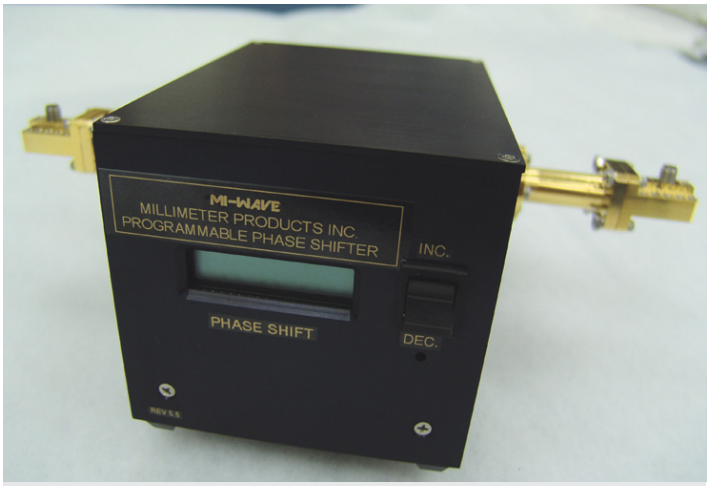

Description

Mi-Wave has developed a new motorized rotary vane phase shifter which is available in W/G bands from 18.0 to 170 GHz. The 529 Series is a computer controlled version of Mi-Waves' standard direct reading phase shifter and features a 0° to 360° range with 0.5 degree resolution. IEEE-488 & USB avialable.

- *High Accuracy*
- *Digital Readout*
- *Low Insertion Loss*
- *Computer Controlled*
- *Precision Construction*
- *Full Waveguide Bands*

The phase shifter is controlled by a precision stepping motor and all electronics required to drive the motor are contained within the phase shifter housing. Custom microprocessor-based electronics translate the desired phase shifter setting into the required motor position and provide the proper drive signals for the motor.

Motor speed is ramped up and down ensuring accurate positioning and smooth operation. The unit can be controlled remotely through an IEEE-488 interface or manually with a front panel switch. A three-digit readout on the front panel displays the setting. All that is required is a 24 volt, 500 mA supply, which is included.

Applications

The 529 Series Motorized Direct-reading Phase Shifters are used in all RF automated measurement systems. They are most frequently used in RF substitution type set-ups fro precise measurement of characteristics including bridge circuits and phased arrays.

Dimensional Specifications

Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
529K	8.48	215.4	4.00	101.6	5.50	139.7	3.50	88.9
529A	6.87	174.5	4.00	101.6	5.50	139.7	3.50	88.9
529B	6.24	158.4	4.00	101.6	5.50	139.7	3.50	88.9
529U	5.74	145.7	4.00	101.6	5.50	139.7	3.50	88.9
529V	4.50	114.3	4.00	101.6	5.50	139.7	3.50	88.9
529E	4.50	114.3	4.00	101.6	5.50	139.7	3.50	88.9
529W	4.50	114.3	4.0	101.6	5.50	139.7	3.50	88.9

Technical Specifications

Model No.	Frequency (GHz)	Insertion Loss	VSWR	Average Power	Weight
529K	18.0–26.5	1.0 dB	1.30	1.0 Watts	63 oz
529A	26.5–40.0	1.0 dB	1.15	0.5 Watts	60 oz
529B	33.0–50.0	1.0 dB	1.15	0.5 Watts	60 oz
529U	40.0–60.0	1.1 dB	1.15	0.4 Watts	59 oz
529V	50.0–75.0	1.2 dB	1.20	0.3 Watts	50 oz
529E	50.0–90.0	1.4 dB	1.20	0.2 Watts	30 oz
529W	75.0–110.0	1.5 dB	1.20	0.2 Watts	30 oz
529F	90.0–140.0	2.0 dB	1.30	0.2 Watts	30 oz
529D	110.0–170.0	3.0 dB	1.50	0.1 Watts	30 oz

Electrical Specifications

Model No.	Resolution (degree)	Repeatability	Accuracy	Speed (sec) 0–360
529K	0.5	± 0.5	4 deg.	5 sec
529A	0.5	± 0.5	4 deg.	5 sec
529B	0.5	± 0.5	4 deg.	5 sec
529U	0.5	± 0.5	4 deg.	5 sec
529V	0.5	± 0.5	4 deg.	5 sec
529E	0.5	± 0.5	4 deg.	5 sec
529W	0.5	± 0.5	4 deg.	5 sec
529F	0.5	± 0.5	4 deg.	5 sec
529D	0.5	± 0.5	4 deg.	5 sec

Ordering Information

529 ___ / ___

529 W/387
75-110 GHz
with /387 Flange

Specify Flange
(See Appendix A)

Specify RF Band Designator

When the unit is connected to 24 VDC with no connection to the IEEE interface. The phase shifter is controlled by a front panel toggle switch. If the toggle is held up or down from 5 counts or more, the phase shifter changes at a rapid rate to facilitate larger changes.