Case study #	2.4
Title	Damage on ISM (I-Interface Subscriber Module)
Type of trouble	Damage.
Source of trouble	Lightning.
System affected	Transmission equipment.
Location	Telecommunication centre.
Keywords	Damage, lightning surge.
Version date	2004-01-01

System configuration

A system configuration and an estimated current flow are shown in Figure 2.4-1. At a lightning stroke, a switching equipment ISM (I-interface subscriber module) on the second floor, was damaged and its operation was halted. An ISM equipment located on the first floor was not damaged. No other equipment, aside from the ISM was damaged, and there were no error messages except those of the ISM equipment. The ISM on the second floor was connected to two power equipments, D-SSF and F-SSF.

The main power equipment is MR-48 on the ground floor, and the potential reference is a dc+ point in the MR-48. The current flowing through the ISM on the second floor followed a large loop, as shown in Figure 2.4-1. It is assumed that the equipment is easily affected by lightning.

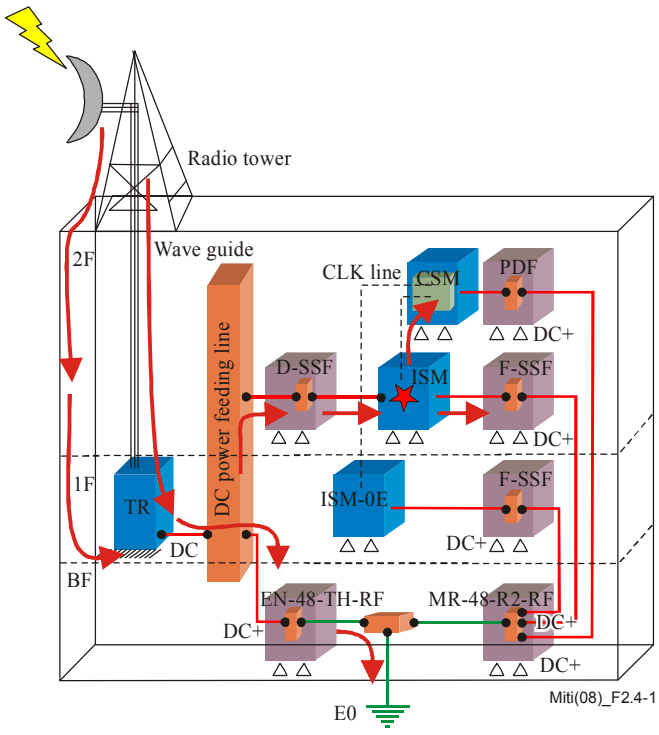

Figure 2.4-1 – System configuration