

### Specification

1. Analytical instrument for DNA, RNA, RNA IQ and protein quantification with a small bench top footprint and 5.7" touch screen intuitive user interface.
2. Instrument should use as little as 1  $\mu\text{L}$  of sample.
3. Instrument should have a sensitivity range for dsDNA of 0.5 ng/mL (10% CV) or better.
4. Instrument should have Dynamic range† (dsDNA) of 0.5 ng/mL to 5  $\mu\text{g/mL}$  or better.
5. Instrument should be able to accurately measure both DNA and RNA in the same sample.
6. It should be able to accurately quantify DNA in samples with concentrations as low as 10 pg/ $\mu\text{L}$  or lower than that.
7. It should be able to cover a sample concentration range of 10 pg/ $\mu\text{L}$  to 1  $\mu\text{g}/\mu\text{L}$  DNA.
8. It should have reagent calculator that quickly generates working solution calculations.
9. It should be able to measure intact vs degraded RNA in less than 10 seconds' sample read time.
10. Instrument should be able to provide on board RNA IQ – Integrity and Quality values.
11. It should be able to accurately and selectively quantify DNA, RNA or protein in seconds per sample.
12. It should be able to accurately measure viable RNA with new RNA IQ kit in seconds per sample.
13. It should be able to store up to 1,000 sample results with 4GB space and should be upgradable to have Wifi in future.
14. Instrument should not require external computer for data analysis.
15. It should come up with LED as light sources with excitation and emission filters as below. Excitation: 430–495 nm, 600–645 nm  
Emission: 510–580 nm, 665–720 nm.
16. warm up time should be less than one minute.
17. Start kits for RNA, DNA and protein should be provided.
18. The equipment must be ISO/CE/ISI/FDA (USA) compliant with certification proof of current validity of the quoted model.
19. System should have at least one years of warranty.