

TECHNICAL INFORMATION

TENTATIVE

Oct. 2024

R10560 with taper ratio

For calorimeter experiment,

25 mm (1 inch) Diameter, Bialkali photocathode, 8-stage dynodes,

Head-on PMT assembly

GENERAL

Parameter		Description / Value	Unit
Spectral Response		185 to 650	nm
Wavelength of Cathode Radiant Sensitivity Response		420	nm
Window Material		UV glass	-
Photocathode	Material	Bialkali	-
	Minimum Effective Area	φ 22	mm
Dynode Structure / Number of Stage		Linear Focused/ 8	-
Base		-	-
Suitable Socket		-	-
Operating Ambient Temperature		TBD	°C
Storage Temperature		TBD	°C

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter	Value	Unit
Supply Voltage (Between Anode and Cathode)	-1300	V
Average Anode Current	0.1	mA

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	70	95	-	μA/lm
	Blue Sensitivity Index	9	11	-	-
Anode Sensitivity	Luminous (2856K)	-	9.5	-	A/lm
Gain		Figure 1			-
Anode Pulse Rise Time		Figure 2			ns
Anode Pulse width		Figure 3			ns
Transit Time Spread (FWHM)		Figure 4			ps
Pulse Linearity (+/- 2 % deviation)		-	20	-	mA
Magnetic field characteristics		Figure 5			%

NOTE : Anode characteristics are measured with a voltage distribution ratio and supply voltage shown below.

: These data were obtained from small number of samples, that is not enough to establish the final specs.

STANDARD VOLTAGE DIVIDER AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	P
Ratio	6	1.5	1.5	1	1	1	1.5	2	1.5	

Supply Voltage: -900 V, K: Cathode, Dy: Dynode, P: Anode

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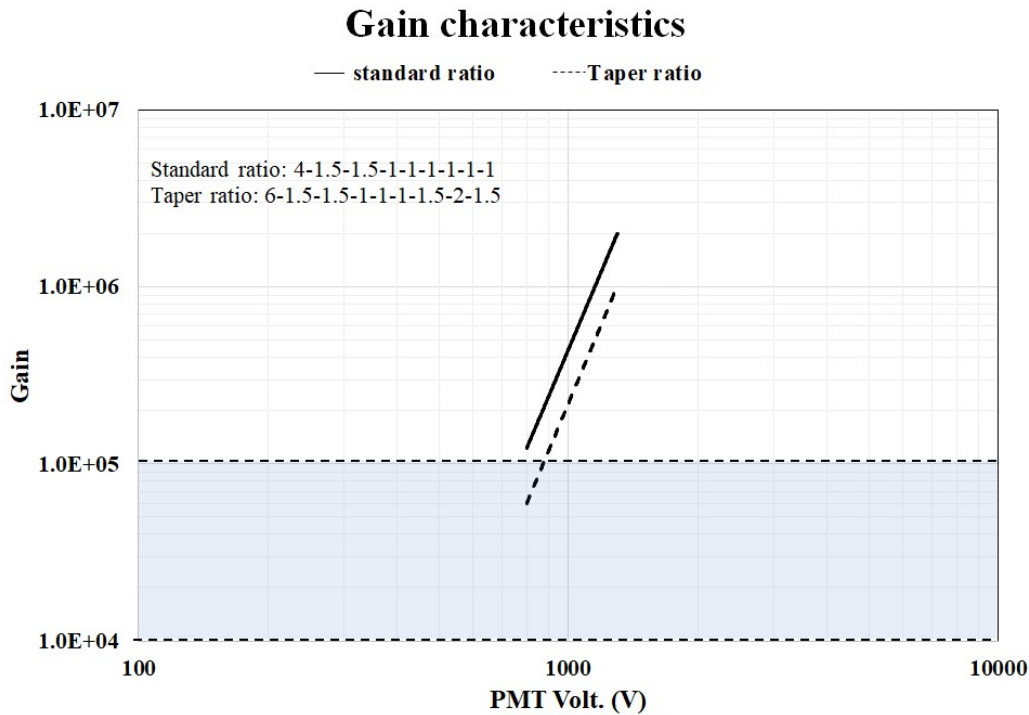


Figure 1: Gain characteristics

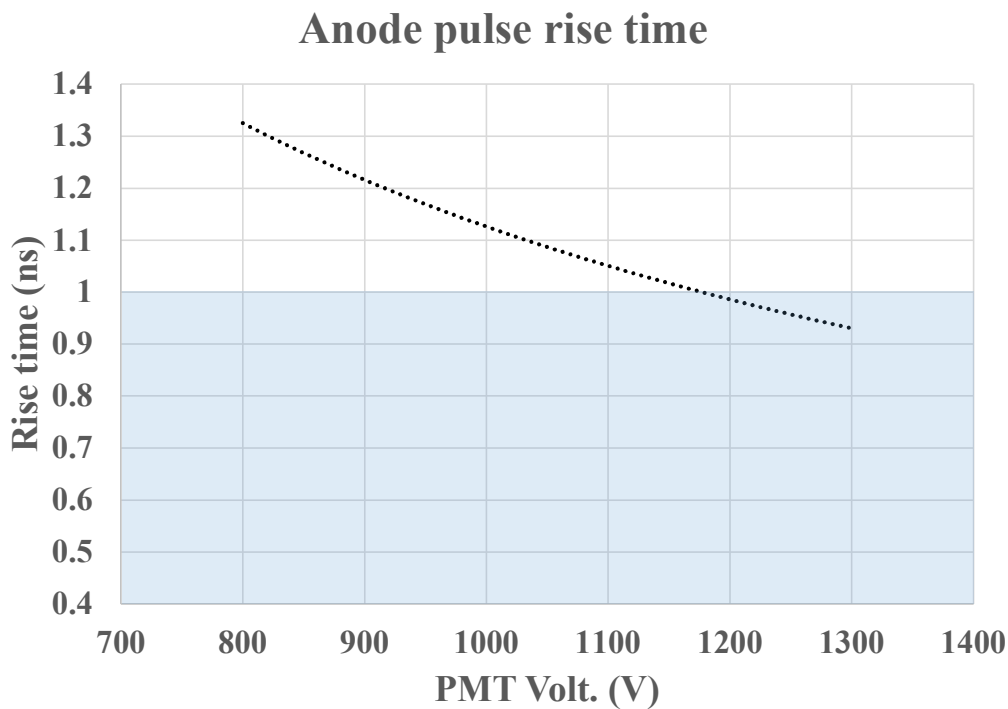


Figure 2: Anode rise time with taper ratio

Anode pulse width

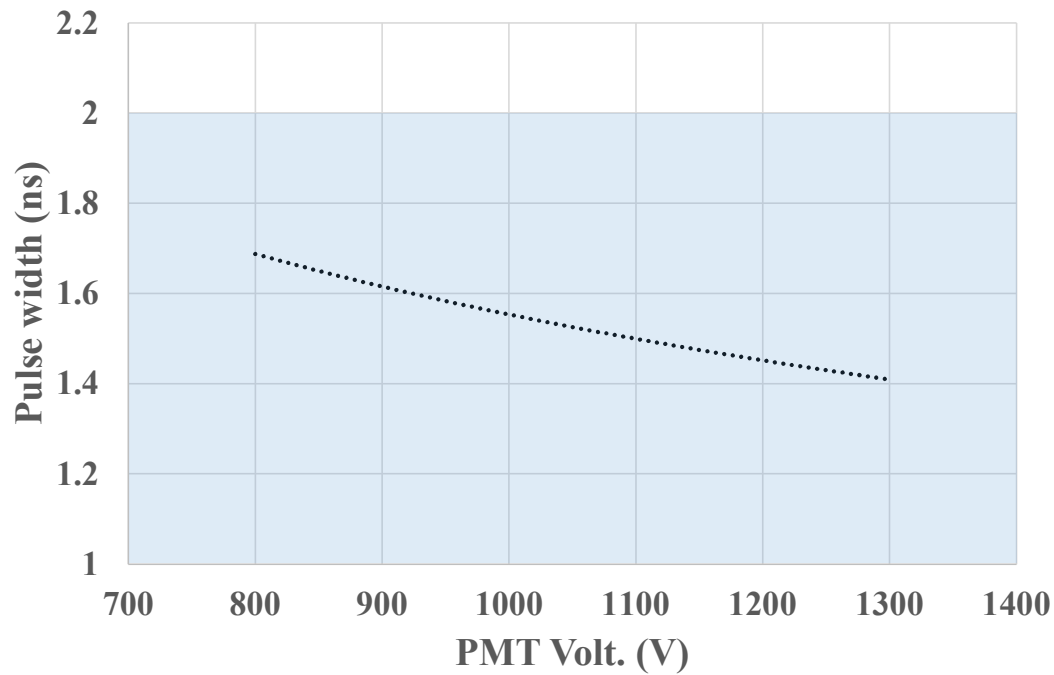


Figure 3: Anode pulse width with taper ratio

Transit time spread

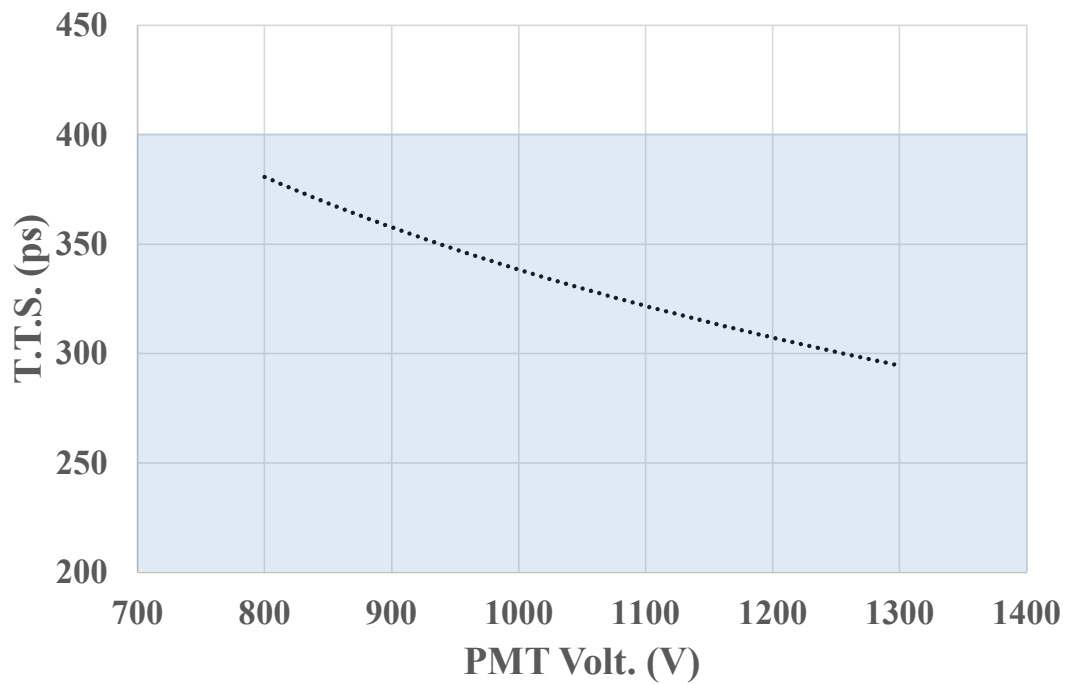


Figure 4: Transit time spread with taper ratio

Magnetic field characteristics

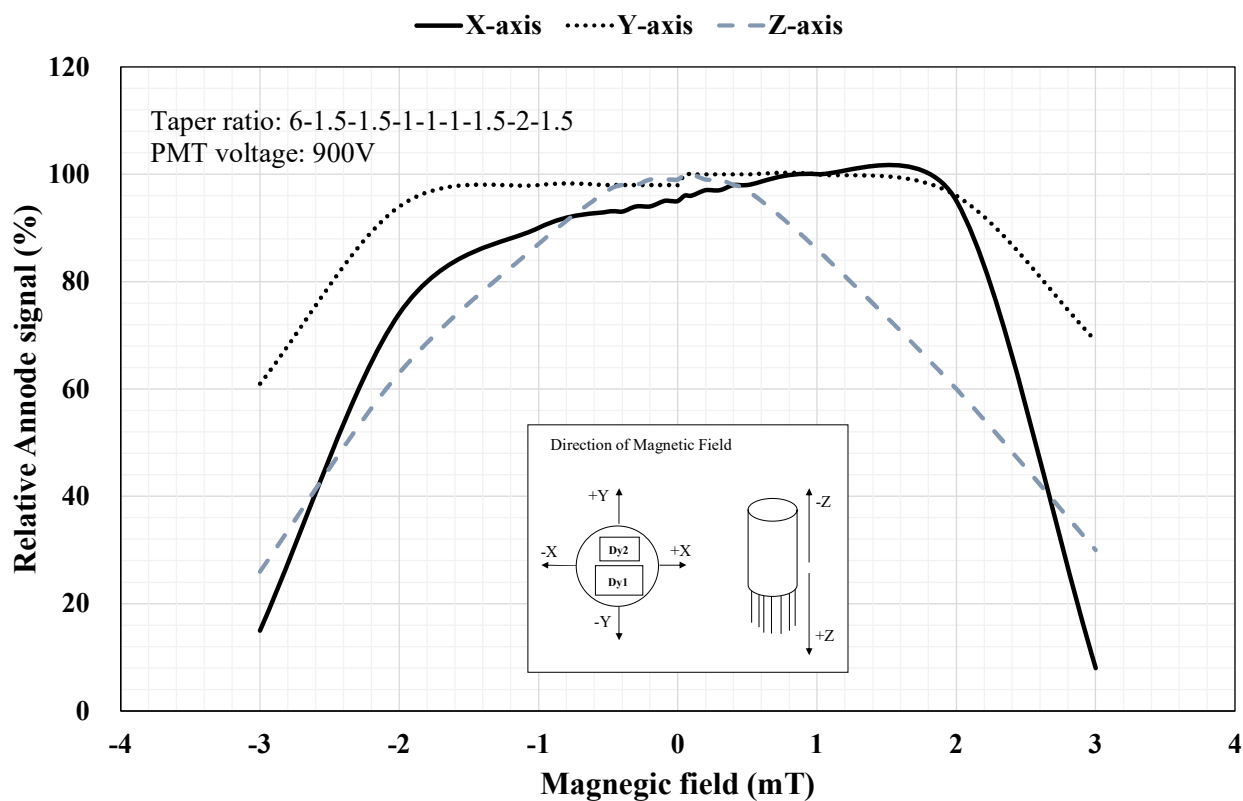
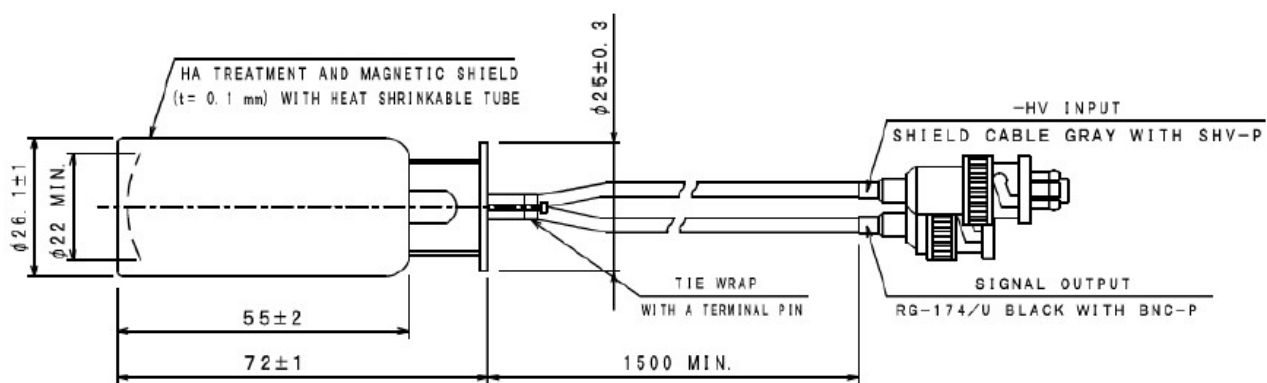


Figure 5: Magnetic field characteristics



UNIT : mm

Figure 6: Dimensional Outline

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NOTES

The material in the R10560 contains Copper-Beryllium (CuBe) Alloy. Please follow the applicable regulations regarding disposal of hazardous materials and industrial wastes in your country, state, region or province.

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