

Operational Description of RFID part of model μ 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.