

2 Baseband Subsystem of the BTS

About This Chapter

This topic describes the functional structure and hardware configuration of the baseband subsystem of the BTS.

[2.1 Functional Structure of the Baseband Subsystem](#)

This topic describes the functional structure of the baseband subsystem. The baseband subsystem of the BTS performs resource management, operation and maintenance, environment monitoring, and service processing.

[2.2 Hardware Configuration of the Baseband Subsystem](#)

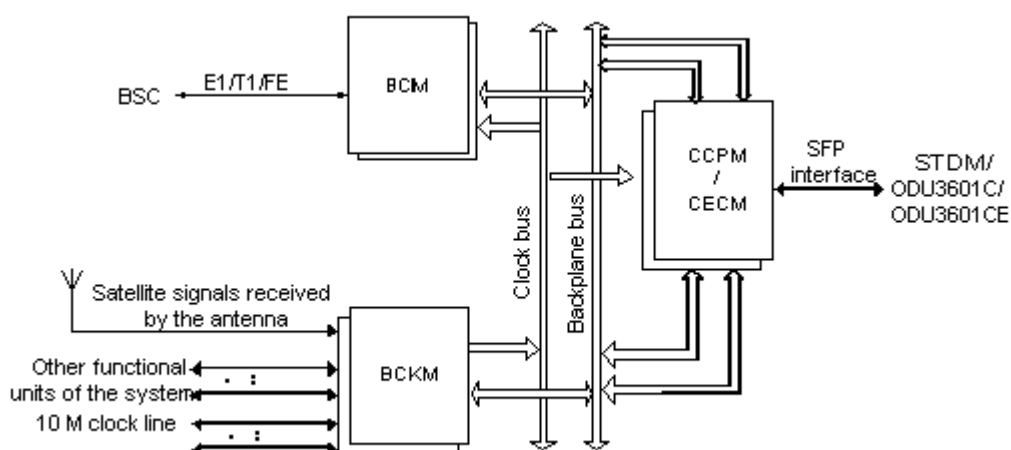
This topic describes the hardware configuration of the baseband subsystem of the BTS3606C.

2.1 Functional Structure of the Baseband Subsystem

This topic describes the functional structure of the baseband subsystem. The baseband subsystem of the BTS performs resource management, operation and maintenance, environment monitoring, and service processing.

Figure 2-1 shows the functional structure of the baseband subsystem.

Figure 2-1 Functional structure of the baseband subsystem



BCIM (**QC52BCIM**, **QC53BCIM**, **QC54BCIM**): BCM (**BCKM**): BTS control&clock module
BTS control interface module
CCPM (**QCK2CCPM**, **QCK3CCPM**): compact-BTS channel process module CECM (**CECM**): compact-BTS EV-DO channel module
STDMS (**STDMS**): standalone transceiver duplex filter module BSC: base station controller module

The baseband subsystem of the BTS performs the following functions:

- Providing the Abis interface and processing the Abis interface protocol
- Providing the interface with the RF subsystem and implementing protocol processing for the physical layer over the Um interface and for the media access control (MAC) layer over the common channel
- Implementing modulation/demodulation of CDMA2000 1X and CDMA2000 1xEV-DO baseband signals and encoding/decoding of CDMA channels
- Providing synchronization clock signals for the BTS
- Implementing resource management, operation and maintenance, and environment monitoring for the BTS

The baseband subsystem is connected to the transmission system through the E1/T1/FE port provided by the BCM. In this way, the baseband subsystem is connected to the BSC. The baseband subsystem is connected to the STDMS or ODU through the SFP port provided by the CCPM/CECM.

2.2 Hardware Configuration of the Baseband Subsystem

This topic describes the hardware configuration of the baseband subsystem of the BTS3606C.

Figure 2-2 shows the full configuration of the baseband subrack.

Figure 2-2 Full configuration of the baseband subrack



The modules in the baseband subsystem are as follows:

- **BCIM (QC52BCIM, QC53BCIM, QC54BCIM)**: The BCIM is used to connect the BTS to the BSC through the transmission system. It supports the E1, T1, and FE bearing methods, ATM and IP transmission modes, and six types of transmission link groups, namely, the IMA, UNI, FRACTIONAL ATM, FRACTIONAL IMA, PPP, and MLPPP link groups.
- **BCKM**: The BCKM provides clock signals for the BTS3606AC and controls the resources of the BTS3606AC.
- **CCPM (QCK2CCPM, QCK3CCPM)**: The CCPM processes the data on the CDMA2000 1X forward and reverse channels.
- **CECM**: The CECM processes the data on the CDMA2000 1xEV-DO forward and reverse channels.

In addition to the baseband subrack, the baseband subsystem has the following accessories:

- SBKM: The SBKM supports the transmission of signals between baseband boards.
- **CESP**: The CESP implements surge protection for the E1/T1 trunks.
- CSLM: The CSLM is located at the top of the cabinet and provides surge protection for the environment monitoring unit and external clock ports.
- SSPB: The SSPB is an integrated surge protection backplane configured at the top of the cabinet and used to support the transmission of signals between the CESP/CSLM and the baseband boards.

