

ACKNOWLEDGEMENT

By utilizing this website and/or documentation, I hereby acknowledge as follows:

Effective October 1, 2012, QUALCOMM Incorporated completed a corporate reorganization in which the assets of certain of its businesses and groups, as well as the stock of certain of its direct and indirect subsidiaries, were contributed to Qualcomm Technologies, Inc. (QTI), a wholly-owned subsidiary of QUALCOMM Incorporated that was created for purposes of the reorganization.

Qualcomm Technology Licensing (QTL), the Company's patent licensing business, continues to be operated by QUALCOMM Incorporated, which continues to own the vast majority of the Company's patent portfolio. Substantially all of the Company's products and services businesses, including QCT, as well as substantially all of the Company's engineering, research and development functions, are now operated by QTI and its direct and indirect subsidiaries¹. Neither QTI nor any of its subsidiaries has any right, power or authority to grant any licenses or other rights under or to any patents owned by QUALCOMM Incorporated.

No use of this website and/or documentation, including but not limited to the downloading of any software, programs, manuals or other materials of any kind or nature whatsoever, and no purchase or use of any products or services, grants any licenses or other rights, of any kind or nature whatsoever, under or to any patents owned by QUALCOMM Incorporated or any of its subsidiaries. A separate patent license or other similar patent-related agreement from QUALCOMM Incorporated is needed to make, have made, use, sell, import and dispose of any products or services that would infringe any patent owned by QUALCOMM Incorporated in the absence of the grant by QUALCOMM Incorporated of a patent license or other applicable rights under such patent.

Any copyright notice referencing QUALCOMM Incorporated, Qualcomm Incorporated, QUALCOMM Inc., Qualcomm Inc., Qualcomm or similar designation, and which is associated with any of the products or services businesses or the engineering, research or development groups which are now operated by QTI and its direct and indirect subsidiaries, should properly reference, and shall be read to reference, QTI.

¹ The products and services businesses, and the engineering, research and development groups, which are now operated by QTI and its subsidiaries include, but are not limited to, QCT, Qualcomm Mobile & Computing (QMC), Qualcomm Atheros (QCA), Qualcomm Internet Services (QIS), Qualcomm Government Technologies (QGOV), Corporate Research & Development, Qualcomm Corporate Engineering Services (QCES), Office of the Chief Technology Officer (OCTO), Office of the Chief Scientist (OCS), Corporate Technical Advisory Group, Global Market Development (GMD), Global Business Operations (GBO), Qualcomm Ventures, Qualcomm Life (QLife), Quest, Qualcomm Labs (QLabs), Snaptracs/QCS, Firethorn, Qualcomm MEMS Technologies (QMT), Pixtronix, Qualcomm Innovation Center (QuIC), Qualcomm iSkoot, Qualcomm Poole and Xiam.



QMI COMMON 1.5

QMI Common Constant Definitions Spec

80-VB816-2 K

September 14, 2012

Submit technical questions at:
<https://support.cdmatech.com/>

Qualcomm Confidential and Proprietary

Restricted Distribution. Not to be distributed to anyone who is not an employee of either Qualcomm or a subsidiary of Qualcomm without the express approval of Qualcomm's Configuration Management.

Not to be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others without the express written permission of Qualcomm.

Qualcomm reserves the right to make changes to the product(s) or information contained herein without notice. No liability is assumed for any damages arising directly or indirectly by their use or application. The information provided in this document is provided on an "as is" basis.

This document contains Qualcomm confidential and proprietary information and must be shredded when discarded.

QUALCOMM is a registered trademark of QUALCOMM Incorporated in the United States and may be registered in other countries. Other product and brand names may be trademarks or registered trademarks of their respective owners. CDMA2000 is a registered certification mark of the Telecommunications Industry Association, used under license. ARM is a registered trademark of ARM Limited.

This technical data may be subject to U.S. and international export, re-export, or transfer ("export") laws. Diversion contrary to U.S. and international law is strictly prohibited.

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, CA 92121-1714
U.S.A.

Contents

1 Introduction.....	5
1.1 Purpose.....	5
1.2 Scope.....	5
1.3 Conventions	5
1.4 References.....	5
1.5 Technical assistance.....	6
1.6 Acronyms.....	6
2 QMI Global Constant Definitions.....	7
2.1 QMI service type values	7
2.2 QMI result codes.....	8
2.2.1 qmi_result code.....	8
2.2.2 qmi_error codes	9

Tables

Table 1-1 Reference documents and standards.....	5
Table 1-2 Acronyms	6
Table 2-1 QMI service and values	7
Table 2-2 qmi_result parameter values.....	8
Table 2-3 qmi_error parameter values	9

QUALCOMM®
2016-05-16 01:16:47 PDT
deon_zhang@askey.com.tw

Revision History

Revision	Date	Description
A	Apr 2006	Initial release.
B	Sep 2007	Updated Section 2.2.2.
C	May 2008	Updated Section 2.2.2 with new qmi_error_codes.
D	Oct 2008	Corrected the vendor-specific service range in Table 2-1; correct hex value of QMI_ERR_BUNDLING_NOT_SUPPORTED in Table 2-3.
E	Jan 2010	Added new QMI services and error codes.
F	Oct 2010	Modified QMI vendor-specific service ID range.
G	Mar 2011	Added new QMI services and error codes.
H	May 2011	Added new QMI error codes.
J	Dec 2011	Updated document title. Updated Section 2.1 and Section 2.2.2.
K	Sep 2012	Added new QMI services and error codes.

Note: There is no Rev. I, O, Q, S, X, or Z per Mil. standards.

1 Introduction

1.1 Purpose

This specification documents Major Version 1 of the Qualcomm Messaging Interface (QMI) for QMI Common Constant Definitions (QMI_COMMON).

QMI_COMMON enumerates the global constant definitions used by all QMI services.

1.2 Scope

This document provides QMI global constant definitions.

Chapter 1 provides information such as references and acronyms. Chapter 2 provides the global constant definitions for QMI services, which include enumerated values for QMI service types, result codes, and error codes.

1.3 Conventions

Function declarations, function names, type declarations, and code samples appear in a different font, e.g., `#include`.

Shading indicates content that has been added or changed in this revision of the document.

1.4 References

Table 1-1 lists reference documents, which may include Qualcomm documents and non-Qualcomm standards and resources. Reference documents that are no longer applicable are deleted from this table; therefore, reference numbers might not be sequential.

Table 1-1 Reference documents and standards

Ref.	Document	
Qualcomm		
Q1	Application Note: Software Glossary for Customers	CL93-V3077-1
Q2	Qualcomm MSM™ Interface (QMI) Architecture Document	80-VB816-1

1.5 Technical assistance

For assistance or clarification on information in this guide, submit a case to Qualcomm CDMA Technologies at <https://support.cdmatech.com/>.

If you do not have access to the CDMATech Support Service website, register for access or send email to support.cdmatech@qualcomm.com.

1.6 Acronyms

For definitions of terms and abbreviations, see [Q1]. Table 1-2 lists terms that are specific to this document.

Table 1-2 Acronyms

Acronym	Definition
QMI	Qualcomm messaging interface
QoS	Quality of service
RTP	Real-time Transport Protocol
TLV	type-length-value

2 QMI Global Constant Definitions

2.1 QMI service type values

Table 2-1 contains QMI service type values that are currently defined. These values are used to specify to which QMI service the messages are routed.

NOTE: The following table has been updated.

Table 2-1 QMI service and values

QMI service	QMI service type value
QMI_CTL (Control Service)	0x00
QMI_WDS (Wireless Data Service)	0x01
QMI_DMS (Device Management Service)	0x02
QMI_NAS (Network Access Service)	0x03
QMI_QOS (QoS Service)	0x04
QMI_WMS (Wireless Messaging Service)	0x05
QMI_PDS (Position Determination Service)	0x06
QMI_AUTH (Authentication Service)	0x07
QMI_AT (ATCoP) (Access Terminal Command Processor)	0x08
QMI_VOICE (Voice Service)	0x09
QMI_CAT (Card Application Toolkit)	0x0A
QMI_UIM (User Identity Module)	0x0B
QMI_PBM (Phone Book Manager)	0x0C
QMI_QCHAT (QChat™ Service)	0x0D
QMI_RMTFS (Remote File System)	0x0E
QMI_TEST (Test Service)	0x0F
QMI_LOC (Location Service)	0x10
QMI_SAR (Specific Absorption Rate)	0x11
QMI_IMS (IP Multimedia Subsystem)	0x12
QMI_ADC (Analog to Digital Converter)	0x13
QMI_CSD (Core Sound Driver)	0x14
QMI_MFS (Modem File System)	0x15
QMI_TIME (Time Service)	0x16
QMI_TS (Thermal Sensors)	0x17
QMI_TMD (Thermal Mitigation Device)	0x18
QMI_SAP (Service Access Proxy)	0x19
QMI_WDA (Wireless Data Administrative Service)	0x1A

QMI service	QMI service type value
QMI_TSYNC (TSync Control Interface)	0x1B
QMI_RFSA (Remote Filesystem Access)	0x1C
QMI_CSVT (Circuit-Switched Videotelephony)	0x1D
QMI_QCMAP (Qualcomm Mobile Access Point)	0x1E
QMI_IMSP (IP Multimedia Subsystem Presence)	0x1F
QMI_IMSVT (IP Multimedia Subsystem Videotelephony)	0x20
QMI_IMSA (IP Multimedia Subsystem Application)	0x21
QMI_COEX (Coexistence Service)	0x22
Reserved	0x23
QMI_PDC (Persistent Device Configuration)	0x24
Reserved	0x25
QMI_STX (Simultaneous Transmit Service)	0x26
QMI_BIT (Bearer Independent Transport)	0x27
QMI_IMSRTP (IP Multimedia Subsystem RTP)	0x28
QMI_RFRPE (Radio Frequency Radiated Performance Enhancement)	0x29
Reserved	0x2A-0xDF
QMI_CAT2 (Card Application Toolkit 2)	0xE0
QMI_RMS (Remote Management Service)	0xE1
QMI_OMA (Open Mobile Alliance – Device Management)	0xE2
Vendor-specific	0xE3-0xFF

2.2 QMI result codes

For QMI services that conform to the generalized QMI service message protocol, the result Type-Length-Value (TLV) is present in all response messages. The Result Code TLV consists of two parameters: `qmi_result` and `qmi_error`.

2.2.1 qmi_result code

The `qmi_result` parameter contains one of the values in [Table 2-2](#).

Table 2-2 qmi_result parameter values

Result code	Hex value
QMI_RESULT_SUCCESS	0x0000
QMI_RESULT_FAILURE	0x0001

All other values are reserved for future assignment.

2.2.2 qmi_error codes

The qmi_error parameter contains one of the values in [Table 2-3](#).

Table 2-3 qmi_error parameter values

Error code	Hex value
QMI_ERR_NONE	0x0000
QMI_ERR_MALFORMED_MSG	0x0001
QMI_ERR_NO_MEMORY	0x0002
QMI_ERR_INTERNAL	0x0003
QMI_ERR_ABORTED	0x0004
QMI_ERR_CLIENT_IDS_EXHAUSTED	0x0005
QMI_ERR_UNABORTABLE_TRANSACTION	0x0006
QMI_ERR_INVALID_CLIENT_ID	0x0007
QMI_ERR_NO_THRESHOLDS	0x0008
QMI_ERR_INVALID_HANDLE	0x0009
QMI_ERR_INVALID_PROFILE	0x000A
QMI_ERR_INVALID_PINID	0x000B
QMI_ERR_INCORRECT_PIN	0x000C
QMI_ERR_NO_NETWORK_FOUND	0x000D
QMI_ERR_CALL_FAILED	0x000E
QMI_ERR_OUT_OF_CALL	0x000F
QMI_ERR_NOT_PROVISIONED	0x0010
QMI_ERR_MISSING_ARG	0x0011
QMI_ERR_ARG_TOO_LONG	0x0013
QMI_ERR_INVALID_TX_ID	0x0016
QMI_ERR_DEVICE_IN_USE	0x0017
QMI_ERR_OP_NETWORK_UNSUPPORTED	0x0018
QMI_ERR_OP_DEVICE_UNSUPPORTED	0x0019
QMI_ERR_NO_EFFECT	0x001A
QMI_ERR_NO_FREE_PROFILE	0x001B
QMI_ERR_INVALID_PDP_TYPE	0x001C
QMI_ERR_INVALID_TECH_PREF	0x001D
QMI_ERR_INVALID_PROFILE_TYPE	0x001E
QMI_ERR_INVALID_SERVICE_TYPE	0x001F
QMI_ERR_INVALID_REGISTER_ACTION	0x0020
QMI_ERR_INVALID_PS_ATTACH_ACTION	0x0021
QMI_ERR_AUTHENTICATION_FAILED	0x0022
QMI_ERR_PIN_BLOCKED	0x0023
QMI_ERR_PIN_PERM_BLOCKED	0x0024
QMI_ERR_SIM_NOT_INITIALIZED	0x0025
QMI_ERR_MAX_QOS_REQUESTS_IN_USE	0x0026
QMI_ERR_INCORRECT_FLOW_FILTER	0x0027

Error code	Hex value
QMI_ERR_NETWORK_QOS_UNAWARE	0x0028
QMI_ERR_INVALID_QOS_ID/QMI_ERR_INVALID_ID	0x0029
QMI_ERR_REQUESTED_NUM_UNSUPPORTED	0x002A
QMI_ERR_INTERFACE_NOT_FOUND	0x002B
QMI_ERR_FLOW_SUSPENDED	0x002C
QMI_ERR_INVALID_DATA_FORMAT	0x002D
QMI_ERR_GENERAL	0x002E
QMI_ERR_UNKNOWN	0x002F
QMI_ERR_INVALID_ARG	0x0030
QMI_ERR_INVALID_INDEX	0x0031
QMI_ERR_NO_ENTRY	0x0032
QMI_ERR_DEVICE_STORAGE_FULL	0x0033
QMI_ERR_DEVICE_NOT_READY	0x0034
QMI_ERR_NETWORK_NOT_READY	0x0035
QMI_ERR_CAUSE_CODE	0x0036
QMI_ERR_MESSAGE_NOT_SENT	0x0037
QMI_ERR_MESSAGE_DELIVERY_FAILURE	0x0038
QMI_ERR_INVALID_MESSAGE_ID	0x0039
QMI_ERR_ENCODING	0x003A
QMI_ERR_AUTHENTICATION_LOCK	0x003B
QMI_ERR_INVALID_TRANSITION	0x003C
QMI_ERR_NOT_A_MCAST_IFACE	0x003D
QMI_ERR_MAX_MCAST_REQUESTS_IN_USE	0x003E
QMI_ERR_INVALID_MCAST_HANDLE	0x003F
QMI_ERR_INVALID_IP_FAMILY_PREF	0x0040
QMI_ERR_SESSION_INACTIVE	0x0041
QMI_ERR_SESSION_INVALID	0x0042
QMI_ERR_SESSION_OWNERSHIP	0x0043
QMI_ERR_INSUFFICIENT_RESOURCES	0x0044
QMI_ERR_DISABLED	0x0045
QMI_ERR_INVALID_OPERATION	0x0046
QMI_ERR_INVALID_QMI_CMD	0x0047
QMI_ERR_TPDU_TYPE	0x0048
QMI_ERR_SMSC_ADDR	0x0049
QMI_ERR_INFO_UNAVAILABLE	0x004A
QMI_ERR_SEGMENT_TOO_LONG	0x004B
QMI_ERR_SEGMENT_ORDER	0x004C
QMI_ERR_BUNDLING_NOT_SUPPORTED	0x004D
QMI_ERR_OP_PARTIAL_FAILURE	0x004E
QMI_ERR_POLICY_MISMATCH	0x004F
QMI_ERR_SIM_FILE_NOT_FOUND	0x0050

Error code	Hex value
QMI_ERR_EXTENDED_INTERNAL	0x0051
QMI_ERR_ACCESS_DENIED	0x0052
QMI_ERR_HARDWARE_RESTRICTED	0x0053
QMI_ERR_ACK_NOT_SENT	0x0054
QMI_ERR_INJECT_TIMEOUT	0x0055
QMI_ERR_INCOMPATIBLE_STATE	0x005A
QMI_ERR_FDN_RESTRICT	0x005B
QMI_ERR_SUPS_FAILURE_CAUSE	0x005C
QMI_ERR_NO_RADIO	0x005D
QMI_ERR_NOT_SUPPORTED	0x005E
QMI_ERR_NO_SUBSCRIPTION	0x005F
QMI_ERR_CARD_CALL_CONTROL_FAILED	0x0060
QMI_ERR_NETWORK_ABORTED	0x0061
QMI_ERR_MSG_BLOCKED	0x0062
QMI_ERR_INVALID_SESSION_TYPE	0x0064
QMI_ERR_INVALID_PB_TYPE	0x0065
QMI_ERR_NO_SIM	0x0066
QMI_ERR_PB_NOT_READY	0x0067
QMI_ERR_PIN_RESTRICTION	0x0068
QMI_ERR_PIN2_RESTRICTION	0x0069
QMI_ERR_PUK_RESTRICTION	0x006A
QMI_ERR_PUK2_RESTRICTION	0x006B
QMI_ERR_PB_ACCESS_RESTRICTED	0x006C
QMI_ERR_PB_DELETE_IN_PROG	0x006D
QMI_ERR_PB_TEXT_TOO_LONG	0x006E
QMI_ERR_PB_NUMBER_TOO_LONG	0x006F
QMI_ERR_PB_HIDDEN_KEY_RESTRICTION	0x0070
QMI_ERR_PB_NOT_AVAILABLE	0x0071

0xF000 to 0xFFFFE – Vendor-defined error codes

All codes in the range 0x0000 to 0xEFFF, except those that were previously mentioned in this section, are reserved for future assignment.

Refer to the individual service specification documents for the meanings of the error codes.