

GHA (Global Hexadecimal Administrator) Assignment Guidelines and Procedures for Mobile Equipment Identifier (MEID) and Short Form Expanded UIM Identifier (SF\_EUIMID)

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# Foreword

This foreword is not part of this specification.

This document contains the guidelines and procedures for the assignment and use of Mobile Equipment IDentifiers (MEIDs) for Mobile Stations (MSs), and Short Form Expanded UIM Identifiers (SF\_EUIMID) for R-UIMs or

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This specification was prepared by the Third Generation Partnership Project 2 (3GPP2).

(GHA).

#### 1.0 **PREFACE** 1 2 3 Correspondence relating to the administration herein should be directed to the MEID Global Hexadecimal 4 Administrator. 5 6 MEID Global Hexadecimal Administrator 7 c/o Telecommunications Industry Association 8 1320 N. Courthouse Rd. Suite 200 9 Arlington, VA 22201 USA 10 11 Phone: +1 703-907-7791 12 Fax: +1 703-907-7728 13 meidadmin@tiaonline.org 14 2.0 **SCOPE** 15 16 The Mobile Equipment IDentifier (MEID) [1] is used as a means to facilitate mobile equipment identification and to 17 track mobiles. Short Form Expanded UIM Identifier (SF\_EUIMID) [6], [7], with similar format to MEID, may be 18 stored on a Removable UIM (R-UIM) or CSIM and used to identify it for certain functions. The Global Equipment 19 Identifier (GEID) coordinated range encourages global roaming and harmonization between 3G technologies as a 20 universal mobile equipment identifier. 21 22 The fields in the MEID or SF EUIMID are coded with hexadecimal coding {note: SF EUIMID shall use RR=A0-23 FF (regardless if it is a CDMA only or GSM+CDMA card). The addressing space is quite large and exhaustion 24 issues are not expected. In further text, unless specifically noted otherwise, the term MEID will be used to mean 25 either MEID in the narrow sense (i.e. identifier stored on the mobile equipment hardware), or SF\_EUIMID (i.e. 26 identifier stored on the Removable User Identity Module (R-UIM) or CSIM. 27 28 GEID (i.e., IMEI and MEID) provides the manufacturer identity of the ME, and information such as type allocation 29 (for multi-mode MEID assignments) and serial number. By means of manufacturer's data base lookup, MEID may 30 help service providers identify the ME to the levels of model, manufactured factory and lot numbers. The 31 information can be used for corrective or preventive actions to improve the service quality. The MEID allows a list 32 of MEs that have been stolen or denied service to be maintained e.g., Central Equipment Identity Register (CEIR). 33 34 The MEID has a number structure and allocation system that is globally recognized and applied in multiple access 35 technologies. 36 37 Regulatory requirements associated with MEID are a subject of relevant laws and regulations, and relevant technical 38 specifications in the country where equipment is placed on the market. 39 These guidelines are in the context of international cellular telecommunications industry standards. It is 40 recommended that systems compliant with the industry standards follow these guidelines to facilitate international 41 roaming and to minimize fraud. 42 The MEID is entered into the MS by the manufacturer of the MS. The MEID is composed mainly of two basic 43 components, the manufacturer's code and the serial number. These guidelines specify the procedure for acquisition, 44 transfer, return and regulation of the MEID Manufacturer's (MFR) Codes. 45 These guidelines pertain to all digit segments of the MEID format. The GHA manages all digit segments of the 46 MEID, but directly administers only the MEID MFR Code segment. The manufacturer to which the MEID MFR 47 Code or subdivided segmented block is assigned directly administers the assigned Serial Number segment. Detailed 48 Mobile Equipment Identifier (MEID) assignment information is provided by the Global Hexadecimal Administrator

- 1 These guidelines apply globally; however, they do not supersede the regulations, procedures or requirements of any appropriate legal or regulatory authority.
- 3 A compliant MS must have an MEID in accordance with these guidelines.
- 4 Equipment identifiers other than MEID and SF\_EUIMID (e.g., ESN, UIM-ID [3],[4]) are not addressed here.

- If a multi-mode MS supports one or more 3GPP2 defined radio interfaces (e.g., analog, CDMA) and utilizes a single mobile equipment identifier, that identifier conforms to the MEID guidelines. If a multi-mode MS supports both
- 8 3GPP2 and 3GPP defined radio interfaces (e.g., CDMA, GSM), the mobile equipment identifier conforms to the
- 9 IMEI guidelines [3.2] and/or these guidelines.

3GPP2 SC.R4003-0

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## 11 3.0 INFORMATIVE REFERENCES

12 3.1 13

14 [1] 3GPP2 S.R0048-A 3G Mobile Equipment Identifier (MEID)

16 /

- [2] GSMA TS.06 IMEI Allocation and Approval Guidelines
- [3] 3GPP2 SC.R4004-0 UIM ID Manufacturer's Code Assignment Guidelines and Procedures

Expanded R-UIM Numbering Procedures

18 19 20

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[4] TIA ESN Manufacturer's Code Assignment Guidelines and Procedures

21 22 23

[5] 3GPP2 SC.R4001-0 Global Equipment Numbering Administrative Procedures

24 25 [6]

[7] 3GPP2 S.R0111-0 Expanded R-UIM ID Stage 1

26 27 28

[8] 3GPP2 X.S0008-0 Support for the Mobile Equipment Identity (MEID)

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## 4.0 ASSUMPTIONS AND CONSTRAINTS

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- These guidelines and procedures are based on the following assumptions and constraints:
- The guidelines are designed to provide the greatest latitude to MS, R-UIM and CSIM manufacturers while permitting the effective and efficient management of a finite resource.

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- The coordinating function of the GEID administration is performed by the Global MEID Administrators. (See Ref. [5]).
- The function of the IMEI Global Decimal Administration (GDA) is performed by an appointed
   IMEI Administrator.
- 41 4.2.2 The function of the MEID Global Hexadecimal Administration (GHA) is performed by the 3GPP2 appointed MEID Administrator.
- 43 4.3 The guidelines as set forth in this document remain in effect until there is change as a result of 3GPP2 standards development or regulatory policy (where applicable) direction to change them.
- The guidelines do not describe the method by which MEIDs are transmitted across and processed by networks. Network interworking arrangements are contained in other standards, documents, or business agreements.

1 2	4.5	The applicant/assignee of an MEID MFR Code(s) should provide evidence of credentials, if requested, to produce MSs.			
3 4 5	4.6	The GHA may appoint other regional entities as a regional reporting body with MEID assignment authorization.			
6 7 8 9 10 11	4.7	Without authorization of 3GPP2, the Administrator shall take no action impacting legacy equipment identifiers. Administration and Implementation of MEID shall have no negative impact on the application and use of legacy equipment and identifiers (e.g., ESN, UIM ID).			
13	5.0	MEID FORMAT AND FUNCTION			
14	5.1	The 56-bit MEID identifier structure is compatible between 3GPP IMEI and 3GPP2.			
15 16	5.2	Each MS is assigned a unique MEID. When used as SF_EUIMID, it is uniquely assigned to an R-UIM or CSIM.			
17 18	5.3	The MEID identifies the manufacturer of the MS. When SF_EUIMID is assigned to an R-UIM or CSIM, it identifies an R-UIM or CSIM manufacturer.			
19 20	5.4	MEID Structure and Format			
21 22 23 24		The MEID digit range is hexadecimal and syntactically consistent with the IMEI structure. However, the MEID structure does not utilize all of the fields in the exact semantic manner as in IMEI. The MEID numbering space is allocated in a manner that does not impact the decimally encoded IMEI. The MEID structure is also consistent with the ESN allocation scheme which uses 24-bit Serial Numbers.			
25	The M	EID structure:			
26		Manufacturer Code Serial Number CD R R X X X X X X X Z Z Z Z Z Z C			
27	In the	case of MEIDs for terminals conforming exclusively to 3GPP2 technology, all of these fields are defined as			
28 29 30 31 32	hexad	ecimal values with the following valid range:  RR - valid range A0 FF - globally administered by GHA  XXXXXX - valid range 000000 FFFFFF  ZZZZZZ - valid range 000000 FFFFFF  C - valid range 0 F - not transmitted over the air			
33	In the case of MEIDs for terminals designed to comply with both 3GPP and 3GPP2 air interface specifications (i.e.				
34		mode terminals), all of these fields are defined as decimal values. The following valid decimal ranges are			
35 36	globally assigned by the GHA <sup>1</sup> for multimode terminals (Note: other multimode ranges are globally administered by the GDA from allocation space within other individual GDA RR decimal ranges):				
37 38 39 40 41 42		RR - valid range '99', '98', '97' – globally administered by GHA XXXXXX - valid range 000000 999999 ZZZZZZ - valid range 000000 999999 C - valid range 0 9 – not transmitted over the air			

<sup>1</sup> GHA presently assigning RR 99 range.

1		5.4.1	Numbering Capacity
2		The M	EID numbering capacity can be computed as follows:
3 4 5			There are 96 codes when RR is restricted to the A0 FF range. Note that additional 60 codes could be made available in the ranges of 0A 0F, 1A 1F, 2A 2F,, 9A 9F, subject to industry agreement. [3.5]
6			There are 16,777,216 codes in the XXXXXX field.
7			There are 16,777,216 Serial Numbers in ZZZZZZZ field.
8	The to	tal numb	ering capacity exceeds 281 x 10^12 (281 trillion) per RR code.
9 10			e hardware identifier migrated from the ESN, and SF_EUIMID is a card identifier migrated from the s derived from the ESN.
11		The cu	rrent ESN numbering space consists of:
12			256 Manufacturer Codes (8-bit).
13			16,777,216 Serial Numbers per Manufacturer Code.
14 15 16 17 18	per RR	code. T	rides for a raw numbering space that is 65,535 times the size of the existing ESN numbering space he total numbering space using 96 RR codes represents a space that is 6,291,456 times as large as the mbering space.
19 20 21	5.5 with th		EID does not specify the frequency band, air-interface technology or supported service associated
22 23 24	6.0		O SPECIFIC GDA and GHA ASSIGNMENT GUIDELINES RDINATION
25 26 27 28	proced	ures and/	ded for Sections 2.8, 6.3, 6.4, 6.5 of the Global Numbering document Ref [5], the working or terms of reference of the GDA and GHA take precedence over the Global Numbering Procedures (see Ref. [5] Section 3.3).
29 30	7.0	ASSI	GNMENT PRINCIPLES
31 32 33	7.1	maxim	MFR Codes shall be assigned to permit the effective and efficient use of a finite resource in order to ize the existing allocated resource inventory and to defer, as long as practical, the need to request nal or replacement for MEID MFR Code resources.
34 35 36	7.2	MS m	application, the MEID administrator shall assign one or more MEID MFR Code(s) to each legitimate anufacturer, R-UIM or CSIM manufacturer. An MEID MFR Code shall not be simultaneously ed to more than one MEID manufacturer.
37		The M	EID Administrator presently assigns MEIDs in;
38 39 40 41			MFR Code Deployable singlemode hexadecimal blocks of 16,777,216. The MFR ID Code portion 6) hex digits.
12 13		_	nented MFR Code Deployable singlemode hexadecimal blocks of 1,048,576. The MFR ID Code a = seven (7) hex digits.
14			Case the Manufacturer Code field borrows a digit from the Serial Number field:  Manufacturer Code  Serial Number  CD  CD
		R	R X X X X X X X X X X X X X X X X X X X

1 2		- Multimode Deployable blocks of 1,000,000. The MFR ID Code / IMEI TAC portion = $six$ (6) decimal digits.
3		- MEID MFR Code hexadecimal blocks of 2048 units for singlemode testing purposes.
4		- MEID MFR Code / IMEI TAC in decimal blocks of 2000 units for multimode testing purposes.
5 6 7		Note: MEID MFR Code block contains 16,777,216 MEIDs. This block can be either assigned by the GHA as a whole, or it can be subdivided and assigned as 16 blocks of 1,048,576 (1,000,000 if multimode Decimal range) MEIDs each, 32 blocks of 524,288 or 64 blocks of 262,144.
8 9 10		A segmented MEID MFR Code may be assigned by the MEID Administrator, at his or her discretion, when it is judged that a segmented code may be an efficient use of the MEID MFR Code resource. This is the preferred method to help mitigate future exhaust concerns
11 12 13 14 15		To responsibly address future numbering resource exhaust and also accommodate smaller manufacturer needs, Segmented Code deployable block assignment is the preferred method to assign MEID resources. Detailed Mobile Equipment Identifier (MEID) assignment information is provided by the Global Hexadecimal Administrator (GHA).
16 17	7.3	Reassignment; An unused MEID MFR Code that is recovered or returned from a previous assignee may be reassigned by the GHA to another manufacturer without limitation according to the principles in section 13.
18 19 20 21	7.4	An MEID Serial Number is assigned by the manufacturer to each MS, R-UIM or CSIM which it manufactures. An MEID is unique to a single MS, R-UIM or CSIM. The manufacturer exercises due diligence in the design and manufacture of the MS, R-UIM or CSIM to ensure tamper resistance of the factory set MEID outside of place of manufacture and authorized service centers.
22 23 24	7.5	MEID MFR Codes are a global public resource. The assignment of any MEID MFR Code does not imply ownership of the resource by either the entity to which it is assigned or by the entity performing the administrative function.
25 26	7.6	Should a manufacturer transfer production of a type of MS, R-UIM or CSIM to a different manufacturer, then the use of the assigned MEID MFR Code is transferable to the new manufacturer using the Form D.
27	7.7	The MEID administrator:
28 29		<ul> <li>Assigns MEID MFR Codes in a fair, timely and impartial manner to any applicant that meets the criteria for assignment.</li> </ul>
30 31 32 33		<ul> <li>Address each application in the order they are received and assign MEID MFR Codes from the available pool of unassigned codes based on applicant information provided and historical data. When all of the codes have been assigned, codes that had been assigned but never used and subsequently recovered by the MEID Administrator are assigned.</li> </ul>
34		Makes all assignments based on the procedures in these guidelines.
35 36		• Shall treat sensitive information received from applicants as proprietary and confidential, and not share with non-administrator personnel.
37 38 39	7.8	Information that is requested of applicants in support of an MEID MFR Code application shall be uniform and should be kept to a minimum. In the case of multimode IMEI/MEID equipment, the information to be divulged differs and is more detailed than for non-multimode terminals (see Ref. [2].
40 41 42 43	7.9	Assigned MEID MFR Codes should start to be deployed as soon as possible, but no later than twelve months after assignment. If the assignee can demonstrate that an assigned MEID MFR Code has not started to be consumed solely due to delays beyond its control, the time period can be extended for up to 90 days. At the discretion of the administrator, three additional 90-day extensions may be granted.

- 1 7.10 An entity which is denied an MEID MFR Code assignment or extension under these guidelines has the right to appeal that decision.
- 7.11 Entities applying for assignment of MEID MFR Code(s) (see Ref. [5] Section 3.3), or entities to which
   MEID MFR Code(s) have been assigned shall comply with these guidelines.
- 5 7.12 There may be an administrative fee associated with an application for an MEID MFR Code(s).

#### 7 8.0 CRITERIA FOR MEID ASSIGNMENT

- 8 The assignment criteria in this section should be considered by a potential MEID MFR Code applicant before
- 9 submitting an MEID MFR Code application and is used by the MEID administrator in reviewing and processing an
- 10 MEID MFR Code application:
- Applicants for an MEID Manufacturer Code must satisfy the Administrator that they intend to place equipment on the market. (e.g., FCC Identifier and Grant Date).
- An MEID MFR Code is only assigned by the administrator upon receipt and approval of a completed *Form* A MEID Manufacturer's Code Application.
- Form A should indicate the anticipated number of MFR Codes initially required. This information is held confidential by the MEID Administrator.

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# 18 9.0 RESPONSIBILITIES OF MEID MANUFACTURER'S CODE APPLICANTS & ASSIGNEES

- 20 Entities requesting MEID MFR Code assignments shall comply with the following:
- 9.1 MEID MFR Code applicants and assignees must meet all conditions specified in these guidelines. Copies
   of the guidelines may be obtained from the MEID Administrator or overseeing industry body.
- 23 9.2 Applicants must apply in writing to the MEID Administrator by completing *Form A MEID MFR Codes* 24 Application. Copies of all required forms are included in these guidelines.
- 25 9.3 The MEID shall be set by the manufacturer. The manufacturer shall make every reasonable effort for the MEID to be not alterable, not capable of duplication nor removable outside of a manufacturer authorized 26 27 service center, and any attempt to remove, tamper with, or change the MEID host component or operating 28 system as originally programmed by the manufacturer shall render the MS inoperative. Where a dedicated 29 MEID device is utilized, it must be permanently attached to the device that reads the MEID and the path to 30 the device must be secured. The device shall not be removable and its pins shall not be accessible. The 31 MEID is incorporated in an MS module, which is contained within the MS equipment. The MEID shall not 32 be changed after the ME's final production process. It shall resist tampering, i.e. manipulation and change, 33 by any means (e.g. physical, electrical and software). The manufacturer who is also responsible for 34 ascertaining that each MEID is unique and keeping detailed records of produced and delivered MS, R-UIM 35 or CSIM should carry out implementation of each individual module.
- 36 9.4 MEID MFR Code assignees shall:
  - 9.4.1 Assign a different MEID to each MS, R-UIM or CSIM, within the range allocated to the manufacturer. Note: R-UIM or CSIM vendors may subdivide their assigned MC (also known as "Issuer Code" see [6] ) or their MC segment among network operators, but all SF\_E-UIM\_IDs associated with it must be used as E-UIM\_IDs (i.e. none can be used as MEIDs for MEs). When submitting Form A Mobile Equipment IDentifier (MEID) Application, one or the other must be identified in the General description of the MS, R-UIM or CSIM MEID Use Declaration line item.

1 2 3 4 5		9.4.2	Assign and efficiently manage the Serial Number associated with the assigned MEID MFR Codes. Maintain up-to-date and accurate assignment records that match MEIDs of their produced MSs, R-UIMs or CSIM. These records may be required for audit purposes. Receipt of Form G is also used as an audit tool. Unused ranges of MEID Code(s) assignments may be candidates for reclamation and reassignment.
6 7 8 9 10 11 12		9.4.3	Inform the MEID administrator of changes in the information associated with an MEID MFR Code assignment by using Form D – Request for Change in MEID Assignment Information. Changes may occur because of the transfer of an MEID MFR Code(s), through merger or acquisition, to a different MS manufacturer. The initial assignee of the MEID MFR Codes involved in a transfer occurring through merger, acquisition or other means must immediately inform the MEID Administrator when such a change becomes effective. Timely submission of change information enables the MEID Administrator to maintain accurate MEID MFR Code assignment records.
14		9.4.4	Participate in review of the MEID process, when requested.
15 16 17		9.4.5	Deploy any MEID MFR Code, assigned either directly by the administrator or obtained through merger or acquisition, within the time period specified. Inform the MEID Administrator of MEID MFR Code deployment by submitting <i>Form C – MEID Use Declaration</i> .
18 19		9.4.6	Apply to the MEID Administrator for an extension if the deployment requirement cannot be met and the MEID MFR Code is still required.
20		9.4.7	Return to the Administrator, using Form F – MEID Assignment Return:
21 22 23			<ul> <li>Any MEID MFR Code no longer needed for the production of MSs. An assignee that does not completely use MEID MFR(s) assignments should return the unused MEID MFR(s) to the MEID Administrator as soon as possible,</li> </ul>
24 25			<ul> <li>Any MEID MFR Code not deployed within the time period specified, including extensions, or</li> </ul>
26 27			Any MEID MFR Code not used in conformance with these assignment guidelines.
28 29 30		9.4.8	Return to the MEID Administrator, on an annual basis on the anniversary date of the issuance of the MEID MFR Code, a duly completed and signed $Form\ G$ .
31 32	10.0	RESPO	ONSIBILITIES OF THE MEID ADMINISTRATOR
33 34			EID Administrator is to manage the entire MEID resource and to directly administer the MEID nt of the MEID. In this context, the MEID Administrator shall:
35 36	10.1		o the industry general and specific information on the structure, proper use and management of or MSs, R-UIMs or CSIMs meeting regulatory requirements.
37 38	10.2		copies of these guidelines and forms to MEID MFR Code applicants and assignees, and assist them eting the required forms.
39	10.3	Review a	and process MEID MFR Code applications as follows:
40 41		10.3.1	Review the application to determine if all requested information is provided and credible. If not, return the application to the applicant requesting that any deficiency be corrected.
42 43		10.3.2	Inform applicants of the status of their requests using <i>Form B – MEID Manufacturer's Code Application Disposition</i> . There are two possible dispositions: 1) granted or 2) additional

1 2			information required. Notify the applicant in writing of the disposition within thirty days from receipt of Form A. The response includes:
3			• If granted, the specific MEID MFR Code(s) assigned,
4			If additional information is required, the specific information required.
5 6		10.3.3	Keep confidential all information relative to anticipated volume of MSs, R-UIMs or CSIMs and/or market launch details provided by applicant.
7 8	10.4	Use the fo	ollowing MEID MFR Code assignment procedures:
9		10.4.1	The Administrator should assign MEID MFR Codes in numerical sequence.
10 11 12		10.4.2	There may be considerations or limitations on the part of the manufacturer that require a specific assignment or preclude them being able to use the next consecutive MEID MFR Code assignment. These exceptions are set forth below and in the addenda (if any) to this document.
13 14		10.4.3	The following MEID MFR Code(s) are not available for MFR Code assignment due to previous assignment and reservation (also see Section 18) e.g., test mobiles, expansion space:
15			Code A0000000 (Not available)
16			Code FFFFFFF (Not available)
17 18 19 20 21 22		10.4.4	MEID MFR Code applicants eligible for multiple MEID MFR Codes (i.e., applicants with high run rates as determined by the MEID Administrator using historical data and unbiased judgment may request that such codes be assigned in the next available block of numerically sequential codes (excepting those codes reserved or unavailable for assignment, pursuant to Section 9.4.2 or any subsequent addenda to these guidelines). In such cases, a separate Form A should be submitted for each MEID MFR Code required, along with a cover letter requesting their assignment in a sequential block.
24 25 26 27	10.5	Maintain accurate and current MEID MFR Code assignment records. Update the records as required to respond to requests for changes in assignment information reported by MEID MFR Code assignees. Respond to these requests within thirty days using Form E – Confirmation of Change of MEID Assignment Information.	
28 29 30	10.6		monthly, via the agreed medium, a list of assigned MEID MFR Codes. The list includes the MEID de number, the manufacturer to which the code is currently assigned, and the entity contact and
31 32	10.7		number of MEIDs assigned and report this data regularly to the applicable Standards nent Organizations.
33 34 35	10.8	issue exte	te any MEID MFR Code that has not started to be deployed within the required time frame, and ensions if appropriate. Notify the appropriate Engineering Committee if an assignee fails to start to assigned MEID MFR Code within two extensions.
36	10.9	Reclaim a	assigned MEID MFR Code(s), as needed.
37 38	10.10	Direct the	e MEID conservation program and conduct periodic reviews, as required, of MEID MFR Code records.
39 40	10.11	Inform th	e wireless telecommunications industry, via the agreed method, of any revisions to these s.

1 2 3	10.12	The term of the MEID Administrator shall be for one (1) year from the date of appointment by the overseeing industry body. One (1) extension of the appointment is automatic. The appointment may be reviewed by the overseeing industry body at any time.
4		
5 6 7	11.0	MEID MANUFACTURER'S CODE RETURN AND RECLAMATION PROCEDURES
8	11.1	Assignee responsibilities:
9 10 11 12		Assignees shall return MEID MFR Code(s) that are no longer required, not deployed, or not used in conformance with these assignment guidelines. In addition, assignees shall return the Code(s) and an indication of the range of Serial Numbers that have been used if the manufacturer has not manufactured an MEID MS, SF_MEID R-UIM or SF_MEID CSIM for at least one year.
13 14		Assignees shall cooperate with the MEID Administrator in carrying out its reclamation and review responsibilities.
15	11.2	Administrator responsibilities:
16 17 18		The MEID Administrator shall contact any MEID MFR Code assignee identified as not having returned to the Administrator, for reassignment, any MEID MFR Code(s) no longer required, not deployed, or not used in conformance with these assignment guidelines.
19 20 21 22 23 24 25 26 27		The Administrator shall first seek clarification from the assignee regarding any alleged non-use or misuse. If the assignee provides an explanation satisfactory to the administrator, and in conformance with these assignment guidelines, the MEID MFR Code will remain assigned. If no satisfactory explanation is provided, the Administrator will request a letter from the assignee returning the assigned code(s) for reassignment. If a direct contact can not be made with the assignee to effect the above process, a registered letter will be sent to the assignee address of record requesting that they contact the Administrator within thirty days regarding the alleged code non-use or misuse. If the letter is returned as non-delivered, the Administrator will advise the overseeing industry body i.e., the body that Administrator reports to (e.g. ESN Administrator reports to TIA).
28 29 30		The MEID Administrator will consult with the overseeing industry body for guidance on any instance which is not resolved through the procedures in the paragraph above. The overseeing industry body will coordinate with appropriate industry for a in seeking a suggested resolution.
31 32 33		If the overseeing industry body cannot suggest a resolution, or if the MEID MFR Code assignee will not comply with the resolution suggested by the overseeing industry body, the MEID Administrator may refer the case to the appropriate regulatory body (pertinent to the jurisdiction where the assignee is located).
34	11.3	The overseeing industry body responsibilities:
35 36		<ul> <li>Accept all referrals of alleged non-use or misuse of MEID MFR Codes from the MEID Administrator or any other entity (also see section 15.0 regarding dispute resolutions),</li> </ul>
37		• Investigate the referral,
38		• Review referrals in the context of these assignment guidelines,
39		• Attempt to identify a suggested resolution of the referral, and
40 41		• Inform the MEID Administrator of the suggested resolution, if identified, or that the overseeing industry body was unable to identify a suggested resolution,

2			ly may initiate the guidelines revision process [Section 14].
3 4			terial changes or exceptions to these procedures should occur with industry consensus reflected in change process, and in accord with Global Administration Procedure evolution.
5			
6	12.0	MEID	RESOURCE CONSERVATION AND ASSIGNMENT REVIEWS
7 8	12.1	Assignm objective	ent and management of MEID resources are undertaken with the following conservation es:
9		• To	efficiently and effectively administer/manage a limited resource through code conservation, and
10		• To	eliminate or delay the potential for MEID exhaustion.
11 12			tess to achieve these objectives should not impede the introduction of competitive wireless services to MEIDs.
13 14	12.2		ote the efficient and effective use of numbering resources, reviews of MEID MFR Code ents may be performed to ensure consistent compliance with these guidelines.
15 16 17	12.3	ensure th	ID Administrator tracks and monitors MEID MFR Code assignments and assignment procedures to at all segments of the MEIDs are being used in an efficient and effective manner. Ongoing rator procedures that foster conservation shall include, but not be limited to, the following:
18		• An	active reclamation program to reclaim unused or misused MEID MFR Code,
19 20			ict conformance with these guidelines by those assigning MEID MFR Codes and MEID Serial mbers,
21 22			propriate and timely modifications to these guidelines to enhance text that may have allowed fficient use of MEID MFR Codes,
23		• Per	iodic specific and random reviews of assignments and assignment procedures.
24 25 26 27 28		TA GS	MA have re-examined the issue of TAC/MFR ID exhaustion in preparation for the "one model one C/MFR ID". The new forecast indicates that there are multiple 100s of years of capacity available. MA confirmed that TAC exhaustion is not an issue and does not need to influence TAC/MFR ID ocation activity.
29 30 31 32 33 34 35	12.4	review m Administ from a m the MEII	ID Administrator may initiate a review of an MEID MFR Code assignee's assignment records. The nay be precipitated by a complaint from outside the Administrator's organization or by the trator. The review shall be initiated if a request for an MEID MFR Code assignment is received nanufacturer that already has an MEID MFR Code assignment. The purpose of a review is to verify D MFR Code assignee's compliance with the provisions set forth in these guidelines. The review is ed by the MEID Administrator or by a neutral third party acceptable to the reviewed party and the trator.
36 37		12.4.1	These reviews are conducted at the MEID MFR Code assignee's premises or at a mutually agreed to location and at a mutually agreed to time.
38 39		12.4.2	The MEID Administrator shall not copy or remove the information from the premises nor disclose the information to non-MEID Administrator personnel.
40 41		12.4.3	The MEID Administrator reviews the following information to ensure conformance with these guidelines and the proper use of the MEID resource:

1 2 3 4 5 6 7		• Verification that not more than one MEID MFR Code is assigned unless near serial number exhaustion has been reached under all but one of the assigned MEID MFR Codes, or, if a new MEID MFR Code assignment has been requested, verification that near serial number exhaustion has been reached under all assigned MEID MFR Codes. However, a manufacturer can request the assignment of multiple MEIDs if that manufacturer can certify that they reasonably expect to exhaust all their assigned MEIDs within six months of issuance.
8 9		<ul> <li>Verification of assignment for each working MEID MFR Code, (e.g. declaration from manufacturer)</li> </ul>
10		<ul> <li>Date of assignment of each working MEID MFR Code,</li> </ul>
11		<ul> <li>Implementation date of each working MEID MFR Code,</li> </ul>
12		• Indication of MEID Serial Number assignment to MSs, R-UIMs or CSIMs, and
13 14		• Status and status date of each MEID MFR Code unavailable for assignment; <i>i.e.</i> , MEID MFR Codes reserved, aging, pending and/or, suspended.
15 16 17	12.5	Review results should be used to identify and recommend to the overseeing industry body specific corrective actions that may be necessary. Examples of specific corrective actions, which may be proposed, are as follows:
18 19		<ul> <li>Modifications to these assignment guidelines to reflect the specific circumstance revealed by the review,</li> </ul>
20		Additional training for MEID MFR Code assignees concerning the assignment guidelines,
21		• Return of assigned MEID MFR Code,
22 23		• Requirements for supporting documentation of future MEID MFR Code requests in non-compliant situations, or
24		• Modifications to the process in which records are maintained or MEID MFR Codes are assigned.
25 26	12.6	Review results with respect to MEID MFR Code assignee information and/or recommended MEID MFR Code assignee process modifications shall be treated on a proprietary and confidential basis.
27 28	12.7	Failure to participate or cooperate in a review shall result in the activation of MEID MFR Code reclamation procedures.
29		
30	13.0	MEID EXHAUSTION CONTINGENCY
31 32	13.1	When 75% of all the available MEID MFR Codes have been assigned, or assignments are exceeding 10% of the resource per year, the MEID Administrator shall inform the overseeing industry body.
33 34	13.2	When the MEID Administrator informs the overseeing industry body that the MEID MFR Codes are approaching exhaustion, the overseeing industry body:
35 36		• Conducts a review of current MEID MFR Codes assignments to ensure that efficient MEID MFR Codes utilization is in effect, and, if not,
37 38		<ul> <li>Recommends additional procedures to be initiated to effect more efficient MEID MFR Codes utilization, or if efficient utilization is in effect,</li> </ul>

1 2		<ul> <li>Makes a determination of the most efficient method of expanding the MEID keeping in mind the requisite lead time required to adequately address the network elements which utilize the MEID.</li> </ul>
3 4 5 6	13.3	Using data provided by the overseeing industry body, the wireless industry shall undertake to specify the desired method and time frame needed to implement the proposed changes in the MEID. There should be concurrence from all disciplines in the wireless industry as to the method and time frame for implementation of a replacement for MEID MFR Codes.
7 8	13.4	A partially used MEID MFR Code may be reassigned to another manufacturer for use with limited serial numbers if a significant block of serial numbers associated to that MEID MFR Code remained unassigned.
9 10		When the criteria in section 13.1 have been reached the administrator may recommend methods of conservation and re-use of parts of assigned blocks that will not be used.
11 12 13 14 15 16 17 18		An MEID MFR Code(s) recovered or returned to the administrator for reassignment may remain dormant. If no MSs, R-UIMs or CSIM have been manufactured by the previous assignee, the code(s) may be reissued. If, however, MSs, R-UIMs or CSIM have been produced and sold, the code(s) shall be blocked from future use. As the need for MEID MFR Codes becomes critical (e.g., 90% of available codes are assigned), codes which have been partially used by a previous assignee may be re-assigned with serial number range limitations. That is, if the previous assignee had only produced a limited number of equipment using a contiguous serial number range, the present assignee may use the code to produce equipment with serial numbers that do not duplicate those of the previous assignee. It should be recognized that the re-issue of an MEID MFR Code is considered an exceptional measure anticipated to be invoked only during MEID resource exhaust timeframes.
21		
22	14.0	MAINTENANCE OF GUIDELINES
23 24 25 26 27	admini identify identify	be necessary to modify the guidelines periodically to meet changing and unforeseen circumstances. The strator, any entity in the wireless telecommunications sector or the appropriate wireless industry forum, may the need for guidelines modification. When need for modification is identified by other than the forum, the ring entity submits the modification issue to the forum. The forum coordinates the modification process. ons or concerns regarding the maintenance of the guidelines may be directed to:
28		MEID Global Hexadecimal Administrator
29		c/o Telecommunications Industry Association
30		1320 N. Courthouse Rd. Suite 200
31		Arlington, VA 22201 USA
32		Phone: +1 703-907-7791
33		Fax: +1 703-907-7728
34		meidadmin@tiaonline.org
35		$\circ$
36		
37	15.0	APPEALS PROCESS
38 39 40 41 42	admini Admin disagre	ements may arise between the MEID Administrator and MEID applicants or assignees in the context of the stration and management of MEIDs and the application of these guidelines. In all cases, the MEID istrator and MEID applicants/assignees shall make reasonable, good faith efforts to resolve such ements among themselves, consistent with the guidelines, prior to pursuing any appeal. Appeals may include not limited to, one or more of the following situations,
13 14 15	Assign	omitting an application for MEID Codes, accepting these Guidelines, or accepting any MEID MFR Codes ments, the company agrees that these Guidelines and all disputes arising out of or relating to the application assignment of MEID MFR codes shall be governed by the laws of the state of Virginia without giving effect to

- 1 applicable conflict of laws provisions. The parties further agree that they will first attempt to resolve any and all
- 2 disputes, differences, or questions arising out of or relating to these Guidelines, or the validity, interpretation, breach,
- 3 or violation or termination thereof through a meeting of the principals of the parties. Such meeting may be in person,
- 4 via telephone or via videoconference. If such a meeting does not resolve the dispute between the parties, the matter
- 5 must first be brought to a meeting of the TIA TR-45 EUMAG. If that meeting does not resolve the issue, the matter 6 must then be brought to the industry experts participating in TIA TR-45. In the event such meetings are
- 7 unsuccessful, then such dispute shall be finally and solely determined and settled by arbitration in Washington, D.C.
- 8 in accordance with the Commercial Arbitration Rules of the American Arbitration Association.
- 9 arbitration proceedings, the arbitrators shall adopt and apply the provisions of the Federal Rules of Civil Procedure
- 10 relating to discovery so that each party shall allow and may obtain discovery of any matter not privileged which is
- 11 relevant to the subject matter involved in the arbitration to the same extent as if such arbitration were a civil action
- 12 pending in a United States District Court. Judgment upon any arbitration award may be entered and enforced in any
- 13 court of competent jurisdiction. All notices required hereunder shall be in writing.
- 14 Reports on any resolution resulting from the above situations, the content of which is mutually agreed upon by the
- 15 involved parties, and kept on file by the MEID Administrator. At a minimum, the report contains the final
- disposition of the appeal; e.g., whether or not an MEID was assigned. 16
- 17 16.0 **GLOSSARY**
- 18 3GPP - Third Generation Partnership Project
- 19 3GPP2 - Third Generation Partnership Project Two
- 20 Assignee - The entity to which an IMEI, MEID, UIM or ESN has been assigned for the manufacture of mobile
- 21 stations.
- 22 CEIR - Central Equipment Identity Register
- 23 CMRS - Commercial Mobile Radio Service. A mobile service (or functional equivalent) that is (1) provided for 24 profit, (2) an interconnected service, and (3) available to the public, or to such classes of eligible users as to
- 25 be effectively available to a substantial portion of the public.
- 26 Conservation - Consideration given to the efficient and effective use of a finite resource in order to minimize the 27 need to expand its availability while at the same time allowing the maximum flexibility in the introduction
- 28 of new services, capabilities and features.
- 29 CSIM - CDMA2000® Subscriber Identity Module
- 30 ESN - The Electronic Serial Number
- 31 EUIM-ID - Expanded R-UIM Identity
- 32 GAN - Generic Access Network
- 33 GDA - Global Decimal Administrator
- 34 GHA - Global Hexadecimal Administrator
- 35 GEID - Global Equipment Identifier encompasses both the GDA and GHA assignable numbering range for
- 36 coordinated global roaming and harmonization between 3G technologies as a universal mobile equipment
- 37 identifier.
- 38 GSMA - GSM Association
- 39 IMEI - International Mobile Equipment Identity, which may uniquely identify a mobile station
- 40 ME - Mobile Equipment. ( See also Mobile station, R-UIM or CSIM)

- *MEID* Mobile Equipment Identity, which may uniquely identify a mobile station
- *MS* Mobile Station. Interface equipment used to terminate the radio path at the user side. The mobile station contains an Electronic Serial Number and other identification information, either a Mobile Identification Number (MIN) or an International Mobile Station Identification (IMSI).
  - Multi-Mode IMEI/MEID MS Mobile Station designed to operate according to more than one air interface or Network specification. Terminals designed to comply with both 3GPP and 3GPP2 specifications. Note: IMEI /MEID Manufacturers ID Code field is similar to an IMEI TAC field.
  - Overseeing Industry body The body that the MEID Administrator reports to (e.g. ESN Administrator and MEID Administrator reports to TIA).
  - Regulatory Approved Licensed two-way CMRS service provider Any entity that is authorized, as appropriate, by local, state, or federal regulatory authorities to provide two-way mobile stations to the public.
  - R-UIM Removable User Identification Module, often called the Subscriber Identity Module (SIM) card.
  - Sensitive Information Information expressly identified as such by applicant or information on submitted forms other than manufacturer name and contact information.
  - Serial Number The portion of the MEID or IMEI that uniquely identifies the MS within the Manufacturer code allocation space.
  - SF\_EUIMID Short Form EUIM-ID
  - SIM Subscriber Identity Module card (similar to R-UIM, CSIM)
  - *TAC* Type Allocation Code (IMEI 3GPP terminology)
  - UIM User Identification Module

#### 17.0 MEID ADMINISTRATIVE REPORT INFORMATION

An extract of the MEID administrative report will be posted and found at <a href="www.tiaonline.org">www.tiaonline.org</a> when deployed.

## 18.0 MEID MANUFACTURER'S CODE ASSIGNMENT

The MEID administrative code assignment information and MEID online assignment capabilities will be posted and found at <a href="https://www.tiaonline.org">www.tiaonline.org</a> (Note - The web site link with extracted code assignment information and the TIA online MEID assignment database with login/password credentials are in TIA deployment stages).

The following table is an example extracted from a recent GHA MEID Administrator's Report distributed prior to the revised Assignment Guidelines and Procedures approved version.

Manufa	cturer Code	Manufacturer (list manufacturer name or regional administration body and
Hexadecimal	Decimal	contact information when allocated)
	98dddddd	GHA (for 3GPP/3GPP2 multi-mode terminals) <see below="" note="" table="" this=""></see>
	99dddddd	GHA (for 3GPP/3GPP2 multi-mode terminals) (Start)
A0000000		Reserved for test / prototype mobiles allocated in small quantities
A0000001		Available for allocation to regional administration bodies or mobile
		manufacturers (Start)
>	>	Available for allocation to regional administration bodies or mobile
		manufacturers
FFFFFFE	4,294,967,294	Available for allocation to regional administration bodies or mobile
		manufacturers
FFFFFFF	4,294,967,295	Reserved

Note: With the exception of ranges assigned by the GDA prior to January 2010.

1	19.0 MEID APPLICATION AND RELATED FORMS PACKAGE
1 2 3 4 5 6	The MEID db online application method is the preferred method for MEID Application and Assignment and is found at https://meid.tiaonline.org . The online application process adheres to the same guidelines herein. Also see Annex A.
7 8 9	The forms in this package are used for communication between the MEID Administrator and applicants for assignees of these resources. The online MEID application process will be the primary application method when available (capability included with the TIA MEID database development). Forms included in this package are:
10	Form A – Mobile Equipment Identifier (MEID) Application also applicable for SF_EUIMID i.e., R-UIM or CSIM
11 12 13	Applicants complete, sign, and return this form to apply for an MEID. Note: Form "A" pages 3a, 3b and 3c (used primarily for multi-mode assignments) may be submitted independently when information is updated and the "Update Section" is completed.
14 15	Form B – Mobile Equipment Identifier (MEID) Application Disposition also applicable for SF_EUIMID i.e., R-UIM or CSIM.
16 17	The MEID GHA Administrator uses this form to notify the applicant of the outcome of his/her application, which may be a code assignment, denial, or a request for additional clarifying information.
18 19	Form C – Mobile Equipment Identifier (MEID) Use Declaration also applicable for SF_EUIMID i.e., R-UIM or CSIM.
20 21	The recipient of an Mobile Equipment Identifier (MEID) assignment uses this form to notify the MEID Administrator that the assigned code has been deployed.
22 23	Form D – Request for Change in Mobile Equipment Identifier (MEID) Assignment Information also applicable for SF_EUIMID i.e., R-UIM or CSIM
24 25 26 27 28	Mobile Equipment Identifier (MEID) assignees use this form to notify the MEID Administrator of a change in any of the assignment information; for example, a change in the name, address, or phone number of the contact person in the company holding the Mobile Equipment Identifier (MEID). As a more complex example, this form should also be used to record the transfer of a Mobile Equipment Identifier (MEID) to a new company, as might happen as a result of a merger or acquisition.
29 30	Form E – Confirmation of Change in Mobile Equipment Identifier (MEID) Assignment Information also applicable for SF_EUIMID i.e., R-UIM or CSIM.
31 32	The MEID Administrator uses this form to acknowledge a change initiated by a Mobile Equipment Identifier (MEID) assignee through submission of Form D.
33 34	Form F – Mobile Equipment Identifier (MEID) Assignment Return also applicable for SF_EUIMID i.e., R-UIM or CSIM.
35 36	Mobile Equipment Identifier (MEID) assignees use this form to return to the pool any Mobile Equipment Identifier (MEID) which are no longer required.
37 38	Form G – Certification of Compliance with MEID Guidelines also applicable for SF_EUIMID i.e., R-UIM or CSIM.
39 40	Mobile Equipment Identifier (MEID) assignees use this form to certify compliance with the MEID Assignment Guidelines and Procedures.
41 42 43 44 45 46 47 48 49	Return completed forms to:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association 1320 N. Courthouse Rd. Suite 200 Arlington, VA 22201 USA Phone: +1 703-907-7791 Fax: +1 703-907-7728 meidadmin@tiaonline.org

1 2 3	<b>FORM A – MOBILE EQUIPMENT IDENTIFIER (MEID) APPLICATION</b> (also applicable for SF_EUIMID i.e., R-UIM or CSIM)
4 5	Entity requesting assignment:
6 7 8 9 10	General description of the MS □ or R-UIM/CSIM □ to be provided (Check One)
11 12 13 14 15 16	Regulatory Agency Reference Code (if applicable)
17 18 19	Multi-Mode MS terminals designed to comply with both 3GPP and 3GPP2 air interface specifications?
20 21	☐ YES ☐ NO <u>IMPORTANT:</u> If "YES" must complete pages 3a, 3b and 3c of FORM "A"
22	Test Block?
23 24	$\square$ YES $\square$ NO
25 26 27	Number of Serial Numbers being requested:
28 29	Do special considerations apply?
30	$\square$ YES $\square$ NO
31 32 33	If YES, please specify the special consideration(s) needed
34 35 36	
37 38 39	
40	The MEID shall be set by the manufacturer. The manufacturer shall make every reasonable effort for the
41 42	MEID to be not alterable, not capable of duplication nor removable outside of a manufacturer authorized service center, and any attempt to remove, tamper with, or change the MEID host component or operating
43 44	system as originally programmed by the manufacturer shall render the MS inoperative. Where a dedicated MEID device is utilized, it must be permanently attached to the device that reads the MEID and the path to
45	the device must be secured. The device shall not be removable and its pins shall not be accessible. The
46 47	MEID is incorporated in an MS or R-UIM or CSIM. The MEID shall not be changed after the ME's final production process. It shall resist tampering, i.e. manipulation and change, by any means (e.g. physical,
48 49	electrical and software). The manufacturer is also responsible for ascertaining that each MEID is unique and keeping detailed records of produced and delivered MSs, R-UIMs and CSIMs.
50 51	
51 52 53	Form "A" Page 1

1.e., K-0	UIM or CSIM (CONTINUED)
Contact	t: (Family name): (Given name):
Title: N	Mr Mrs Dr Other:
Compa	ny:
Address	s:
Address	s 2 (i.e., Room/Suite):
City	
Country	y:
Phone:	Cell (Mobile): Fax:
•	Certifies the accuracy of the information provided in this application, Commits to deploy any assigned MEID Manufacturer's Code(s) within the time period specified by the assignment guidelines, Certifies that the <b>MOBILE EQUIPMENT IDENTIFIER</b> (MEID) Manufacturer's Code will be used mobile sets for CMRS, Certifies that any required authorization has been secured from the appropriate federal, state, or local regulatory bodies, and Understands and agrees that the use of any assigned MEID Manufacturer's Code(s) in a manner other to in conformance with the assignment guidelines may result in forfeiture.
Authori	ized name: Title:
Authori	ized signature:
E-mail:	
Date of	application:
	Form "A" Page 2
Compl	lete next pages 3a, 3b and 3c ONLY if you are requesting MEID Mfr Codes for Multi-Mode equip designed to comply with both 3GPP and 3GPP2 air interface specifications.

1 2	FORM A – MOBILE EQUIPMENT IDENTIFIE i.e., R-UIM or CSIM) (CONTINUED)	R (MEID) APPLICATION (also applicable for SF_EUIMID
3 4 5 6 7	MS equipment designed to comply with	IMEI/MEID Manufacturer's Codes for Multi-Mode ME or both 3GPP and 3GPP2 air interface specifications.  Intelly and in full for proper global interoperability.
8 9 10	NOTE: Form "A" pages 3a, 3b and 3c ma and the "Update Section" below is comple	ay be submitted independently when information is updated ted (see bottom of page 3c).
112	Should requested block(s) be labeled "Reserved"	for confidential identification? $\square$ YES* $\square$ NO
13 14 15 16 17		"Reserved" block requests with updated details (e.g., acteristics), including the UPDATE SECTION information roducts being shipped for commercial deployment.
18 19 20	Brand:	_ May be same as Manufacturer {i.e., entity requesting assignment} or different.
21	Model:	One model per TAC/MFR ID
22 23 24	Internal Model Name:	_ (Optional) Free text for any Designation Type used by MFR
25	Marketing Name(s):	Include all names and variants of the model
26 27 28	Equipment Type: (select one)	
29 30	Tablet  Connected Computer Dongle  Dongle	Modem Mobile/Feature Phone
31 32	WLAN Router  e-Book  Smartphone	
33 34	Operating System/Platform supported:	
35 36	Android Bada Blackberry Firefox	iOS  Symbian TIZEN UBUNTU
37 38	Windows Phone  Other	
39 40 41 42		Variable No. 1.
43 44 45 46 47 48 49 50 51	Device Certification Bodies:	(Optional)
52		

Form "A" Page 3a

1 2	<b>FORM A – MOBILE EQUIPMENT IDENTIFIER (MEID) APPLICATION</b> (also applicable for SF_EUIMID i.e., R-UIM or CSIM ( <b>CONTINUED</b> )
34 5 6	Modes, Bands Supported:
7	GAN
8 9 10	CDMA 2000 <sup>®</sup> □
11 12	<b>GSM Bands</b> GSM 450 ☐ GSM 850 ( GSM 800) ☐ GSM 900 ☐ GSM 1800 ☐ GSM 1900 ☐
13 14	WCDMA EDD Bonds
14 15	WCDMA EDD Bond I
15 16	WCDMA FDD Band II WCDMA FDD Band II WCDMA FDD Band III WCDMA FDD Band IV WCDMA FDD Band V
16 4-7	
17 18	WCDMA FDD Band VII WCDMA FDD Band VIII WCDMA FDD Band IX
19	WCDMA TDD Bands
20	WCDMA TDD Band A WCDMA TDD Band B WCDMA TDD Band C
21	WCDMA TDD Band D
22 23	E-UTRA LTE FDD Bands
24	LTE FDD Band 1  LTE FDD Band 2  LTE FDD Band 3  LTE FDD Band 4  LTE FDD BAND 4
25	LTE FDD Band 5  LTE FDD Band 6  LTE FDD Band 7  LTE FDD Band 8
26	LTE FDD Band 9 LTE FDD Band 10 LTE FDD Band 11 LTE FDD Band 12 L
27	LTE FDD Band 13 LTE FDD Band 14 LTE FDD Band 15 LTE FDD Band 16 LTE FDD BAND 1
28	LTE FDD Band 17 LTE FDD Band 18 LTE FDD Band 19 LTE FDD Band 20 L
29	LTE FDD Band 21  LTE FDD Band 25 LTE FDD Band 26 LTE FDD Band 27 LTE FDD BAND
30 31	LTE FDD Band 28 LTE FDD Band 29 L
32	E-UTRA LTE TDD Bands
33	LTE TDD Band 33 LTE TDD Band 34 LTE TDD Band 35 LTE TDD Band 36 LTE TDD BAND 3
34 35	LTE TDD Band 37  LTE TDD Band 38 LTE TDD Band 39 LTE TDD Band 40 LTE TDD LTE T
36 37	LTE TDD Band 41  LTE TDD Band 42 LTE TDD Band 43 LTE TDD Band 44 L
<del>3</del> 8	Intra-band contiguous Carrier Aggregation (CA) operating bands
40	$CA_{1} \ \Box \ CA_{23} \ \Box \ CA_{23} \ \Box \ CA_{241} \ \Box$
41 42	
43 44	
45	
46 47	
47 48	Form "A" Page 3b

1 2	<b>FORM A – MOBILE EQUIPMENT IDENTIFIER (MEID) APPLICATION</b> (also applicable for SF_EUIMID i.e., R-UIM or CSIM (CONTINUED)
3 4	Inter-band Carrier Aggregation (CA) operating bands
5 <u>6</u>	CA_1-5
45 67 89	CA_2-12
9 10 11	CA_3-20 CA_3-26 CA_3-27 CA_3-28 CA_4-5 CA_4-7 CA_4-12 CA_4-13 CA_5-13
11 12	CA_4-17
12 13 14	CA_8-20
14 15 16	Intra-band non-contiguous Carrier Aggregation operating bands
1 <del>9</del> 18 19	CA_3-3 CA_4-4 CA_7-7 CA_23-23 CA_25-25 CA_41-41
20	TD-SCDMA
21 22 23	<b>Multi SIM</b> Support (Number of SIM supported in a device); 1 ☐ 2 ☐ 3 ☐ 4 ☐
24 25	Other Radio Interfaces Supported:
26 27	None Satellite CDMA Other (e.g., LTE FDD Band 31)
28	Support NFC ?
30	Yes No
31 32 33	Support Bluetooth ?
34	Yes No
35 36 37	Support WLAN?
38	Yes No
39	LIDDATE SECTION.
40 41	<u>UPDATE SECTION</u> :
43	Date of update:
<del>44</del>	Date of original application:
<del>49</del>	Company:
48	Authorized name: Title:
59	Authorized signature:
50 52 53 55 55 56	Phone: E-mail:
54	Block #(s) related to original application:
57 58 59 60 61 62	MFR ID code (s) < if needed to relate to Block #(s) above >:
63 64	
65	Form "A" Page 3c

FORM A - MOBILE EQUIPMENT IDENTIFIER (MEID) APPLICATION (also applicable for SF\_EUIMID i.e., R-UIM or CSIM (CONTINUED) All Applicants Complete this Page 4 There may be a non-refundable application fee for each MEID Manufacturer's Code requested and allocated by the administrator. Administrative fee for applications are set by the MEID Global Hexadecimal Administrator. Please refer to the TIA website for the current fee structure. Payment of the non-refundable application fee is: □ by wire transfer (TIA invoice will include bank wire transfer information) or □ by enclosed check (made payable to Telecommunications Industry Association) or □ by credit card (mark one): ☐ MasterCard □ Visa ☐ American Express Credit card number \_\_\_\_\_ Expiration date (Month MM / Year YY ) Signature of card holder\_\_\_\_\_ Printed name of card holder\_\_\_\_\_ Return completed application forms to: Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association 1320 N. Courthouse Rd. Suite 200 Arlington, VA 22201 USA Phone: +1 703-907-7791 Fax: +1 703-907-7728 meidadmin@tiaonline.org Form "A" Page 4 

#### FORM B - MOBILE EQUIPMENT IDENTIFIER MANUFACTURER'S CODE APPLICATION **DISPOSITION** (also applicable for SF EUIMID i.e., R-UIM or CSIM) The MEID Administrator has reviewed your application filed for assignment of an MEID Manufacturer's Code. The box checked below indicates the action taken: Your application has been granted. The MEID Manufacturer's Code(s) and serial number code range(s) assigned for your use is/are: The assignment is effective as of: The information recorded for this assignment is shown below. Please notify the MEID Administrator immediately of any errors in or changes to this information. (Display computer generated assignment information here.) Your application has not been granted at this time for the following reason(s): You are entitled to appeal as specified in Section 15 of the assignment guidelines. П The following additional information is needed to process your application: Authorized name: Title: Authorized signature: Phone: E-mail: Date: Form "B"

FORM C – MOBILE EQUIPM R-UIM or CSIM)	<b>MENT IDENTIFIER USE DECLARATION</b> (also applicable for SF_EUIMID i.
By submitting this form, I certify	that
MEID Manufacturer's Code and	Serial Number Range(s):
Assigned range is first used effec	
Assigned range is first used effec	
Authorized name:	Title:
Authorized signature:	
Phone: Ce	ıll (Mobile): E-mail:
Return completed application for	rms to:
Engineering	g Committee TR-45 MEID Global Hexadecimal Administrator
	c/o Telecommunications Industry Association
	1320 N. Courthouse Rd. Suite 200 Arlington, VA 22201 USA
	Armigion, VA 22201 OSA
	Phone: +1 703-907-7791
	Fax: +1 703-907-7728
	meidadmin@tiaonline.org
	Form "C"
	ruim C

2	FORM D – REQUEST FOR CHANGE IN MOBILE EQUIPMENT IDENTIFIER INFORMATION (also applicable for SF_EUIMID i.e., R-UIM or CSIM)
3 4	
5 6	Effective (date):
7	The assignment information for MEID Manufacturer's Code and Serial Number Range(s):
8	should be changed. The changes are described below:
9 10	
11	
12	
13 14	
15	
16	
17	
18 19	
20	
21	
22	
23 24	
24 25	
26	
07	
27	
28	Australia di nama
28 29	Authorized name: Title:
28 29 30 31	Authorized name:
28 29 30 31 32 33	
28 29 30 31 32 33 34	Authorized signature:  Phone: Cell (Mobile): E-mail:
28 29 30 31 32 33 34 35	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:
28 29 30 31 32 33	Authorized signature:  Phone: Cell (Mobile): E-mail:
28 29 30 31 32 33 34 35 36 37 38	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:
28 29 30 31 32 33 34 35 36 37 38 39	Authorized signature:  Phone:
28 29 30 31 32 33 34 35 36 37 38 39 40	Authorized signature:
28 29 30 31 32 33 34 35 36 37 38 39 40 41	Authorized signature:
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association 1320 N. Courthouse Rd. Suite 200
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Authorized signature:
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Authorized signature:  Phone:
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association  1320 N. Courthouse Rd. Suite 200  Arlington, VA 22201 USA  Phone: +1 703-907-7791
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association  1320 N. Courthouse Rd. Suite 200  Arlington, VA 22201 USA  Phone: +1 703-907-7791  Fax: +1 703-907-7728
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association  1320 N. Courthouse Rd. Suite 200  Arlington, VA 22201 USA  Phone: +1 703-907-7791
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association  1320 N. Courthouse Rd. Suite 200  Arlington, VA 22201 USA  Phone: +1 703-907-7791  Fax: +1 703-907-7728
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association  1320 N. Courthouse Rd. Suite 200  Arlington, VA 22201 USA  Phone: +1 703-907-7791  Fax: +1 703-907-7728
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association  1320 N. Courthouse Rd. Suite 200  Arlington, VA 22201 USA  Phone: +1 703-907-7791  Fax: +1 703-907-7728
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	Authorized signature:  Phone: Cell (Mobile): E-mail:  Date of this notification:  Return completed application forms to the:  Engineering Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association  1320 N. Courthouse Rd. Suite 200  Arlington, VA 22201 USA  Phone: +1 703-907-7791  Fax: +1 703-907-7728

1 2 3 4		ON OF CHANGE IN MOBILE EQUIPMENT IDENTIFIER ASSIGNMENT table for SF_EUIMID i.e., R-UIM or CSIM)
5	Your request-dated	for change(s) to the assignment information for MEID Manufacturer's Code a
6	Serial Number Range(s)	has been processed by the administrator and the changes have been mad
7	Please verify the revised assign	nment information below and report any errors or discrepancies to the administrator.
8		
9		
10		
11		
12		
13		
14		
15		
16 17	(Display computer generated )	assignment information here.)
18		
19 20	Authorized name:	Title:
21	Authorized signature:	
22 23	Dhana	Cell (Mobile): E-mail:
23 24	riione	Cell (Moone) E-man.
25	Date of this notification:	
26 27	Report discrepancies to the:	
28	-	· C · · · TD 45 MEID CLI III II II III II II II II
29 30	Engineer	ing Committee TR-45 MEID Global Hexadecimal Administrator c/o Telecommunications Industry Association
31		1320 N. Courthouse Rd. Suite 200
32		Arlington, VA 22201 USA
33		
34 35		Phone: +1 703-907-7791 Fax: +1 703-907-7728
36		meidadmin@tiaonline.org
37		
38 39		
40		
41 42		
43		
44 45		
46		
47 48		
46 49		Form "E"
50		

1 2	<b>FORM F – MOBILE EQUIPMENT IDENTIFIER ASSIGNMENT RETURN</b> (also applicable for SF_EUIMID i.e., R-UIM or CSIM)
3 4	
5 6 7	MEID Manufacturer's Code and Serial Number Range(s):
8 9	Currently held by:
10	is no longer required effective (date)
11 12	pool for assignment to another entity.
13	Serial Numbers used thus far are in the range of to
14 15 16	Multi-mode IMEI/MEID equipment designed to comply with both 3GPP and 3GPP2 specifications
17 18	Authorized name:
19 20	Authorized signature:
21	
22 23	Phone: E-mail:
24	Date of this notification:
25 26 27	Return completed forms to the:
28	Engineering Committee TR-45 MEID Global Hexadecimal Administrator
29	c/o Telecommunications Industry Association
30	1320 N. Courthouse Rd. Suite 200
31	Arlington, VA 22201 USA
32	DL 11 702 007 7701
33 34	Phone: +1 703-907-7791 Fax: +1 703-907-7728
35	meidadmin@tiaonline.org
36	moradamm@ndomme.org
37	
38 39	
40	
41	
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43 44	
45	
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48 49	
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51	
52 53	
53 54	Form "F"
55	I VI III I

FORM G - CERT SF_EUIMID i.e., R-U	TIFICATION OF COMPLIANCE WITH MEID GUIDELINES (also applicable JIM or CSIM)
	(Assignee), certify that MEID Code and Serial Number Range(s)
	,
	,
	,
3GPP2 and TIA and I	rdance with all of the terms and provisions set forth in the MEID Guidelines as published by posted on the latter's web site on the date of this certification ("MEID Guidelines"). We further complied in specific with applicable Sections of the MEID Guidelines.
We understand that fa	uilure to comply with the MEID Guidelines may result in the forfeiture of the above MEID
Code and Serial Num	
Serial Numbers used	thus far are in the range of to
Authorized name:	Title:
Authorized signature:	
Phone:	Cell (Mobile): E-mail:
1 Hone	Cell (Mobile).
Date:	<del></del>
Return completed For	rm G on an annual basis to:
	Engineering Committee TR-45 MEID Global Hexadecimal Administrator
	c/o Telecommunications Industry Association
	1320 N. Courthouse Rd. Suite 200
	Arlington, VA 22201 USA
	Phone: +1 703-907-7791
	Fax: +1 703-907-7728
	meidadmin@tiaonline.org
	meradamme, org
	Form "G"

ANNEX "A" (Informative)

MEID Application and Assignment forms - Online flow process:

The preferred method for MEID Applications and Assignments is found at https://meid.tiaonline.org. The MEID db online application is a near realtime process and adheres to these guidelines. Typical Form flows will be provided in Annex A when all MEID db phases are completed.