

**SPECIFICATION SHEET**

**JFW MODEL 50P-2089**

**4 CHANNEL USB CONTROLLED SOLID STATE  
PROGRAMMABLE ATTENUATOR**

JFW Industries, Inc.  
Phone: 317-887-1340  
sales@jfwindustries.com  
www.jfwindustries.com

Frequency Range	200-6000 MHz
Impedance	50 Ohms nominal
Attenuation Range	0-95 dB in 1 dB steps
Attenuation Steps	1, 2, 4, 8, 16, 32 and 32 dB
VSWR	2.0:1 maximum
Attenuation Accuracy (guaranteed monotonic)	$\pm 0.50$ dB            1-7 dB $\pm 1.00$ dB            8-11 dB $\pm 1.25$ or 4%        12-95 dB (whichever is greater)
Insertion Loss	8.3 dB maximum 3.3 dB typical @ 200 MHz 3.5 dB typical @ 500 MHz 4.4 dB typical @ 2000 MHz 7.9 dB typical @ 6000 MHz
Isolation (channel-to-channel)	> 120dB typical
RF Input Power	+27 dBm (operating) +33 dBm (no damage)
Switching Speed	4 microseconds maximum (after command is received and processed) (1 millisecond typical processing time)
DC Supply	+5 Vdc @ 400mA typical (Powered via USB)
Control	USB control (CDC-ACM Serial Device)
Test Software (Microsoft .NET 4.0+) (Windows Vista or greater)	The included JFW software allows control of multiple USB devices.  Unit is also compatible with Python, C#, PuTTY (any development tool with COM Port interfacing).
DC Connector	USB-C 2 meter USB A Male to USB-C Cable Included
RF Connector	SMA female
Operating Temperature Range	-40°C to +85°C

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Physical Size

See outline drawings 092-9250



ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
	02/28/2024		CLK 02/28/2024				
33438	06/27/2024	A	CLK 06/27/2024				
34482	12/18/2025	B	BAC 12/18/2025				