



EEC

DEFENDER SERIES

X-BAND



Magnetron X-Band

Dual-polarity configuration • 200kW of radiated power

PROTECTING PEOPLE AND ASSETS®

eecweathertech.com

SYSTEM		DEFENDER X200
Operating Frequency		8500-9600 MHz
Pulse Width		0.5 – 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		15m
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		Comprehensive Software Package
Computer System		Commercial off-the-Shelf PC
Meteorological Products		Over 60 meteorological application products