

## Operational Description of RFID part of model $\mu$ TASWako i30

We have recently reported a bench-top type, fully automated microfluidic system for sensitive determination of liver tumor markers on disposable plastic microfluidic chips). The immunoreaction is done in a microfluidic channel of the chip, and the resulting immunocomplex is concentrated, separated and detected by electrophoresis and laser-induced-fluorescence. Each assay takes 2 min, and time to first answer (TAT) is about 9 min.

TR3-C201 can read and write the IC tag data by noncontact by using the frequency of 13.56MHz. This RFID reader writer module conforms to international standard ISO/IEC15693.

The operational mode has a command mode, auto scanning mode, trigger mode, polling mode, the continuous inventory mode, the EAS mode, and the RDLOOP mode.

In the modulation type, main body  $\rightarrow$  IC tag is ASK 10%, IC tag  $\rightarrow$  main body is FSK.