All herewith given information are to be treated as company confidential!

1.1 Mobiler Datenspeicher (MDS) (mobile data memory)

The following figure 1 shows the block diagram of the mobile data memory (MDS) of the MOBY U family. The device consists of a digital part, an analogue part and the battery.

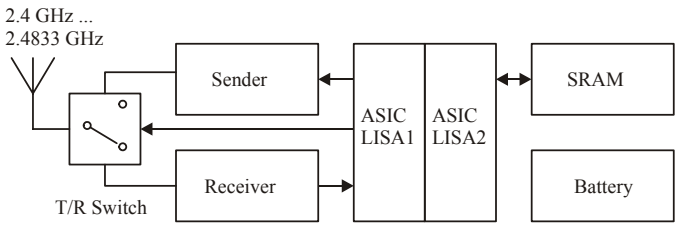

Figure 1: Block diagram of the mobile data memory

The digital part consists of two ASICs, LISA1 and LISA2, which control the analogue hardware with the means of a state machine, and a SRAM memory for storing the transmitted data.

The analogue part contains the sender, the receiver and the transmit/receive switch.

In receive mode the two, by the read/write device transmitted, carrier will be fed into the antenna and led via the transmit/receive switch into the receiver. There they will get filtered and amplified in a discrete low noise amplifier (BFP405, Infineon). Further the two signals will be fed into a mixer, which works without additional local oscillator signal. So the receiver does not need a synthesizer. The product of the two signals has now IF frequency (10.6496 MHz) and will be filtered at this, amplified, limited and demodulated in the IF IC (SA636, Philips).

The sender is built up of only one switch and two microstriplines. It just reflexes the, from the antenna coming, carrier with different phases. These phases differ about 180 deg. The transmit/receive switch as well as the modulator switch are of GaAs FET type (SW437, M/A-COM).

The entire device is driven by a lithium ion battery, which cannot be changed during the entire lifetime of the mobile data memory.