



DEFENDER SERIES

X-BAND



Magnetron X-Band

Single and dual-polarity configurations • 200kW of radiated power

PROTECTING PEOPLE AND ASSETS®

eecweathertech.com

SYSTEM DEFENDER X200

Operating Frequency	8500-9600 MHz
Pulse Width	0.2 – 2.0 usec
Range Resolution	Minimum 16m
Pulse Repetition Frequency	200-2400 Hz, user selectable
Range	Minimum 600km
Maximum Velocity (Unambiguous)	Up to 64 m/s
Sensitivity-Reflectivity	-18 dBz at 30km
Clutter Suppression Capability	≥ 46dB
Data Output	UZ, Z, V, SW (dual-polarization moments Zdr, Phv, Φdp, KDP, LDR)

ANTENNA/PEDESTAL

Type	Parabolic, Prime Focus Reflector
Reflector Diameter	2.4m (typical) – other sizes available
Gain-Minimum	> 45.0 dB
Half Power Beam Width (typical)	0.95°
Polarization	Linear Horizontal Feed Horn Dual-Polarization Linear Horizontal/Vertical
Angular Positioning Accuracy	≤ 0.05°
Scanning Speed	Up to 10 rpm

TRANSMITTER

Type	High-Power Coaxial Magnetron
Peak Power (per channel/total)	200kW

RECEIVER

Type	Superheterodyne, Single or Dual Down Conversion with Image Reject Mixing
Minimum Discernible Signal	-114 dBm typical
Linear Dynamic Range	Up to 105 dB

DIGITAL RECEIVER/ SIGNAL PROCESSOR

Type	16-bit Modular, multi-channel Digital Receiver, Signal Processor
Maximum No. of Processed Range Bins	up to 8192
Minimum Processing Resolution	as low as 16m
Clutter Filters	Time Domain or Spectrum-Based Time Estimation and Processing (STEP) - An advanced adaptive clutter identification, mitigation and noise reduction algorithm

METEOROLOGICAL USER SOFTWARE

METEOROLOGICAL USER SOFTWARE	PULSE
Computer System	Commercial Off-the-Shelf PC
Meteorological Products	See PULSE Data Sheet for additional details.