

GMWR-25/50-DP



GAMIC Mini Weather Radar (Dual Polarization)

Your affordable and transportable X-Band Doppler Weather Radar

TECHNOLOGY

GMWR-2DP is a cost effective, short-range Doppler Weather Radar designed for reliable operation range of minimum 50 km up to 150 km.

GMWR-25 features include the **ENIGMA IV** digital receiver and signal processor, 2D and 3D scans and analysis products of scientific quality and accuracy controlled by **FROG-MURAN** software.

GMWR-DP is the ONLY small transportable Weather Radar on the market that provides Dual Pol and Doppler wind velocity measurement functions at affordable price!

RELIABILITY

GMWR-DP employs well-proven design and components (fully solid state except the magnetron). Hardware maintenance can be performed by any local technical service with experience in ship radar maintenance.

FLEXIBILITY

GMWR-DP can be configured to meet virtually any weather radar requirements for a city, metropolis, water reservoir subcatchments, airport surveillance or other medium range applications.

Its antenna mounted transceiver minimizes waveguide losses at optimum.

SENSITIVITY

GMWR-25 shows an excellent sensitivity in range :

- < 15 dBZ @ 50 km
- < 20 dBZ up to 100 km

DUAL POLARIZATION

The dual polarization of the **GMWR-DP** uses standard dual pol moments in order to enhance the weather data and allowing effective hydro-meteor classification of the rainfall, by detecting ice, snow, hail and liquid rain.

Furthermore, the use of dual polarization moments enhances the precision of the rain precipitation compared to single polarization weather radars.

AVAILABLE OPTIONS

Antenna optional antenna size of 1.8m for enhanced beamwidth

Power optional magnetron power of 50 kW

TV interface to broadcast quality radar and weather images.

Web interface to send images to internet web servers.

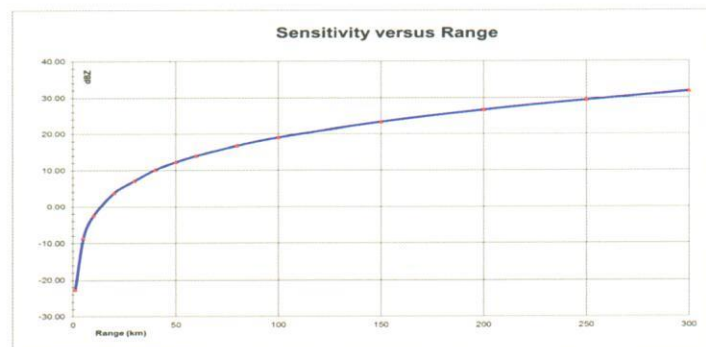
Hydrological software provides full analysis product generation capability including volume scan products and hydro-meteor rainfall analysis.

Radome for optimal protection of your radar.

Vehicle mounted on truck or trailer for optimal transportability.

Mosaic Radar Network for the full use of multiple radars.

Multiple user workstations with managed user levels.

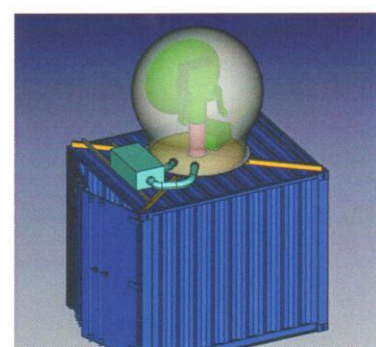


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GMWR-25/50-DP

TRANSMITTER	GMWR-25-DP	GMWR-50-DP
Polarization	Dual Polarization H / V	
Operating frequency	9410 MHz \pm 30 MHz	
Transmitter	Magnetron	
Peak Power	25 kW (12.5 kW per Channel)	50 kW (25 kW per Channel)
Pulse Width	0.25 μ s / 0.75 μ s	0.6 μ s up to 2 μ s
Pulse Repetition Frequency (PRF)	1300 Hz / 650 Hz	300 Hz up to 2000 Hz
Modulator	Solid State	
TX Signal Generation	Magnetron & Modulator	Magnetron & Modulator
RECEIVER		
Type	Dual Pol (2 independent Channel) Doppler	
A/D Conversion	16 bit (2 x 16 bit)	
Sample Rate	76.8 MHz	
Dynamic Range	~94 dB, > 80 dB nominal (opt. 110 dB)	
Sensitivity	- 113 dBm @ 0.75 μ s	
Intermediate Frequency	60 MHz	
IF Bandwidth	3 MHz	
LNA	< 1 dB	
Tuning	AFC	
ANTENNA	1200	1800
Type	Parabolic / Pencil beam/ Center fed	Parabolic / Pencil beam/ Center fed
Diameter	1.2 m	1.8 m
Horizontal Lobe Width	< 2°	< 1.3°
Vertical Lobe Width	< 2°	< 1.3°
Side Lobes	- 25 dB within 10°	- 25 dB within 10°
Gain	38 dB	42 dB
Cross Polarization	Typ. 35 dB	Typ. 35 dB
Antenna motion	Volume Scan	
AZ Maximum Speed	36° / sec	
EL Maximum Speed	15° / sec	
Azimuth	0° - 360° continuous	
Elevation	-2° to 95°	
Weight (Antenna & Pedestal)	< 100 kg	
Radome	2.5 m / 80 kg	
Radome Type	Laminated GF (6')	
SIGNAL PROCESSOR		
Type	ENIGMA IV (3 Channels)	
Processed Bins	> 2 x 4000 (8000)	
Generated Polar Moments	Z, W, V, SNR, CCR, SQI, ZDR, PhiDP, RhoHV, KDP, ...	
Clutter Correction	DFT, PPT, CMAP	
Pulse Integration	Fixed or Angle Synced	
Calibration	Manual with support tools (TSG)	
SOFTWARE	FROG-MURAN	
OS	Linux	
Data Resolution (raw)	8, 16, 32 Bit, IEEE Floating	
Maximum Range	Instrumented 50 km to 400 km	
Range Scale	User selected (5, 10, 25 or 50 km)	
Range Resolution	25 m to 10 km	
Vertical Resolution	< 100 m	
Horizontal Resolution	100 m to 1 km	
Number of available SW products for Synoptics, Hydrology, ATC, ...	> 50 Please consult us	
GENERAL DATA		
Power Consumption	500 W average, < 2000 W peak	
Total weight	< 300 kg	

MOUNTING OPTIONS



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