Cargo Scanning / Security
Tailored 6/4 MeV LINAC Systems

MeV Linac Systems - Designed, Proven, Built To Last

Our tailored linac systems are the most advanced in the industry, specifically designed to meet the specific challenges our customers face in cargo scanning and security applications. We designed and tested for:

- Lowest cost of ownership
- FRU service strategy
- The most difficult environments shock, vibration, -40°C, +55°C
- Individual customer-specific performance (energy, dose, fan)
- Lowest X-ray leakage, highest penetration, more image/less dose
- Individually tunable dose/pulse*

For over 40 years, ETM has fielded nearly 10,000 high-voltage subsystems to support of our customers' applications around the world.

ETM linac products leverage our military packaging experience for extreme temperatures, high voltage, shock and vibration, and enhance it with MeV radiation resistant materials. All ETM linac systems are modularized for maximal operational up-time and rapid , lowest-cost serviceability.

Modular Design

ETM's modular linac system design simplifies maintenance and minimizes any potential downtime. Easy module accessibility considerably improves MTTR and operational availability. High voltage modules are completely encapsulated and isolated from low voltage electronics, with enclosures at ground potential for safe operation.

Modular design: Safe, maximized up-time, reduced cost and time associated with maintenance

Tailoring For Your Requirements

ETM will specifically tailor its linac products for any customer's particular requirement, cost-effectively while maintaining excellent quality. We commit to giving our customers exactly what they need; tailoring performance, packaging, and pricing in a linac system tailored specifically for our customer's cargo scanning needs.

Real-time dose/energy control *

ETM's patented design enables our customers to change and fine tune dose as needed, in real time.

Better Spectrum, Less Radiation

ETM linac systems are designed to provide narrower electron energy spectra than other industrial linacs. The system design allows ETM customers to obtain excellent images with lower total dose, and allows fine tuning of dose at a fixed repetition rate while maintaining energy.

Lowest Cost of Ownership

ETM stands behind our products with a standard 12 month warranty, after which ETM's easy-to-service, low-cost modular design reduces service time, minimizes maintenance cost, and maximizes up-time.

Service

Every ETM product is backed by 24-7 worldwide service:

1 (800) 883-4ETM North America
+1 (510) 797-1100 Worldwide

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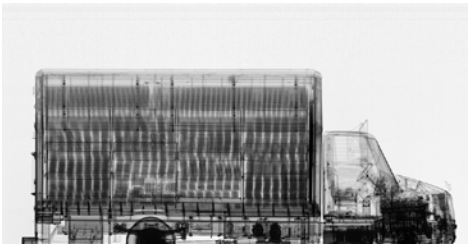
X-RAY PERFORMANCE

Performance	Designed/tested for cargo scanning shock, vibration, environmental, cost-of-ownership
Energy:	6MeV 4MeV, alternating * Custom energy options upon request *
Dose:	Matched to customer requirement Dynamically adjustable *
Repetition rate:	0 pps to 400 pps
X-ray focal spot size:	2.0mm diameter FWHM
Collimator/field size	Customer specific, replaceable Standard examples - Customized fan (ex: 60 degrees)
Energy modes:	- High energy mode - Low energy mode - High/Low energy mode, real-time *

ENVIRONMENTAL

Temperature:	Designed and tested
Operating:	-20° to +40°C -40° to +55°C with extended option
Storage:	-40° to +60°C
Humidity:	Up to 90% relative humidity
Shock and Vibration:	Designed and tested for mobile use 3g operational, 10g non-operational

*Patents issued and patents pending



MECHANICAL

Dimensions:	Single cabinet 31.6” W x 66” H x 37.6” L (Modular packaging available if desired)
Weight:	6MeV with shielding, standard - <5250 pounds all-in-one single cabinet (no separate modulator required)
Shielding/leakage:	Self-contained shielding, $<10^{-6}$ leakage with respect to primary beam
Cooling:	Liquid cooling, 30°C, 50l/min self-contained ETM TCU (included)

ELECTRICAL INTERFACE

Interfaces:	Tailored to customer request AC mains input, mains disconnect Discrete control input Remote Ethernet interface Remote E-stop input Trigger input Ion pump power Phase indicator lights X-ray on light Keylock safety switch Coolant inlet/outlet

PRIMARY INPUT POWER

Voltage input:	400VAC (208VAC option) 3 phase; with neutral
Frequency:	50/60 Hz
Consumption:	Matched to customer requirement

Note: Self-contained ETM TCU included with linac system for liquid cooling, matched to thermal load and environmental requirement.

Note: Specifications subject to change without notice.

Note: Please discuss specific tailoring requests with ETM

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