The certus EM-RFID Hybrid System

The **certus** Hybrid System integrates the proofed EM technology with the popular 13,56MHz RFID Technology into a single EAS System. Both technologies components are own developments from **certus** and allow simultaneous detection of security elements from both technologies.

The EM part detects standard **certus** EM labels as well as EM labels from other suppliers, like e.g. 3M Tattle Tapes. The RFID part detects or reads all 13.56 Mhz based RFID labels, following ISO 15693.

A Standard Single Entry Hybrid System consists of the following components:

- a **certus** Uni VI EM EAS Electronic
- two Large Plexi V Light EM-RFID Hybrid Gate Panels
- a **certus** RFID Long Range Reader (integrated in the foot of a Gate Panel)
- EM EAS and RFID labels
- different system cables

With the Hybrid System Libraries previously using EM for their EAS can continue using their installed EM labels for the EAS but at the same time use the EAS function from RFID labels too. Keeping the powerful EM EAS features provides more safety for sensitive goods against theft. Using the EAS features of the RFID ISO 15693 labels will improve the total EAS system detection.

The following parameter read from an RFID label can get used for triggering an RFID EAS Alarm:

- EAS Bit
- AFI Security Word
- RFID ID Code from the Chip

The Hybrid System can secure gateway widths up to 100cm.

The fully transparent design of the Gate Panel meets in an excellent manner the requirements of modern library and shop design. Colour variations of the Gate Panel printing are possible.
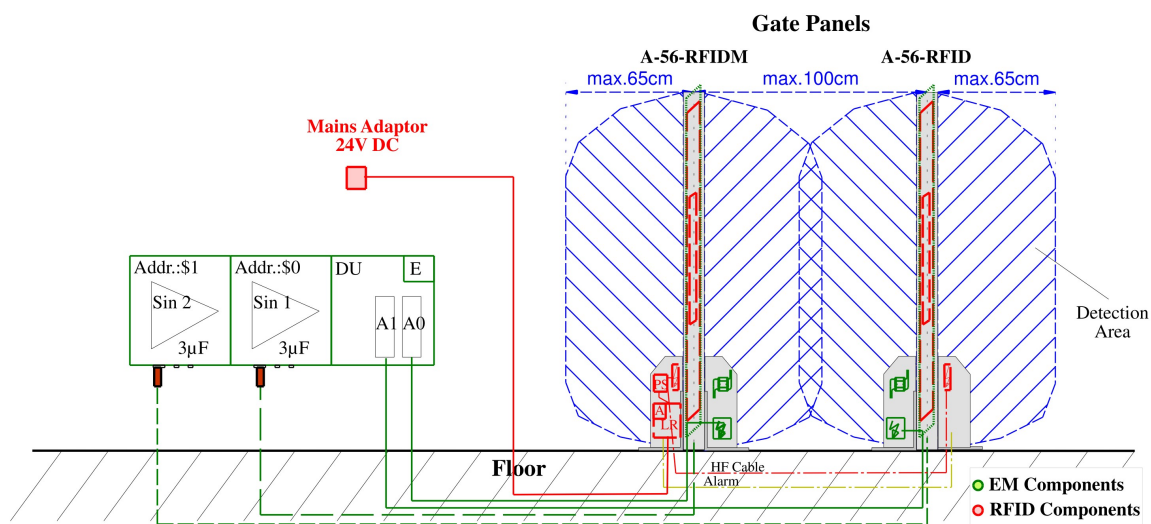

Fig.: Single gateway EM – RFID System, schematic overview

A typical EM – RFID installation looks like this (see pic).

Certus RFID Long Reader LR2011

EM Electronic Uni VI

The EM Electronic is placed external and links via sender and receiver cable to both Hybrid Gate Panels. The RFID Reader is integrated in a Gate Panel foot and links via HF cable to the other Gate Panel. The acoustical Alarm is generated separately per technology, but both technologies share optical alarm display, located in each Gate Panel. Both technologies require a standard mains socket for power supply. The EM Uni VI Electronic links directly to the power supply were as the LR2011 requires a mains adaptor in between.

Technical Details

Maximum gateway width: 100 cm

Components

EM-RFID Hybrid Gate Panel:	approx. 83 x 150 x 2 cm Foot: made of stainless steel Body: made of full acrylic glass
EM Electronic:	approx. 65 x 26 x 14cm (l x b x h) Housing: made of stainless steel
RFID-Reader:	approx. 40 x 20 x 12 (l x b x h) Integrated into the foot of a Gate Panel

Power consumption over all: ca. 195 W (or more, depending on the installation)