

Technical Data

4-Channel Case Depth Tester

The 4-channel cased depth test instrument is an upgraded version of the single-channel instrument. The instrument features a portable PC (Dolch NotePAC 400, or similar) and single-channel analog transmitter with four receiving stages. The data acquisition software with a user-interface similar to the P3105 software, automatically switches up to four transducers (as assigned by software settings) for the applicable test locations with varying surface geometries. The Windows NT™ based software can be customized to individual user requirements. The 20MHz ultrasonic transducers are contained in a polystyrene wedge housing (removable), which is custom-fitted to the surface geometry as specified by the purchaser.

Analog Module

Four-channel E/A multiplexer, transmitter voltage generator, switching input filter, controllable pre-amplifier, analog rectifier;

- Transmitter Voltage: > 250 V_{ss} at 50 Ω
- Frequency Range: 20MHz, ±30% (-3dB)
- Mode: Pulse-Echo

Digital Module

Analog to digital conversion (A/DC) with subsequent averaging of the acquired data

- Digitization Rate: 80 MS/sec. (80MHz)
- A/DC Resolution: 8-bit
- Signal Processing: Subsequent averaging
- Transit-time Resolution: 12.5 nsec

Laptop Computer

- Case Dolch NotePAC 400XGA laptop computer w/ NPAC-Slice expansion chassis
- Dimensions 310mm (12.25") L, 265mm (10.4") W, 125mm (5") H
- Weight 6.8 kg (15 Lb.)
- Operating Temperature + 5° to 30° C (41° to 86° F) @ 10% to 75% humidity
- Internal Power Supply 64WHr removable & rechargeable battery with on-line charge and hot-swap; 44WHr removable & rechargeable battery (~ 6 hrs. operation)
- External Power Supply 100 to 240VAC 47-63Hz AC adapter, 52.2W

Documentation

- P3121 User Manual and operating instructions
- DOLCH NotePAC 400XGA User Manual