

Testing Laboratory
Accreditation
Certificate

Accreditation No. RTL04600



***Nagase Landauer, LTD
Dosimetry Center***

C22, gaiku-1, Suwa, Tsukuba-shi, Ibaraki-ken, Japan

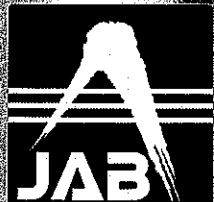
meets the following criteria. On the basis of this, Japan Accreditation Board (JAB) grants accreditation to the said testing laboratory.

Applicable accreditation criteria	: JIS Q 17025:2018 (ISO/IEC 17025:2017)
Scope of accreditation	: Ionizing Radiation monitoring (As described in the appendix)
Premises covered by accreditation	: As described in the appendix.
Expiry date of accreditation	: March 31, 2027

Revised	December 14, 2022
Renewed	April 1, 2023
Initial accreditation	March 19, 2019


Y. Iizuka, President

Japan Accreditation Board



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Type of Laboratory	Testing Laboratory
Name of Laboratory	Nagase Landauer, LTD Dosimetry Center
Address	C22, gaiku-1, Suwa, Tsukuba-shi, Ibaraki-ken, Japan

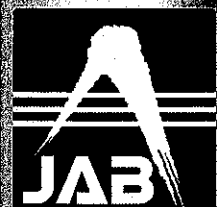
1) Premises on which testing activities are performed

Name of Premises	Nagase Landauer, LTD Dosimetry Center	
Address of Premises	Postal code	300-2686
	Address	C22, gaiku-1, Suwa, Tsukuba-shi, Ibaraki-ken, Japan
Testing service at permanent facilities or on site testing service	☒ Testing service at permanent facilities ☐ On site testing service	

Scope of Accreditation

FIELD	M33 Ionizing Radiation monitoring
CODE AND NAME OF CLASSIFICATION (1)	M33.1 Personal dose measurement
CODE AND NAME OF CLASSIFICATION (2)	M33.1.1 Whole body dosimeter

TYPE OF DOSEMETER	CODE AND NAME OF CLASSIFICATION (3)	CODE AND NAME OF CLASSIFICATION (4)	ENERGY RANGE OF IONIZED RADIATION	RANGE OF DOSE
SG-1 Type	M33.1.1.1 Photon Radiation	M33.1.1.1.1 $H_p(10)$	16 keV to 6.3 MeV	0.1 mSv to 10 Sv
		M33.1.1.1.2 $H_p(0.07)$	12 keV to 6.3 MeV	0.1 mSv to 10 Sv
	M33.1.1.2 Beta radiation	M33.1.1.2.1 $H_p(0.07)$	200 keV to 800 keV (Average Energy)	0.1 mSv to 10 Sv
SG-2 Type	M33.1.1.1 Photon Radiation	M33.1.1.1.1 $H_p(10)$	150 keV to 6.3 MeV	0.1 mSv to 10 Sv
KG Type	M33.1.1.1 Photon Radiation	M33.1.1.1.1 $H_p(10)$	16 keV to 6.3 MeV	0.1 mSv to 10 Sv
		M33.1.1.1.2 $H_p(0.07)$	12 keV to 6.3 MeV	0.1 mSv to 10 Sv
	M33.1.1.2 Beta radiation	M33.1.1.2.1 $H_p(0.07)$	200 keV to 800 keV (Average Energy)	0.1 mSv to 10 Sv
	M33.1.1.3 Neutron	M33.1.1.3.1 $H_p(10)$	0.025 eV to 0.5 eV 24 keV to 14.8 MeV	0.2 mSv to 6 mSv 0.2 mSv to 50 mSv



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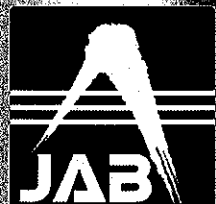
Type of Laboratory	Testing Laboratory
Name of Laboratory	Nagase Landauer, LTD Dosimetry Center
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TYPE OF DOSEMETER	CODE AND NAME OF CLASSIFICATION (3)	CODE AND NAME OF CLASSIFICATION (4)	ENERGY RANGE OF IONIZED RADIATION	RANGE OF DOSE
NG Type	M33.1.1.1 Photon Radiation	M33.1.1.1.1 Hp(10)	16 keV to 6.3 MeV	0.1 mSv to 10 Sv
		M33.1.1.1.2 Hp(0.07)	12 keV to 6.3 MeV	0.1 mSv to 10 Sv
	M33.1.1.2 Beta radiation	M33.1.1.2.1 Hp(0.07)	200 keV to 800 keV (Average Energy)	0.1 mSv to 10 Sv
	M33.1.1.3 Neutron	M33.1.1.3.1 Hp(10)	0.025 eV to 0.5 eV 24 keV to 14.8 MeV	0.1 mSv to 6 mSv 0.1 mSv to 50 mSv

Scope of Accreditation

FIELD	M33 Ionizing Radiation monitoring
CODE AND NAME of CLASSIFICATION (1)	M33.1 Personal dose measurement
CODE AND NAME of CLASSIFICATION (2)	M33.1.2 Extremity dosimeter

TYPE OF DOSEMETER	CODE AND NAME OF CLASSIFICATION (3)	CODE AND NAME OF CLASSIFICATION (4)	ENERGY RANGE OF IONIZED RADIATION	RANGE OF DOSE
R-1 Type	M33.1.2.1 Photon radiation	M33.1.2.1.1 Hp(0.07)	16 keV to 6.3 MeV	0.2 mSv to 1 Sv
R-2 Type	M33.1.2.2 Beta radiation	M33.1.2.2.1 Hp(0.07)	800 keV (Average Energy)	0.4 mSv to 1 Sv
R-3 Type	M33.1.2.1 Photon radiation	M33.1.2.1.1 Hp(0.07)	48 keV to 6.3 MeV	0.2 mSv to 1 Sv
	M33.1.2.2 Beta radiation	M33.1.2.2.1 Hp(0.07)	800 keV (Average Energy)	0.2 mSv to 1 Sv
SG-3 Type	M33.1.2.1 Photon radiation	M33.1.2.1.1 Hp(0.07)	24 keV to 1.25 MeV	0.1 mSv to 10 Sv
	M33.1.2.2 Beta radiation	M33.1.2.2.1 Hp(0.07)	800 keV (Average Energy)	0.1 mSv to 10 Sv



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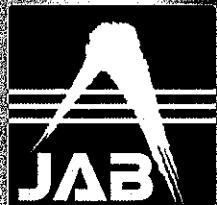
FIELD	M33 Ionizing Radiation monitoring
CODE AND NAME OF CLASSIFICATION (1)	M33.1 Personal dose measurement
CODE AND NAME OF CLASSIFICATION (2)	M33.1.3 lens of the eye dosimeter

TYPE OF DOSEMETER	CODE AND NAME OF CLASSIFICATION (3)	CODE AND NAME OF CLASSIFICATION (4)	ENERGY RANGE OF IONIZED RADIATION	RANGE OF DOSE
VL Type	M33.1.3.1 Photon radiation	M33.1.3.1.1 $H_p(3)$	16 keV to 6.3 MeV	0.1 mSv to 1 Sv
	M33.1.3.2 Beta radiation	M33.1.3.2.1 $H_p(3)$	800 keV (Average Energy)	0.1 mSv to 1 Sv
WH Type	M33.1.3.1 Photon radiation	M33.1.3.1.1 $H_p(3)$	24 keV to 6.3 MeV	0.1 mSv to 1 Sv
	M33.1.3.2 Beta radiation	M33.1.3.2.1 $H_p(3)$	800 keV (Average Energy)	0.1 mSv to 1 Sv
SG-4 Type	M33.1.3.1 Photon radiation	M33.1.3.1.1 $H_p(3)$	16 keV to 6.3 MeV	0.1 mSv to 10 Sv
	M33.1.3.2 Beta radiation	M33.1.3.2.1 $H_p(3)$	800 keV (Average Energy)	0.1 mSv to 10 Sv

Scope of Accreditation

FIELD	M33 Ionizing Radiation monitoring
CODE AND NAME OF CLASSIFICATION (1)	M33.2 Personal dose assessment

CODE AND NAME OF CLASSIFICATION (2)	CODE AND NAME OF CLASSIFICATION (3)	TYPE OF IONIZED RADIATION	REMARKS
M33.2.1 Uniform exposure to the body trunk	M33.2.1.1 Effective dose	Photon, Neutron	
	M33.2.1.2 Equivalent dose (Skin)	Photon, Beta, Neutron	
	M33.2.1.3 Equivalent dose(lens of the eye)	Photon, Beta, Neutron	
	M33.2.1.4 Equivalent dose(female abdomen)	Photon, Neutron	



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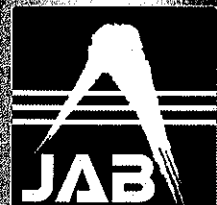
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CODE AND NAME OF CLASSIFICATION (2)	CODE AND NAME OF CLASSIFICATION (3)	TYPE OF IONIZED RADIATION	REMARKS
M33.2.2 Non-uniform exposure to the body trunk	M33.2.2.1 Effective dose	Photon, Neutron	
	M33.2.2.2 Equivalent dose (Skin)	Photon, Beta, Neutron	
	M33.2.2.3 Equivalent dose (lens of the eye)	Photon, Beta, Neutron	
	M33.2.2.4 Equivalent dose (female abdomen)	Photon, Neutron	
M33.2.3 Uniform exposure to the body trunk and extremity exposure	M33.2.3.1 Effective dose	Photon, Neutron	
	M33.2.3.2 Equivalent dose (Skin)	Photon, Beta, Neutron	
	M33.2.3.3 Equivalent dose (lens of the eye)	Photon, Beta, Neutron	
	M33.2.3.4 Equivalent dose (female abdomen)	Photon, Neutron	
M33.2.4 Non-uniform exposure to the body trunk and extremity exposure	M33.2.4.1 Effective dose	Photon, Neutron	
	M33.2.4.2 Equivalent dose (Skin)	Photon, Beta, Neutron	
	M33.2.4.3 Equivalent dose (lens of the eye)	Photon, Beta, Neutron	
	M33.2.4.4 Equivalent dose (female abdomen)	Photon, Neutron	
M33.2.5 Uniform exposure to the body trunk and lens of the eye exposure	M33.2.5.1 Effective dose	Photon, Neutron	
	M33.2.5.2 Equivalent dose (skin)	Photon, Beta, Neutron	
	M33.2.5.3 Equivalent dose (lens of the eye)	Photon, Beta, Neutron	
	M33.2.5.4 Equivalent dose (female abdomen)	Photon, Neutron	
M33.2.6 Non-uniform exposure to the body trunk and lens of the eye exposure	M33.2.6.1 Effective dose	Photon, Neutron	
	M33.2.6.2 Equivalent dose (skin)	Photon, Beta, Neutron	
	M33.2.6.3 Equivalent dose (lens of the eye)	Photon, Beta, Neutron	
	M33.2.6.4 Equivalent dose (female abdomen)	Photon, Neutron	
M33.2.7 Uniform exposure to the body trunk, extremity exposure and lens of the eye exposure	M33.2.7.1 Effective dose	Photon, Neutron	
	M33.2.7.2 Equivalent dose (skin)	Photon, Beta, Neutron	
	M33.2.7.3 Equivalent dose (lens of the eye)	Photon, Beta, Neutron	
	M33.2.7.4 Equivalent dose (female abdomen)	Photon, Neutron	



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CODE AND NAME OF CLASSIFICATION (2)	CODE AND NAME OF CLASSIFICATION (3)	TYPE OF IONIZED RADIATION	REMARKS
M33.2.8 Non-uniform exposure to the body trunk, extremity exposure and lens of the eye exposure	M33.2.8.1 Effective dose	Photon, Neutron	
	M33.2.8.2 Equivalent dose (skin)	Photon, Beta, Neutron	
	M33.2.8.3 Equivalent dose (lens of the eye)	Photon, Beta, Neutron	
	M33.2.8.4 Equivalent dose (female abdomen)	Photon, Neutron	

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