



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
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

Weather radar transmitters

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

Klystron Weather Radar Transmitters

- S-, C- and X-Band transmitters
- Excellent stability and 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 turnkey configurations
- Compact and ultra-wide band
- Available in: L-, S-, C-, X-, Ku-, K- and Ka-Bands

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
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transmitters at
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CPI

High-Power Transmitters

CPI Electron Device Business' high-power transmitters are customized for your application.

To discuss a customized solution, contact us at:

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Typical Operating Parameters

Transmitter Application	Frequency Band	Peak Power Range	Average Power Range	Based On
Weather Radar	S	850 kW – 1000 kW	2 kW	Klystron, Magnetron
Weather Radar	C	250 kW - 1000 kW	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



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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