

Electronic Serial Numbers (ESN) and MEID

An electronic serial number (ESN) is the unique identification number embedded or inscribed on the microchip in a wireless phone by the manufacturer. Each time a call is placed, the ESN is automatically transmitted to the base station so the wireless carrier's mobile switching office can check the call's validity. The ESN cannot easily be altered in the field. The ESN differs from the mobile identification number (MIN), which is the wireless carrier's identifier for a phone in the network. MINs and ESNs can be electronically checked to help prevent fraud..

Mobile Equipment Identifiers (MEID)

A Mobile Equipment Identifier (MEID) is a globally unique 56-bit identification number for a physical piece of mobile station equipment. Equipment identifiers are "burned" into a device and should be resistant to modification. They are used as a means to facilitate mobile equipment identification and tracking. Additionally, MEIDs are coordinated with International Mobile Equipment Identifiers (IMEIs), facilitating global roaming and harmonization between 3G technologies as a universal mobile equipment identifier.. The MEID is a 14-digit hexadecimal value. The MEID is capable of being transmitted over the air upon a request from the network. The MEID is composed mainly of two basic components, the manufacturer code and the serial number, as follows:

The MEID is a 14-digit hexadecimal value



All of these fields are hexadecimal values with the following valid range.

- RR - valid range A0 . FF - globally administered
- XXXXXX - valid range 000000. FFFFFFFF
- ZZZZZZ - valid range 000000. FFFFFFFF
- C - valid range 0. F - Not transmitted over the air.

MEIDS for 3GPP & 3GPP2

In the case of MEIDs for terminals designed to comply with both 3GPP and 3GPP2 specifications (i.e., multimode terminals), all these fields are defined as decimal values with the following valid range:

- RR - valid range '99', '98', '97'. - globally administered
- XXXXXX - valid range 000000. 999999
- ZZZZZZ - valid range 000000. 999999
- C - valid range 0 . 9 - Not transmitted over the air.

System Operator Codes for ANSI/TIA/EIA-136

The 12-bit System Operator Code (SOC) is used to identify a Service Provider (SP) and is used along with the System Identity (SID) by a mobile station to acquire or reject services offered by specific SPs.

The SOC's fall into two ranges (along with two reserved values), which identify the extent (domain) of the SOC. The following table indicates the domains of the SOC:

Value (hex)	Function
000	Reserved / Unknown
001 - 7FF	National SOC Note 1
800	Reserved / Unknown
801 - FFF	International SOC

Note 1: The use of these National SOC Assignments may result in undesirable mobile station operation if the SOC is used to identify a service provider using Intelligent Roaming (see TIA/EIA-136-123). This is because in Intelligent Roaming the mobile station only attempts to match the broadcast SOC to any stored SOC's without consideration of Mobile Country Code. Because of this issue the use of new National SOC's is being reconsidered.

TIA OID Assignment Guidelines & Procedures

TIA OID (Object Identifier) Assignment Guidelines & Procedures

- These guidelines describe the TIA administration and assignment process for the sub-tree designations below OID "tia". The American National Standards Institute (ANSI) is the registration authority for the "iso/member-body/us" branch of the tree [see section. 8.0]. TIA has registered sub-tree "tia" with ANSI and is the "tia" sub-tree Assignor.

SS7 TT&SSN Assignment Notification Info Repository

This repository may be used to enhance industry awareness of previous and proposed assignments including information for company representatives to contact peers. When questions arise, this repository provides a tool to resolve potential conflicts and to avoid possible collisions between carriers on similar services. The tables document known assignments and are not guaranteed to be accurate or up-to-date.

T.35 Code (T- & V-Series) Admin for US & Canada

Involving North America (within Region #2) national manufacturers of equipment according to International Telecommunication Union--Telecommunication Standardization Sector (ITU-T) T-series (Terminals for telematic services) and V-Series (Data communication over the telephone network) Recommendations

