

Professional-Grade Phased Array Systems

Eddyfi Technologies Mantis Series

The **Mantis 16:64PR** platform dominates the mid-range market with two configurations:

- **Base model (PAUT/UT/TOFD):** \$21,995 ^{[1][2]}
- **Advanced model (PAUT/UT/TOFD/TFM):** \$29,995 ^{[1][3]}

Key pricing factors:

1. **TFM capability** adds \$8,000 premium
2. **Multi-year service plans** cost \$10,365-\$18,730 ^[1]
3. **Probe compatibility:** Dual matrix probes (16x2 elements) cost \$16,240-\$16,750 ^[1]

Technical specifications:

- 16 pulsers/64 receivers
 - PRF up to 20 kHz for high-speed inspections ^[3]
 - IP65-rated ruggedized design ^[2]
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Entry-Level and Refurbished Systems

Olympus OmniScan MX2 32:128PR

- **New systems:** Discontinued, replaced by newer models
- **Refurbished units:** \$5,800-\$6,150 ^{[4][5]}
- Key features:
 - 32 pulsers/128 receivers
 - 10.4" touchscreen interface
 - Multi-group inspection capabilities

Zetec TOPAZ32

- **Current pricing:** \$4,750-\$6,322 ^{[6][7]}
- **Market position:** Budget-friendly 32-channel system
- **Notable features:**
 - 64-bit processing architecture
 - Magnesium alloy housing (6.3 kg)
 - UltraVision touch software suite

Phased Array Transducer Pricing

Sensor Networks Offerings

Configuration	Price Range	Key Specifications
16-element linear array	\$2,984.55 ^[8]	0.4mm pitch, 6.25mm elevation
2x15/5x3 matrix array	\$5,163.48 ^[9]	1.5MHz, dual matrix design
7.5MHz low-profile array	\$3,218.70 ^[8]	16 elements, 0.38" footprint

Customization options:

- **Cable lengths:** 2.5m standard (8.2ft) ^{[9][10]}
- **Connectors:** ZPAC/IPEX/Phasor (+\$150-\$400)

Emerging Technology Premiums

Total Focusing Method (TFM) Systems

- **Eddyfi Mantis TFM64:** 64-element live TFM adds 36% cost premium vs base model ^[1]
 - **Sonatest Veo3:** \$9,250 base price with real-time TFM/PAUT/TOFD ^{[11][12]}
 - Performance metrics:
 - 128GB SSD storage (Veo3)
 - 10MB/s data transfer rates ^[11]
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Price Determinants in PAUT Market

1. Channel architecture:

- 16:64 systems = \$20k-\$30k
- 32:128 systems = \$30k-\$45k ^{[4][14]}

2. Software capabilities:

- Basic PAUT packages: Included
- Advanced TFM/FMC: +\$7k-\$12k

3. Environmental ratings:

- IP65 certification adds 15-20% cost ^{[2][3]}
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Conclusion

While the specific QD and ZH-series sensors remain unlisted, current PAUT pricing follows clear technological tiers. Buyers should consider:

- **<\$10k:** Refurbished 32-channel systems (Zetec TOPAZ32)
- **\$20k-\$30k:** New 64-channel systems with TFM (Eddyfi Mantis)
- **>30k:** High-channel-count matrix array solutions

Reference Links

1. <https://store.eddyfi.com/technologies/phased-array-tfm-and-conventional-ut/mantis.html>
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9. <https://www.splitter.com/products/sensor-networks-2x15-5x3-element-matrix-2d-phased-array-15mhz>
10. <https://www.splitter.com/products/sensor-networks-16-element-small-footprint-phased-array-75mhz>
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13. <https://beta3dscannersell.com/eddyfi>
14. <https://gp-technical.com/product/m2m-eddyfi-technologies-mantis-1664pr-phased-array-flaw-detector-with-tfm-64ch/>