

RF Switches, Amplifiers, and Distributions

Silver Palm Technologies specializes in high-performance, high-dynamic range products that maximize system performance. Flexible RF/IF distribution products range from highly specialized custom components to off-the-shelf solutions to meet all of your system needs. Key product features include:

- Frequency coverage from DC to 6 GHz
- Non-blocking multiple input, multiple output switching
- Single input, multiple output distribution
- Flexible packaging including rack-mount and stand-alone modular solutions
- Front panel, serial, USB, and Ethernet control
- Variable gain settings
- Highly linear performance suitable for direct digitization.



SP-2313 Antenna Switch

“N” to One Switches

Silver Palm Technologies offers small modular customizable antenna switches for a variety of applications. These include low SWAP modules for vehicular DF systems or rack mount equipment for test systems.

Model #	Frequency Rng. (MHz)	In/Out	Packaging	Control	Switch Type	Options
SP-2312	100–500	8/1	3" x5.8" x 1.6"	Serial	Commutating DF	Integrated GPS
SP-2313	100–3000	8/1	3" x5.8" x 1.6"	Serial	Commutating DF	Integrated GPS
SP-2314	100–1000	8/1	3" x5.8" x 1.6"	Serial	Commutating DF	Integrated GPS
SP-4206	0.3–3000	16/1	1U 19" rack	Ethernet	Phase Matched	

Signal Distribution Units

These units have signal and overload indicators and are controllable via Ethernet or the front panel. They offer configurable frequency ranges for optimal performance.

Model #	Frequency Rng. (MHz)	In/Out	Packaging	Control	Gain
SP-4201	5–100 MHz	Quad 1/4	1U 19" rack	Ethernet	-10 to +10 dB
SP-4202	5–100 MHz	Dual 1/6	1U 19" rack	Ethernet and front panel	-10 to +10 dB
SP-4203	5–210 MHz or 25–1500 MHz	Quad 1/4	1U 19" rack	Ethernet and front panel	-10 to +20 dB
SP-4203-1	5–210 MHz or 25–1500 MHz	Quad 1/4	1U 19" rack	Ethernet and front panel w/ gain readout	-10 to +20 dB
SP-5000	DC–100	Dual 1/6	1U 19" half-rack	Front panel	-10 to +10 dB

Nonblocking RF Switches

Silver Palm Technologies offers switches with multiple inputs and outputs for RF Distribution. The switches incorporate a proprietary linear amplifier design for high-dynamic range and provide a nominal gain of 0dB.

Configurations include:

- HF 4x8, 8x16 non-blocking switch optimized for .5 MHz to 300 MHz
- V/U 2x4, 4x8, 8x16 non-blocking switches for 20 MHz to 6000 MHz



SP-4302 4x8 RF Switch

Model #	Frequency Rng (MHz)	In/ Out	Packaging	Control	Switch Type
SP-4207	0.5–300	4/8	1U 19" rack	Ethernet	Non-blocking
SP-4208	0.5-300	4/8	1U 19" rack	Ethernet w/Indicators	Non-blocking
SP-4301	450–3000	4/8	1U 19" rack	Ethernet	Non-blocking
SP-4302	450–3000	4/8	1U 19" rack	Ethernet w/Indicators	Non-blocking
SP-4304	20–3000	4/8	1U 19" rack	Ethernet	Non-blocking
SP-4305	20–3000	4/8	1U 19" rack	Ethernet w/Indicators	Non-blocking
SP-4306	20–6000	4/8	1U 19" rack	Ethernet	Non-blocking
SP-4307	20–6000	4/8	1U 19" rack	Ethernet w/Indicators	Non-blocking
SP-4316	20-6000	8/16	2U 19" rack	Ethernet, FP optional	Non-blocking
SP-4342	20–6000	2/4	5.8" x 1.8" x 7.8"	Ethernet/Serial	Non-blocking



RF Distribution Components

High performance RF components used in Silver Palm products are available in compact packaging. These components are powered from a single 5 VDC supply and offer broad frequency coverage with high dynamic range and low noise figure.

SP-4709
Multicoupler

Model #	Frequency Rng. (MHz)	Function	Gain (dB)	NF (dB)	OIP3 (dBm)	OIP2 (dBm)	Packaging
SP-4707	20–4000	Balanced Amplifier	12.5	3	+42	+65	2.8" x 1.8" x .6"
SP-4709	20–4000	4-Way Multicoupler	0	4.5	+25	+50	3.3" x 3.5" x .6"
SP-4710	20-4000	8-Way Multicoupler	0	4.5	+25	+50	6.0" x 4.0" x .8"

Multicoupler Frames

Silver Palm Technologies offers a number of Multicoupler frames to hold and power the SP Multicoupler modules. Each of these frames accept AC power and provide the DC power needed for the modules. Many of these frames also supply bias power on the RF input connector for tower mounted equipment.



SP-4320 Frame

Model #	Multicouplers	Packaging	Control	Features
SP-4320	1 or 2 SP-4709 1:4	1U Rack 10" deep	Ethernet or RS-232	Fiber Control and Power for SP-4711
SP-4321	1 or 2 SP-4710 1:8	1U Rack 10" deep	n/a	Holds one or two SP-4710 8-way couplers
SP-4322	1 or 2 SP-4709 1:4	1U Rack 10" deep	Ethernet or RS-232	Fiber Control for SP-4711 and DC power for SP-1394
SP-4323	1 or 2 1:8 Multicouplers	1U Rack 20" deep	Ethernet	Adjustable gain control per channel and power for SP-47xx TMAs

Tower-Mount Low-Noise Amplifiers

Silver Palm Technologies offers a line of customizable, high-performance Low-Noise Amplifiers in weather-proof housings for tower mount applications. These Tower Mount Amplifiers provide low noise figure, high dynamic range and allow optimized gain control to match the downlink.



SP-4711-2 Dual Band LNA

Model #	Frequency Bands (MHz)	Chan #	Inputs per Channel	Packaging	Controls	Gain (dB)
SP-4711-2	230-390 or 390-660 or 700-1000 and 1700-2700	2	1	8" x 10" x 4"	Switches Inside Unit or Fiber Re- mote	-8 to +20
SP-4714	100-6000	1	1	8" x 10" x 4"	Switches In Unit	-5 to +20
SP-4717	100-600 700-1000 1700-2700 3700-6000	2	4, 1 per Band	10" x 12" x 5.3"	Switches Inside Unit	-8 to +22

For more information, visit www.silverpalmtech.com, e-mail info@silverpalmtech.com, or call 301-874-0065.