Dear Customer,

Welcome to Livingston’s RF, Microwave and General Purpose Test Equipment Catalogue. This catalogue is intended as a quick reference guide to a wide range of products available for rental within these technology sectors. If you cannot find what you are looking for, please give us a call and we will be happy to try and source this for you. And if you are not sure which equipment you need, our applications engineers will discuss your application to identify the most suitable product.

All prices quoted in this catalogue are for guidance only and are correct at the time of printing.

Livingston is Europe’s leading rental company with over 40 years of experience and expertise in the field of test & measurement solutions. We trust that you will find this catalogue useful and we look forward to hearing from you in the future.

Masten Evans
Director & General Manager, Livingston UK Ltd

---

**SHOULD I RENT OR BUY MY TEST EQUIPMENT?**

Research shows that over 50% of purchased equipment is either infrequently or never used after the initial reason for purchase.

You can decide if it is better to rent or buy by asking yourself two key questions:

- How long do I really need the equipment for?
- How much will it cost me to own it?

**COST OF OWNERSHIP v RENTAL COSTS**

Real cost of ownership for a £10,000 item is £20,400 or £98 per week for 4 years and below is the rental cost for exactly the same equipment.

<table>
<thead>
<tr>
<th>No of months</th>
<th>Rental per week</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>£151</td>
<td>£3,926</td>
</tr>
<tr>
<td>12</td>
<td>£110</td>
<td>£5,700</td>
</tr>
<tr>
<td>24</td>
<td>£110</td>
<td>£11,400</td>
</tr>
</tbody>
</table>

So, if you know you will need the equipment for more than 2-3 years without upgrading it in that time, purchase is the right decision. But if there is any uncertainty or risk (financial or obsolescence), rental costs you less and gives you greater flexibility and control.
Livingston recognizes the need to make significant, regular investment in the latest technology. That is why we typically invest £20,000,000 per annum on T&M equipment - through us, you always have access to the newest and best equipment on the market. This page shows some of our recent investments, all of which are available to rent today.

**NEW PRODUCTS**

**Tektronix DPO70404**
Digital Oscilloscope
- 4 Channels
- 3 GHz Bandwidth
- Up to 50GS Real Time Sampling
- 10M Samples per Channel

**R&S FSP40**
Spectrum Analyser
- Frequency Range 9kHz to 40GHz
- Resolution Bandwidth 1Hz to 10MHz
- Displayed Average Noise -155dBm

**R&S SMJ100A**
Vector Signal Generator
- Frequency Range : 100kHz - 3/6GHz
- RF Output Level from -144 to +13dBm
- Frequency Resolution : 0.01Hz
- AM, FM, Phase & Pulse Mod
- IEEE and LAN Interfaces

**Nemo Outdoor - Outdoor Base Software**
- Drive Test Software Package
- Will require Scanner or Test Mobile
- Enables Monitoring of the Air Interface
- Includes GPS Location System

**Aeroflex 3920**
Analog/Digital Radio Test Set
- TETRA Mobile/Base Station & DMO Tests
- P25 Parametric Analysis
- HPD® (High Performance Data)
- Spectrum Analyser with Tracking Generator
- GPIB, Ethernet,USB & RS-232 Interfaces

---

**SHOULD I RENT OR BUY MY TEST EQUIPMENT?**

Research shows that over 50% of purchased equipment is either infrequently or never used after the initial reason for purchase. You can decide if it is better to rent or buy by asking yourself two key questions:

- How long do I really need the equipment for?
- How much will it cost me to own it?

**COST OF OWNERSHIP vs RENTAL COSTS**

So, if you know you will need the equipment for more than 2-3 years without upgrading it in that time, purchase is the right decision. But if there is any uncertainty or risk (financial or obsolescence), rental costs you less and gives you greater flexibility and control.

---

**Hidden costs (10% of capital)**
- Service, repair & calibration (12% of capital)
- Finance (8%ARR)
- Depreciation (over 4 years)

**Initial capital**

<table>
<thead>
<tr>
<th>Capital Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>£5,384</td>
<td>£5,191</td>
<td>£4,998</td>
<td>£4,805</td>
<td></td>
<td>£20,376</td>
</tr>
</tbody>
</table>

**Real cost of ownership** for a £10,000 item is £20,400 or £98 per week for 4 years and below is the rental cost for exactly the same equipment.

<table>
<thead>
<tr>
<th>No of months</th>
<th>Star Buy</th>
<th>Available Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>£151</td>
<td>£3,926</td>
</tr>
<tr>
<td>12</td>
<td>£110</td>
<td>£5,700</td>
</tr>
<tr>
<td>24</td>
<td>£110</td>
<td>£11,400</td>
</tr>
</tbody>
</table>
OTHER SERVICES

NOT JUST RENTAL...
In addition to rental, here are some of the other services available from Livingston.

Easy2Source
An innovative alternative to purchase. Initial contracts for 6 or 12 months, with the option then to either extend to 12 or 18 months at preferential rates, or to convert to a purchase (with rebates). Alternatively, the contract can be extended on a monthly basis or you can simply return the equipment. The key benefit of Easy2Source is flexibility: it passes the equipment risks to Livingston, it is off the balance sheet, avoids CapEx approvals and is cost effective. Make your decision to own at the time that is most appropriate to your business. Includes service, calibration and maintenance.

Rent to Buy
Key features of this finance package are that the cost is spread over 6 to 36 months (non-cancellable) with simple documentation and a nominal purchase option. Tax allowances may be available. Key benefits to this are improved cash flow and liquidity, fixed payments ensure easy budgeting and it preserves existing lines of credit. Excludes service, calibration and maintenance.

Leasing
Key features are payment periods of 3 to 5 years with simple documentation, you can return equipment at the lease end, and tax allowances may be available. You can also add new products and extend the lease term. Key benefits to Leasing are that it preserves capital, fixed payments ensure easy budgeting, it preserves existing lines of credit and there are no equipment disposal costs. Excludes service, calibration and maintenance.

OTHER RENTAL CATALOGUES FROM LIVINGSTON

- Datacomms & Transmission
- Industrial & Power
- Optical & Datacomms

Call marketing now to receive yours
+44 (0) 20 8943 5151

www.livingston.com  Tel: +44 (0) 20 8943 5151
### POWER SUPPLY

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Chroma ATE   | 61503    | AC Power Supply  
• Output Voltage 0- 300 V AC, 0- 150 V DC  
• Output Current 0 - 5 Amps  
• Single Output  
• Maximum 1500 W AC  
• Output Frequency 15Hz - 1kHz |
| Chroma ATE   | 61701    | AC Power Supply, Three Phase 500W  
• Output Voltage 0 - 300 V AC  
• Output Current 0 - 4 Amps per Phase  
• 3 Phase Output  
• Max Output Power 500 VA per Phase  
• GPIB and RS-232 Interfaces |
| Kikusui     | PCR1000LA | Voltage / Frequency Converter 1000VA  
• Output Voltage 1- 300 V AC/1.4 -424 V DC  
• Max Output Current 10 Amps AC 5 Amps DC  
• Single Output  
• Max Output Power 1000 VA  
• Optional GPIB Interface |
| Kikusui     | PWR1600L  | DC Power Supply 0-80V 0-100A,1600W  
• Voltage Ranges 0 to 80 Volts  
• Current Range 0 to 100 Amps  
• Maximum Power Rating 1600 W |

### FREQUENCY COUNTERS

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| IFR          | CPM46    | Microwave Frequency/Power Meter  
• Frequency Range 10MHz - 46GHz  
• Power Range 1nW-25W(Sensor Dependent)  
• Mains / Battery Operation  
• Use 69XX Series Power Sensors  
• Includes 46 GHz Frequency Counter  
• RS-232 Interface |
## FUNCTION GENERATORS

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agilent</td>
<td>33250A</td>
<td><strong>Function/Arbitrary Waveform Generator</strong>&lt;br&gt;• 80 MHz Sine and Square Wave Outputs&lt;br&gt;• Sine.Square.Ramp.Noise/other Waveforms&lt;br&gt;• Output Levels 10 V pp into 50 Ω&lt;br&gt;• 12-bit. 200 MSa/s. 64 Kpoint D.A.W&lt;br&gt;• GPIB and RS-232 Interfaces</td>
</tr>
<tr>
<td>Agilent</td>
<td>33220A</td>
<td><strong>Waveform Generator</strong>&lt;br&gt;• Frequency Range DC to 20 MHz&lt;br&gt;• Sine.Square.Ramp.Triangle, Pulse &amp; Arbitrary.&lt;br&gt;• Max Output Level 10 V pp into 50 Ω&lt;br&gt;• 14-bit.50 MSa/s. 64 Kpoint AW&lt;br&gt;• USB,GPIB -LAN Interfaces</td>
</tr>
<tr>
<td>Tektronix</td>
<td>AWG710B</td>
<td><strong>Arbitrary Waveform Generator 2Ch</strong>&lt;br&gt;• 4.2 GS/s Sample Rate&lt;br&gt;• Simulates Real-world Signals Up -2.1 GHz&lt;br&gt;• 2 Markers with 2.0 psRMS&lt;br&gt;• Jitter deliver stable timing to the (DUT)&lt;br&gt;• 32.4M/ 64.8M Point Record Length</td>
</tr>
<tr>
<td>Tektronix</td>
<td>AFG3252</td>
<td><strong>Arbitrary/Function Generator</strong>&lt;br&gt;• 1 MHz -240 MHz&lt;br&gt;• Sine,Square, Pulse, Ramp and Triangle Functions&lt;br&gt;• Sin(x)/x and Exponential Rise Functions&lt;br&gt;• Decay, Gaussian, Lorentz and Haversine Functions&lt;br&gt;• DC and Noise Functions&lt;br&gt;• Output Level 50 mV to 5 Vp.p&lt;br&gt;• Max Sampling Rate 2GHz, Max Memory 128k&lt;br&gt;• GPIB, USB and LAN Interfaces</td>
</tr>
</tbody>
</table>

We’ll supply a replacement within 24 hours if your rental unit goes faulty. Just call Shurti on +44 (0) 20 8943 5151 and arrange it all over the phone.

**Call Shruti for replacement equipment**

+44 (0) 20 8943 5151
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Agilent      | 3458A   | Digital Multimeter 8.5 Digit  
• 8.5 to 4.5 Digit Resolution  
• Measurement Modes DC & AC V.,  
• DC & AC Current, Ohms, Frequency/Period.  
• Mains Operation  
• Frequency Range DC - 10 MHz  
• GPIB Interface |
| Agilent      | 4284A   | Precision LCR Meter  
• 6-Digits of Resolution at any Range  
• 20 Impedance Parameters to Access & Measure  
• Mains Operation  
• 20Hz to 1MHz Frequency Range  
• GPIB Interface |
| Agilent      | 4291A   | RF Impedance Material Analyser  
• Frequency Range from 1 MHz - 1.8 GHz  
• Full Graphical Display of Measured Parameters  
• Full Range of Resistance Parameters Measured  
• Mains Operation  
• GPIB Interface |

When it comes to offering the right solutions…

...we tick all the right boxes

- **Quick turnaround for delivery & collection**
- **Superior customer support**
- **The very latest products and services**

Call us now on +44 (0) 20 8943 5151 or see our new website for more info
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tektronix</td>
<td>TDS3014B</td>
<td>Digital Oscilloscope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 100 MHz Bandwidth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1.25 GS/s Sampling Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 10 kpoints Record Length per Channel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Floppy Drive for Data and set up Storage</td>
</tr>
<tr>
<td>Tektronix</td>
<td>TPS2014</td>
<td>Digital Power Scope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 Channels -100 MHz Bandwidth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 GS/s Sampling Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2.5 kPoint Record Length</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compact Flash Interface for Data Storage</td>
</tr>
<tr>
<td>Fluke</td>
<td>199CS</td>
<td>Scopemeter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 Oscilloscope Channels &amp; Single DMM Channel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 200 MHz Bandwidth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2.5 GHz Sampling Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 k Datapoints per Channel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Internal Storage of up to 100 Waveform</td>
</tr>
<tr>
<td>Agilent</td>
<td>MSO6034A</td>
<td>Mixed Signal Oscilloscope:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 300 MHz Bandwidth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 Analog Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 16 time-correlated Digital Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 GSa/s Sample Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Standard 8 Mpts MegaZoom III Deep Memory</td>
</tr>
<tr>
<td>Tektronix</td>
<td>DPO4034</td>
<td>Digital Oscilloscope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 Channel Digital Oscilloscope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 350 MHz Bandwidth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2.5 GS/s Sampling Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Record Length 10M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compact Flash, USB &amp; LAN Interfaces</td>
</tr>
</tbody>
</table>

For peace of mind during your rental call us on +44 (0) 20 8943 5151 and ask about our Damage Waiver Option
# OSCILLOSCOPES 500 - 1GHz

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Agilent**  | MSO6054A| Mixed Signal Oscilloscope  
|              |         | • 4 Channels Analogue+16 Channels Logic  
|              |         | • 500 MHz Bandwidth  
|              |         | • 4 GSa/s Sampling Rate  
|              |         | • 1 M Points Memory Depth per Channel  
|              |         | • Front Panel USB for external Data Storage |
| **Agilent**  | MSO6104A| Mixed Signal Oscilloscope  
|              |         | • 4 Channels Analogue+16 Channels Logic  
|              |         | • 1 GHz Bandwidth  
|              |         | • 4 GSa/s Sampling Rate  
|              |         | • 1 M Points Memory Depth per Channel  
|              |         | • Front Panel USB for external Data Storage |
| **Tektronix**| TDS7054 | Digital Phosphor Oscilloscope  
|              |         | • 4 Channels  
|              |         | • 500 MHz Bandwidth  
|              |         | • 5 GSa/S Sampling Rate for 2 Channels  
|              |         | • 2.5 GSa/S for 4 Channels  
|              |         | • Memory Depth 2 M Points for 1 Channel  
|              |         | • Internal 20 GB HD, Floppy Disk & CD-RW |
| **Tektronix**| DPO4054 | Digital Oscilloscope  
|              |         | • 4 Channels  
|              |         | • 500 MHz Bandwidth  
|              |         | • 2.5 GS/s Sampling Rate  
|              |         | • 10 Mpoints Memory Depth  
|              |         | • Internal HD & Compact Flash Drive. |
| **Agilent**  | DSO8104 | Infinium Oscilloscope  
|              |         | • 4 Channels  
|              |         | • 1 GHz Bandwidth  
|              |         | • 4 GS/s Sampling Rate  
|              |         | • 1 Mpoints Memory Depth per Channel  
|              |         | • Internal HD for Data Storage |

For help with technical specifications call Paul on +44 (0) 20 8943 5151
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OSCILLOSCOPES 500 - 1GHZ</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Agilent | 54832B | Infinium Oscilloscope  
- 4 Channels  
- 1GHz Bandwidth  
- 4 GS/s Sampling Rate  
- 2 Mpoints memory length  
- Storage to internal |
| **OSCILLOSCOPES 1GHZ - 1.5GHZ** |
| LeCroy | WR 6100 | Digital Oscilloscope  
- 4 Channels  
- 1 GHz Bandwidth  
- Sampling Rate 5 GS/s  
- 1 Mpoint Memory Depth  
- Storage to Internal HD |
| Tektronix | DPO7104 | Digital Oscilloscope  
- 4 Channel Digital Oscilloscope  
- 1 GHz Bandwidth  
- 5 GS/s Sampling Rate on all channels  
- Record Length 10M  
- Internal 80 GB HD |
| Tektronix | DPO4104 | Digital Oscilloscope  
- 4 Channel Digital Oscilloscope  
- 1 GHz Bandwidth  
- 5 GS/s Sampling Rate  
- Record Length 10M  
- Compact Flash, USB & LAN Interfaces |
| Tektronix | MSO4104 | Mixed Signal Oscilloscope  
- 4 Analogue Channels & 16 Logic Channels  
- Analogue Bandwidth 1 GHz  
- Sampling Rate 5 GS/s  
- 10Mpoint Memory Depth |
## OSCILLOSCOPES 1.5 - 6GHZ

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Tektronix    | TDS7154B  | Digital Oscilloscope  
|              |           | 4 Channels  
|              |           | 1.5 GHz Bandwidth  
|              |           | Max Sampling Rate on one Channel 20 GHz  
|              |           | 4 Msamples per Channel  |
| Yokogawa     | DL9240L   | Digital Oscilloscope  
|              |           | 4 Channels  
|              |           | 1.5 GHz Bandwidth  
|              |           | Max Sampling Rate 10 GS/s  
|              |           | Max Record Length 6.25 M word/channel  |
| Tektronix    | DPO7254   | Digital Oscilloscope  
|              |           | 4 Channels  
|              |           | 2.5 GHz Bandwidth  
|              |           | 10 GS/s Sampling Rate  
|              |           | 10 M Samples per Channel  |
| Tektronix    | TDS7404B  | Digital Oscilloscope  
|              |           | 4 Channels  
|              |           | 4 GHz Bandwidth, up to 20GS/s Sampling  
|              |           | 4 Mb Max memory for all channels  
|              |           | Windows Operating System  
|              |           | USB, Serial, LAN & Parallel Ports  |
| Tektronix    | DPO70404  | Digital Oscilloscope  
|              |           | 4 Channels  
|              |           | 3 GHz Bandwidth  
|              |           | Up to 50GS Real Time Sampling  
|              |           | 10M Samples per Channel  |
| Agilent      | 54855A    | Digital Oscilloscope  
|              |           | 4 Channels  
|              |           | 6 GHz Bandwidth  
|              |           | 20 GSa/S Sampling on all Channels  
|              |           | Memory Dpth 1MPoints at all speeds  
<p>|              |           | 32 M Points at 2 GSa/S or lower  |</p>
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tektronix</td>
<td>TDS6604B</td>
<td>Digital Oscilloscope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 6 GHz Bandwidth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 20 GS/s Sampling Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 32 Mb/Channel acquisition Memory Depth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Internal HD &amp; CD-RW for Data Storage</td>
</tr>
<tr>
<td>Tektronix</td>
<td>TDS7704B</td>
<td>Digital Oscilloscope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 7.25 GHz Bandwidth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 20 GS/s Max Sampling Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 M per Channel Acquisition Memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Internal HD &amp; Floppy Drive for Data Storage</td>
</tr>
<tr>
<td>Tektronix</td>
<td>TDS6804B</td>
<td>Digital Oscilloscope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bandwidth of 8GHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 40 GS/s real-time sample rate on 2 channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Up to 64 Megasamples on 2 channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• MultiView Zoom™ function for quick navigation</td>
</tr>
</tbody>
</table>

**ETHERNET TESTER**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tektronix</td>
<td>TF-GBE-ATP</td>
<td>Ethernet Test Package</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fixture for use with Tektronix Oscilloscopes</td>
</tr>
<tr>
<td>Tektronix</td>
<td>TDSUSBF</td>
<td>Compliance Test Fixture USB 2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fixture for use with Tektronix Oscilloscopes</td>
</tr>
</tbody>
</table>

Hi, I’m Tony and I organise all the export arrangements for the rental equipment you need delivered worldwide. Call me on +44 (0) 20 8943 5151 to discuss your specific requirements.

**Call Tony for global product rentals**
+44 (0) 20 8943 5151
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agilent</td>
<td>16911A</td>
<td>Channel Logic Analyser Module</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 68 Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4GHz Timing Zoom,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 500MHz Conventional Timing, 500 MHz State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 256kB Memory Depth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compatible with 16900 Mainframe</td>
</tr>
<tr>
<td>Agilent</td>
<td>16900A</td>
<td>Logic Analyser Mainframe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Accepts up to 6 Cards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Suitable for 16700 &amp;16900 Series Cards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Requires External Display</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Internal 80 GB HD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• USB &amp; LAN Interfaces</td>
</tr>
<tr>
<td>Agilent</td>
<td>16950A</td>
<td>Logic Analysis Module</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 68 Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 GHz High Speed Timing / 64k Memory Depth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Max Sampling Rate 1.2 Ghz/half Channel Mode</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Max State Clock 600 MHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Voltage Threshold -3V to 5V</td>
</tr>
<tr>
<td>Agilent</td>
<td>81130A</td>
<td>Pulse Generator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 400 MHz Dual Channel/660 MHz Single Ch.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Output Level to 3.8 V into 50 Ohms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pulse and Burst Pattern Modes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GPIB Interface</td>
</tr>
<tr>
<td>Agilent</td>
<td>81134A</td>
<td>Pulse Pattern Generator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 Channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 15 MHz -3.35 GHz Data Rates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Output Levels from 50 mV to 2.00 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pulse, Data Pattern &amp; PRBS Generation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GPIB, LAN and USB Interfaces</td>
</tr>
<tr>
<td>Tektronix</td>
<td>TLA5204</td>
<td>Logic Analyser</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 136 Channels, 2 Ghz Timing, 235 MHz State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 512Kb Memory Depth per Channel</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Product</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>R &amp; S</strong></td>
<td>SML02</td>
<td><strong>Signal Generator</strong>&lt;br&gt;• Frequency Range 9kHz - 2.2GHz&lt;br&gt;• RF Output Level from -140 to +13dBm&lt;br&gt;• Frequency Resolution : 0.1Hz&lt;br&gt;• AM, FM Pulse &amp; Phase Modulation&lt;br&gt;• RS-232 &amp; IEEE Interfaces</td>
</tr>
<tr>
<td>Aeroflex</td>
<td>3413</td>
<td><strong>RF Digital Signal Generator</strong>&lt;br&gt;• Frequency Range 250kHz to 3GHz&lt;br&gt;• Output Levels -140dBm to +13dBm&lt;br&gt;• Frequency Resolution 1Hz&lt;br&gt;• AM, FM, Phase &amp;IQ Modulation Formats&lt;br&gt;• GPIB, RS-232 &amp; Ethernet Interfaces</td>
</tr>
<tr>
<td>Agilent</td>
<td>N5181A v1</td>
<td><strong>MXG Analogue Signal Generator</strong>&lt;br&gt;• Frequency Range 250 kHz to 3 GHz&lt;br&gt;• Output Levels -110 dBm to +10 dBm&lt;br&gt;• Frequency Resolution 0.01 Hz&lt;br&gt;• Amplitude Phase,Frequency &amp; Pulse Mod.&lt;br&gt;• GPIB, USB and LAN Interfaces</td>
</tr>
<tr>
<td><strong>R &amp; S</strong></td>
<td>SMJ100A</td>
<td><strong>Vector Signal Generator</strong>&lt;br&gt;• Frequency Range : 100kHz - 3/6GHz&lt;br&gt;• RF Output Level from -144 to +13dBm&lt;br&gt;• Frequency Resolution : 0.01Hz&lt;br&gt;• AM, FM, Phase &amp; Pulse Mod&lt;br&gt;• IEEE and LAN Interfaces</td>
</tr>
<tr>
<td><strong>R &amp; S</strong></td>
<td>SMU200A</td>
<td><strong>Dual Channel Generator</strong>&lt;br&gt;• Frequency Range:&lt;br&gt;  • (1st RF Path): 100kHz - 2.2/3/4/6GHz&lt;br&gt;  • (2nd RF Path):100kHz - 2.2 or 3GHz&lt;br&gt;• RF Output Level from -144 to +19dBm&lt;br&gt;• Frequency Resolution : 0.01Hz&lt;br&gt;• AM, FM Phase and Pulse Modulation</td>
</tr>
</tbody>
</table>
## SIGNAL GENERATORS 3 - 6GHz

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| **R & S**    | SML03    | Signal Generator  
• Frequency Range: 9kHz - 3.3GHz  
• RF Output Level from -140 to +13dBm  
• Frequency Resolution: 0.1Hz  
• AM, FM Pulse & Phase Modulation  
• RS-232 and IEEE Interfaces |
| **Agilent**  | E4433B   | ESG-D Digital RF Signal Generator  
• Frequency Range: 250kHz - 4GHz  
• RF Output Power from -136 to +7dBm  
• Frequency Resolution: 0.01Hz  
• AM, FM and Pulse Modulation  
• W-CDMA/CDMA2000 |
| **Agilent**  | E4438C   | ESG Vector Signal Generator  
• Frequency Range: 250kHz to 4GHz  
• Output Levels: -136dBm to +7dBm  
• Frequency Resolution: 0.01Hz  
• PSK, QAM, FSK and MSK Modulation  
• GPIB, RS-232 and LAN Interfaces |
| **R & S**    | SMIQ04B  | Vector Signal Generator  
• Frequency Range: 300kHz - 4.4GHz  
• RF Output Level from -144 to +10dBm  
• Frequency Resolution: 0.1Hz  
• AM, FM Pulse, Phase & Digital Modulation  
• W-CDMA |
| **Agilent**  | E4438C   | Signal Generator  
• Range: 250kHz - 1/2/3/4/6GHz  
• RF Output Power from -136 to +17dBm  
• Frequency Resolution: 0.01Hz  
• AM, FM, Phase & Pulse Modulation  
• Intn Baseband Generator/Digital Bus capability |

For help with technical specifications call Paul on +44 (0) 20 8943 5151
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIGNAL GENERATORS 6 - 40GHZ</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Agilent | N5182A | Vector Signal Generator  
- Frequency Range 250 kHz - 6 GHz  
- Amplitude Range -110 dBm to +7 dBm  
- Frequency Resolution 0.01 Hz  
- Digital Modulation  
- GPIB, USB and LAN Interfaces |
| Agilent | E8257D | CW and Analogue Signal Generator  
- Frequency Range: 250kHz - 40GHz  
- Output Power +9dBm (with step attenuator)  
- Frequency Resolution : 0.001Hz  
- AM,FM, Pulse Modulation  
- Available Options |
| **AMPLIFIERS** | | |
| Amplifier Res | 25S1G4A | RF Amplifier  
- Frequency Range 0.8 - 4.2GHz  
- Output Power 25W (CW)  
- Gain 44dB Minimum  
- IEEE & RS-232 Interfaces |
| Amplifier Res | 30W1000B | RF Amplifier  
- Frequency Range 1MHz to 1000MHz  
- Power Output 30 Watts  
- Maximum Gain 45dB  
- Impedance 50 Ohms |
| **SPECTRUM ANALYSERS 1 - 6GHZ** | | |
| Agilent | 85024A | High Frequency Probe  
- Frequency Range 300kHz to 3GHz  
- Input Impedance 1M O  
- Connector 50 O Type-N(m)  
- Use with Network & Spectrum Analysers |
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPECTRUM ANALYSERS 1 - 6GHZ</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Agilent | 4396B | Network/Spectrum/Impedance Analyser  
- 100 kHz - 1.8 GHz (Network & Impedance)  
- 2 Hz - 1.8 GHz (Spectrum)  
- Output Level -60 dBm to +20 dBm  
- Resolution Bandwidth 1 Hz to 3 MHz  
- Dynamic Range 100 dBm to +30 dBm  
- Inc opts 010/706/800 |
| Agilent | E4402B | ESA-E Series Spectrum Analyser  
- Frequency Range 9kHz - 3GHz  
- Dynamic Range 108dB  
- Resolution B/W 9kHz & 120kHz (EMI)  
- Built-in 3.5in Floppy Disk Drive  
- IEEE Interface |
| R & S | FSH3 | Spectrum Analyser  
- Frequency Range 100kHz - 3GHz  
- DANL +20 to -125dBm  
- Resolution Bandwidths 100Hz - 1MHz  
- Built In Tracking Generator  
- RS-232 Interface |
| Agilent | N1996A | Handheld Spectrum Analyser  
- Frequency Range: 100 kHz - 3/6 GHz  
- DANL: -156 dBm. Normalized to 1 Hz  
- Resolution B/W 10Hz to 200kHz  
- Tracking Generator: 10 MHz - 3/6 Gzh  
- USB and LAN Interfaces |
| R & S | FSL6 | Spectrum Analyser  
- Frequency Range 9 kHz - 6 GHz  
- Dynamic Range 108dB  
- Resolution B/W of 1Hz - 10MHz (20 MHz zero span)  
- Channel Filters, EMI filters, FFT filters  
- Tracking Generator to 6 GHz  
- Interfaces: GPIB, LAN, USB, DVIs |
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPECTRUM ANALYSERS 6 - 7GHZ</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Agilent | E4404B | **Spectrum Analyser**  
- Frequency Range 9kHz - 6.7GHz  
- Dynamic Range 108dB  
- Resolution B/W 1Hz to 5MHz (seq. 1, 3 & 10)  
- 9kHz & 120kHz (EMI)  
- Built-in 3.5in Floppy Disk Drive |
| Agilent | N8974A | **Noise Figure Analyser**  
- 10 MHz to 6.7 GHz in a one box solution  
- APC 3.5 (m) Connector as Standard  
- SNS Series Noise Source Compatibility |
| Agilent | E5052A | **Signal Source Analyser**  
- 10 MHz - 7 GHz  
- Phase Noise Measurement  
- Transient Measurement (freq./phase/power)  
- Frequency, Power, DC Current Measurement  
- Parallel, IEEE, USB & LAN Interfaces |
| R & S | FSP7 | **Spectrum Analyser**  
- Frequency Range 9kHz - 7GHz  
- DANL +30 to -155 dBm  
- Resolution Bandwidth 10Hz - 10MHz  
- Built-in 3.5in Floppy Disk Drive  
- RS-232, Parallel, & IEEE Interfaces |
| Anritsu | MS2721B | **Spectrum Analyser**  
- Frequency Range 9 kHz to 7.1 GHz  
- Dynamic Range 95 dB  
- Resolution Bandwidth 1 Hz to 3 MHz  
- Tracking Generator 100 kHz to 7.1 GHz  
- USB and Ethernet Interfaces |
| Advantest | R3267 | **Spectrum Analyser**  
- Frequency Range 20Hz - 8GHz  
- Input Level +30 to -130dBm  
- Resolution Bandwidth 1Hz to 10MHz  
- Digital Demodulation Capability |
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPECTRUM ANALYSERS 7 - 13GHZ</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Tektronix | RSA3308A | Real Time Spectrum Analyser  
- Frequency Range DC - 8GHz  
- DANL -164dBm  
- Resolution Bandwidth 1Hz to 10MHz  
- Built-in 3.5in Floppy Disk Drive  
- IEEE, USB & LAN Interfaces |
| Agilent | N9020A | MXA Spectrum Analyzer  
- Frequency Range 20 Hz to 8.4 GHz  
- Dynamic Range -170 dBm to +30 dBm  
- Resolution Bandwidth 1 Hz to 3 MHz  
- GPIB, USB and LAN Interfaces |
| Agilent | E4405B | Portable Spectrum Analyser  
- Frequency Range 9kHz - 13.2GHz  
- Dynamic Range 108dB  
- Resolution B/W 1Hz to 5MHz (seq. 1, 3 & 10)  
- 9kHz & 120kHz (EMI)  
- Built-in 3.5in Floppy Disk Drive  
- IEEE Interface |
| **SPECTRUM ANALYSER 20 - 50GHZ** | | |
| Anritsu | MS2724B | Spectrum Analyser  
- Frequency Range 9 kHz to 20 GHz  
- Dynamic Range 101 dB  
- Resolution Bandwidth 1 Hz to 3 MHz  
- USB and Ethernet Interface |
| R & S | FSQ26 | Vector Signal Analyser  
- Frequency Range 20Hz - 26GHz  
- DANL +30 to -145 dBm  
- Resolution B/W 10Hz - 20MHz, 50MHz  
- Built-in 3.5in Floppy Disk Drive  
- RS-232,Parallel,IEEE,USB & LAN Interfaces |
## Spectrum Analysers 20 - 50GHz

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Agilent      | E4440A   | Spectrum Analyser  
  - Frequency Range 3Hz - 26.5GHz  
  - Resolution Bandwidth 1Hz to 3MHz  
  - Built-in 3.5in Floppy Disk Drive  
  - RS-232, Parallel, IEEE, USB & LAN Interfaces |
| Agilent      | E4446A   | PSA Spectrum Analyser  
  - Frequency Range 3 Hz - 44 GHz  
  - -154 dBm displayed average noise level  
  - 81 dB W-CDMA ACLR dynamic range  
  - Resolution B/W 1Hz to 3MHz  
  - Built-in 3.5in floppy disk drive  
  - RS-232, Parallel, IEEE, USB & LAN Interfaces  
  - Opts included 1DS/B7J |
| Agilent      | 8565EC   | Portable Spectrum Analyser  
  - Frequency Range 9kHz - 50GHz  
  - Dynamic Range 100dB  
  - Resolution B/W 1Hz to 1MHz & 2MHz  
  - IEEE Interface |

Placing an order is easy. Call the T&M Sales Team on +44 (0) 20 8943 5151 for product availability and price

Call the T&M team on +44 (0) 20 8943 5151

## Network Analysers 2.5 - 8.5GHz

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Anritsu      | S251C    | SiteMaster Cable & Antenna Tester  
  - Frequency Range 625 - 2500MHz  
  - 2-ports  
  - Distance-to-fault (DTF).  
  - Precision SWR & Return Loss Measurements  
  - Dynamic Range: 54dB  
  - Portable, Battery Operated |
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anritsu</td>
<td>S331D</td>
<td><strong>SiteMasterTrans Line/Antenna Analyser</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frequency Range 25-4000MHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1-port</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dynamic Range: 60dB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Memory saved to 300 traces &amp; 25 setups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• RS-232 Interface</td>
</tr>
<tr>
<td>Anritsu</td>
<td>S332D</td>
<td><strong>SiteMasterTrans Line/Antenna Analyser</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frequency Range 25-4000MHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (3000MHz for Spectrum Analyser)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1-port</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dynamic Range: 54dB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Memory saves to 300 traces &amp; 10 setups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• RS-232 Interface</td>
</tr>
<tr>
<td>Anritsu</td>
<td>MS2026A</td>
<td><strong>Handheld Vector Network Analyser</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frequency Range 2MHz - 6GHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1-port &amp; 1-path 2-port Magnitude/Phase Meas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Distance-to-fault (DTF).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Precision SWR and return Loss Measurement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Portable. Battery Operated</td>
</tr>
<tr>
<td>Agilent</td>
<td>E5071B</td>
<td><strong>Network Analyser</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frequency Range 300kHz - 8.5GHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2, 3 or 4-ports (Option 214, 314 or 414)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dynamic Range 125dB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Options available:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 008 Frequency Offset Mode</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 010 Time Domain Analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 016 Touchscreen Colour LCD</td>
</tr>
<tr>
<td>Agilent</td>
<td>E5091A</td>
<td><strong>Multiport Test Set</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multiport Test Set</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bandwidth 50 MHz to 8.5 GHz</td>
</tr>
</tbody>
</table>

Qualified engineers to help with your equipment set up if needed
Anritsu S820D SiteMaster - 1 port
- Frequency Range 25 MHz to 20 GHz
- Single Port
- Colour LCD Display

Narda EMR-300 Radiation Meter & E-Field Probe
- 0.6 - 800 V/m, 0.0001 - 170 mW/cm²
- 100 kHz - 3 GHz
- Storage of 1500 Measurements

EMC TEST
Schaffner NSG438-01 ESD Simulator System
- Air and Contact Discharge 200V to 30 kV
- Touch Panel Display Controlled
- Battery Powered
- Compliant with all known standards

Laplace Instr. CTK015 Active EMC Probe Set
- E-Field and H-Field Probe Kit
- E-Field Range 2 MHz - 2 GHz
- H-Field Range 100 kHz - 100 MHz
- DC and RF Outputs

Network Analyzers 8.5 - 40GHz

Agilent N5230A Vector Network Analyser
- Frequency Range 10MHz - 20GHz
- 2-ports
- Dynamic Range up to 120dB
- Built-in 3.5in Floppy Disk Drive
- RS-232, Parallel, IEEE, USB & LAN Interfaces

Anritsu S820D SiteMaster - 1 port
- Frequency Range 25 MHz to 20 GHz
- Single Port
- Colour LCD Display
- Internal Memory for up to 200 Traces
- RS-232 Interface

Agilent 8722ES S-parameter Vector Network Analyser
- Frequency Range 50MHz - 40GHz
- 2-ports
- Dynamic Range up to 100dB
- Built-in 3.5in Floppy Disk Drive
- RS-232, Parallel and IEEE Interfaces

Anritsu 37369C Vector Network Analyser
- Frequency Range 40 MHz to 40GHz
- 2 Ports
- Dynamic Range 120 dB
- 340 Mb Internal Hard Disk for Data Storage
- GPIB and Parallel Interfaces

When should I rent? When should I buy?
Research shows that over 50% of purchased equipment is either rarely or never used after the initial purchase. When your equipment is not used constantly rental will often be the cheaper option.

For information on when to rent and when to buy call +44 (0) 20 8943 5151 or see page 3

Agilent N5230A Vector Network Analyser
- Frequency Range 10MHz - 20GHz
- 2-ports
- Dynamic Range up to 120dB
- Built-in 3.5in Floppy Disk Drive
- RS-232, Parallel, IEEE, USB & LAN Interfaces

Anritsu S820D SiteMaster - 1 port
- Frequency Range 25 MHz to 20 GHz
- Single Port
- Colour LCD Display
- Internal Memory for up to 200 Traces
- RS-232 Interface
### EMC TEST

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Schaffner    | NSG438-01 | **ESD Simulator System**  
• Air and Contact Discharge 200V to 30 kV  
• Touch Panel Display Controlled  
• Battery Powered  
• Compliant with all known standards |
| Laplace Instr. | CTK015   | **Active EMC Probe Set**  
• E-Field and H-Field Probe Kit  
• E-Field Range 2 MHz - 2 GHz  
• H-Field Range 100 kHz - 100 MHz  
• DC and RF Outputs |
| Narda        | EMR-300   | **Radiation Meter & E-Field Probe**  
• 0.6 - 800 V/m, 0.0001 - 170 mW/cm²  
• 100 kHz - 3 GHz  
• Storage of 1500 Measurements  
• RS-232 Interface |

**If you have any queries whilst you have equipment on hire, call me on +44 (0) 20 8943 5151 I’m here to help**

**Call Shruti in Customer Services on +44 (0) 20 8943 5151**

---

**OTHER RENTAL CATALOGUES FROM LIVINGSTON**

- Datacomms & Transmission
- Industrial & Power
- Optical & Datacomms

**Call marketing now to receive yours +44 (0) 20 8943 5151**
### WIRELESS - HANDSETS

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Agilent      | E5515C  | Wireless Comm Test Set  
  - Supports GSM/GPRS/EDGE,W-CDMA  
  - CDMA2000 Mobile Standards  
  - Full Transmit, Receive & Audio Tests  
  - Stand Alone System |
| Anritsu      | MT8820A | Radio Communication Analyser  
  - Range 30 MHz to 2.7 GHz  
  - Supports GSM, W-CDMA, TDMA, CDMA  
  - HSDPA Mobile Standards Supported  
  - Transmit/Receive Meas. Functions  
  - Stand alone System |
| R & S        | CMU200  | Universal Radio Comm Tester  
  - Range 100 kHz - 2.7 GHz  
  - Optional Mobile Standard Supported  
  - Full Transmit/Receive/Speech  
  - Data Test Functions |
| Aeroflex     | 2968    | TETRA BTS Test Set  
  - Frequency Coverage 10 MHz - 1 GHz  
  - Supports TETRA Mobile Standard  
  - Multiple Measurement Functions |
| Aeroflex     | 3920    | Analog/Digital Radio Test Set  
  - TETRA Mobile/Base Station & DMO Tests  
  - P25 Parametric Analysis  
  - HPD® (High Performance Data)  
  - Spectrum Anal with Tracking Generator  
  - GPIB, Ethernet,USB & RS-232 Interfaces |
| Anritsu      | MT8212B | CellMaster Antenna B/Station  
  - Frequency from 25 MHz - 4.0 GHz  
  - Options to support GSM/CDMA Standards  
  - Prime Functions Spectrum Analyser,  
  - Portable Battery Operated Unit  
  - RS-232 Interface |
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SITE SURVEY</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Anritsu | ML8740B | Triband Area Scanner GSM/DCS/UMTS  
- Bands 925 - 960 MHz/1805 - 1880 MHz  
- Bands 2110 - 2170 MHz Frequency  
- Supports GSM and W-CDMA  
- GPS Receiver Input for Location Data  
- USB Interface |
| ETSA | PVER402001 | UMTS Radio Coverage Transmitter  
- Band 2110-2170 MHz in 2.5 MHz Steps  
- Output Power: 25W (CW) /10W (Spectrum)  
- Dynamic Range 22 dB in 0.5dB Steps (CW)  
- UMTS Spectral Mode |
| ETSA | PVER506001 | Wimax Radio Coverage Transmitter  
- Output Power: 20W (CW)/5W (Spectrum)  
- Frequency 3400-3600 MHz in 1MHz Steps  
- Dynamic Range 17 dB in 0.5dB Steps |
| Kathrein | K738187 | Omni directional Antenna  
- Omni Directional Antenna  
- Frequency Range 1710 MHz - 1880 MHz  
- Vertical Polarisation  
- Gain 11 dBi  
- Maximum Power 200 W |
| LMW Elec | STXX Series | Survey Signal Generator  
- Bands 870-960 MHz, 1750-1900 MHz  
- Bands 2100-2200 MHz  
- 20W Output Power  
- AC or DC Operation  
- Weatherproof Case |
| LMW Elec | ST9 | Survey Signal Transmitter  
- Output Frequency 870 - 960 MHz  
- Output Power 20Watts  
- Channel Spacing from 20kHz - 200kHz  
- Mains and External Battery (12V) Supplies |
## SITE SURVEY

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| LMW Elect    | ST16    | **Survey Signal Transmitter**  
  • Output Frequency 1750 - 1900 MHz  
  • Output Power 20Watts  
  • Channel Spacing from 20kHz to 200kHz  
  • Mains & External Battery (12V) Supplies |
| LMW Elect    | ST24    | **Survey Signal Transmitter**  
  • Output Frequency 2100 - 2200 MHz  
  • Output Power 20Watts  
  • Channel Spacing from 20kHz - 200kHz  
  • Mains & External Battery (12V) Supplies |
| Nemo Outdoor |         | **Outdoor Base Software**  
  • Drive Test Software Package  
  • Will require Scanner or Test Mobile  
  • Enables Monitoring of the Air Interface  
  • Includes GPS Location System |
| Seagull      | 6030    | **GSM / W-CDMA Triband Receiver**  
  • Bands 925 - 959 MHz, 1805 -1880 Mhz  
  • Bands 2210 to 2170 MHz  
  • Supports GSM/W-CDMA Mobile Standards  
  • USB Interface |
| Thales       | 3011 Mobil+ | **GPS for Antenna Alignment**  
  • GPS Compass System  
  • Azimuth Alignment to 0.5 °  
  • Bluetooth Communication to PDA |
| Willtek      | 8103    | **Measuring Receiver**  
  • Ideal for Transmitter Site Surveys,  
  • Interference Tracing, & Voice Monitoring  
  • High Dynamic Range (over 110 dB)  
  • Range 100 kHz to 1GHz, 1.7 - 2.5 GHz.  
  • Highly-Portable Solution |
## ANALYSERS

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agilent</td>
<td>N4010A</td>
<td><strong>WLAN Tester</strong>&lt;br&gt;• Wireless LAN Test Set&lt;br&gt;• Transmit/Receive Analysis at 2.4 &amp; 5 GHz&lt;br&gt;• Supports 802.11x Standards</td>
</tr>
<tr>
<td>Anritsu</td>
<td>MT8852A</td>
<td><strong>Bluetooth Test Set with Audio</strong>&lt;br&gt;• Automated Bluetooth Testing&lt;br&gt;• Measurements Performed to Bluetooth standard&lt;br&gt;• Added Audio testing to 3 Air Interface Codecs&lt;br&gt;• Stand alone System&lt;br&gt;• RS-232 and USB Interfaces</td>
</tr>
<tr>
<td>LeCroy</td>
<td>Tracer</td>
<td><strong>USB2 Protocol Analyser</strong>&lt;br&gt;• USB2 Emulation and Analysis</td>
</tr>
<tr>
<td>Tektronix</td>
<td>K15</td>
<td><strong>Protocol Analyser</strong>&lt;br&gt;• Protocol Analyzer to monitor Mobile Networks&lt;br&gt;• GSM, GPRS, EDGE, UMTS, HSDPA,&lt;br&gt;• UMTS Iub Deciphering/in Real-Time&lt;br&gt;• Full Access to the Content of all Frames&lt;br&gt;• H324.M/HSDPA Protocol Suite. EDGE Test Suite&lt;br&gt;• Troubleshooting/Multimedia Services&lt;br&gt;• Multi Interface Call Trace.</td>
</tr>
</tbody>
</table>

When it comes to offering the right solutions…<br>...we tick all the right boxes

- **Quick turnaround for delivery & collection**
- **Superior customer support**
- **The very latest products and services**