<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading wideband accuracy</td>
<td>Basic 0.01% with class leading high frequency performance</td>
</tr>
<tr>
<td>ISO17025 accredited</td>
<td>ISO17025 IEC61000 certification available</td>
</tr>
<tr>
<td>Sophisticated data reporting</td>
<td>Enables user to determine failure modes accurately</td>
</tr>
<tr>
<td>PC software</td>
<td>Remote control, tables, graphs and database management of results</td>
</tr>
<tr>
<td>Impedance Network</td>
<td>N4L Impedance Networks available for compliant measurements</td>
</tr>
<tr>
<td>Versatile interfaces</td>
<td>RS232, USB, GPIB and LAN as standard</td>
</tr>
<tr>
<td>1 to 3 Phase</td>
<td>Ability to perform single and 3 phase measurements</td>
</tr>
<tr>
<td>Various measurement modes</td>
<td>Power, Harmonic, RMS, LCR, Scope, Integ</td>
</tr>
</tbody>
</table>
IEC61000-3-2/12 - Fluctuating Harmonics

The N4L PPA55xx series of power analyzers and impedance networks provide fully compliant Harmonics and Flicker test solutions. Certified by NPL (National Physical Laboratory) in the UK, the N4L PPA55xx provides reliable, accurate measurements compliant to the latest standards (IEC61000-3-2/3 and IEC61000-3-11/12).

In combination with an N4L Impedance Network and a compliant AC Source, you will be equipped to provide fully compliant Harmonics and Flicker measurements.

Intuitive software package

Perform compliant IEC61000 tests in 6 steps, following intuitive software guidance (IECSoft):

1. **Step 1** Begin New/Load Existing test
2. **Step 2** Enter EUT/Test Lab details
3. **Step 3** Select Harmonics/Flicker
4. **Step 4** Setup Harmonics/Flicker
5. **Step 5** Setup AC Source
6. **Step 6** Connect and begin tests
IEC61000-3-3/11 - Flicker

Using the same setup process as described for Fluctuating Harmonics, Flicker is quickly configured and measurements can commence. Both IFS and PST are graphed for reference.

Switched Inrush Current testing

IECSoft includes an integrated "Inrush test user prompt" program, this provides the operator with a prompt to perform the switching operation of the device under test, records Dmax values with a running average and final result. The software will also auto calculate the results as per IEC61000-3-3:2013 ed.3.0.

Fully Automated Report Generation

Along with sophisticated test failure diagnosis, IECSoft includes an automatic report generator presenting detailed test results.
**POWER ANALYZER SPECIFICATION**

### Frequency Range
- PPA55x1
  - DC,10mHz ~ 1MHz - PPA55x1 - Low Impedance Shunt (50Arms)

### IEC61000 Voltage Input
- **Internal**
  - Range: 300μpVk~3000VPk(1000Vrms) in 9 ranges
  - (240Vrms within 300VPk range, using 20% over range)
  - Accuracy: 0.01% Rdg±0.038% Rng+(0.004%×kHz Rdg)+900µA
- **External**
  - Range: 300μpVk~3VPk in 9 ranges [BNC connector 3VPk max input]
  - Accuracy: 0.01% Rdg±0.038% Rng+(0.004%×kHz Rdg)+3µV

### IEC61000-3-2 Compliant Current Input, including Harmonic Accuracy
- **Low Impedance (Fully Compliant) 3Ω Max 50Arms**
  - Ranges: 100mApk~1000Apk(50Arms) in 9 ranges
  - Accuracy: 0.01% Rdg±0.038% Rng+(0.004%×kHz Rdg)+900µA
- **External input (External shunt current sensor)**
  - BNC Connector (Max input 3VPk)
  - Ranges: 300μpVk~3VPk in 9 ranges
  - Accuracy: 0.01% Rdg±0.038% Rng+(0.004%×kHz Rdg)+3µV

### Phase Accuracy
- **Flicker Accuracy**
  - d(t), d(c), d(max), d(τ)
    - 3%
  - 40-400Hz
    - 0.03%+0.03%/pf+(0.01%×kHz/pf) Rdg+0.03%VA Rng
- **Power Accuracy**
  - 0.03%+0.03%/pf+(0.01%×kHz/pf) Rdg+0.03%VA Rng

### IMPEDANCE NETWORK SPECIFICATION
- **IMP32x(753) Max 32Arms(75Arms)**
  - Fully Compliant to IEC61000-3-3
- **IMP16x Max 16Arms**
  - Fully Compliant to IEC61000-3-11

### Compliance
- IMP161/3 Fully Compliant to IEC61000-3-3
- IMP321/3 & IMP753 Fully Compliant to IEC61000-3-11

### Impedance Specification
- PPA5500-HC(50Arms)
  - Low Impedance Shunt (50Arms)
- PPA5500-Lc(10Arms), PPA5500(50Arms)
  - Low Impedance (Fully Compliant) 3Ω Max 50Arms
- PPA5500-HC(50Arms)
  - Low Impedance Shunt (50Arms)

### Communication Ports
- RS232: Baud rate up to 38.4kbps, RTS/CTS flow control
- LAN: 10/100 Base-T Ethernet auto sensing
- GPIB: IEEE488.2 compatible
- USB: USB 2.0 and 1.1 compatible
- Analogue Output: Bipolar ±10V(BNC)
- Speed Input: BNC Bipolar ±10V or Pulse count 1Hz to 1MHz 0.01% Rdg
  - Torque: BNC Bipolar ±10V or Pulse count 1Hz to 1MHz 0.01% Rdg
  - Sync: 4 ~ 6 Phase measurement (Master/Slave)
- Extension: 4 ~ 6 Phase (Master/Slave) + Auxiliary

### Standard Accessories
- Leads: Power, RS232, USB, GPIB
- Connection Cables: 36A 1.5m long 4mm stackable terminals
  - 1x red, 1x yellow and 2x black per phase (1x red, 1x black with HC version)
- Connection Clips: 4mm terminated alligator clips - 1x red, 1x yellow and 2x black per phase (1x red and 1x black per phase with PPA5500-HC version)
- CD-ROM: IECSoft, CommView2 (RS232/USB/LAN), Command line, Script based communication software
- Documents: User manual, Communications manual, Calibration certificate, Quick start guide

### Mechanical/Environmental
- Display: 320×240 dot full colour TFT, White LED Backlit
- Dimensions: 130W×400H×315D mm excluding feet
- Weight: 5.4kg (1 Phase), 6kg (3 Phase)
- Safety Isolation: 100Vrms or DC (CATIII), 600Vrms or DC (CATIII)
- Power supply: 90 ~ 265Vrms, 50 ~ 60Hz, 40VAmax

### Additional Specifications
- All specifications at 23°C ± 5°C. These specifications are quoted in good faith but Newtons4th Ltd reserves the right to amend any specification at any time without notice.

### Newtons4th
- Newtons4th Ltd (abbreviated to N4L) was established in 1997 to design, manufacture and support innovative electronic equipment to a worldwide market, specialising in sophisticated test equipment particularly related to phase measurement. The company was founded on the principle of using the latest technology and sophisticated analysis techniques in order to provide our customers with accurate, easy to use instruments at a lower price than has been traditionally associated with these types of measurements.

### Flexibility
- Flexibility in our products and an attitude to providing the solutions that our customers really want has allowed us to develop many innovative functions in our ever increasing product range.

### Contact your local N4L Distributor for further details
- Newtons4th Ltd are ISO9001 registered, the internationally recognised standard for the quality management of businesses.

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  - Email: sales@newtons4th.com
  - Web: www.newtons4th.com

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Queen's award for enterprise

In recognition of the technical innovation and commercial success of the PPA series, N4L received the "Innovation 2010" Queen's award for enterprise.

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