

Electrical Phase Shifters, SKP Series



FEATURES:

- ◆ Frequency coverage: 2 to 18 GHz
- ◆ Digital and analog controlled
- ◆ Wide bandwidth
- ◆ Standard temperature range: -10 to +60 °C

APPLICATIONS:

- ◆ Radar systems
- ◆ System integrations
- ◆ Test instrumentations

DESCRIPTION:

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SKP series electrical phase shifters are GaAs PIN diode based phase shifters. The phase shifters are offered to cover the frequency range from 2 to 18 GHz. There are two types of phase shifters, namely digital and analog controlled. The analog controlled phase shifters can control the signal's phase continuously to cover 0 to 360°, but digital controlled phase shifter can only offer discrete phase shifts, such as 180°, 90°, 45°, 22.5° and 11.25° etc. according to the control bit settings. Catalog models focus on addressing specific operation frequencies and package styles, while custom designed models are available to meet customers' unique application needs.

CATALOG MODELS (Digital Controlled):

Model Number	Frequency Range (GHz)	Insertion Loss (dB)	Minimum Phase Shifting	Control Accuracy (°)	Control Bits	Bias V / I (V / mA)	VSWR	Outline
SKP-0230630836-SFSF-D1	2.0 to 6.0	8.0	360°	± 7	4	12/100	2.0:1	KP-DC
SKP-0430830836-SFSF-D1	4.0 to 8.0	8.0	360°	± 8	4	12/100	2.0:1	KP-DC
SKP-0831231036-SFSF-D1	8.0 to 12.0	10.0	360°	± 5	4	12/100	2.0:1	KP-DC
SKP-0931030836-SFSF-D1	9.0 to 10.0	8.0	360°	± 5	6	12/100	1.5:1	KP-DC
SKP-0631831436-SFSF-D1	6.0 to 18.0	14.0	360°	± 12	4	12/100	2.8:1	KP-DC
SKP-0631830936-SFSF-D1	6.0 to 18.0	9.0	360°	± 11	5	12/100	2.0:1	KP-DC

CATALOG MODELS (Analog Controlled):

Model Number	Frequency Range (GHz)	Insertion Loss (dB)	Phase Shifting Range	Control Voltage Range (V)	VSWR	Outline
SKP-0230630836-SFSF-A1	2.0 to 6.0	8.0	0 to 360°	0 to 12.0	2.0:1	KP-AC
SKP-0430830836-SFSF-A1	4.0 to 8.0	8.0	0 to 360°	0 to 12.0	2.0:1	KP-AC
SKP-0831231036-SFSF-A1	8.0 to 12.0	10.0	0 to 360°	0 to 12.0	2.3:1	KP-AC
SKP-0631831436-SFSF-A1	6.0 to 18.0	14.0	0 to 360°	0 to 12.0	2.5:1	KP-AC

CUSTOM DESIGNED MODELS:

Sage Millimeter's custom designed electrical phase shifter model numbers are configured per following format. Customers may refer to the format and specify their own model numbers accordingly when placing the order.

SKP- F1N F2N IL DD - CI CO - XY

F1N is the start frequency in MHz x 10N. For example: 6.8 GHz = 682

F2N is the stop frequency in MHz x 10N. For example: 9.8 GHz = 982

IL is the insertion loss in dB. For example: 10 dB = 10

DD is the minimum phase shifting in 10 degrees. For example: 360 degrees = 36

CI is the input connector type. For example: SMA(F) = SF

CO is the output connector type. For example: SMA(M) = SM

X: "A" is analog phase shifter and "D" is for digital phase shifter.

Y is for factory reserve.

Example: SKP-6829820618-SFSF-D1 is a custom designed electrical phase shifter with RF frequency range of 6.8 GHz to 9.8 GHz, insertion loss of 6.0 dB and minimum phase shifting 180°. The input and output of the RF connectors are SMA(F) connectors. It is a digital phase shifter. "1" is a factory assigned sequential number.