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Eddy Current Products

ETbox2i[®]

Compact Eddy
Current Instrument

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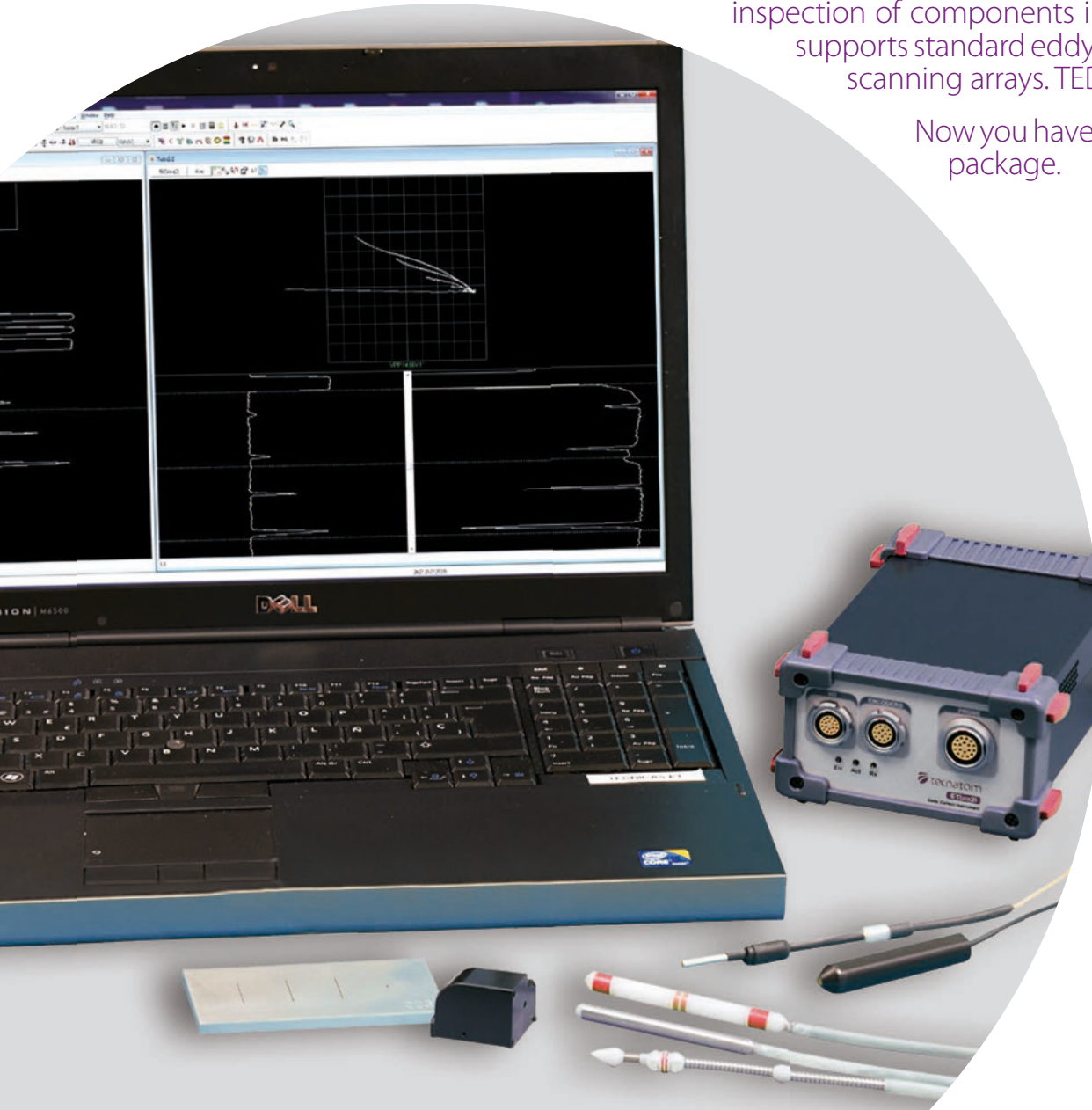
 **tecna**tom****
www.tecnatom-ndt.com



ETbox2i Compact Eddy Current Instrument

ETbox2i is a digital multi-channel and multi-frequency portable eddy current instrument for inspection of components in the electricity generation, nuclear and industrial sectors. It supports standard eddy current (ET) and remote field (RFT) tubing probes and surface scanning arrays. TEDDY software available for acquisition and analysis.

Now you have the power of a high-end instrument in a compact lightweight package.



MAIN FEATURES

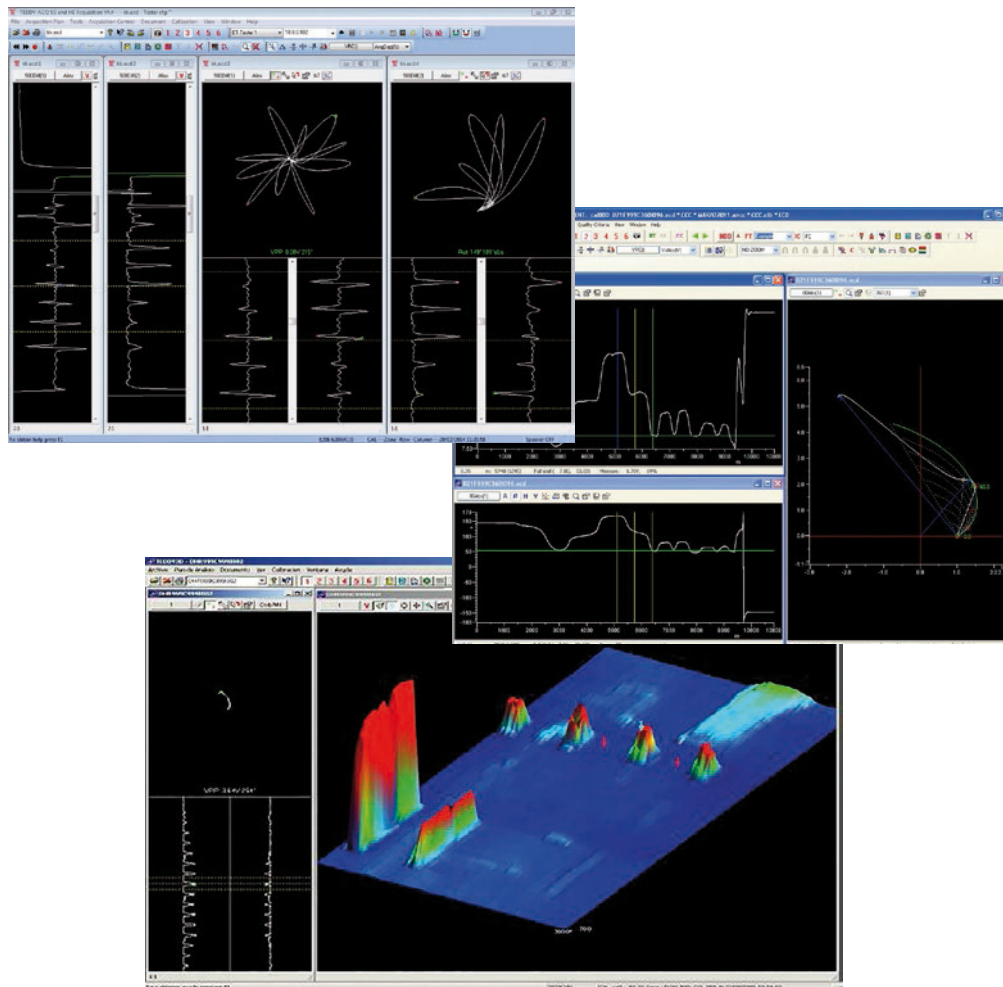
- Multi-channel and multi-frequency capabilities. Up to 128 channels.
- Configurable with different probes: Bobbin, RFT, Surface Probe, or Multi-coil/Array probes with multiplexer options.
- Multiplexed and simultaneous injection modes.
- Wide frequency range of 10 Hz to 5 MHz. Independent channel gain control. Hardware null and reference probe simulation.
- 100% digital signal processing on board. FIR filters and signal detection threshold.
- Low power consumption. Single board. High immunity against EMC noise.
- On board 100/1000 Ethernet FPGA controller. No need of embedded PCs.
- Easy to transport . Reduced Weight .
- Full compatible with TEDDY software running under Windows. Advanced acquisition and analysis software for tubing inspection and surfaces.
- Data display in real time: Strip-chart, Lissajous, C-Scan, and 3D views.
- User definable screens.
- Configuration and calibration of instrument. Digital filters.
- Integration with mechanical systems.

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TEDDY ACQUISITION SOFTWARE

Teddy software includes a full suite of applications for advanced acquisition and analysis for both tubing inspection and other components of the industry.



TECHNICAL SPECIFICATION

Power	100-240 VAC 50-60 Hz (optional 18-36VDC)
Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to 70°C
Instrument Weight	1 Kg
Instrument Size	115 x 183 x 64 mm WxDxH
System	Up to 50,000 Acq/sec Ethernet 100/1000BaseT Internal, External, Encoder Trigger Modes
Emitters	2 Generators Multiplexed and Simultaneous Injection modes 0-24Vpp (1V Resolution) 16 Time-slots up to 64 frequencies 10Hz to 5MHz Range
EC Receivers	2 Coils 16 Time-slots up to 64 frequencies 10Hz – 5MHz Range Independent channel gain Hardware null Reference bobbin simulation 0dB – 40dB Gain (1dB Resolution)
Probe Types	Bobbin, RFT Probes, Surface Probes, Arrays
Channels Capabilities	Multiplexed mode: 32 Simultaneous mode: 8 Mix mode: 128
Encoders:	Up to 6 encoders TTL Level Incremental or Pulse Type
Digital Inputs	4 Inputs TTL Level Input, Enable ACQ, Trigger Modes
Digital Outputs	4 Outputs TTL Level Output, Alarm, Trigger Modes
Analogue Inputs	2 Inputs ±10v Range 20KHz bandwidth
Analogue Outputs	2 Outputs ±10v Range 20KHz Bandwidth
Firmware process	FIR filters, threshold detection, tube-air detection.

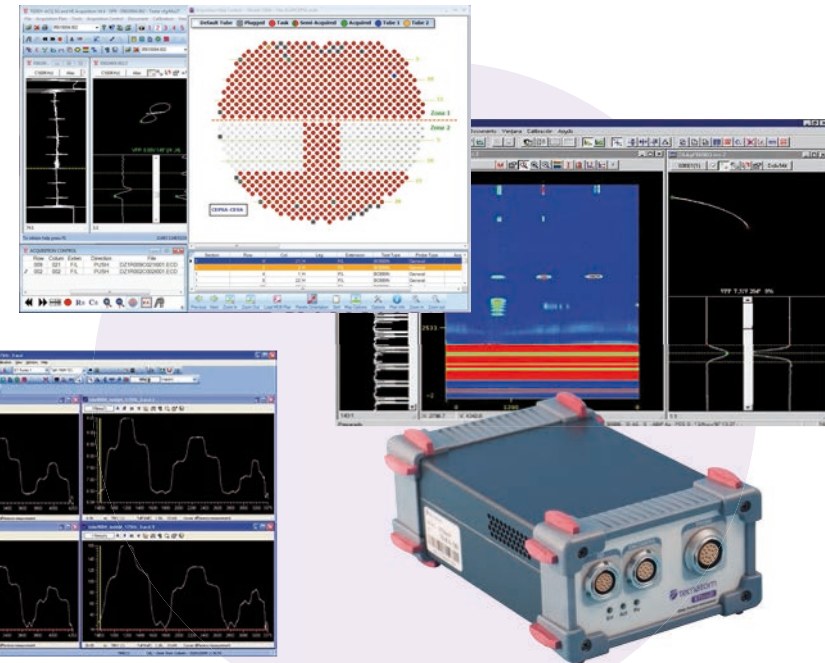
APPLICATION FIELDS

Power Generation

Tubing inspection, heat exchangers and condensers.
Welds and components surfaces inspection.

Industry and Others

Quality control of component manufacturing.
Material testing in laboratories, R&D activities...



ORDERING INFORMATION

Reference	Description
ETbox2i	ET Instrument 2 Inputs. 100-240V AC power supply
ETbox2iR	ET Instrument 2 Inputs. 18-36V DC power supply
E2iBB42BDI	2 Bobbin differential probe adapter
E2iBB41BDA	1 Bobbin differential-absolute probe adapter
E2iBB41BDS	1 Bobbin differential-absolute probe adapter with reference probe simulation (no need for external reference probe)
E2iRFA1RFT	RFT probe adapter



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