



The ability to monitor and analyse audio systems, regardless of their application, remains one of the most important issues facing engineers. The DN6000 Audio Analyser continues Klark Teknik's long tradition of providing audio professionals with the tools they need in the field, with a unique feature set that provides every important analysis function in one roadworthy device.

Current SPL is constantly shown on a large red LED display, and measurements may be taken unweighted or with A or C weighting, in 1/3rd or 1/6th octave analysis modes, and shown in either peak or average responses. A high-quality measurement microphone is supplied with every (individually calibrated) DN6000, for which a front panel microphone input is fitted. The unit is also provided with dual line level inputs for stereo 1/3 octave analysis, with sum and differences display options, to allow it to run 'in-line' with a system if required.

An internal signal generator with sine wave and band limited pink noise test signals is also supplied, with the additional capability to provide test signal burst and frequency sweeps with automatic data capture, thus providing numerous system-test options. A proprietary ribbon-cable interface allows connection to a Klark Teknik Helix system for auto-EQ functions, allowing real-time room or system EQ adjustments as acoustic characteristics change.

Additional functions include RT60 (reverb decay time) measurement, as well as Leq (average SPL over a given period) and Let (SPL at a specific point). Test measurements can be taken over any period configurable between 25ms and 180hrs, and two separate banks of

## DN6000: audio analyser



data storage are available, 32 locations for frequency analysis and 16 for time-related measurements. The ability to store, recall, compare and print this data plus any subsequent measurements taken thereon makes the DN6000 an invaluable tool for numerous applications.

## Architect's & Engineer's Specification

The analyser shall conform to the Type 1 requirements of IEC 804: 1985 - Standard Specification for Integrating-averaging sound level meters. It shall be a standard 2U, 19" rack mounted unit, capable of frequency domain and time domain analysis of a single mic level or twin line level signals introduced via a front panel XLR microphone input socket equipped with 48 volt phantom power, or via twin rear panel XLR line input sockets respectively. The unit shall feature a large, backlit LCD graphic display area, multiple function switches and an LED numerical display that can be read from a distance. It shall be equipped with switchable A and C weighting filters.

The analyser shall have an integral signal generator, capable of sine wave, swept sine wave and gated, band limited pink noise generation via a rear panel XLR output.

In frequency analysis mode, the unit shall perform 1/3 octave and 1/6 octave real time spectrum analysis. The 1/3 octave bands shall range from 12.5 Hz to 31.5 kHz at intervals defined by ISO 266:1997. The user shall have control over display range, reference level and response time, and over a cursor to pick out any frequency band or the over all signal level for numerical read out on the LED display.

In time analysis mode, the unit shall be capable of RT60 (reverberation time) analysis at any 1/3 octave or 1 octave band; of up to 180 sequential Leq measurements of durations ranging from 1 second to 1 hour, of Let measurements over durations of 1 minute to 180 hours.

The unit shall be able to freeze the real time analysis and store to any of 48 non volatile memory locations - 32 for frequency analysis and 16 for time analysis. The analyser shall be equipped with a parallel printer port for creation of hard copies of any measurement both graphically and in tabular form. An RS-232 serial port shall also be provided to allow printing via an external computer. The analyser shall also be equipped with a data port for direct connection to Klark Teknik DN9340 for automatic equalisation purposes.

The unit shall be the Klark Teknik Model DN6000 and no alternative specification option is available.

## Technical Specification

<b>Frequency Response</b>	<b>5Hz to 40kHz</b>
<b>Microphone Input</b>	<b>One, Differential</b> Compatible with microphone sensitivities from 0.25mV/uBar to 1mV/uBar 140dB SPL to 50dB SPL (with optional 6051 microphone) 48V DC phantom power
Sensitivity	
Powering (nominal)	
Connector	XLR on front panel
<b>Line Input</b>	<b>Two, Differential</b> balanced or unbalanced +40dBu to -50dBu 47k $\Omega$ XLRs on rear panel
Sensitivity	
Impedance	
Connector	
<b>Pink Noise output</b>	
Type	Digital pseudo-random white noise generator with pink noise filter
Frequency distribution	-3dB/Octave 20Hz to 20kHz $\pm$ 0.2dB +4dBu, -10dBu, -30dBu
Level	50dB balanced
Impedance	
Connector	XLR on rear panel
<b>Filters</b>	
Attenuation accuracy	$\pm$ 0.1dB
'A'-weighting	Selectable to IEC 651 type 1 requirement
'C'-weighting	Selectable to IEC 651 type1 requirement
<b>Interfaces</b>	DN9340, parallel printer, RS-232 serial port via external computer
<b>Terminations</b>	
Audio inputs/outputs	3 pin XLR
Mic	3 pin XLR
Printer Port	25 way D socket
Data Output	16 way IDC Latching Header (Male)
RS-232	9 way D socket
Power	3 pin IEC
<b>Power requirements</b>	
Voltage	100 to 240V, 50 to 60Hz
Consumption	< 40VA
<b>Dimensions</b>	
Height	89mm (3.5 inch) - (2U)
Width	482mm (19 inch)
Depth	302mm (11.8 inch)
<b>Weight</b>	
Nett	5.5kg
Shipping	9.5kg
<b>6051 Microphone</b>	
Frequency Response	Flat to 15kHz
Sensitivity	0.5mV per uBar nominal @ 1kHz
Dynamic range	20 to 130dB SPL
Capsule	0.25 inch electret condenser
Type	Pressure - omnidirectional
Power required	14V minimum phantom power (compatible with 48V)

\*Input transformer balancing is non retrofittable and has to be specified with order.

### Trade Descriptions Act:

Due to the company policy of continuing improvement, we reserve the right to alter these specifications without prior notice. E&OE.

