

## Specifications for NIR DA 1650

- 1.** Instrument: Diode Array based NIR Spectrometer.
- 2.** Products: All kinds of Feed and Feed ingredients.
- 3.** Parameters: Moisture, Protein, fat/oil, Fiber, Ash, etc.
- 4.** Mode of Analysis: Non- Destructive Multi Component Simultaneous Analysis.
- 5.** Supported Sample type: Whole Grains, powders, pellets, Slurries, liquids, etc.
- 6.** Technology: Diode Array Technology using reflectance/transreflectance method .
- 7.** Protection: Instrument should be IP 65 rated. Completely Dust and water protected. and temperature stabilized for consistent results.
- 8.** Analysis time: The analysis time should not be more than 1 minute.
- 9.** Detectors: more than 230 pixels InGaAs .
- 10.** Analysis Method: Sample cups should be placed and analysed in a closed and covered sample analysis chamber of the machine. Sample should not be exposed to environment during analysis.
- 11.** Wavelength Range: It should support NIR wavelength range of 1150-1650 nm .
- 12.** Wavelength accuracy: less than 0.5 nm.
- 13.** Number of data points: More than 1000.
- 14.** Optical bandwidth : 10.44 ±0.5 nm
- 15.** Wavelength temperature stability :less than 0.02 nm/ °C
- 16.** Computer: Should have an inbuilt computer for operation and analysis.
- 17.** Automated identification: based on Radio Frequency Identification (RFID) on sample cups for traceability.
- 18.** Networking: Inbuilt networking software for remote access of the machine.
- 19.** Sample Preparation mill: A sample grinding mill based on cyclone technology with 0.2 mm sieves and sample grinding rate 4g/s , and 10,000 rpm should be offered optionally.
- 20.** All the parts quoted should be from the same manufacturer to be quoted with warranty of one year .
- 21.** The supplier should have ample experience in Supplying and Maintaining NIR Analysers and should have supplied at least 50 NIR analysers in India of which minimum

10 numbers should be of the quoted model. The fact should be supported with Users list (with model details).

\*\*\*