

SYSTEM DESCRIPTION

The type of unit: Scanner unit

The motor is installed within the scanner unit.

The scanner weight is approximately 98kg.

The antenna rotation speed is 17rpm or 14rpm. It depends on AC frequency.

The antenna beam width specification is 2.7 degrees for horizontal and 22 degrees for vertical.

The transmitter radiates 4 pulses which are 4 pulse lengths and 4 pulse repetition frequencies.

The magnetron, M1461, output power is 60kw and it is driven by solid state modulator.

The receiver consists of a microwave front end, containing the low noise amplifier, mixer, local oscillator, IF amplifier and detector.

GENERAL SPECIFICATION

1. Dimensions	: Height:690mm, Swing circle:2730mm
2. Mass	: Approx. 98kg
3. Polarization	: Horizontal
4. Beam width	
Horizontal (-3dB)	: 2.7degree
Vertical (-3dB)	: 22degree
Side lobe level	: below -26dB (within +/-10degree) below -30dB (outside +/- 10degree)
5. Antenna Gain	: 26.2dBi
6. Rotation speed	: 17rpm at 60Hz, 14rpm at 50Hz
7. Peak Power	: 60kW
8. Frequency	: 3050MHz +/-25MHz
9. Pulse length / Repetition frequency	: 0.08usec / 1700Hz 0.25usec / 1700Hz 0.75usec / 860Hz 1.0usec / 650Hz
10. Modulator	: Solid state modulator
11. Duplexer	: Circulator and diode limiter
12. Mixer	: MIC Front End
13. IF amplifier	: Logarithmic amplifier, Noise figure 6dB maximum
14. Tuning	: Manual / Auto