



*Electron Device  
Business*

# High Power Transmitters

Supporting new and existing  
weather radar, EMC/TWT testing,  
industrial, and scientific systems



**KLYSTRON TRANSMITTERS**  
S- and C- Bands

**MAGNETRON TRANSMITTERS**  
S-, C-, X-, and Ku-Bands

**TWT TRANSMITTERS**  
L-, S-, C-, X-, K-, and Ka-Bands

**CCTWT TRANSMITTERS**  
S-, C-, and X-Bands

**PULSED AND CW  
INSTRUMENTATION AMPLIFIERS**  
L-, S-, C-, X-, Ku-, K-, and Ka-Bands



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## Weather radar transmitters

- Available in: S-, C- and X-Band
- Support most new and existing weather radar systems
- Individual microwave components or a complete transmitter

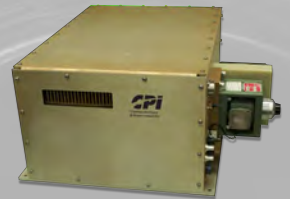
### Klystron Weather Radar Transmitters

- S-, C-, and X-Band transmitters
- Excellent stability & performance
- Tunable
- Up to 1 MW peak output power
- Forced air cooled
- Touch screen with local/remote control
- Ethernet connectivity for remote monitoring & control



### Magnetron Weather Radar Transmitters

- S-, C-, and X-Band transmitters
- Sheltered or outdoor models
- Forced air cooled
- Touch screen with local/remote control
- Excellent Doppler performance
- Mechanically tunable frequency
- Ethernet connectivity for remote monitoring & control



## Industrial and Scientific Transmitters

- Available in rack mount and turnkey configurations
- Compact and ultra-wide band
- Available in:  
L-, S-, C-, X-, and Ku-Band



### Gyrotron and TWT Transmitters

- Liquid cooled
- Four port circulator available
- GaN Solid State Power Amplifier Driver
- Superior stability, phase and amplitude ripple
- High power, high efficiency
- User friendly control and operation



# High-Power Transmitters

## EMC/TWT CW & Pulsed Transmitters

- Available in rack mount and turn-key configurations
- Compact and ultra-wide band
- Available in: L-, S-, C-, X-, Ku-, K-, and Ka-Band

## S-Band TWT Compact Pulsed Amplifiers

- Single phase AC power
- Local or remote control
- Wide RF bandwidth
- GPIB remote

## X-Band TWT Compact Pulsed Amplifiers

- Mobile
- GPIB remote
- Touchscreen
- Waveguide output



## Military Radar Transmitters

### Airborne Radar Transmitters

- S-, C-, and X-Band transmitters
- Ruggedized design
- Outstanding power per volume
- Easy to control/operate
- Forced air cooled
- High levels of readiness



### Surveillance Radar Transmitters

- S-, C-, and X-Band transmitters
- Resonant high-voltage power supply
- Forced air-cooled
- Outstanding power per volume



### Naval Radar Transmitters

- X-Band transmitters
- Ruggedized design
- GaN technology
- Outstanding power per volume



Check out all the  
CPI EDB high-power  
transmitters at  
[www.cpi-edb.com](http://www.cpi-edb.com)

# High-Power Transmitters

CPI Electron Device Business' high-power transmitters are customized for your application. To discuss a customized solution, contact us at:

ElectronDevices@cpi-edb.com  
or call us at +1 978-922-6000

## Typical Operating Parameters

| Transmitter Application   | Frequency Band | Peak Power Range      | Average Power Range       | Based On            |
|---------------------------|----------------|-----------------------|---------------------------|---------------------|
| Weather Radar             | S              | 850 kW – 1000 W       | 2 kW                      | Klystron, Magnetron |
| Weather Radar             | C              | 250 kW - 1000 W       | 0.6 kW – 2 kW             | Klystron, Magnetron |
| Weather Radar             | X              | 300 kW                | 0.3 kW                    | Klystron, Magnetron |
| Industrial and Scientific | Ka             | 100 W – 10 kW         | 100 W – 10 kW (min) CW    | Gyrotron            |
| Industrial and Scientific | L              | 90 kW                 | 6.4 kW                    | IOT                 |
| Industrial and Scientific | L              | 30 kW                 | Adjustable (2 kW – 30 kW) | IOT                 |
| Instrumentation Amplifier | C              | 60 kW                 | 3 kW                      | CCTWT               |
| Instrumentation Amplifier | X              | 15 kW – 17 kW         | 600 W - 1020 W            | CCTWT               |
| Instrumentation Amplifier | L              | 2 kW, 4 kW and 7.5 kW | 80 W, 160 W, 300 W        | TWT                 |
| Instrumentation Amplifier | S              | 4.2 kW and 8 kW       | 250 W, 480 W              | TWT                 |
| Instrumentation Amplifier | C              | 4.2 kW and 8 kW       | 250 W, 480 W              | TWT                 |
| Instrumentation Amplifier | X              | 5 kW and 8 kW         | 300 W, 480 W              | TWT                 |
| Instrumentation Amplifier | Ku             | 3.2 kW and 6 kW       | 192 W, 360 W              | TWT                 |
| Instrumentation Amplifier | L-Q            | 60 W – 2.2 kW         | CW                        | TWT                 |
| Instrumentation Amplifier | L-K            | 2 kW – 40 kW          | Pulsed                    | TWT                 |
| Airborne and Surveillance | L-K            | 250 W                 | CW                        | EW TWT              |
| Airborne and Surveillance | J              | 400 W                 | CW                        | TWT                 |
| Airborne and Surveillance | L-K            | 100 W - 10 kW         | CW                        | Booster TWT         |