

# SOLSTx Solid State Transmitter

GaN-based Solid State Transmitter (SST) technology has a number of advantages over traditional systems. Compared to Vacuum Electronic Devices (VED) used in current transmitter designs, SOLSTx offers:

- Significant increase in Mean Time Between Critical Failure (MTBCF)
- Substantial decrease in operational and sustainment (O&S) costs
- Graceful degradation in the event of hardware failure (as opposed to single point of failure/instantaneous shutdown)
- Significantly lower Phase Modulation (PM) noise levels resulting in higher Clutter Improvement Factor (CIF)
- Significantly lower out of band emission reducing the interference with adjacent radars and commercial communication signals
- Higher duty cycle (up to 10%)
- Greater range of pulse widths (up to 100 $\mu$ S)

## 30kW S-Band Transmitter

- GaN-based solid state pulsed transmitter for radar applications
- Utilizes a unique high power combiner
- Command/control/monitor of transmitter from a single Graphical User Interface (GUI)
- Connections for external user interface
- Closed-loop cooling system (no external plumbing required)
- Scalable from 10KW to 200KW in same footprint
- Prime power: 480V 3-Phase and 115V 20A service; flexible to adopt other prime power voltages

