



TDR Doppler Weather Radar Systems C-Band



Best Ground Clutter Rejection - Fully coherent operation combined with a low side-lobe offset feed antenna provides the best ground clutter rejection in the industry.

Best Storm Penetration - Highest *average* power delivers C-band images with near S-band storm penetration capability. The best storm penetration in the industry.

Best View Of The Weather - TDR's pulse width and PRF are adjustable over a wide range to provide the best weather detection. With the low ground clutter, this produces the best weather images in the industry for any type of weather.

Ready For The Future - TDR is based on the most advanced technology available today. It can easily be upgraded to future capabilities such as dual polarity multi-parameter operation.

Low Risk Proven Technology - TDR Klystron and TWT radars are installed and operating worldwide today.

TDR Doppler Weather Radar - Key Specifications

Standard Features All TDR Radars

- Offset Feed Antenna- ≤ 35 dBc (one way) side lobes
4.3 m (14ft), $\leq 1^\circ$ beam, ≥ 44 dB gain
Long life DC motors with sealed gear boxes
- Exclusive solid state DC switch type modulator
- MDS -119 dBm
- Dynamic range ≥ 90 dB, Noise Figure ≤ 3 dB
- Digital receiver/signal processor, real-time DFT, FFT or pulse pair velocity processing
- Choice of sophisticated analysis software packages
- A-sandwich radome with ≤ 0.3 dB one-way loss, 187 mph (300 km/hr) wind survival for undamaged radome
- FCC Type Accepted for sale/use in US

TDR TWT Series (xx75 Models)

- Fully coherent Traveling Wave Tube (TWT) transmitter technology
- 7,500 Watts peak power
- 112.5 Watts maximum average power
- PRF adjustable from 200 to 3,000 pulses per second
- Pulse width adjustable from 0.5 μ sec to 10 μ sec
- Maximum sensitivity -2.4 dBZ at 200 km range (with 4.3 m antenna)
- Maximum unambiguous velocity 40 m/s at 50 km, plus 2X and 3X velocity unfolding available at all ranges

TDR Klystron Series (xx250 Models)

- Fully coherent Klystron transmitter technology
- 250,000 Watts peak power
- 1,250 Watts maximum average power
- PRF adjustable from 200 to 2,000 pulses per second
- Pulse width adjustable from 0.5 μ sec to 10 μ sec
- Maximum sensitivity -14.63 dBZ at 200 km range (with 4.3 m antenna)
- Maximum unambiguous velocity 26 m/s at 50 km, plus 2X and 3X velocity unfolding available at all ranges

Options

- Windshear detection/analysis software
- Hydrology software (ground truth rain rate calibration, accumulation within multiple watersheds, histogram, etc.)
- Multiple radar networking, composite image and true wind vector software
- Dual polarity operation
- Remote radar workstations and image display terminals
- Radar networking and data distribution servers
- Interface to widely used broadcast TV graphics software (TDR output data in NIDS 3 radial format)