

# PHASE SHIFTERS

Plug-In & Surface Mount □

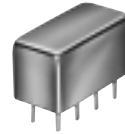


## 180° VOLTAGE VARIABLE 8 to 1000 MHz

SURFACE MOUNT



JSPHS



SPH

MODEL NO. ◆	FREQUENCY (MHz)	PHASE RANGE (Degrees)	INSERTION LOSS (dB)		CONTROL VOLTAGE (V)	CONTROL BANDWIDTH	VSWR (:1)		CASE STYLE	CASE FINISH	PRICE \$	
			Typ.	Max.			Typ.	Max.				
NEW	JSPHS-12	8-12	180	0.9	2.5	0-15	DC-50KHz	1.2	1.8	BK276	jh	29.95
	JSPHS-26	18-26	180	1.2	3.0	0-12	DC-50 KHz	1.2	1.7	BK276	jh	29.95
	JSPHS-150	100-150	180	1.2	2.5	0-12	DC-30 KHz	1.2	1.7	BK276	jb	31.95
	JSPHS-446	366-446	180	1.2	2.5	0-12	DC-50 KHz	1.2	1.7	BK276	jb	32.95
NEW	JSPHS-1000	700-850 850-1000	180	1.2	2.3	0-15	DC-50 KHz	1.2	2.6	BK276	jh	32.95
			160	1.2	2.0	0-15	DC-50 KHz	1.2	2.0			
	SPH-16	13-16	180	1.2	2.5	0-7	DC-50 KHz	1.2	1.7	A01	jh	29.95

### features

- JSPHS, J-lead surface mount
- SPH, plug-in hermetically sealed
- good vswr, 20% bandwidth
- low voltage bias control, up to 15V
- low insertion loss, 1.2 dB typ.

### pin connections

see case style outline drawings

PORT	jb	jh
IN	14	1
OUT	8	7
BIAS	1,7	4,6
GND	all other pins	all other pins

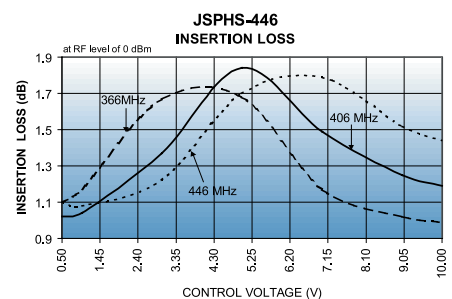
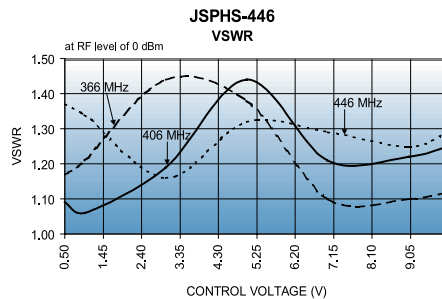
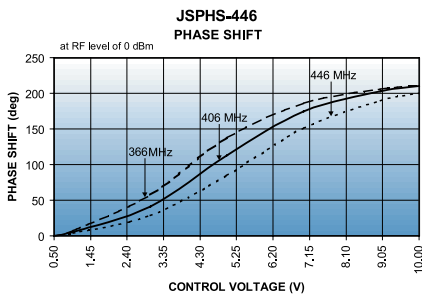
### NOTES:

- ◆ JSPHS models, Aqueous washable.
- Non-hermetic
- A. Environmental specifications and re-flow soldering information available in General Information Section.
- B. Connector types and case mounted options, case finishes are given in section 0, see "Case Styles & Outline Drawings".
- C. Prices and Specifications subject to change without notice.
- 1. Maximum input power, 0 dBm
- 2. Absolute maximum power, voltage and current ratings:
  - 2a. Max. RF input power; +20 dBm
  - 2b. Max. control voltage: 20V

### JSPHS-446

Control Voltage (V)	Phase Shift* (Deg)			VSWR (:1)			INSERTION LOSS (dB)		
	366 MHz	406 MHz	446 MHz	366 MHz	406 MHz	446 MHz	366 MHz	406 MHz	446 MHz
0.5	0.05	0.03	0.01	1.17	1.09	1.37	1.10	1.02	1.10
1	7.65	5.43	4.14	1.21	1.06	1.34	1.17	1.04	1.08
3	57.73	41.01	29.01	1.44	1.19	1.16	1.67	1.37	1.22
5	137.57	112.81	84.75	1.38	1.44	1.32	1.68	1.84	1.70
7	186.22	174.91	151.47	1.10	1.21	1.29	1.17	1.49	1.79
9	205.93	203.06	189.91	1.10	1.22	1.25	1.02	1.25	1.52
10	211.22	210.59	200.96	1.12	1.25	1.29	0.99	1.19	1.44

\* Normalized at control voltage=0.5V



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