

## Electronics prototyping and soldering workstation



Workstation Frames		
<b>ETABTL19B</b>	ESD TL table frame 1880x750 mm with perforated back panel	1 x
<b>ESDSET1</b>	ESD grounding set for workstation	1 x
Equipment Panels		
<b>PANTL19</b>	TowerLine device panel, 1.9 m	1 x
<b>PANSOCKETLUK</b>	UK sockets under device panel, 4 pcs	1 x

Power Supply Units		
(S1) SU1	1-phase supply unit	1 x
Modules		
(1) ELPSL3	1-phase schuko socket outlets, 3 pcs	1 x
(2) PILT	Compressed air connection	1 x
(3) ACF2304	Isolated 1-phase AC connection, 230 V, 4 A, 1000 VA	1 x
ACFSOCKETUK	UK-socket for ACF AC connection	1 x
(4) TLP305	Programmable DC power supply, 0-30 V, 0-5 A	1 x
(5) TBS1052BEDU	Digital oscilloscope, 50 MHz, 1 GS/s, 2 channels, education model	1 x
(6) USB1BE	USB connection	1 x
(7) DMMHPRO	Digital multimeter, 12 000 digits, TRMS	1 x
(8) SDWR2002	Soldering / desoldering station, 250 W	1 x
(9) ELPSL3	1-phase schuko socket outlets, 3 pcs	1 x
Accessories		
WKL60635002	Drawer unit, drawers 2 x 100, 2 x 150 mm	1 x
WHR855002	Hook set, 45 pcs	1 x
WTL839086	Suspension rail + pick-up boxes (WEL806211), fixed to perforated back panel	1 x
WSK91835008	Light rail, 2 x M900	1 x
WSK861960_	Task light	1 x
SOLDERSET	Soldering consumables set	1 x
ELTOOLSET	Electronics tool set, 30 parts, ESD	1 x
C20PU_ESD	Chair, black, polyurethane, ESD	1 x
WSK861956	LED light	1 x
WTL854482	Steel shelf, M1800, 1773 x 300 mm	1 x

## ETABTL19B TowerLine workstation frame

- ESD powder painted steel frame
- L-shaped ergonomic legs, height 1920 mm
- Legs equipped with perforated uprights for placing accessories to different heights
- Versatile and adjustable accessories enable ergonomic and practical working environment
- Perforated back panel for accessories
- Vertical cable channels inside legs
- Horizontal cable channel below the table top at rear part
- Spacer bar between legs for stable construction
- Load capacity: 300 kg, evenly loaded
- Adjustment screws under legs to eliminate the roughness of the floor
- Table top with laminate surface, durable rounded plastic edges, colour light speckled grey, ESD protected
- Table top dimensions: 1880(W) x 750(D) mm



## ESDSET1 ESD grounding set for workstation

- ESD connection box including 1 Mohm series resistor
- ESD grounding set for the workstation frame
- ESD grounding set for wrist straps
- ESD wrist strap, 2 pcs



## PANTL19 TowerLine device panel

- Panel for integrated electrical equipment
- Structure of the panel made of ESD powder painted steel
- Panel equipped with modular device system: devices can be easily added and removed
- Integrated modules are covered with polyester film to ensure long lifetime for the markings in the front panel
- Energy saving LED lighting integrated at the bottom of the panel
- Panel top can be opened
- Height from the table top can be freely chosen
- All connectors are located at the bottom of the panel which enables placing the panel against a wall
- Width: 1880 mm, max. 7 ¼ modules



## PANSOCKETLUK UK-sockets under device panel

- 4 pcs UK sockets under device panel, 2 pcs at both ends

## SU1 1-phase supply unit

- Main switch for the workstation with START position
- Green indicator light
- Integrated emergency switch, reset from the main switch
- Automatic restart prevention system e.g. after power failure
- 16 A thermal overload protector
- Fault current protection 0.03 A for all devices connected to the supply unit
- Earth terminal screw
- Outlets for the device modules
- Dimensions: ½-module, 125(W) x 200(H) mm



## ELPSL3 1-phase socket outlets

- 3 pcs earthed schuko socket outlets
- Dimensions: ¼-module, 62.5(W) x 200(H) mm



## PILT Compressed air connection

- 2 pcs 1/2" snap-on connectors
- Dimensions, ¼-module, 62.5(W) x 200(H) mm



## ACF2304 Isolated 1-phase AC outlet

- Galvanically isolated AC outlet
- Output: 230 V, 4 A, max. 1000 VA
- Overload protectors for primary / secondary circuits
- Electronic attenuator for restricting switching current
- Dimensions: ½-module, 125(W) x 200(H) mm



## ACFSOCKETUK UK socket for ACF AC connection

- UK-type socket for ACF AC connection

## TLP305 Programmable DC power supply

- Output values: 0-30 V, 0-5 A
- Ripple: < 8 mVpp
- Output ON/OFF button
- Current limit and voltage settings showed on the display
- MAX and MIN display (current and voltage)
- Output voltage adjustment accuracy: 0.01 V
- Current limitation adjustment accuracy: 0.001 A
- Voltage measurement accuracy:  $\pm 0.03$  V
- Current measurement accuracy:  $\pm 0.006$  A
- Short-circuit protected
- Self test
- Test for leads / mohm-measuring
- Voltage compensation when using long leads
- Standard languages: Finnish, English, Swedish
- Graphic backlight LCD-display
- Adjustable LCD contrast
- Firmware-update possibility
- Output from 4 mm safety terminals
- Dimensions: ½-module, 125(W) x 200(H) mm



## TBS1052BEDU Digital storage oscilloscope

- Bandwidth: 50 MHz
- 2 channels
- Sample rate (each channel): 1 GS/s
- Record length (each channel) : 2500
- Vertical resolution : 8 bits
- Vertical sensitivity: 2 mV - 5 V / DIV
- Time base range (s/div): 2.5 ns - 50 s
- 7 inch WVGA (800X480) Active TFT Color Display
- 34 automated measurements
- Dual window FFT, simultaneously monitors both the time and frequency domains
- Integrated Courseware feature: Lab content can be loaded directly onto the oscilloscope, Students can review lab content, perform step-by-step instructions, record lab results and create lab reports all on the scope
- Dual channel frequency counter
- Zoom Function
- Advanced triggers including pulse and line-selectable video triggers
- Autoset and signal auto-ranging
- Autoset enable/disable feature with password protection
- USB 2.0 host port on the front panel for quick and easy data storage
- USB 2.0 device port on rear panel for easy



connection to a PC

- Multiple language user interface
- Dimensions: 1 ¾ module, 437.5(W) x 200(H) mm
- Standard accessories: passive probes (one per channel), OpenChoice software, LabVIEW driver, Traceable certificate of calibration - NIM/NIST, CD including: Courseware Editor software, Example Courseware labs, oscilloscope tutorials

## USB1BE USB connection

- USB connection between a laptop computer and a panel device
- Type B connector at the front panel
- Dimensions: ¼-module, 62.5(H) x 200(H) mm



## DMMHPRO Digital multimeter

- Resolution: ± 12,000 digits, 4½-place
- 3 connector jacks with patented automatic blocking sockets
- TRMS AC and AC / DC function
- Automatic and manual measuring range selection
- Automatic storage of measured values: DATA / MIN / MAX
- Large, light-blue illuminated display with extra-large characters (15 mm) and an analog bar graph for dynamic processes
- Measuring categories: 1000 V CAT III and 600 V CAT IV
- 16 multimeter functions
- Additional filter function and voltage measurement with reduced input impedance for limiting interference, e.g. for measurements at frequency converters
- Battery Charging Status - Power Saving Circuit
- Multimeter integrated with a quick-release mechanism, it can be used also as a portable instrument
- Standard accessories: 1 pair of safety measurement cables (1.5 m) with 4 mm test probes, 2 batteries, condensed operating instructions, CD ROM (operating instructions in English and German), DAkkS calibration certificate
- Dimensions: ½-module, 125(W) x 200(H) mm



### DC voltage

Range	100 mV...1000 V
Best resolution	10 µV
Best accuracy	±0.05 % + 3 digits

### AC voltage

Range	100 mV...1000 V
-------	-----------------

Best resolution 10  $\mu$ V  
 Best accuracy  $\pm 0.5\%$  + 9 digits

### DC current

Range 1 A...10 A  
 Best resolution 100  $\mu$ A  
 Best accuracy  $\pm 0.9\%$  + 10 digits

### AC current

Range 1 A...10 A  
 Best resolution 1 mA  
 Best accuracy  $\pm 1.5\%$  + 10 digits

### Resistance

Range 100  $\Omega$ ...40 M $\Omega$   
 Best resolution 10 m $\Omega$   
 Best accuracy  $\pm 0.2\%$  + 5 digit

### Frequency

Range 100 Hz...30 kHz  
 Best resolution 0.01 Hz  
 Best accuracy  $\pm 0.05\%$  + 3 digit

### Temperature (with type K thermocouple, not included in delivery)

Range -250  $^{\circ}$ C...+1372  $^{\circ}$ C  
 Best resolution 0.1  $^{\circ}$ C  
 Best accuracy  $\pm 1\%$  + 5 digit

## SDWR2002 Soldering / desoldering station

- Combo unit with soldering and desoldering functions
- Integrated vacuum pump, no need for compressed air connection
- Power: 250 W
- Temperature range: 50-450  $^{\circ}$ C (soldering and desoldering)
- Temperature stability:  $\pm 2$   $^{\circ}$ C
- LCD display
- Automatic tool recognition for safe operation with different soldering tools
- 2 independent channels for simultaneous operation with different tools
- ESD safe
- Sleep mode when unit not used
- Includes soldering iron, desoldering iron, stands and cleaning sponges for soldering tools, cleaning tool series, soldering tip (2.4 mm), 3 pcs desoldering nozzles (1.0/2.3 mm, 1.2/2.5 mm, 1.2/2.5 mm thick)
- Dimensions: 1  $\frac{1}{4}$  module, 312.5(W) x 200(H) mm



## ELPSL3 1-phase socket outlets

- 3 pcs earthed schuko socket outlets
- Dimensions: ¼-module, 62.5(W) x 200(H) mm



## WKL60635002 Drawer unit

- Drawer unit, fixed under table top
- Drawers 2 x 100, 2 x 150 mm
- Drawers equipped with ball-rails
- Load capacity 30 kg / drawer
- Drawers open 75 %
- Central locking
- ESD-painted steel frame
- Dimensions: 450(W) x 520(D) x 560(H) mm



## WHR855002 Hook set

- Hook set, attached to perforated back panels
- 45 pcs hooks e.g. for tools



## WTL839086 Suspension rail

- ESD powder painted steel construction
- Fixed to perforated back panel
- Load capacity 10 kg
- Width 634 mm



## WEL806211 Pick-up box

- Plastic pick-up box
- ESD protected
- Max. 6 pcs for WTL839086 suspension rail
- Dimensions: 99(W) x 160(D) x 70(H) mm



## WSK91835008 Light rail

- Rail can be used to attach light ergonomically above the workstation
- Structure made of ESD-painted steel
- Height and depth adjustment
- Width: 2 x M900



## WSK861960 Task light

- Task Light is the ideal desk-mounted lamp for precise work
- Together with a large built-in magnifying glass, six LED -bulbs and independent left/right dimming functionality, this light gives superb control
- It is easy to secure on any work surface of 70 mm or less, and infinitely adjustable
- 6 long-lasting dimmable power LEDs, 3 on each side
- Independent left/right dimming (10 settings)
- Last-setting memory
- Colour rendering index (CRI): 70
- Large, 127 mm 3-diopter magnifying glass
- Made of anodized aluminium, glass and UV-stable polycarbonate
- Adjustable table clamp included for worktops 18-70 mm thick
- Mains lead length of 2 meters makes positioning easy
- Max light intensity 2800 lux



## SOLDERSET Soldering consumables set

- Contents:
  - Solder dispenser, 1 roll
  - Cleaner flux
  - Soldering tip cleaner
  - Solder wick, 1.5 mm
  - Solder wick, 2.2 mm
  - Solder wick, 2.7 mm
  - Flux pen
  - Flux-gel
  - Lead-free solder
  - Desoldering pump



## ELTOOLSET Electronics tool set

- Professional electronics tool set
- 30 parts
- ESD protected design
- Tools included:
  - Side cutter - oval head
  - Needle nose pliers
  - Tip cutter - angled wide head
  - Ergonomic precision tweezers with straight, strong tips
  - Ergonomic precision tweezers with straight, very pointed tips for gripping fine wires
  - Ergonomic precision tweezers with straight, flat and rounded tips for simple gripping jobs
  - Screwdriver set, precision, ESD, slotted, Phillips, 6 pcs
  - Screwdriver set, precision, ESD, hexagon, 6 pcs
  - Screwdriver set, precision, ESD, hexagon nut driver, 6 pcs
  - Screwdriver set, precision, ESD, TORX, 6 pcs



## C20PU-ESD Chair

- ESD protected
- User-friendly and quick adjustability
- Large, ergonomically designed seat and backrest and lumbar support
- Black
- Polyurethane
- Height/backrest/tilt adjustment
- Castors with load-sensitive brakes
- Seat height: 440-620 mm



## WSK861956 LED light

- Excellent energy efficiency
- Long lifetime upto 50 000 hours
- Illuminance: 1800 lux, 1 meter
- Natural white colour, colour temperature 4000 K
- Dimmer 10-100 %



## WTL854482 Shelf

- Construction made of ESD powder painted steel
- Fixed to upright tubes
- Load capacity: 80 kg
- Dimensions: 1773(W) x 300(D) mm

