

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 (-6 dB)	from 0.5 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

Power Supply

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

Environment

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

European Directives and Standards

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

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