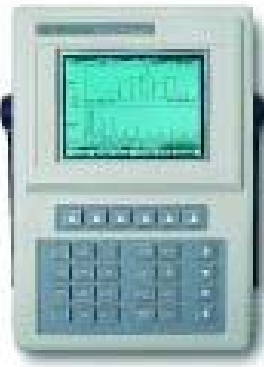




DI-2200 Series Analyser - Hardware Performance Specification



Notes:

- i. The following hardware performance specifications apply to all DI-2200 series analysers. However, since not all of the applications available for the DI-2200 access the full range of these performance features, it is recommended that evaluation of the system's performance is performed using the DI-2200 Real Time FFT Analyser application program.
- ii. All specifications are typical unless otherwise stated
- iii. Diagnostic instruments pursues a policy of continuous development and product improvement. The specifications contained within this document may therefore be changed without notice.
- iv. ICP™ is a trademark of PCB Piezoelectronics

Measurement Performance: (up to 20 kHz span & 0 - 0.8 full scale)

Dynamic range	70 dB nominal
Anti-alias filtering	Integral analogue and switched capacitive filters ...alias signal components < -67 dB
Spurious responses	< -70 dB
Harmonic distortion	< -60 dB ...25 Hz to 10 kHz span < -55 dB ...20 kHz to 40 kHz span
Channel-to-channel match	± 0.1 dB amplitude ± 2° phase
Cross-talk	< -85 dB absolute or < -70 dB of range, whichever is greater ...zero channel terminated with a 50 ohm source impedance
Frequency accuracy	0.02 % of reading
Amplitude resolution	0.05 % of input range
Absolute amplitude accuracy	±0.5 dB, ±0.025 % if input range

Input:

Number of input channels	2
Input impedance	1 Mohm
Input voltage ranges	±10 mV to ±10 V in a 1 - 2 - 5 sequence
Input coupling	AC, DC, ICP™ ('ACCEL') ...AC/ICP™ coupling roll-off: -3 dB at 0.34 Hz ...ICP™ supply: 4 mA constant current at 24V (open circuit)
Overload detection	In-band signals only (after anti-alias filtering) at full-scale input voltage range
Under-range detection	In-band signals only (after anti-alias filtering) when signal < 25 % of full-scale input voltage range
Enveloping	Single channel (ch 1) enveloping facility for signal envelope demodulation and analysis

Trigger:	
Source	Free-running, internal (input channel data) or external (using 'external trigger' BNC connector on rear of analyser)
External trigger modes	TTL (+ 5V nominal signal level, trigger level set at +2.5V), analogue (± 10 V range) or analogue plus phase-locked-loop (EXT+PLL)
Analogue trigger settings	slope - positive or negative, level - variable in steps of 1 % of range, up to ± 10 V
Independent channel delay	Pre-trigger 0 to -4096 time points (data samples) Post-trigger delay 0 to +4096 time points (data samples)

Sampling:	
Internal	Controlled by internal sampling clock. Data sampling rate determined by specified analysis bandwidth or by frequency of 'external trigger' signal (EXT+PLL trigger mode only).
Sampling multiplier	2.56
External	Sampling rate controlled by external clock signal (using 'external clock' BNC connector on rear of analyser)
Maximum data sampling rate	102.4 kHz per channel

Data Storage:	
Internal memory	Function data record and setup storage to: Internal 512 kbytes of non-volatile (battery-backed) Static RAM ...approximate capacity of internal memory is 200 (200 line) spectra, or equivalent
Removable memory card	Optional PCMCIA SRAM cards of 512k, 1M and 2M byte capacity, providing virtually unlimited storage capacity

Display:	
Type	High-contrast grey cold-cathode LCD display with backlight
Resolution	320 x 240 pixels

Interfaces:	
RS232	Baud rates from 1200 to 38400 Transfer of function data records to a host computer Printing of displayed data range or complete data record to Epson 'graphics', 'HPGL' or HP 'LaserJet' compatible printers or plotters
PCMCIA card slot	PCMCIA SRAM memory card interface Install/upgrade analyser firmware Load application-specific firmware Removable storage for function data and direct data transfer to PCs.

Mechanical:

Size (uncased) - approximate	315 x 215 x 90 mm
Weight - approximate	3.25 kg (6.6 lb)
Power	<ul style="list-style-type: none">- Internal NiCd battery pack (removable) providing approximately 6 hours continuous running time (assuming a fully-charged well-conditioned battery pack).- Auto power-down facility to optimise battery power usage.- 14 hours battery recharge time (at full rate) either within or outside the analyser.- Standard AC mains adapter/charger for continuous mains usage and internal battery charging.- Optional 'battery pack charger' for charging outside the analyser.
Memory Backup	Internal Lithium battery, 10 years life (approx.)

Environmental:

Temperature	Operation: +5 to +50 °C Storage: -20 to +70 °C
Humidity	5 to 90 % (non-condensing)
Altitude (max)	Operation: 5,000 m Storage: 15,000 m

Sealing (screen & keypad only) to IP-65