

SPECIFICATION SHEET

JFW MODEL 50PSA-101-XX

PROGRAMMABLE PHASE SHIFTER ASSEMBLY

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

Configuration Individually controlled solid-state programmable phase shifters. Number of phase shifters can be selected from 1 to 8 phase shifters.

Frequency Range 1500-3000 MHz

Phase Range 0-358.6° in 1.4° steps

Method of Operation To set a phase shifter in this assembly to a desired phase with maximum accuracy, a center frequency must first be set with a command.

After the center frequency and phase are then set, any subsequent phase settings will be at the original center frequency until a new center frequency is set.

Each phase shifter in the assembly can be set to a different center frequency and/or phase.

Enclosure Type 19 inch rack mount
2RU high (for 1-8 phase shifters)

Impedance 50 Ohms nominal

Startup/Default States (configurable) 1500 MHz / 0° phase (see PHASESHIFTER command)
DHCP enabled (see NET command)
4 Ethernet users (see NET command)
Prompts off (see PROMPT command)

All of these default settings can be changed by user. Unit can be configured for up to 12 Ethernet users.

VSWR 2.0:1 maximum
< 1.5:1 typical

Phase Accuracy ± 3° maximum @ selected frequency
< 1° typical @ selected frequency

< 2° typical (40 MHz bandwidth)
< 4° typical (80 MHz bandwidth)
< 10° typical (200 MHz bandwidth)

Ex: If frequency set to 2000 MHz, phase settings will typically be within 2° of that setting from 1980-2020 MHz, or 4° from 1960-2040 MHz)

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Insertion Loss	10 dB maximum 9.0 dB typical @ 1500 MHz 7.0 dB typical @ 2000 MHz 6.0 dB typical @ 3000 MHz
RF Input Power	+25 dBm average +28 dBm no damage
Switching Speed	1 microsecond typical (after command is received and processed) (3 milliseconds typical processing time)
Manual Control	20-Button Keypad and LCD display (IP Address configurable via keypad) (Net mask configurable via keypad) (Gateway configurable via keypad) (Baud rate configurable via keypad)
Remote Control	Ethernet (DHCP, TCP/IP, 10/100, up to 12 users) RS-232 (up to 115200 Baud)
Remote Commands	Phase Shifter Control Commands: Phase Shifter, Set Phase Shifter Phase, Set Phase Shifter Frequency, Read Phase Shifter, Set All Phase Shifter Phase, Set All Phase Shifter Frequency, Read All Phase Shifter, Fade Phase Shifter System Commands: Help, Identification, Store, Recall, Pause, Net, Serial, Close, Disconnect, MOTD, Date, Message, Restrict, IDENT, Name, Show Users, Reboot, Uptime, Prompt
RF Connector	SMA or N female
Operating Temperature Range	0°C to +50°C
AC Supply	100-240 VAC @ 47-63 Hz
Outline Drawing Numbers	092-9228 (N female, 1-8 phase shifters) 092-9227 (SMA female, 1-8 phase shifters)

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Example Model Numbers	50PSA-101-01	SMA	(1 phase shifter)
	50PSA-101-02	SMA	(2 phase shifters)
	50PSA-101-03	SMA	(3 phase shifters)
	50PSA-101-04	SMA	(4 phase shifters)
	50PSA-101-05	SMA	(5 phase shifters)
	50PSA-101-06	SMA	(6 phase shifters)
	50PSA-101-07	SMA	(7 phase shifters)
	50PSA-101-08	SMA	(8 phase shifters)
	50PSA-101-01	N	(1 phase shifter)
	50PSA-101-08	N	(8 phase shifters)



ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
	12/10/2018		CLK 12/10/2018				
29219	12/12/2018	A	CLK 12/12/2018				
29234	12/19/2018	B	CLK 12/19/2018				