## Dark field micro spectroscopy system



Inverted optical microscope with dark field condenser. Equipped with halogen and mercury lamps for fluorescence spectroscopy.

Can be used together with AFM MFP3D.

Connected to a UV-VIS-NIR spectrometer.

Technical parameters:

Based on Olympus IX71

Spectral range 350-1100 nm

Detector 3648-element linear CCD-array

Lamp power 100W

Measurement modes, bright field, dark field, fluorescence

Computer interface USB

Focusing manual

## Semiautomatic Wire Bonder for wedge and ball bonding UniTemp Model WB-100



This instrument is a multipurpose semiautomatic wire bond tool for R&D purposes.

Its bench top size allows easy transport and operation. There is one bond head available for wegde/wedge, ball/wedge and bump bonding mode. There is no hardware change necessary. Direct access and simple adjustment to all bond parameters and programs allow easy handling of the tool

Important parameters

Hot chuck (60 mm diameter, height adjustable) Wedge and Ball bonding (easy tool change) 17 µm up to 50 µm wire 25 µm Gold and Aluminium wire is used for most applications.

digital programming with LCD display deep-access bond head 16 mm bond arm length 165 mm heater stage and tool heater controller motorized 2" wire spool holder 6:1 ratio X-Y manipulator

loop height programmable

Ultrasonic system: PLL control 62 kHz transducer

Ultrasonic power: 0 - 2 watt Bond time: 15 - 5000 msec. Bond force: 15 - 100 cN

Ball bonding tool: 1,58 (dia.) x 19 mm length

Gold wire diameter: 17 - 50 µm