

## SPECIFICATION SUMMARY & BILL OF MATERIALS

### Model vb5: Single Channel FFT Analyser / Condition Monitoring Software package

With Interactive Training CD on Vibration Analysis & Decision Support Software for Detailed Diagnosis



[www.irdmechanalysis.com](http://www.irdmechanalysis.com)



## Model vb5 / Ascent1 Software

### The Economical Solution for the Proactive Maintenance Professional

The vb5™ data collector is a single channel, route-enabled product that provides everything needed for cost effective data collection and analysis. Using this instrument maintenance professionals are able to easily take recordings with up to 6400 lines of resolution and greater than 95dB of dynamic range, and all at a low price that represents exceptional value for money. The vb5 instrument includes the powerful Ascent® software in the purchase price.

Ascent Level 1 enables you to program the instrument with thousands of separate machine definitions covering a number of route choices. A library of over 300 customizable parameter sets is also available enabling a vast array of measurement options.

#### Ascent Level 1 Software:

- ¾ Route enabled – build routes in Ascent Software and send to the instrument
- ¾ CBDb – Commtest Bearing Database with over 30,000 bearings

#### Enhanced Instrument functionality

- ¾ 1 Channel recordings
- ¾ 6400 line FFT resolution
- ¾ 40KHz Fmax
- ¾ 1 GB memory – virtually unlimited spectra storage
- ¾ ≥95dB dynamic range
- ¾ Spectrum and Waveform recordings (simultaneous)
- ¾ Large, high resolution (HVGA) backlit LCD
- ¾ 5 year warranty on the instrument hardware

**Product Code: KTV50321**



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## Generic specification for Vibration Analyser Instrument with Software

| Nos | Feature               | Comments  |
|-----|-----------------------|---|
| 1   | Indication            | Digital Analyser  |
| 2   | Display               | LCD 117 x 79 mm<br>Resolution 480 x 320 pixels  |
| 3   | Packaging             | IP65 / 1.2 m drop onto concrete.  |
| 4   | Dimensions            | 252x1148x60 mm  |
| 5   | Weight                | 1.2 kg  |
| 6   | Frequency             | ±0.1 dB from 10 Hz to 15kHz; ±3 dB from 1 Hz to 40kHz   |
| 7   | Resolution            | 400, 800, 1600, 3200, 6400 lines  |
| 8   | Dynamic range         | >95dB   |
| 9   | A/D Converter         | 24-bit  |
| 10  | No of channels        | 1 & additional 1 for Phase measurement  |
| 11  | Data Storage          | 1 GB  |
| 12  | Sensors Compatibility | Accelerometer (ICP type) & Tach (both Strobe & laser).<br>Connecting ports for sensors on data collectors should be BNC type.   |
| 13  | Analysis              | FFT, Waveform, Route Enabled Keypad Entry   |
| 14  | Amplitude Scale       | Displacement, Velocity, Acceleration  |
| 15  | Temperature range     | -10 to 50°C (operating), -20 to 60°C (storage)  |
| 16  | Power Supply          | Custom Lithium ion pack, 7.4V,4500 mAh 110 & 230V, 50 Hz  |
| 17  | Accessories           | 1. One sensor used for displacement, velocity and acceleration measurements<br>2. Signal sensor cable<br>3. Magnetic Mount<br>4. Tachometer – laser type  |
| 18  | Software              | Windows based 32 bit, should not take up more than 100mB computer disc space. Should be Vista Compatible.   |
| 19  | Software              | Vibration analysis software should have downloading & archiving facility for FFT, TWF,<br><br>Exception reporting, data trending, alarm bands, Order display, Fault Frequency analysis, harmonic & sideband cursors should be available with the software.<br><br>Efficient easy transferring facility of reports & charts to Microsoft Office Packages like Word, Excel etc.<br><br>The Software should have advanced waveform analysis Tools like converting TWF to FFT & vice-versa.<br><br>Library of more than 30,000 bearing database |
| 20  | Warranty              | Vendor should provide 5 years warranty on instrument & six months for accessories.<br><br>12 Months upgrade path guarantee  |
| 21  | Support               | Life time Help Desk Support via E-mail<br><br>5 years Software & firmware upgrades via website  |
| 22  | Calibration           | Vendor to have National Traceable sensor calibration facility and local Services  |
| 23  | Training              | Training to be given at time of system commissioning. Optionally offer interactive training CD on vibration analysis.   |



## Standard Accessories of Hardware and Software

| SN | Category       | Description   | Part Number                                  | Units    | Comments  |                              |
|----|----------------|---|--|----------|---|------------------------------|
| 1  | System Package | Single Channel Volume Route Data Collector Package with Standard Accessories  | KTV50321                                     | 1        |   |                              |
| 2  | Instrument     | vb5 instrument - Single Channel, advanced analysis features   | KALC0325                                     | 1        | Five Year Warranty on Instrument, 6 months on battery, see conditions for accessories below   |                              |
| 3  |                | Universal AC Power Adapter  | ADA70227                                     | 1        | 12 Months from purchase date  |                              |
| 4  |                | C8 Mains Cable – India  | PLSA0241                                     | 1        | 12 Months from purchase date  |                              |
| 5  |                | DC Automobile Adapter   | DCCA0041                                     | 1        | 12 Months from purchase date  |                              |
| 6  |                | Sensor Accelerometer, model IRD501, Premium, 2-10KHz, 100 mV/g, Top Exit, Mil 2 Pin Connector, , 1/4"-28UNF Female Mounting Thread with National Traceable Cal. Cert. | M5011005001000                               | 1        | 60 Months from purchase date but recalibration is recommended and available at IRD  |                              |
| 7  |                | Cable Coiled for sensor   | CBC0027                                      | 1        | 12 Months from purchase date  |                              |
| 8  |                | Magnet base – accelerometer – male  | MAGM0064                                     | 1        | 12 Months from purchase date  |                              |
| 9  |                | Laser tach sensor with block  | LASA0315                                     | 1        | 12 Months from purchase date  |                              |
| 10 |                | Magnetic Base with stand/extension arm for Laser tach/block   | MAGA0063                                     | 1        | 12 Months from purchase date  |                              |
| 11 |                | Laser tach cable – 5m length with Lemo  | CBL50216                                     | 1        | 12 Months from purchase date  |                              |
| 12 |                | Reflective Tape   | RTAP0094                                     | 1        | 12 Months from purchase date  |                              |
| 13 |                | Instrument Manual for vbx   | MVBX0250                                     | 1        | 12 Months from purchase date  |                              |
| 14 |                | USB Data Transfer Cable   | CABU0213                                     | 1        | 12 Months from purchase date  |                              |
| 15 |                | Neck Strap with sensor keeper   | NSSK0275                                     | 1        | 12 Months from purchase date  |                              |
| 16 |                | Carry bag   | CBVB0032                                     | 1        | 12 Months from purchase date  |                              |
| 17 |                | Quick Start Guide   | QSG0248                                      | 1        | 12 Months from purchase date  |                              |
| 18 |                | Software  | Ascent Level 1 - Single License              | SAL10131 | 1   | Five Year Software Support   |
| 19 |                |   | Ascent Software Security Dongle - USB HL PRO | SDGL1040 | 1   | 12 Months from purchase date |
| 20 |                | Commissioning ( in days)  | CMG4   | 4        | Three days on-site, one day travelling. System commissioning, load route and data collection. If training in vibration technology is required then a further two days will be charged. Expenses at cost |                              |

IRD Mechanalysis Ltd is a leading provider of condition management solutions with over 30 years experience in machinery vibration measurement. The company designs and manufactures proven instrumentation and sensors suitable for rugged industrial environments. A comprehensive range of products and services are available from the offices below:

| Mumbai   | Delhi  | Kolkata  | Chennai  |
|--|--|--|--|
| 1/5, Marol Co-op. Industrial Estate Ltd,<br>Off. Mathuradas VasANJI Rd.<br>Marol, Andheri (East)<br>Mumbai 400 059 | Sagar Deep, Plot No.11<br>LSC Saini Enclave<br>Vikas Marg<br>New Delhi 110 092                                     | 153/A, 2nd Floor<br>VIP Road<br>Kolkata<br>700 054   | 7-C, Chesney Nilgiri Apartments<br>65, Commander-In-Chief Rd.<br>Chennai<br>600 105                                |
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IRD vb5-Aug11

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