Technical Specification Group Services and System Aspects
Meeting #13, Beijing, China, 24-27 September 2001

TSGS#13(01)0545

Source: **RAN**

Title: **CR 22.905-017 on Application of RAN CR 21.905-008 to R99**

Document for: **Approval**

Agenda Item: **7.1.3**

Doc-1st-Level	Spec	CR	Rev	Phase	Cat	Subject	Vers	Vers New	Doc-2nd-Level
SP-010545	21.905	017		R99	F	Application of RAN CR 21.905-008 to R99	3.2.0	3.3.0	

CR-Form-v4

CHANGE REQUEST

21.905	CR	017	ev	-	Current version:	3.2.0

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ✍ symbols.*

Proposed change affects: ✍ (U)SIM ☐ ME/UE ☐ Radio Access Network [X] Core Network ☐

Title: ✍	Application of RAN CR 21.905-008 to R99	
Source: ✍	RAN	
Work item code: ✍	Vocabulary	***Date:*** ✍ 21/09/01
Category: ✍	**F**	***Release:*** ✍ R99

Use one of the following categories:
- ***F*** *(correction)*
- ***A*** *(corresponds to a correction in an earlier release)*
- ***B*** *(addition of feature),*
- ***C*** *(functional modification of feature)*
- ***D*** *(editorial modification)*

Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change: ✍	It was agreed in TSG RAN #13 that a CR made by RAN for Rel-4 should be applied to R99.
Summary of change: ✍	This CR contains Amendments to definitions, abbreviations and equations as requested by RAN-4 (SP-010075). However, this CR does not include changes in CR 008 that are affected by CR 011 that is also presented at this meeting. Changes in 011 take precendence to changes proposed in 008.
Consequences if not approved: ✍	Misalignment of terms used in the vocabulary and in RAN4-managed specifications.

Clauses affected: ✍	3, 5		
Other specs affected: ✍	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	✍	
Other comments: ✍	This CR should only be approved if CR 011 is approved.		

A

Acceptable Cell: A cell that the UE may camp on to make emergency calls. It must satisfy certain conditions.
Access conditions: A set of security attributes associated with a file.
Access delay: The value of elapsed time between an access request and a successful access (source: ITU-T X.140).
Access Stratum SDU (Service Data Unit): Unit of data transferred over the access stratum SAP (Service Access Point) in the Core Network or in the User Equipment.
Access protocol: A defined set of procedures that is adopted at an interface at a specified reference point between a user and a network to enable the user to employ the services and/or facilities of that network (source: ITU-T I.112).
Accounting: The process of apportioning charges between the Home Environment, Serving Network and User.
Accuracy: A performance criterion that describes the degree of correctness with which a function is performed. (The function may or may not be performed with the desired speed.) (source: ITU-T I.350).
Active communication: a UE is in active communication when it has a CS connection established. For PS active communication is defined by the existence of one or more Activated PDP contexts. Either one or both of the mentioned active communications may occur in the UE.
Active Set: Set of radio links simultaneously involved in a specific communication service between an UE and a UTRAN access point.
Air Interface User Rate: The user rate between Mobile Termination and IWF. For T services it is the maximum possible AIUR not including padding. For NT services it is the maximum possible AIUR.
ALCAP: Generic name for the transport signalling protocols used to set-up and tear-down transport bearers.
Allowable PLMN: A PLMN which is not in the list of forbidden PLMN in the UE.
Applet: A small program that is intended not to be run on its own, but rather to be embedded inside another application
Application: An application consists of a set of security mechanisms, files, data and protocols (excluding transmission protocols).
Applications / Clients: These are services, which are designed using service capability features.
Application Interface: Standardised Interface used by application/clients to access service capability features.
Application protocol: The set of procedures required by the application.
Authentication: A property by which the correct identity of an entity or party is established with a required assurance. The party being authenticated could be a user, subscriber, home environment or serving network.
Available PLMN: A PLMN where the UE has found a cell that satisfies certain conditions.
Average transmit power: The average transmitter output power obtained over any specified time interval, including periods with no transmission.
~~**Average Transmitter Power Per Traffic Channel (dBm):** The mean of the total transmitted power over an entire transmission period.~~

B

Base Station: A base station is a macrocell, microcell or picocell site and consists of transmitters generating radio frequency electromagnetic energy and receivers in a cabin or cabinet. A base station is connected to antennas by feeder cables.
Baseline capabilities: Capabilities that are required for a service-less UE to operate within a network. The baseline capabilities for a UE include the capabilities to search for, synchronise with and register (with authentication) to a network. The negotiation of the UE and the network capabilities, as well as the maintenance and termination of the registration are also part of the required baseline capabilities.
Baseline Implementation Capabilities: Set of Implementation capabilities, in each technical domain, required to enable a UE to support the required Baseline capabilities.
Basic telecommunication service: This term is used as a common reference to both bearer services and teleservices.
Bearer: A information transmission path of defined capacity, delay and bit error rate, etc.
Bearer capability: A transmission function which the UE requests to the network.
Bearer service: A type of telecommunication service that provides the capability of transmission of signals between access points.
Best effort QoS: The lowest of all QoS traffic classes. If the guaranteed QoS cannot be delivered, the bearer network delivers the QoS which can also be called best effort QoS.
Best effort service: A service model which provides minimal performance guarantees, allowing an unspecified variance in the measured performance criteria.
Billing: A function whereby CDRs generated by the charging function are transformed into bills requiring payment.
Broadcast: A value of the service attribute "communication configuration", which denotes unidirectional distribution to all users (source: ITU-T I.113).

********** Next modified Section **********

M

Macro cells: "Macro cells" are outdoor cells with a large cell radius.
Macro diversity handover: "Macro diversity" is a operation state in which a User Equipment simultaneously has radio links with two or more UTRAN access points for the sole aim of improving quality of the radio connection or providing seamless.
Management Infrastructure: The collection of systems (computers and telecommunications) a UMTS Organisation has in order to manage UMTS.
Mandatory UE Requirement: Regulatory requirement which is applicable to 3G UEs. It is determined by each country/region and beyond the scope of 3GPP specification (e.g. spurious emission in UK).
Master File (MF): The unique mandatory file containing access conditions and optionally DFs and/or EFs.
Maximum output Power: This refers to the measure of average power at the maximum power setting.
Maximum peak power: The peak power observed when operating at a given maximum output power.
Maximum possible AIUR: The highest possible AIUR that the multiple TCH/F can provide, e.g. 2 TCH/F using TCH/F9.6 provides a maximum possible AIUR of 19,2 kbit/s.
Maximum Power Setting: The highest value of the Power control setting which can be used.
~~**Maximum Total Transmitter Power (dBm):** The aggregate maximum transmit power of all channels.~~
Maximum Transmitter Power Per Traffic Channel (dBm): The maximum power at the transmitter output for a single traffic channel.
Mean bit rate: A measure of throughput. The average (mean) bit rate available to the user for the given period of time (source: ITU-T I.210).
Mean transit delay: The average transit delay experienced by a (typically) large sample of PDUs within the same service category.
Medium Access Control: A sub-layer of radio interface layer 2 providing unacknowledged data transfer service on logical channels and access to transport channels.
Messaging service: An interactive service which offers user-to-user communication between individual users via storage units with store-and-forward, mailbox and/or message handling, (e.g., information editing, processing and conversion) functions (source: ITU-T I.113).
MExE Classmark: A MExE classmark identifies a category of MExE UE supporting MExE functionality with a minimum level of processing, memory, display, and interactive capabilities. Several MExE classmarks may be defined to differentiate between the functionalities offered by different MExE UEs. A MExE application or applet defined as being of a specific MExE Classmark indicates that it is supportable by a MExE UE of that Classmark.
MExE executable: An executable is an applet, application, or executable content, which conforms to the MExE specification and may execute on the ME.
MExE server: A node supporting MExE services in the MExE service environment.
MExE service: a service enhanced (or made possible) by MExE technology.
MExE service environment: Depending on the configuration of the PLMN, the operator may be able to offer support to MExE services in various ways. Examples of possible sources are from traditional GSM nodes, IN nodes, operator-specific nodes, operator franchised nodes and services provider nodes, together with access to nodes external (i.e. vendor-specific) to the PLMN depending on the nature of the MExE service. These nodes are considered to constitute the MExE service environment. The MExE service environment shall support direct MExE UE to MExE UE interaction of MExE services.
MExE service provider: an organisation which delivers MExE services to the subscriber. This is normally the PLMN operator, but could be an organisation with MExE responsibility (which may have been delegated by the PLMN operator).
MExE SIM: A SIM that is capable of storing a security certificate that is accessible using standard mechanisms.
MExE subscriber: The owner of a subscription who has entered into an agreement with a MExE service provider for MExE services.
Micro cells: "Micro cells" are small cells.
Minimum transmit power: The minimum controlled output power of the TDD BS is when the power control setting is set to a minimum value. This is when the power control indicates a miminum transmit output power is required (TS 25.105).
Mobile evaluated handover: Mobile evaluated handover (MEHO) is a type of handover triggered by an evaluation made in the mobile. The mobile evaluates the necessity of handover based on the measured radio environment and based on criteria defined by the network. When the evaluation meets the hand-off criteria the necessary information is sent from the mobile to the network. The network then decides on the necessity of the handover based on the reported evaluation result and other conditions, e.g. uplink radio environment and/or availability of network resources, the network may then execute the handover.
Mobile number portability: The ability for a mobile subscriber to change subscription network within the same country

whilst retaining their original MSISDN(s).
Mobile termination: the mobile termination is the component of the mobile station which supports functions specific to management of the radio interface (Um).
Mobility: The ability for the user to communicate whilst moving independent of location.
Mobility Management: A relation between the mobile station and the UTRAN that is used to set-up, maintain and release the various physical channels.
Multi mode terminal: UE that can obtain service from at least one UTRA radio access mode, and one or more different systems such as GSM bands or possibly other radio systems such IMT-2000 family members.
Multicast service: A unidirectional PTM service in which a message is transmitted from a single source entity to all subscribers currently located within a geographical area. The message contains a group identifier indicating whether the message is of interest to all subscribers or to only the subset of subscribers belonging to a specific multicast group.
Multipoint: A value of the service attribute "communication configuration", which denotes that the communication involves more than two network terminations (source: ITU-T I.113).
Multimedia service: Services that handle several types of media such as audio and video in a synchronised way from the user's point of view. A multimedia service may involve multiple parties, multiple connections, and the addition or deletion of resources and users within a single communication session.

********** Next modified Section **********

P

Packet: An information unit identified by a label at layer 3 of the OSI reference model (source: ITU-T I.113). A network protocol data unit (NPDU).
Packet data protocol (PDP): Any protocol which transmits data as discrete units known as packets, e.g., IP, or X.25.
Packet transfer mode: Also known as packet mode. A transfer mode in which the transmission and switching functions are achieved by packet oriented techniques, so as to dynamically share network transmission and switching resources between a multiplicity of connections (source: ITU-T I.113).
Padding: One or more bits appended to a message in order to cause the message to contain the required number of bits or bytes.
Paging: The act of seeking a User Equipment.
Paging DRX cycle: The individual time interval between monitoring Paging Occasion for a specific UE
Paging Block Periodicity (PBP): The period of the occurrence of Paging Blocks. (For FDD, PBP = 1).
Paging Message Receiving Occasion: The frame where the UE receives actual paging message.
Paging occasion: The frame where the UE monitors in FDD or the paging block, which consists of several frames, for TDD. For Paging Blocks, the value of Paging Occasion is equal to the first frame of the Paging Block.
Peak Power: The instantaneous power of the RF envelope which is not expected to be exceeded for [99.9%] of the time.
Peak bit rate: A measure of throughput. The maximum bit rate offered to the user for a given time period (to be defined) for the transfer of a bursty signal (source: ITU-T I.210). (The maximum user information transfer rate achievable by a user for a single service data unit transfer.)
Performance: The ability to track service and resource usage levels and to provide feedback on the responsiveness and reliability of the network.
Personal Service Environment: contains personalised information defining how subscribed services are provided and presented towards the user. The Personal Service Environment is defined in terms of one or more User Profiles.
Personalisation: The process of storing information in the ME and activating the procedures which verify this information against the corresponding information stored in the SIM whenever the ME is powered up or a SIM is inserted, in order to limit the SIMs with which the ME will operate.
Personalisation entity: Network, network subset, SP, Corporate or SIM to which the ME is personalised
Phonebook: A dataset of personal or entity attributes. The simplest form is a set of name-subscriber pairs as supported by GSM SIMs.
Physical channel data stream: In the uplink, a data stream that is transmitted on one physical channel. In the downlink, a data stream that is transmitted on one physical channel in each cell of the active set.
Physical Channel: In FDD mode, a physical channel is defined by code, frequency and, in the uplink, relative phase (I/Q). In TDD mode, a physical channel is defined by code, frequency, and time-slot.
Pico cells: "Pico cells" are cells, mainly indoor cells, with a radius typically less than 50 metres.
PICH Monitoring Occasion: The time instance where the UE monitors PICH within Paging Occasion.
PLMN Area: The PLMN area is the geographical area in which a PLMN provides communication services according to the specifications to mobile users. In the PLMN area, the mobile user can set up calls to a user of a terminating network. The terminating network may be a fixed network, the same PLMN, another PLMN or other types of PLMN. Terminating network users can also set up calls to the PLMN. The PLMN area is allocated to a PLMN. It is determined by the service and network provider in accordance with any provisions laid down under national law. In general the PLMN area is

restricted to one country. It can also be determined differently, depending on the different telecommunication services, or type of MS. If there are several PLMNs in one country, their PLMN areas may overlap. In border areas, the PLMN areas of different countries may overlap. Administrations will have to take precautions to ensure that cross border coverage is minimised in adjacent countries unless otherwise agreed.

PLMN Operator: Public Land Mobile Network operator. The entity which offers a GPRS.

Plug-in SIM: A Second format of SIM (specified in clause 4).

point-to-multipoint service: A service type in which data is sent to "all service subscribers or a pre-defined subset of all subscribers" within an area defined by the Service Requester.

~~**Plug-in SIM:** A Second format of SIM (specified in clause 4).~~

Point-to-point: A value of the service attribute "communication configuration", which denotes that the communication involves only two network terminations.

Point-to-point service: A service type in which data is sent from a single network termination to another network termination.

Ported number: A MSISDN that has undergone the porting process.

Ported subscriber: The subscriber of a ported number.

Porting process: A description of the transfer of a number between network operators.

Power control dynamic range: The difference between the maximum and the minimum total transmit output power for a specified reference condition (TS 25.104).

Power Setting: The value of the control signal, which determines the desired transmitter, output Power. Typically, the power setting would be altered in response to power control commands.

Predictive service: A service model which provides reliable performance, but allowing a specified variance in the measured performance criteria.

Proactive SIM: A SIM, which is capable of issuing commands to the Terminal. Part of SIM Application Toolkit (see clause 11).

Protocol: A formal set of procedures that are adopted to ensure communication between two or more functions within the within the same layer of a hierarchy of functions (source: ITU-T I.112).

Protocol data unit: In the reference model for OSI, a unit of data specified in an (N)-protocol layer and consisting of (N)-protocol control information and possibly (N)-user data (source: ITU-T X.200 / ISO-IEC 7498-1).

Public land mobile network: A telecommunications network providing mobile cellular services.

********** Next modified Section **********

R

Radio access bearer: The service that the access stratum provides to the non-access stratum for transfer of user data between User Equipment and CN.

Radio Access Mode: Mode of the cell, FDD or TDD.

Radio Access Network Application Part: Radio Network Signalling over the Iu.

Radio Access Technology: UTRA, GERAN etc.

Radio Bearer: The service provided by the Layer 2 for transfer of user data between User Equipment and UTRAN.

Radio frame: A radio frame is a numbered time interval of 10 ms duration used for data transmission on the radio physical channel. A radio frame is divided into 15 time slots of 0.666 ms duration. The unit of data that is mapped to a radio frame (10 ms time interval) may also be referred to as radio frame.

Radio interface: The "radio interface" is the tetherless interface between User Equipment and a UTRAN access point. This term encompasses all the functionality required to maintain such interfaces.

Radio link: A "radio link" is a logical association between single User Equipment and a single UTRAN access point. Its physical realisation comprises one or more radio bearer transmissions.

Radio link addition: The procedure where a new radio link is added to the active set.

Radio Link Control: A sublayer of radio interface layer 2 providing transparent, unacknowledged and acknowledged data transfer service.

Radio link removal: The procedure where a radio link is removed from the active set.

Radio Link Set: A set of one or more Radio Links that has a common generation of Transmit Power Control (TPC) commands in the DL

Radio Network Controller: This equipment in the RNS is in charge of controlling the use and the integrity of the radio resources.

Radio Network Subsystem Application Part: Radio Network Signalling over the Iur.

Radio Network Subsystem: Either a full network or only the access part of a UTRAN offering the allocation and the release of specific radio resources to establish means of connection in between an UE and the UTRAN.
A Radio Network Subsystem is responsible for the resources and transmission/reception in a set of cells.

Radio Network Temporary Identifier: A Radio Network Temporary Identifier is a generic term of an identifier for a UE

when an RRC connection exists. Following types of RNTI are defined: Cell RNTI (C-RNTI), Serving RNC RNTI (S-RNTI) and UTRAN RNTI (U-RNTI).
Radio Resource Control: A sublayer of radio interface Layer 3 existing in the control plane only which provides information transfer service to the non-access stratum. RRC is responsible for controlling the configuration of radio interface Layers 1 and 2.
Radio system: the selected 2nd or 3rd generation radio access technology, eg UTRAN or GERAN.
Rated Output Power: For FDD BS, rated output power is the mean power level per carrier that the manufacturer has decared to be available at the antenna connector. For TDD BS rated output power is the mean power level per carrier over an active timeslot that the manufacturer has declared to be available at the antenna connector.
Real time: Time, typically in number of seconds, to perform the on-line mechanism used for fraud control and cost control.
Received Signal Code Power: Given only signal power is received, the average power of the received signal after despreading and combining.
Receiver Antenna Gain (dBi): The maximum gain of the receiver antenna in the horizontal plane (specified as dB relative to an isotropic radiator).
Receiver Noise Figure (dB): Receiver noise figure is the noise figure of the receiving system referenced to the receiver input.
Receiver Sensitivity (dBm): This is the signal level needed at the receiver input that just satisfies the required Eb/(No+Io).
Recipient network: The network which receives the number in the porting process. This network becomes the subscription network when the porting process is complete.
Record: A string of bytes within an EF handled as a single entity (see clause 6).
Record number: The number, which identifies a record within an EF.
Record pointer: The pointer, which addresses one record in an EF.
Reference configuration: A combination of functional groups and reference points that shows possible network arrangements (source: GSM 01.04, ITU-T I.112).
Reference point: A conceptual point at the conjunction of two non-overlapping functional groups (source: GSM 01.04, ITU-T I.112).
Regionally Provided Service: A service entitlement to only certain geographical part(s) of a PLMN, as controlled by the network operator.
Registered PLMN (RPLMN): This is the PLMN on which the UE has performed a location registration successfully.
Registration Area: A (NAS) registration area is an area in which the UE may roam without a need to perform location registration, which is a NAS procedure.
Relay: Terminal devices capable of ODMA relay communications.
Relay/Seed Gateway: Relay or Seed that communicates with the UTRAN, in either TDD or FDD mode.
Relaylink: Relaylink is a communications link between two ODMA relay nodes.
Release 99: A particular version of the UMTS standards produced by the 3GPP project. Also: release 00, release 01, release 02 etc.
Repeater: A "repeater" is a radio transceiver used to extend the transmission of a base station beyond its normal range.
Requested QoS: a QoS profile is requested at the beginning of a QoS session. QoS modification requests are also possible during the lifetime of a QoS session.
Required Eb/(No+Io) (dB): The ratio between the received energy per information bit to the total effective noise and interference power density needed to satisfy the quality objectives.
Residual error rate: A parameter describing service accuracy. The frequency of lost SDUs, and of corrupted or duplicated network SDUs delivered at the user-network interface.
Retrieval service: An interactive service which provides the capability of accessing information stored in data base centres. The information will be sent to the user on demand only. The information is retrieved on an individual basis, i.e., the time at which an information sequence is to start is under the control of the user (source ITU-T I.113).
Roaming: The ability for a user to function in a serving network different from the home network.
Root directory: Obsolete term for Master File.
Root Relay: ODMA relay node where communications originate or terminate.
RRC Connection: A point-to-point bi-directional connection between RRC peer entities on the UE and the UTRAN sides, respectively. An UE has either zero or one RRC connection.

********** Next modified Section **********

T

Teleaction service: A type of telecommunication service that uses short messages, requiring a low transmission rate, between the user and the network (source: ITU-T I.112).

Telecommunication service: That which is offered by a PLMN operator or service provider to its customers in order to satisfy a specific telecommunication requirement. (source: GSM 01.04, ITU-T I.112). Telecommunication services are divided into two broad families: bearer services and teleservices (source: ITU-T I.210).
Teleservice: Is a type of telecommunication service that provides the complete capability, including terminal equipment functions, for communication between users according to standardised protocols and transmission capabilities established by agreement between operators.
Terminal: A device into which a UICC can be inserted and which is capable of providing access to UMTS services to users, either alone or in conjunction with a UICC.
Terminal equipment: Equipment that provides the functions necessary for the operation of the access protocols by the user (source: GSM 01.04). A functional group on the user side of a user-network interface (source: ITU-T I.112).
Test environment: A "test environment" is the combination of a test propagation environment and a deployment scenario, which together describe the parameters necessary to perform a detailed analysis of a radio transmission technology.
Throughput: A parameter describing service speed. The number of data bits successfully transferred in one direction between specified reference points per unit time (source: ITU-T I.113).
Total power dynamic range: The difference between the maximum and the minimum total transmit output power for a specified reference condition (TS25.104).
Traffic channel: A "traffic channel" is a logical channel which carries user information.
Transit delay: A parameter describing service speed. The time difference between the instant at which the first bit of a protocol data unit (PDU) crosses one designated boundary (reference point), and the instant at which the last bit of the PDU crosses a second designated boundary (source: ITU-T I.113).
Transmission Time Interval: Transmission Time Interval is defined as the inter-arrival time of Transport Block Sets, i.e. the time it shall take to transmit a Transport Block Set.
Transmitter Antenna Gain (dBi): The maximum gain of the transmitter antenna in the horizontal plane (specified as dB relative to an isotropic radiator.
Transport Block: Transport Block is defined as the basic data unit exchanged between L1 and MAC. An equivalent term for Transport Block is “MAC PDU”.
Transport Block Set: Transport Block Set is defined as a set of Transport Blocks that is exchanged between L1 and MAC at the same time instance using the same transport channel. An equivalent term for Transport Block Set is “MAC PDU Set”.
Transport Block Set Size: Transport Block Set Size is defined as the number of bits in a Transport Block Set.
Transport Block Size: Transport Block Size is defined as the size (number of bits) of a Transport Block.
Transport channel: The channels offered by the physical layer to Layer 2 for data transport between peer L1 entities are denoted as Transport Channels. Different types of transport channels are defined by how and with which characteristics data is transferred on the physical layer, e.g. whether using dedicated or common physical channels.
Transport Format: A Transport Format is defined as a format offered by L1 to MAC for the delivery of a Transport Block Set during a Transmission Time Interval on a Transport Channel. The Transport Format constitutes of two parts – one dynamic part and one semi-static part.
Transport Format Combination: A Transport Format Combination is defined as the combination of currently valid Transport Formats on all Transport Channels of an UE, i.e. containing one Transport Format from each Transport Channel.
Transport Format Combination Set: A Transport Format Combination Set is defined as a set of Transport Format Combinations to be used by an UE.
Transport Format Combination Indicator (TFCI): A Transport Format Combination Indicator is a representation of the current Transport Format Combination.
Transport Format Identification (TFI): A label for a specific Transport Format within a Transport Format Set.
Transport Format Set: A set of Transport Formats. For example, a variable rate DCH has a Transport Format Set (one Transport Format for each rate), whereas a fixed rate DCH has a single Transport Format.

********** Next modified Section **********

5 Equations

$DPCH\_E_c$	Average energy per PN chip for DPCH.
$\frac{DPCH\_E_c}{I_{or}}$	The ratio of the ~~received~~ transmit energy per PN chip of the DPCH to the total transmit power spectral density at the BS antenna connector.
~~E_b~~	~~Average energy per information bit for the PCCPCH, SCCPCH and DPCH, at the UE antenna connector.~~
$\frac{E_b}{N_t}$	~~The ratio of combined received energy per information bit to the effective noise power spectral density for the PCCPCH, SCCPCH and DPCH at the UE antenna connector. Following items are calculated as overhead: pilot, TPC, TFCI, CRC, tail, repetition, convolution coding and turbo coding.~~
E_c	Average energy per PN chip.
$\frac{E_c}{I_{or}}$	The ratio of the average transmit energy per PN chip for different fields or physical channels to the total transmit power spectral density.
F_{uw}	Frequency of unwanted signal
I_o	The total received power spectral density, including signal and interference, as measured at the UE antenna connector.
I_{oc}	The power spectral density of a band limited white noise source (simulating interference from other cells) as measured at the UE antenna connector.
I_{or}	The total transmit power spectral density of the Forward link at the base station antenna connector.
$\hat{I}_{or}$	The received power spectral density of the Forward link as measured at the UE antenna connector.
~~N_t~~	~~The effective noise power spectral density at the UE antenna connector.~~
$OCNS\_E_c$	Average energy per PN chip for the OCNS.
$\frac{OCNS\_E_c}{I_{or}}$	The ratio of the average transmit energy per PN chip for the OCNS to the total transmit power spectral density.
$PCCPCH\ \frac{E_c}{I_o}$	The ratio of the received PCCPCH energy per chip to the total received power spectral density at the UE antenna connector.
$\frac{PCCPCH\_E_c}{I_{or}}$	The ratio of the average transmit energy per PN chip for the PCCPCH to the total transmit power spectral density.
$\frac{?\ DPCH\_E_c}{I_{or}}$	The ratio of the sum DPCH_Ex for one service in case of multicode to the total tramsmit power spectral density of the downlink at the BS antenna connector.
~~$SCCPCH$~~	~~Secondary Common Control Physical Channel.~~
$SCCPCH\_E_c$	Average energy per PN chip for SCCPCH.