FDA Regulation 21 CFR1020.40 mandates exposure rate limit of 0.5 mR/h at 5 cm from X-ray systems as measured with 10cm² aperture.

**APPLICATION:**
- X-RAY MACHINES, TV, and MONITORS
- LUGGAGE and PEOPLE SCANNERS
  - Provides accurate compliance testing of a wide variety of equipment.
  - Protects the health and safety of airport and shipping personnel while they protect the public.

**DESCRIPTION:**
The TBM-IC-XRAY consists of an air-equivalent probe coupled to a stable solid state MOSFET input electrometer with built-in A to D converter to read out directly in mR/h or mR.
- The TBM-IC-XRAY is small and lightweight.
- Based on stable, essentially drift-free electrometer technology.
- Removable sleeve provides omni directional detection including low X-RAY energy scatter.

**SPECIFICATIONS:**
- **Detector:** ION CHAMBER.
- **Window:** Light-tight 0.9 mg/cm² Mylar laminate. 10 sq cm area. 36 mm (1.4") dia.
- **Readout:** LCD 8 digits
- **Indicator Light:** **Green LED** 10 pulses/min per mR/h. **Red LED** Over-range Indicator.
- **Range:** Rate 6 digits 0.1 mR/h to 10,000 mR/h in one range. Integrate 8 digits 0.01 mR to 9.9R.
- **Photon Energy Range:** 5 KeV - 3 MeV
- **Energy Range:** 15 KeV - 500 KeV ± 20%.
  TBM-IC-X-Ray can be re-optimized for use with higher energy emissions.
SPECIFICATIONS (cont’d):

ELECTRONICS:
Bias Voltage: 45 VDC
X-Ray Rep Rate: Use either rate or integrate mode for pulses with repetition rate
more frequent than 1.0 per Sec.
Use Integrate Mode for pulses separated by more than 1.5 per Sec.
Electrometer: Solid State MOSFET input.
Pulse Duration & Content: With sufficient repetitions, TBM-IC-XRAY can accurately integrate pulses of less
than a microsecond duration & longer, including continuous emission.
Pulse content of 0.5 nanoR are measurable with sufficient repetition rate to give
at least 0.1 mR/hr for at least 5 to 10 seconds.

ENVIRONMENT:
Temperature of Operation: -20° to 50° C
Relative Humidity: 0 - 95%
Radio Frequency: 10 mW/cm² up to 4 GHz affects meter viewing < ± 10%
Magnetic Effects: 200 Gauss ± 5% effect
Geotropism: < ± 2% effect
Response Time: 2-3 seconds for rate and for integrate at 1mR/h or greater.
Time to Zero: If count-rate goes to zero, the digital display will hold the old count for 12 seconds
before displaying "0.0."
Batteries: Front panel battery test is provided.
6 ea. (AA) - over 100 hours of operation.

WEIGHT & DIMENSIONS:
Dimensions: 4" H x 3.5" W x 9.5" L with Sleeve (does not include handle)
Weight: Complete with batteries and internal detector: 3 lbs with sleeve

OPTIONS:
- Readout in Si units (µSv/h)
- Ra-UBG - Check source.
- Other entrance window material or thickness.
- 5 cm nylon positioning bumpers.

SIGNAL WITHOUT SLEEVE