inc.

Copyright 2007-2009 WebDriver committers

Copyright (C) 2009 by Tung Mac.

Copyright 2011, The Chromium Authors

Copyright (C) 1989, 1991 Free Software Foundation, Inc.

Copyright (c) 2012 The Chromium Authors. All rights reserved.

Copyright (c) 2007-2010 The Khronos Group Inc.

Copyright (c) 2008, Google Inc.

Copyright (c) 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005,

2006, 2007 Alexander Kellett, Alexey Proskuryakov, Alex Mathews, Allan

Copyright (C) 1991 Free Software Foundation, Inc.

Our method of protecting your rights has two steps: (1) copyright

Copyright (C) 2002-2013 The ANGLE Project Authors.

Copyright (c) 2012, Manfred Moitzi

DIE AUTOREN ODER COPYRIGHTINHABER F 7彝 JEGLICHEN SCHADEN ODER SONSTIGE

Copyright (c) 2010 The Chromium Authors. All rights reserved.

- (c) the licenses granted in this Section 2.1(a) and (b) are
- (c) the licenses granted in Sections 2.2(a) and 2.2(b) are
- (c) Representations.

2020-12-03 HUAWEI Confidential Page7, Total11

OPEN SOURCE SOFTWARE NOTICE



Portions created by are Copyright (C)

. All Rights Reserved.

provisions regarding litigation in Section 11(a), (b) and (c) of

Copyright (C) 1998-1999 Netscape Communications Corporation. All

Copyright (C) 19yy < name of author>

Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd

Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006 Expat maintainers.

Copyright 2011 Google Inc. All Rights Reserved.

Copyright (c) 2007-2009 IOLA and Ole Laursen

Copyright 1996-2002, 2006 by

David Turner, Robert Wilhelm, and Werner Lemberg

Compilation copyright is held by the GPSD project. All rights reserved.

Eric S. Raymond. Other portions of the GPSD code are Copyright (c)

1997, 1998, 1999, 2000, 2001, 2002 by Remco Treffkorn, and others

Copyright "" 2010, 2011, 2012 Google, Inc.

Copyright ツゥ 2012 Mozilla Foundation

Copyright "לי 2011 Codethink Limited

Copyright לל 2008, 2010 Nokia Corporation and/or its subsidiary (-ies)

Copyright "ליל 2009 Keith Stribley

Copyright ツゥ 2009 Martin Hosken and SIL International

Copyright ツゥ 2007 Chris Wilson

Copyright ツゥ 2006 Behdad Esfahbod

Copyright ליל 2005 David Turner

Copyright "" 2004, 2007, 2008, 2009, 2010 Red Hat, Inc.

Copyright "7" 1998-2004 David Turner and Werner Lemberg

Copyright (c) 2007, 2010 Linux Foundation

Copyright (c) 2006 IBM Corporation

Copyright (c) 2000, 2006 Sun Microsystems, Inc.

Copyright (c) 1995-2010 International Business Machines Corporation and others

Copyright (C) 2006-2008 Jason Evans & lt; jasone@FreeBSD.org>.

Copyright (c) 2007-2010 Baptiste Lepilleur

Copyright (C) 1992 Silicon Graphics, Inc. All Rights Reserved.

Copyright (c) International Business Machines Corp., 2002, 2007

Copyright (C) 1989, 1991 Free Software Foundation, Inc.,

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Copyright (c) 2011 The LevelDB Authors. All rights reserved.

Copyright (c) 2008 NVIDIA, Corporation

Copyright 2000-2007 Niels Provos <provos@citi.umich.edu>

Copyright 2007-2009 Niels Provos and Nick Mathewson

Copyright (c) 2013, Google Inc.

Copyright (C) 2011 Google Inc.

Copyright (c) 2004, 2006-2009 Glenn Randers-Pehrson, and are

2020-12-03 HUAWEI Confidential Page8, Total11

HILAMEI

OPEN SOURCE SOFTWARE NOTICE

Copyright (c) 2000-2002 Glenn Randers-Pehrson, and are

Copyright (c) 1998, 1999 Glenn Randers-Pehrson, and are

Copyright (c) 1996, 1997 Andreas Dilger

Copyright (c) 1995, 1996 Guy Eric Schalnat, Group 42, Inc.

A "pnggetcopyright" function is available, for convenient use in "about"

printf("%s", pnggetcopyright(NULL));

Copyright (c) 2010, Google Inc. All rights reserved.

Copyright (C) 1998-2003 Daniel Veillard. All Rights Reserved.

Copyright (C) 2001-2002 Daniel Veillard. All Rights Reserved.

Copyright (C) 2001-2002 Thomas Broyer, Charlie Bozeman and Daniel Veillard.

Copyright (c) 2003-2009 Jonathan 'Wolf' Rentzsch: <http:rentzsch.com>

Copyright (C) 1999-2007 Brian Paul All Rights Reserved.

Mesa/docs/COPYRIGHT file for details.

Copyright (c) 2005, 2006 Nick Galbreath -- nickg [at] modp [dot] com

Copyright 2008 MolokoCacao

Copyright (c) 2004-2009 Sergey Lyubka

Portions Copyright (c) 2009 Gilbert Wellisch

Copyright 2010-2011, Google Inc.

Copyright (C) 1997 - 2002, Makoto Matsumoto and Takuji Nishimura,

All rights reserved.

Copyright (c) 2006-2009 The Chromium OS Authors. All rights reserved.

Copyright (c) 2004-2012 by Mulle Kybernetik. All rights reserved.

Copyright (c) 1998-2011 The OpenSSL Project. All rights reserved.

Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)

Copyright 2001-2011 Xiph. Org, Skype Limited, Octasic,

Jean-Marc Valin, Timothy B. Terriberry,

CSIRO, Gregory Maxwell, Mark Borgerding,

Erik de Castro Lopo

Copyright (c) 2009 The Chromium Authors. All rights reserved.

Copyright (C) 2001-2011,

David M. Beazley (Dabeaz LLC)

Copyright (c) 2012 The Polymer Authors. All rights reserved.

Copyright 2008, Google Inc.

Copyright (c) 2003-2012, Michael Foord

Copyright (C) 2009 Mozilla Corporation

Copyright (C) 1998-2007 Marti Maria

Copyright (c) 2009 The RE2 Authors. All rights reserved.

Copyright (c) 2006 Bob Ippolito

Copyright (c) 2011 Google Inc. All rights reserved.

Copyright (c) 2011 Google, Inc.

Copyright (c) 1995-1998

Copyright (c) 2005, Google Inc.

2020-12-03 HUAWEI Confidential Page9, Total11

OPEN SOURCE SOFTWARE NOTICE



Copyright (c) 2012, Linux USB Project https:code.google.com/p/sctp-refimpl/source/browse/trunk/COPYRIGHT) Copyright (c) 2001, 2002 Cisco Systems, Inc. Copyright (c) 2002-12 Randall R. Stewart Copyright (c) 2002-12 Michael Tuexen ; Copyright (C) 2005-2011 x264 project Copyright (C) 1995-2010 Jean-loup Gailly and Mark Adler Copyright 2007, Google Inc. Copyright 2006-2012, the V8 project authors. All rights reserved. Copyright (c) 2010, The Android Open Source Project Copyright (c) 2005-2008, The Android Open Source Project grants Recipient a non-exclusive, worldwide, royalty-free copyright Copyright (c) 2000-2013 The Legion Of The Bouncy Castle (http://www.bouncycastle.or g) Copyright 2002-2009 The Apache Software Foundation Copyright (c) 2005-2011, The Android Open Source Project Copyright (c) 2003-2011 University of Illinois at Urbana-Champaign. OpenBSD regex 11vm/lib/Support/{reg, COPYRIGHT.regex} Copyright (c) 1996 Mark Brinicombe. Copyright (c) 1996 Brini. Copyright (C) 1993 by Sun Microsystems, Inc. All rights reserved. Copyright (c) 2011, The Android Open Source Project Copyright (c) 2000-2009 Marc Alexander Lehmann <schmorp@schmorp.de> Copyright 1991 by the Massachusetts Institute of Technology Copyright (C) 2004 eXtensible Systems, Inc. Copyright (C) 2010 Google Inc. Copyright (c) 2008 John Resig (jquery.com) Copyright (c) 2009 John Resig, http://jquery.com/ programmer) or your school, if any, to sign a "copyright Copyright (c) 2006-2009, The Android Open Source Project Copyright 2006, Brian Swetland < swetland@frotz.net> Copyright 1999-2006 The Apache Software Foundation - software copyright (c) 1999-2002, Lotus Development Corporation., http:www.lotus.com. - software copyright (c) 2001-2002, Sun Microsystems., http:www.sun.com. - software copyright (c) 2003, IBM Corporation., http:www.ibm.com. - software copyright (c) 1999, IBM Corporation., http://www.ibm.com. - software copyright (c) 1999, Sun Microsystems., http://www.sun.com.

2020-12-03 HUAWEI Confidential Page 10, Total 11

Copyright 2001-2003, 2006 The Apache Software Foundation.

software copyright (c) 1999.

HUAWEI

OPEN SOURCE SOFTWARE NOTICE

- software copyright (c) 2000 World Wide Web Consortium, http://www.w3.org

Copyright (c) 2007-2011 University of Illinois at Urbana-Champaign.

(C) 1995-2013 Jean-loup Gailly and Mark Adler

Copyright (c) 1994-2006 Sun Microsystems Inc.

Copyright 2006-2008 the V8 project authors. All rights reserved.

Copyright (c) 201 Terence Parr

http:www.w3.org/Consortium/Legal/2002/copyright-software-20021231

Title to copyright in this software and any associated documentation will at

Copyright (c) 2016, the R8 project authors.

Copyright (c) 2000-2011 INRIA, France Telecom

Copyright 2002-2016 The Apache Software Foundation

Copyright (c) 2004-2016 Paul R. Holser, Jr.

Copyright (C) 2009 The Android Open Source Project

Copyright (C) 2013 The Android Open Source Project

Copyright 2008, The Android Open Source Project

Copyright 2017 The Android Open Source Project

Copyright 2015 The Android Open Source Project

Copyright (c) 2016, The Android Open Source Project

Copyright 2010, Google Inc.

Copyright (c) 2017, Google Inc.

Copyright (c) 2018, Google Inc.

Copyright (C) 2014 The Android Open Source Project.

Copyright 2012 The Android Open Source Project

Copyright (C) 2014 MediaTek Inc.

Copyright 20012, The Android Open Source Project

Copyright (c) 2014 ALL Rights Reserved

License: Apache License Version 2.0

Please see above

2020-12-03 HUAWEI Confidential Page 11, Total 11