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Technical Specification

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General Packet Radio Service (GPRS);
Mobile Station (MS) - Base Station System (BSS) interface;
Radio Link Control/ Medium Access Control (RLC/MAC)
protocol
(3GPP TS 04.60 version 8.27.0 Release 1999)**

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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies the procedures used at the radio interface (Reference Point Um, see 3GPP TS 04.02) for the General Packet Radio Service (GPRS) Medium Access Control /Radio Link Control (MAC/RLC) layer.

When the notations for "further study" or "FS" or "FFS" are present in the present document they mean that the indicated text is not a normative portion of the present document.

The present document is applicable to the following GPRS Um functional layers:

- Radio Link Control functions,
- Medium Access Control functions, and
- Physical Link Control functions.

The procedures described in the present document are for the RLC/MAC functions of the GPRS radio interface (Um) when operating on a Packet Data Channel (PDCH).

The present document provides the overall description for RLC/MAC layer functions of the general Packet Radio Service (GPRS and EGPRS) radio interface Um. Within this TS the term GPRS refers to GPRS and EGPRS unless explicitly stated otherwise.

3GPP TS 03.64 contains an overview of the GPRS radio interface (Um).

3GPP TS 04.03 and 3GPP TS 04.04 contains the definition of the control channels used in the present document.

3GPP TS 04.07 contains a description in general terms of the structured functions and procedures of this protocol and the relationship of this protocol with other layers and entities.

3GPP TS 04.08 contains the definition of GPRS RLC/MAC procedures when operating on the Common Control Channel (CCCH).

3GPP TS 04.64 contains functional procedures for the Logical Link Control (LLC) layer.

Application to interface structure

The RLC/MAC procedures apply to the interface structures defined in 3GPP TS 04.03. They use the functions and services provided by layer 1 defined in 3GPP TS 04.04. 3GPP TS 04.07 gives the general description of layer 3 including procedures, messages format and error handling.

Test procedures

Test procedures of the GSM radio interface signalling are described in 3GPP TS 11.10 and 3GPP TS 11.2x series.

Use of logical control channels

The logical control channels are defined in 3GPP TS 05.02. Three similar sets of logical channels are defined. The first set consists of the logical channels:

- Broadcast Control Channel (BCCH): downlink only, used to broadcast Cell specific information;
- Paging Channel (PCH): downlink only, used to send page requests to Mobile Stations (MSs);
- Random Access Channel (RACH): uplink only, used to request GPRS resources or a Dedicated Control Channel;
- Access Grant Channel (AGCH): downlink only, used to allocate GPRS resources or a Dedicated Control Channel;
- The second set consists of the logical channels:
- Packet Broadcast Control Channel (PBCCH): downlink only, used to broadcast Cell specific information;
- Packet Paging Channel (PPCH): downlink only, used to send page requests to Mobile Stations (MSs);