

MOSFET Dosimeter Specifications

MOSFET Dosimeters	Model Numbers
MOSFET Dosimeter (standard)	TN-502RD
microMOSFET Dosimeter (standard)	TN-502RDM
Linear 5ive Array (standard)	TN-252LA5
High Sensitivity MOSFET Dosimeter	TN-1002RD
High Sensitivity microMOSFET Dosimeter	TN-1002RDM
High Sensitivity Linear 5ive Array	TN-502LA5
Extreme Sensitivity Linear 5ive Array	TN-1002LA5

The following information pertains to both the standard MOSFET dosimeter, the microMOSFET, and the Linear 5ive Array dosimeter:

Radiotherapy Applications

Typical Applications	Radiotherapy Dose	Recommended Dosimeter	Recommended Bias Supply
Scatter Dose/ Research	1 to 20 cGy	High Sensitivity Dosimeter	High Setting
Central/ Scatter Doses	20 to 100 cGy	Standard Dosimeter	High Setting
TBI/ Central Dose	> 100 cGy	Standard Dosimeter	Standard Setting
HDR Brachytherapy	> 20 cGy	Standard Linear 5ive Array	Standard Setting
LDR Brachytherapy	1 to 20 cGy	High/ Extreme Sensitivity Linear 5ive Array	High Setting

Radiology Applications

Typical Applications	Radiology Skin Entrance Dose	Recommended Dosimeter	Recommended Bias Supply
Radiology	0.1 to 5 R	High Sensitivity Dosimeter	High Setting
Normal Fluoroscopy	5 to 20 R	Standard Dosimeter	High Setting
High Dose Fluoroscopy	20 to > 100 R	Standard Dosimeter	Standard Setting



Dosimeter Sensitivities & Dimensions

Standard Sensitivity Dosimeter models TN-502RD, TN-502RDM, & TN-252LA5

Dosimeter	Bias Supply Setting	Nominal Sensitivity	Energy Source
Standard	Standard	1 mV/ cGy	⁶⁰ Co with buildup
Standard	High	3 mV/ cGy	⁶⁰ Co with buildup
Standard	Standard	3 mV/ R	Diagnostic X-ray
Standard	High	9 mV/ R	Diagnostic X-ray
Standard Linear 5ive Array	Standard	0.98 mV/cGy	¹⁹² Ir
Standard Linear 5ive Array	High	1.38 mV/cGy	¹⁹² Ir

High Sensitivity Dosimeter models TN-1002RD, TN-1002 RDM, TN-502LA5 & TN-1002LA5

Dosimeter	Bias Supply Setting	Nominal Sensitivity	Energy Source
High Sensitivity	Standard	3 mV/ cGy	⁶⁰ Co with buildup
High Sensitivity	High	9 mV/ cGy	⁶⁰ Co with buildup
High Sensitivity	Standard	10 mV/ R	Diagnostic X-ray
High Sensitivity	High	30 mV/ R	Diagnostic X-ray
High Sensitivity Linear 5ive Array	Standard	11.1mV/cGy	¹²⁵ I
High Sensitivity Linear 5ive Array	High	15.2 mV/cGy	¹²⁵ I
Extreme Sensitivity Linear 5ive Array	Standard	25.8 mV/cGy	¹²⁵ I
Extreme Sensitivity Linear 5ive Array	High	37.2 mV/cGy	¹²⁵ I

Flex Dimensions*

	Standard MOSFETs TN-502RD & TN-1002RD	microMOSFETs TN-502RDM & TN-1002RDM	Linear 5ive Arrays TN-252LA5, TN-502LA5, & TN-1002LA5
Width of Flex	2.5 mm	1.0 mm	1.8 mm
Thickness of Flex (flat part of flex)	0.3 mm	0.3 mm	0.6 mm
Length of Flex (from end of gray cable)	200 mm	375 mm	460 mm
Thickness of Bulb	1.3 mm	1.0 mm	1.4 mm
Length of Bulb	8.0 mm	3.5 mm	5 mm
Distance to Center of Chip (from end of bulb)	4.0 mm	1.75 mm	2.5 mm

* Measurements listed above are average values and are meant to serve as a guide for the use of Best Medical Canada's MOSFET dosimeters. For phantom use and tolerances, please contact Best Medical Canada directly for more detailed information.

