



L3HARRIS®
FAST. FORWARD.

PULSERAD™ MODEL 43710A FLASH X-RAY (FXR) SYSTEM

The 1 MV system is the most powerful standard system.

The 1 MV system belongs to a family of four Flash X-ray Systems rated at 150 kilovolt, 300 kilovolt, 450 kilovolt, and 1 megavolt, which provide successively greater penetration and are capable of operating at increasing film-to-source distances (FTSD). An X-ray tube is used in the high voltage pulse generator in the basic system configuration. Remote single and dual tubehead operation (options 32 and 35) is available with the purchase of optional equipment. Remote operation protects equipment from damage by fragments or intense shock waves.

X-ray tubes that are available in 5mm (standard) (PN: 5081-9551) or 2mm (PN: 5081-9590). All hardware required for system operation is furnished with the basic system. This includes the control equipment, housed in a 1.8-meter (6 feet) cabinet, the X-ray generator and a 9-meter (30 feet) interconnecting input cable bundle.

OPTIONS	
001	Add-on 1MV channel
008	220 Vac, 60-60 Hz Operation
020	Added length console-to-pulser cable
032	Single remote tubehead
034	Added length tubehead cable
035	Dual remote tube heads
Special	Demountable tube with variable source size – contact factory

SINGLE CHANNEL SYSTEM (STAND ALONE SYSTEM)
Control console cabinet <ul style="list-style-type: none"> AC power panel with surge protector High voltage power supply Dielectric gas pressurization controls XCON (X-ray controller)
Trigger transformer
Trigger pendant
FXR pulser
9 m (30 ft) control cable and air line bundle
X-ray tube
Resistive load

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KEY FEATURES

- > Peak output voltage: 1 MV
- > Peak current: 6000 A
- > Dose at 1 m: 55 mR
- > Dose at 1 m thru 40 mm steel: 5 mR
- > Standard spot size, X-ray tube: 5 mm
- > X-ray pulse width (FWHM)
- > Pulser diameter: 20 in (550 mm)
- > Pulser length: 55 in (1.4 m)
- > Pulser weight: 600 lbs (270 kg)

An X-ray Controller (XCON) comes standard and is required for the operation of a flash X-ray system. The XCON contains both a delayed trigger for the X-ray pulser and a pulsed event timer to monitor the actual firing time of the pulser.

XCON features include:

- > A firing time delay variable up to 1 second in 10-nanosecond increments
- > Delay time setting and pulsed event time monitoring can be accomplished locally or with the user's PC via an Ethernet connection

Customer furnished equipment is limited to:

- > Regulated compressed dry air and regulated sulfur hexafluoride (SF6)
- > AC power (120 Vac, 60 hertz standard)
- > Up to three additional 1 megavolt X-ray generators, (option 001) may share the same control cabinet and power supply to minimize cost and floor space
- > Option 008 permits operation at a 220 Vac, 50-60 Hz line voltage

SYSTEM SELECTION			
System	FTSD	Penetration in AL	Penetration in Steel
150 kV	10 ft	0.1 in	N/R
300 kV Single	10 ft	1.2 in	0.2 in
300 kV Dual	10 ft	0.7 in	0.1 in
450 kV Single	10 ft	2.7 in	0.6 in
450 kV Dual	10 ft	1.7 in	0.4 in
450 kV Super	10 ft	3.2 in	1.0 in
1 MV	10 ft	4.0 in	1.4 in
1 MV Super	10 ft	5.2 in	1.8 in

PulseRad™ Model 43710A Flash X-Ray (FXR) System

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Nonexport-controlled Information

L3Harris Technologies is a Trusted Disruptor for the global aerospace and defense industry. With customers' mission-critical needs always in mind, our 46,000 employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains.



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