

DYNARAY® Lite

All the Performance, Half the Size

Features & Benefits

- **Lighter Weight**
All the high performance characteristics of the DYNARAY® product line in lighter weight package: 30 Lbs (13.5 kg)
- **64/64 PR**
Up to 64 simultaneously active elements, and up to 64 channels in total
- **Flexible Inspection Setup**
Up to 4,096 different focal laws with Position Dependant configuration for superior inspection quality on complex surfaces
- **3-D Work Environment**
Controlled by UltraVision® 3, offering 3-D work environment for creation of components and data visualization
- **Speed Counts**
High data throughput, up to 20 MB/s



Performance that exceeds your expectation

Zetec's innovative DYNARAY systems has completely redefined the potential of phased array UT technology. The DYNARAY Lite, the newest addition the DYNARAY product line, offers the same powerful phased array UT characteristics in a smaller, lighter package.

The DYNARAY® Lite is a light weight (30 lbs) 64/64 PR system that can drive low frequency probes, down to 0.5 MHz, and probes up to 20 MHz with a pulser voltage up to 200 Volts. With the same raw processing power as the DYNARAY®, the system can dynamically adapt focal laws to conduct inspection on complex surfaces. With the capacity of generating 20 GB data files with 16-bit amplitude resolution, no inspection is too challenging.

The new UltraVision® 3 software drives the DYNARAY Lite system with advanced data acquisition and analysis functions. The software offers a 3-D work environment, including the creation of components and visualization of examination data. UltraVision® 3 can also generate optimized acoustic beams through complex inspection surfaces. Any desktop or laptop PC with at least a 2-GHz processor, 2 GB of RAM and a high-speed (1 Gb/s) Ethernet link can be used to control Zetec's DYNARAY® Lite. Higher PC specifications may be required to fully exploit some of the advanced features. In particular, a high performance HDD is strongly recommended to keep up with the high data throughput capability.

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Feature	Tomoscan III PA	Z-Scan PA	DYNARAY® Lite
Size (H × W × D)	13.5 × 16.7 × 16.5 in (34.5 × 42.7 × 41.9 cm)	4.5 × 12.3 × 14.8 in (11.4 × 31.3 × 37.7 cm)	9.6 × 14.1 × 17.5 in (24.4 × 35.8 × 44.5 cm)
Weight	53 lb (24 kg)	11 lb (5 kg)	30 lb (13.5 kg)
Air Intake	Yes	Yes	Yes
Battery Operation	No	External	No
Phased Array Connector	1 or 2 Hypertronics	OmniScan	2 Hypertronics
Phased Array Channels	up to 32/128 PR	up to 64/128 PR	64/64 PR
UT Channels	8	4	16
Digitizing Frequency	up to 100 MHz	up to 100 MHz	up to 100 MHz
Amplitude Resolution Phased Array signal	8 or 12-bit	8 or 10-bit	8 or 16-bit
Network Interface	100Base-T	100Base-T	High-speed (1 Gb/s)
Maximum PRF	20 kHz	20 kHz	30 kHz
Global Data Throughput	-5MB/sec	4 MB/sec	20 MB/sec
Max. Pulser Voltage (50 Ohm load)	200 V	< 60 V	200 V
Bandwidth (-3 dB)	from 0.7 to 20 MHz	from 0.5 to 20 MHz	from 0.25 to 20 MHz
Real-time Data Compression	Yes	Yes	Yes
Rectification	Digital	Digital	Digital
Filtering	Analog	Digital (FIR)	Analog/Digital (FIR)
Smoothing (video filter)	Digital	Digital	Digital
Self Check	No	No	Yes
Parallel Firing	No	No	Yes (scheduled)
Dynamic Depth Focusing (DDF)	Yes	Yes	Yes
# Focal Laws	512	256	4096
A-scan length	20 to 16,328	32 to 8,192	up to 256,000
Recording rate A-scans (512 samples)	4,800 12- or 9,600 8-bit A-scan/s	6,000 8-bit A-scan/s	20,000 16-bit or 40,000 8-bit A-scan/s
Amplifier	LIN, LOG	LIN	LIN, LOG (processed)
Encoder Interfaces	6 quadrature-type	2 quadrature-type	6 quadrature type 3 differential type
PC Software Control	Yes	Yes	Yes
Data Acquisition	UltraVision® 1	UltraVision® 1	UltraVision® 3.2 or higher
Data Analysis	UltraVision® 1 & 3	UltraVision® 1 & 3	UltraVision® 3.2 or higher

GENERAL SPECIFICATIONS

Voltage: 120 VAC or 240 VAC
 Frequency: 50 Hz or 60 Hz
 Maximum power: 750 VA, Fuse 250 V slow blow;
 3.15 A at 240 V, 8 A at 120 V

Operating Temperature Range:
 32°F to 113°F (0°C to 45°C)
 Storage Temperature Range:
 -4°F to 158°F (-20°C to 70°C)
 Relative Humidity: 95%, non-condensing

CE mark approves the conformity with all applicable directives and standards of the European community. The DYNARAY® Lite is an instrument of Class 1 and installation category II

ORDERING INFORMATION

System Purchase includes: Online data acquisition software, carrying case, calibration certification and user's manual

DYNARAY® Lite 64/64PR - Innovative phased array system, up to 64 simult. active channels - Can use the same 64 channels as transmitters and receivers or 64 channels as transmitters and 64 others as receivers - 2 Hypertronics and 16 Lemo00 connectors

Also available in the DYNARAY® product line:

DYNARAY® 64/256PR - Innovative phased array system, up to 64 simult. active channels and 256 in total - Can use the same 64 channels as transmitters and receivers or 64 channels as transmitters and 64 others as receivers - 4 Hypertronics and 16 Lemo00 connectors

DYNARAY® 128/128PR - Innovative phased array system, up to 128 simult. active channels - Can use the same 128 channels as transmitters and receivers or 128 channels as transmitters and 128 others as receivers - 2 Hypertronics and 16 Lemo00 connectors

DYNARAY® 256/256PR - Innovative phased array system, up to 256 simult. active channels - Can use the same 256 channels as transmitters and receivers or 256 channels as transmitters and 256 others as receivers - 4 Hypertronics and 16 Lemo00 connectors



ZETEC holds ISO 9001:2008 and ISO/IEC 17025:2005 certifications



875 boul. Charest Ouest, Suite 100
 Québec, Qc, CANADA G1N 2C9

Toll free: 800.643.1771

P: 418.266.3020

F: 418.263.3742

www.zetec.com