

HIGH ENERGY ACCELERATOR AREA MONITOR

PLASMA CHAMBER®

高能加速器区域监测器，等离子电离室

PLASMA-ACC SERIES

Model – PLASMA-ACC - Installed

Model – TBM-ACC-X - Portable

FEATURES: 特点

- HIGH MeV BETA, GAMMA, X-RAY, PHOTONS, POSITRONS, PROTONS, MESONS
高能 β , γ , x, 光子, 正电子, 质子, 介子
- WALL MOUNT – PLASMA-ACC
壁装型-PLASMA-ACC
- READS UP TO 50 mR/SECOND (other ranges available)
显示50mR/秒 (可选其它量程)
- DIGITAL READOUT: 6 digit-rate, DOSE RATE
数字读数: 6位数剂量率
- WALL MOUNT BRACKET – PLASMA-ACC
壁装卡托
- PORTABLE – TBM-ACC-X
便携式-TBM-ACC-X
- FLAT RESPONSE - SEALED PLASMA CHAMBER®
平坦响应-密封等离子电离室
- FAST RESPONSE
快速响应
- ALARMS: AUDIO / VISUAL
声光报警
- AC OPERATION – PLASMA-ACC
壁装型号使用AC电源
- BATTERY BACK UP – TBM-ACC-X
便携式带备用电池
- IP 64
- CE MARK



PULSE-ACC PLASMA CHAMBER
FIXED



PULSE-ACC ~ SINGLE DETECTOR
LOCAL READOUT
WALL MOUNT - FIXED

AREA MONITOR FOR ACCELERATORS

UNIQUE PLASMA CHAMBER® PROVIDES

MORE ACCURATE RESPONSE

HIGH MeV GAMMA / X-RAYS / PHOTONS / PARTICLES.

区域监测器用于加速器，独特等离子电离室测量高能 γ / x / 光子 / 粒子
响应更精确



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

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Divisions of  US NUCLEAR CORP

TICKER UCLE

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**TBM-ACC-X
PORTABLE**
便携式

**PULSE-ACC-X
FM-9W MULTI-DETECTOR
READOUT
WALL MOUNT – FIXED**
壁装固定式显示



APPLICATION: 应用

Use in Accelerator & Linac facilities for high energy density from High MeV Gammas or X-Rays and from Nano Second Pulsed X-Rays / Photons.
用于加速器&LINAC电子直线加速器检测来自高能伽马/X射线和纳秒脉冲x-射线/光子的高能辐射。

PHOTON PLASMA DETECTOR FOR MEDICAL, INDUSTRIAL & GOVERNMENT ACCELERATORS WITH X-RAYS OR GAMMAS OVER 2 MeV ENERGY.

光子等离子探测器用于医疗/工业/政府加速器探测 X 射线或 2MeV 以上能量的伽马

WHY IS THIS CAPABILITY NEEDED? 为什么需要这种电离室?

- Accurately measures high energy particles, x-rays and events. The 3 MeV and higher X-Rays and Gammas have so much energy that they create dense plasma inside the plasma chamber. The plasma quickly collapses and disappears & the energy turns into minor heat and turbulence.

精确测量高能粒子，X 射线及事件。3MeV 及以上 X 射线和 γ 能量如此之高以至于在等离子室产生浓厚等离子，等离子快速消散、消失，其能量转换成微热及离子流。

- The PLASMA-ACC Series accurately collects and displays the amount of energy in the dense plasma before it collapses. Other brands and models do not.

PLASMA-ACC 系列在等离子消散前精准地收集其能量并进行显示，而其它品牌及型号则不能做到。



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PLASMA-ACC SERIES		
MODEL TYPE 类型	SURVEY METER PORTABLE 便携式巡测仪	AREA MONITOR FIXED 固定式区域监测器
	TBM-ACC-X	PLASMA-ACC
POWER 电源	BATTERY 电池	AC
MULTIDETECTOR SYSTEM 多探头系统	NO 无	YES 有
CENTRAL HUB (FM-9W) 中央集成	N/A 无	YES 有
WEIGHT - FM-9W FM-9W 电子学重量	N/A 不适用	3 LBS 3 磅
WEIGHT 重量	2.9 LBS 2.9 磅	1.5 LBS 1.5 磅
WALL MOUNT 壁装式	NO 否	YES 是
ALARM 报警	NO	YES
OVER RANGE INDICATOR 过量程指示	YES 有	YES 有
LOCAL DISPLAY 本地显示	YES 有	OPTIONAL 可选
ULTRA LOW ENERGY WINDOW 极低能量窗	STANDARD 标准	AVAILABLE 可选
HANDLE 手柄	YES 有	NO 无

RESPONSE: 响应

The **PLASMA-ACC Series** are the **ONLY** accelerator plasma chambers® that will detect accelerator produced pulses and radiation. It will accurately measure the integrated Total Dose from high energy radiation and events over a wide range of pulse widths & repetition rates.

PLASMA-ACC系列是唯一加速器等离子电离室，探测加速器产生的脉冲和辐射，可精确测量高能辐射总剂量及事件，宽范围脉宽和重复率



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Model – TBM-ACC-X - Portable

DESCRIPTION: 描述:

The **PLASMA-ACC** consists of a plasma chamber coupled to a Digital display that reads out directly the average mR/h or total mR. and is a fixed mount detector with electronics.

此系统由等离子电离室与直接读出mR/h或mR单位的数字显示组成，为固定式探头带电子学

The **TBM-ACC-X** consists of a plasma chamber with read out in a portable hand held instrument.

此系统由等离子电离室和读数器组成，为便携式/手持式设备

SPECIFICATIONS: 规格

PULSED X-RAY RESPONSE

MEASURES RADIATION DELIVERED AT 10^5 R/sec FOR THAT 20 NANO SECOND PERIOD

脉冲X射线响应，20纳秒内测量 10^5 R/秒的辐射

Total Dose:	1 mR to 100 R in a single range (8 digits)
总剂量:	单量程1 mR - 100 R (8位数)
Dose Rate Range:	1 mR/hr to 10,000 mR/hr (6 digits) or 10 mR/h to 100,000 mR/h
剂量率量程:	
Pulse Width Range:	20 nano-seconds to continuous emission
脉宽:	20纳秒到连续发射
Repetition Rates:	Single pulse to 1000/second
重复率:	单个脉冲到1000/秒
Wide Energy Range:	2 KeV to 10 MeV (Higher energy available for both models)
宽能量范围:	2 KeV -10 MeV (两个型号均可选择更宽能量范围)
High Dose Limits:	Per customer specification*

User should inform TA of highest-expected: 10-second, total-dose exposure

***Note:** TA also makes ion chambers that measure up to 10 million R/hr

剂量上限: 用户应通知TA所期望的探测上限: 10秒, 总剂量。

注: 注: TA公司也生产可测量到 10^6 R/hr的TBM电离室

Detector:	Sealed Plasma chamber: TBM-ACC-X; PLASMA-ACC-X
探测器:	两个型号均为密封电离室

TBM-ACC-X – Portable 便携式

Cap:	Removable protective cap
盖子:	可拆卸保护盖



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Window:	0.5 mg/cm ² Kapton.
窗:	
Local Readout:	LCD 8 digits with capacity backlight
读数显示:	LCD8位数带背景灯
Count Lamp:	Green Flashing LED
计数指示灯:	绿色闪烁LED
Over-Range:	Red LED Indicator
过量程:	红色LED指示灯
Power:	6 AA Batteries
电源:	6节AA电池

Dimensions: 5-1/2" x 3-1/2" x 8" including handle.

尺寸: 包括把手5-1/2" x 3-1/2" x 8"

Weight: 2.9 lbs. complete with batteries.

重量: 2.9磅, 带电池

PLASMA-ACC – Installed / Wall Mounted 壁装式/安装式

OPTIONAL:	可选
Cap:	Removable protective cap
帽:	可拆卸保护帽
Window:	0.5 mg/cm ² Kapton.
窗:	

PLASMA-ACC - Read Out Electronics: FM-9W – Multi-detector Hub System

读数显示器: FM-9W-多探头集成系统

Engineering Units:	User can input correct conversion factor and change to any units.
单位显示:	用户可输入正确因子转换成任意单位
Controls: Front Panel:	On-Off, Alarm-mute, Rate, Integrate, Reset, Digital
控制前板:	开-关, 报警-静音, 计数率, 总计数, 重设, 数字化
Recessed or Internal:	Discriminator level, high voltage. Other adjustable settings.
内置:	阈值, 高压, 其它可调设定
Input Sensitivity:	Adjustable from less than 1 millivolt to 100 millivolt Anti-saturation and Dead-time Corrections are available.
输入灵敏度:	可调 1 毫伏-100 毫伏, 可选防饱电路和和死时间修正



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Alarm Audio & Visual:	2000 Hz audio tone with Audio “mute” switch + RED LIGHT High current relay. 0-100% of full scale.
声光报警:	2000 赫兹带静音开关，红灯，大电流继电器，全量程
Alarm Set Point:	User settable to any point on detector range.
报警设定:	探测范围内用户任意设定
Serial Output:	Two way USB standard, Ethernet optional.
串口输出:	两路 USB，可选以太网
Power:	105-125 volts, 50-60 Hz (220 V optional)
电源:	
Construction:	Gasketed aluminum case.
外壳:	密封铝外壳
Cables:	User Specified
数据线:	用户明确
OPTIONAL:	可选
Read Out: 读数显示	Local – Single Detector 本地-单电离室
Power: 电源	AC 110/220

ELECTRONICS - FM-9W - DIMENSIONS & WEIGHT: 电子学尺寸与重量:

13.5” W X 11” H X 3.6” D (25 cm x 18 cm x 10cm), excluding probe holder, feet, and knobs.

不包括探头托，垫脚和把手 25 cm x 18 cm x 10cm

3 pounds (1.4 kg) including batteries and hardware, excluding probe.

包括电池和硬件，不含探头，重 1.4kg

WEIGHT – PLASMA DETECTOR 等离子探测器

1.5 LBS

Options: 可选

Other Rate or Integrated Ranges 其它量程计数率与总计数

Other Readout Units such as Si units: Sv and Sv/h. 其它读数单位如Sv 和 Sv/h



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