



# MTK ELECTRONICS, INC MEDFORD, L.I. NEW YORK

A leading designer and virtually integrated manufacturer of specialty electronic components and sub-systems used in the military and commercial applications.



# WHAT IS MTK ALL ABOUT?

- MTK is dedicated in providing solutions that fulfill our customers goals for reliability, speed-to-market and cost effectiveness used in a variety of applications and conditions.
- MTK becomes uniquely involved with the partnering in every aspect of design and development to bring system to fruition.
- MTK's financial performance has been strong and consistent. In a cyclical and highly competitive industry, the company has achieved profitability annually since 1982.
- MTK 's current management team possesses an aggregate of over 100 years experience in the industry.
- MTK meets all the appropriate military specifications.
- MTK's Quality System provides rigid management controls over all design and manufacturing disciplines in accordance with AS9100 Rev D.



# PRODUCTS OFFERED

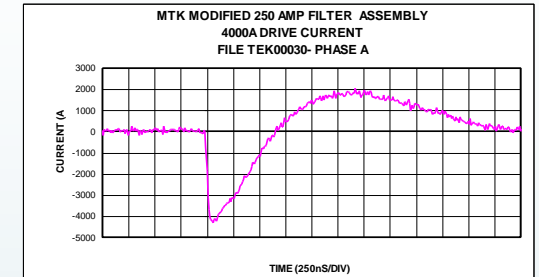
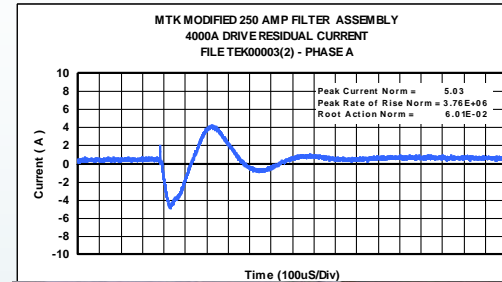
- RFI/EMI Powerline Filters.
- HEMP Filters.
- Feed-Through Capacitors.
- Power Controllers.
- Power Transformers.
- Pulse Transformers.
- Power Supplies.
- Power Distribution Assemblies.
- Various Custom Assemblies.

# HEMP FILTERS

- In accordance with MIL-STD-188-125A
- Size and Configuration will vary depending on ratings.
- Direct mounting to shielded rooms, shielded areas, shielded buildings for facility power.

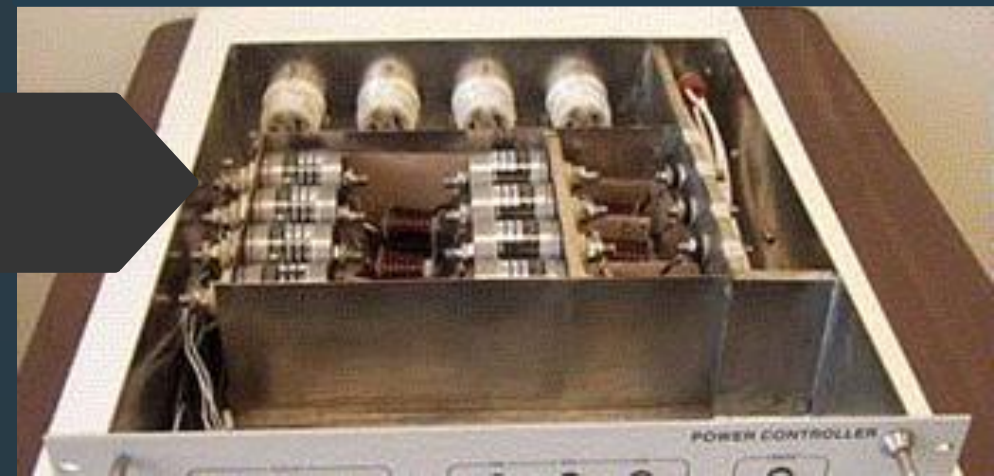
4000 Amp EMP Pulse

5 Amp Residual Current



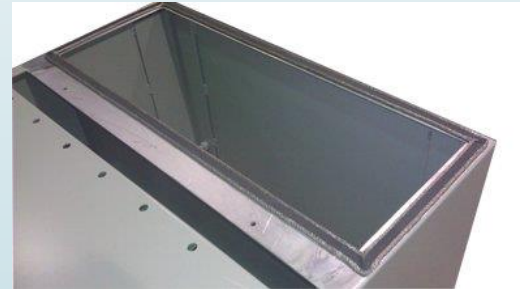


# POWER CONTROLLERS FOR THE MISSILE DEFENSE SYSTEM



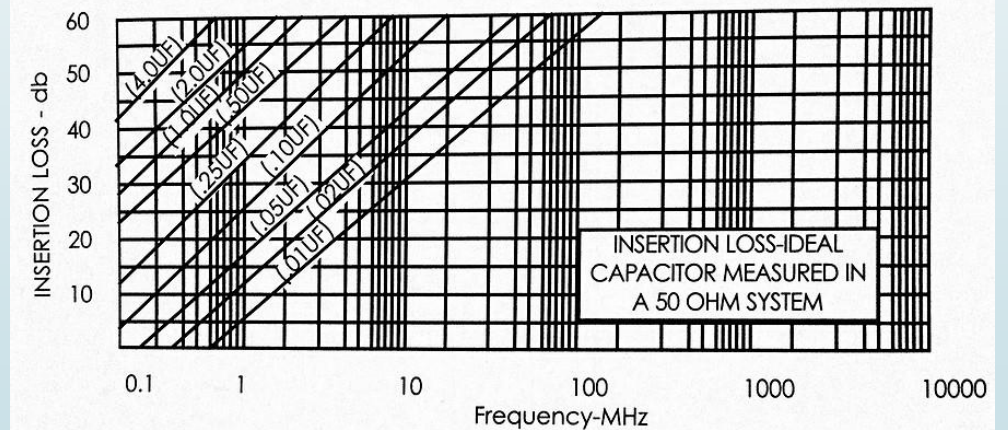
# RFI/EMI POWER LINE FILTERS

- Power line filters MTK-F & MTK-N series
- Power line filters for shielded areas
- Power line filters for shielded enclosures



# FEED-THROUGH CAPACITORS

- Tubular feed-through capacitors.
- Threaded feed-through capacitors.



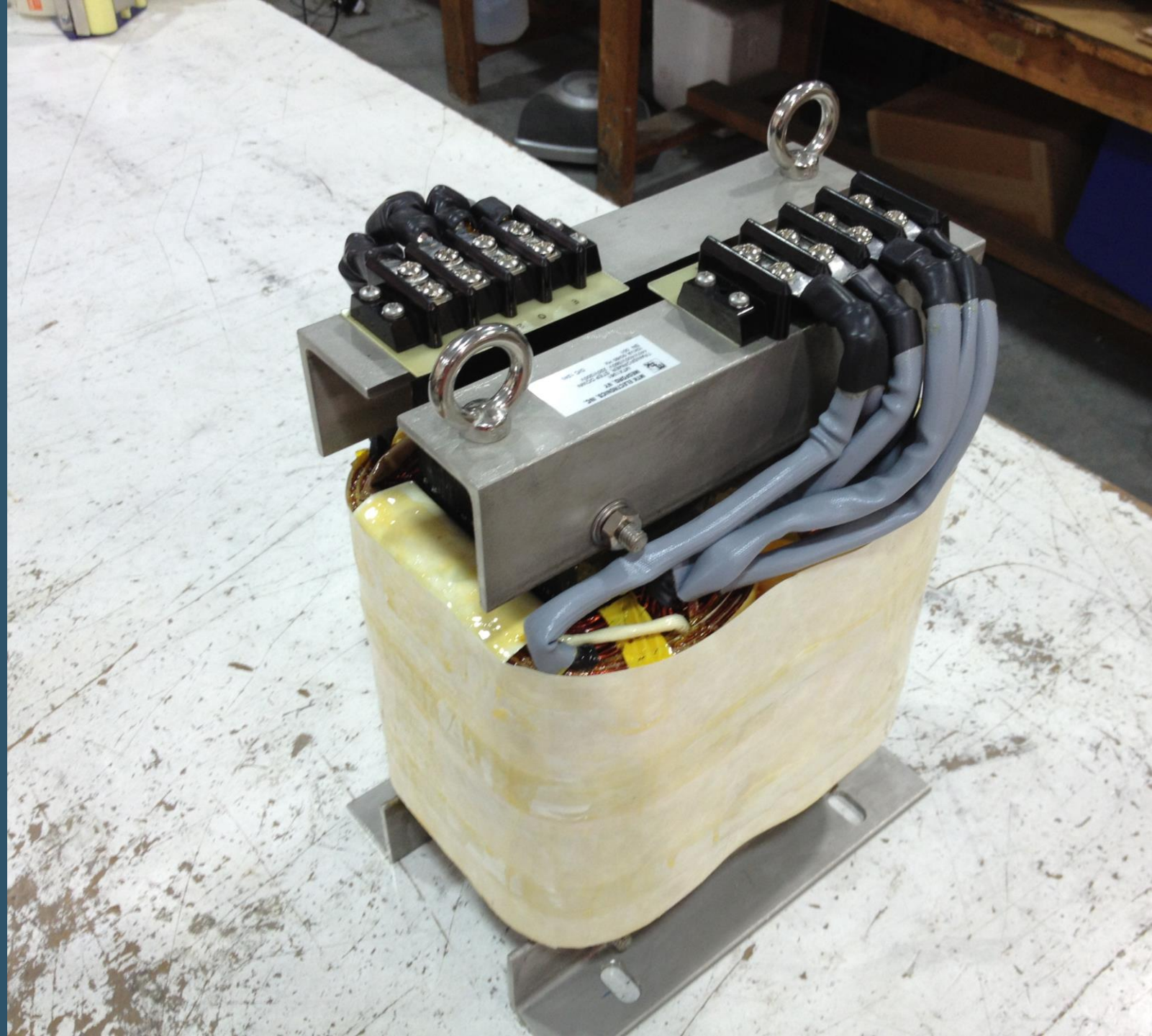


# PULSE TRANSFORMERS.





# POWER TRANSFORMERS





# POWER SUPPLIES

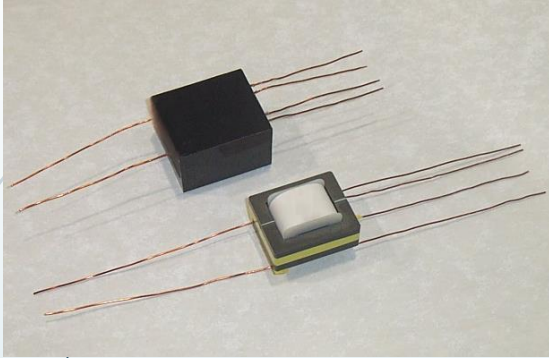


# SUB-MINIATURE MAGNETICS FOR AEROSPACE





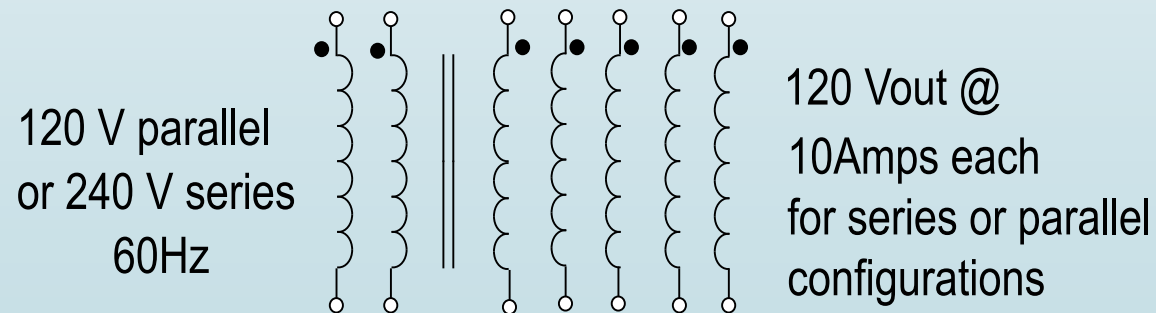
# HIGH FREQUENCY HIGH VOLTAGE TRANSFORMER



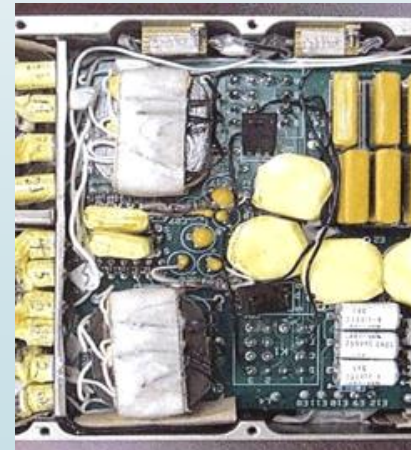
- Primary: 44V pk-pk @ 16.6kHz
- Secondary: 10kv pk-pk @ 20mA
- Dimensions: 1.3" x 1.8" x 2.1"

## MULTI-TAP POWER TRANSFORMER

Basic Schematic

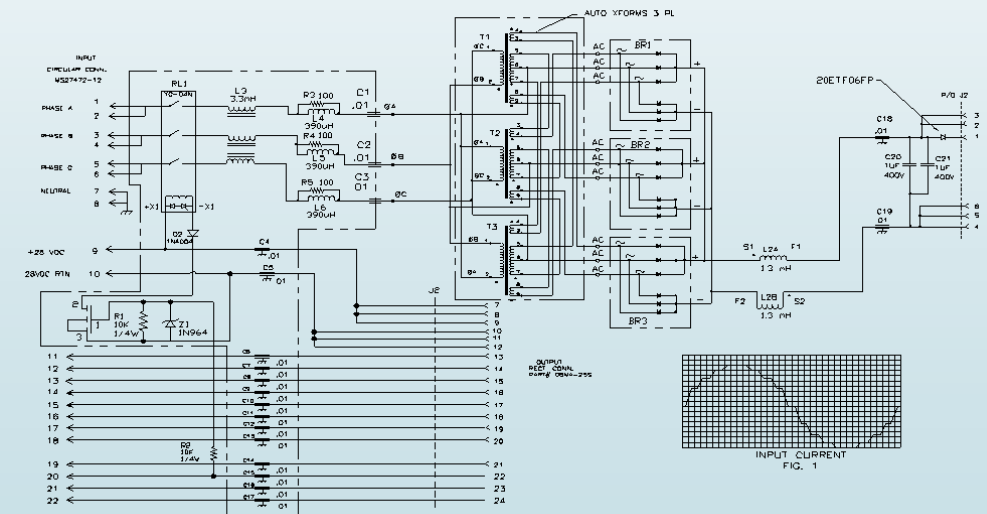
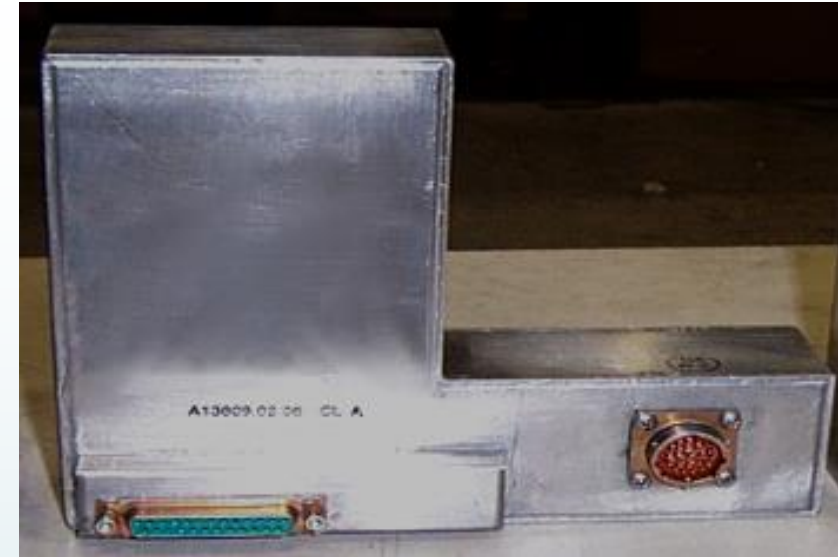


# COMPLEX FILTERS & SUB ASSEMBLIES



# HIGH DENSITY FILTER/TRANSFORMER ASSEMBLY

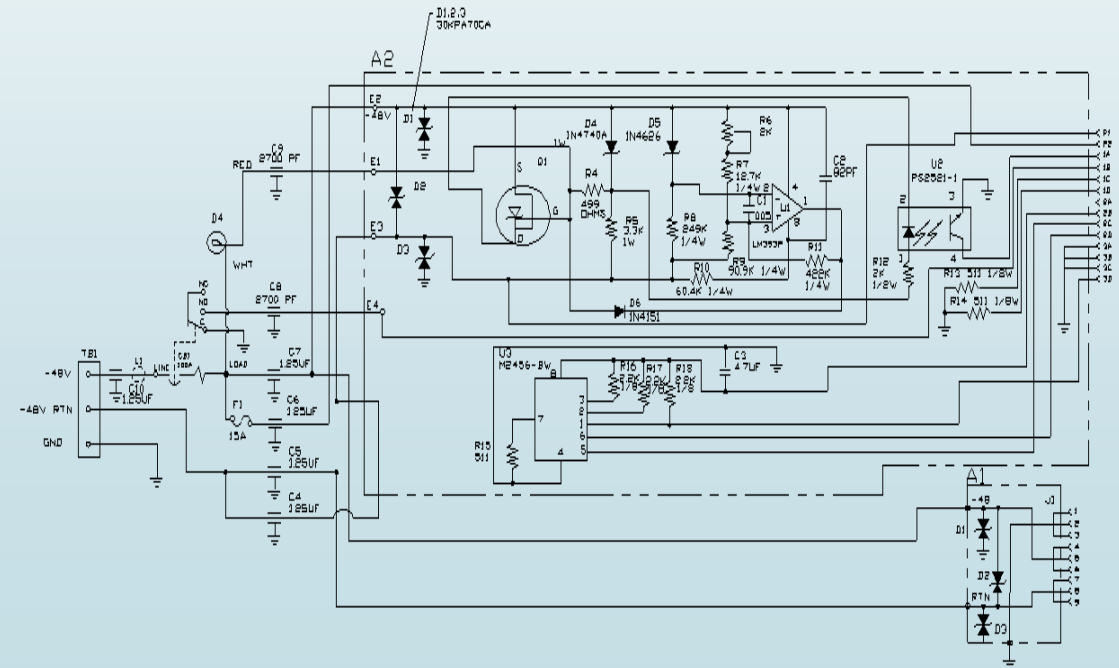
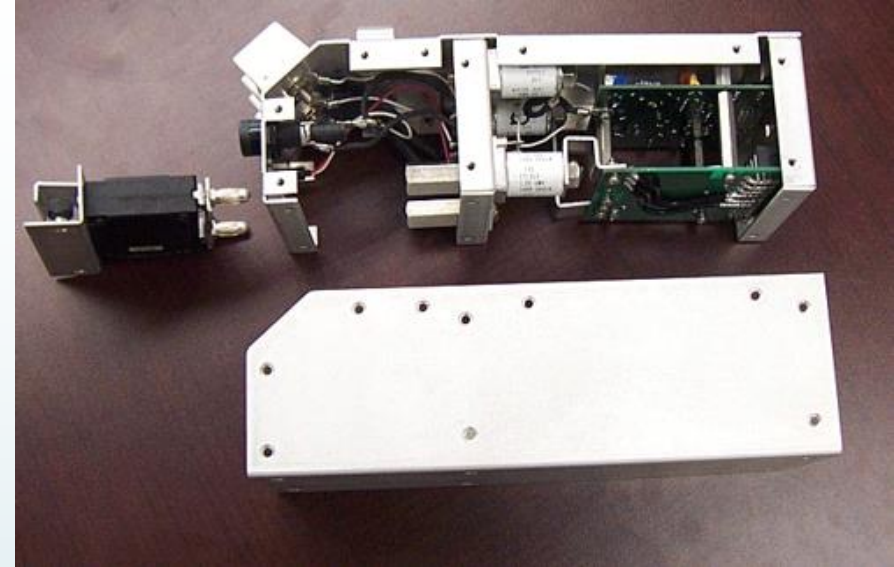
- French MIG Aircraft Filter
- 220VL-L in 270VDC out filtered DC Supply
- Harmonic Distortion <5%





# FILTERED POWER DISTRIBUTION MODULE

- Telecommunication MiniCell Module
- Low Voltage Detection
- Programmable Serialization
- Circuit Breaker Protection
- Fuse Protection
- Rack Slide Mounting



# HIGH POWER PRECISION SHIPBOARD TRANSFORMER US NAVY AEGIS CLASS

120Vin  
100Vout 3kVA

Voltage  
Regulation < 2%

No Load to  
Full Load



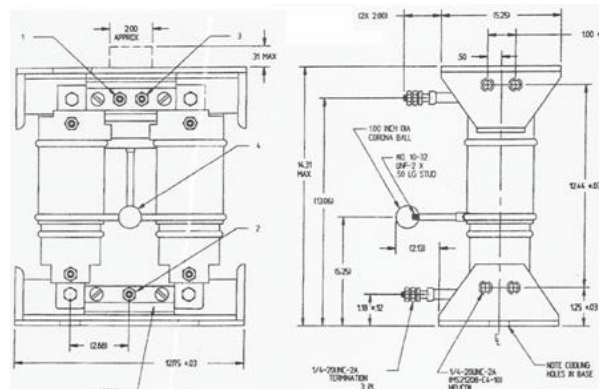
## RADAR MODULATOR MAGNETIC SWITCHING MODULATOR

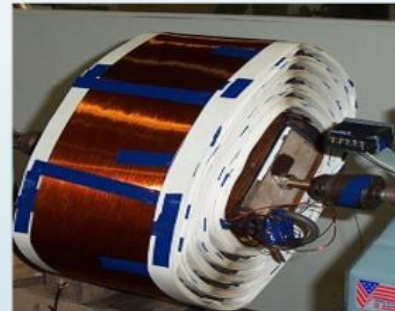
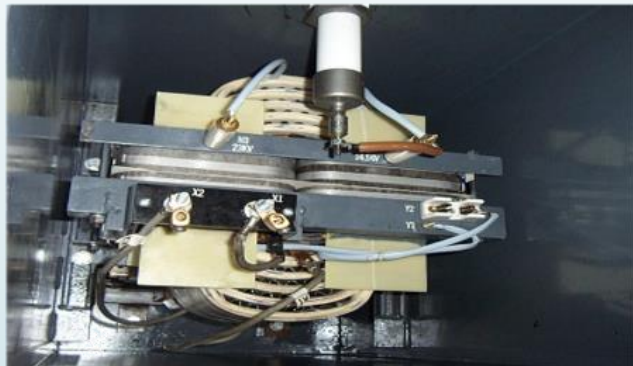
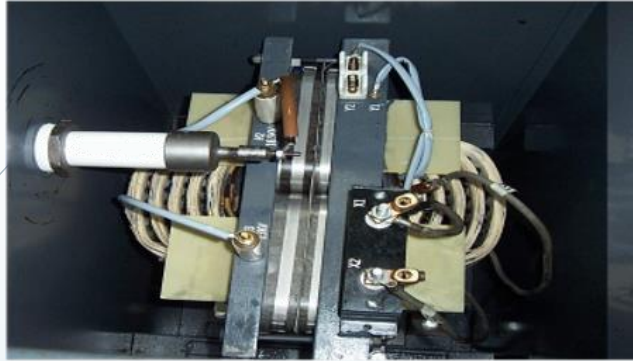
- Pulse Widths      0.10usec  
                         0.25usec    1.0usec
- Pulse Rep. Freq.   2400 pps  
                         1200pps   750 or 1200 pps
- Output Voltage        26kvpk
- Output Current        20 Amps pk
- Filament Voltage      120 : 10volts  
                                 60Hz
- Filament Current      9.5 Amps
- Features:    Oil Filled, Hermetically  
                 Sealed with Oil Expansion Bellows
- Inverse Clipping Diode
- Built In Current Transformer
- Pulse Bias Winding





- Duty Cycle .0019
- Terms    KV                      Amps            Imp.
- 1-2       -11.7Pk 840Pk 139ohms
- 3-4       -117Pk 84Pk 1390ohms
- INDUCED VOLTAGE TEST -156KvPk
- ON SECONDARY





LARGE OIL FILLED POWER TRANSFORMER  
26kVA @ 27kV 60Hz

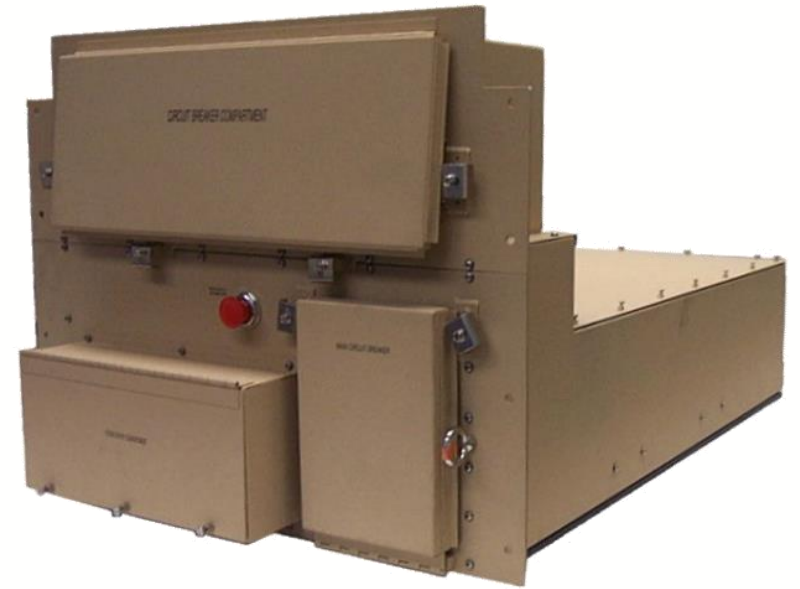
## 6KVA POWER TRANSFORMER for MOBILE SHELTER

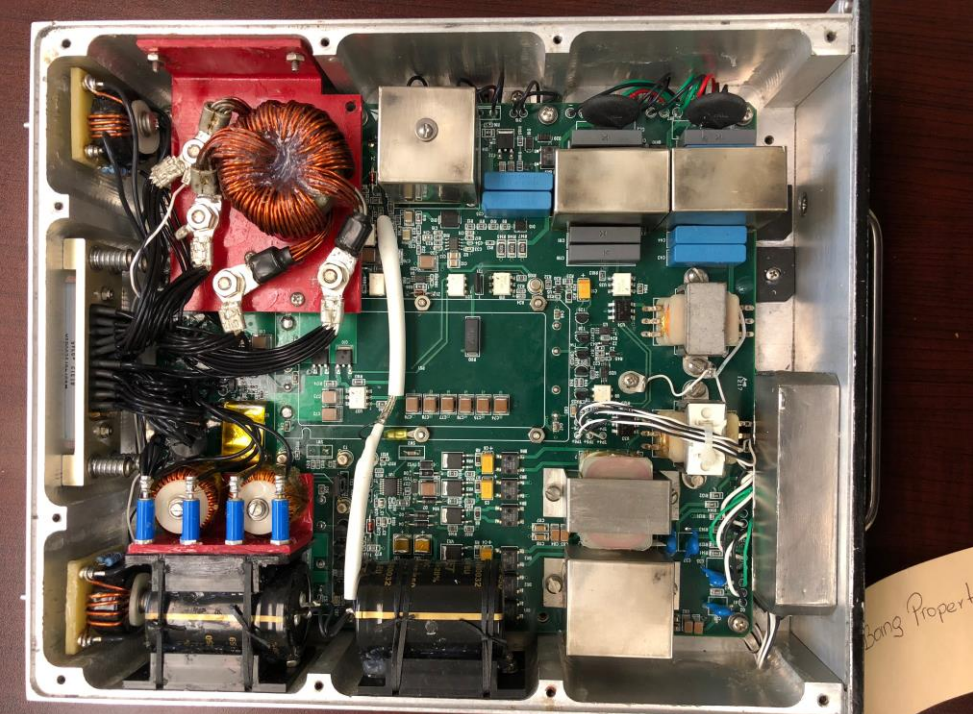




# AC Power Distribution

- Distributes power to radar antenna array.
- 3Phase 380Vin @ 200 Amps
- Phase Monitoring, Filtering, Breaker Panel, Remote shunt trip, Outdoor Vehicle mounting.





# POWER SUPPLY

- 115 VAC INPUT
- +5 VDC OUTPUT
- +15 VDC OUTPUT
- -15 VDC OUTPUT

## ➤ 3D MODELING







# CERTIFICATIONS

- ▶ ITAR REGISTERED.
- ▶ ISO 9001:2018 AND AS 9100 D.
- ▶ IPC-A-610 REV G
- ▶ IPC J-STD-001REV G



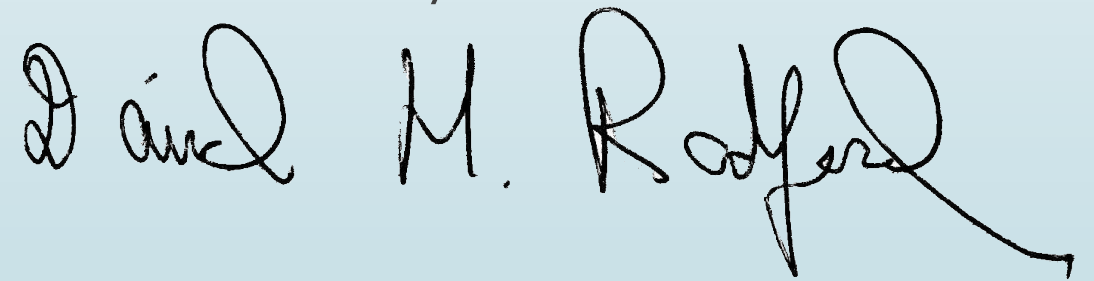
# THE BOTTOM LINE

## Why should MTK partner with you?

- All Companies have a bottom line. It is not only financial it is also Performance, performance of The System to which we are committed. MTK is adamant in its belief that the System must prevail. For if the System fails we all fail
- Our Design and Engineering teams support the established Customer-MTK Team through total integration of all talents from development process to successful system function. We have consistently invested in the technology and equipment to provide our customers with quick-turn prototypes.
- MTK's future success is predicated on emphasizing its technological strengths by aggressively seeking new areas of opportunity. The companies capabilities in custom design and its ability to control the manufacturing process allows MTK to focus effectively on serving the newer technology needs of major system programs.

# Thank you

For taking the time to review this PowerPoint presentation. MTK is a privately held company established in 1981 to fulfill the needs of the EMI/RFI filter market. Since then we have expanded into magnetics, power supplies and value added services. After reviewing the PowerPoint if you have any questions, please do not hesitate to contact me directly.

A handwritten signature in black ink, reading "David M. Radford". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

David M. Radford  
President

