1. SYSTEM DESCRIPTION

★NKE-2044

Type of Unit: Scanner unit

The MTR is installed within a 2 feet scanner unit.

The scanner weight is approximately 10.5 kg.

The antenna is rotated 16, 20, 24, 27, 30, 36, 42 and 48rpm by its driving motor.

This has a 4 degrees horizontal beam width and 25 degrees for vertical.

The transmitter operates with 7-pulse length and 6-pulse repetition frequencies.

The magnetron, MSF1421B, rated output is 4kw and is driven by solid-state modulator.

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

GENERAL SPECIFICATION

1. Dimensions:	Height: 275mm, Diameter of radome: 620mm
2. Mass:	Approx. 10.5kg
3. Polarization:	Horizontal
4. Beam width	
Horizontal (-3dB):	4 degree
Vertical (-3dB):	25 degree
Side lobe level:	Less than -21dB within 10 degree of main beam
5. Rotation speed:	16, 20, 24, 27, 30, 36, 42 and 48rpm
6. Frequency:	9410±30MHz
7. Peak Power:	4kW
8. Pulse length / Repetition frequency:	0.08us/4000Hz, 0.08us/2250Hz, 0.13us/1700Hz 0.25us/1700Hz, 0.5us/1200Hz, 0.8us/750Hz, 1.0us/650Hz
9. Modulator:	Solid-state modulator
10. Duplexer:	Circulator / Diode Limiter
11. Front end module;	Built in
12. IF amplifier:	Logarithmic amplifier, Noise figure 6dB maximum.
13. Tuning:	Manual / Auto