

BoCen Microwave provides a full line of cost-efficient low power PIN Diode switches covering from 20MHz up to 20GHz, standard broadband models are off the shelf or half-finished in stock, and custom designs with optimized performance and packages for special applications are available with a quick turn-around time.

Features:

Miniature size

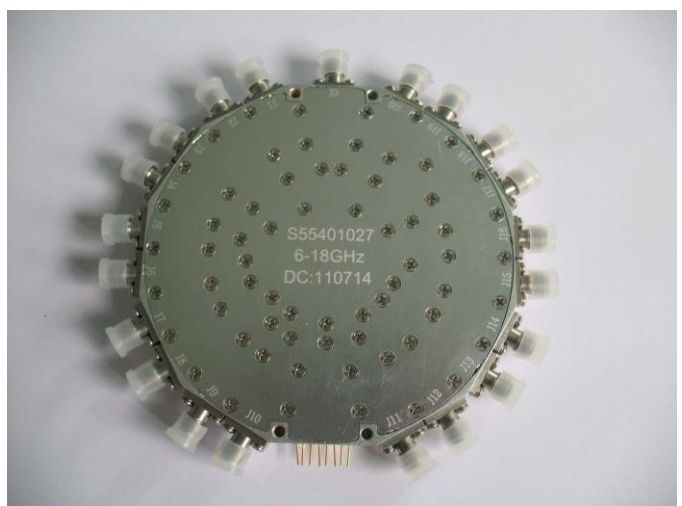
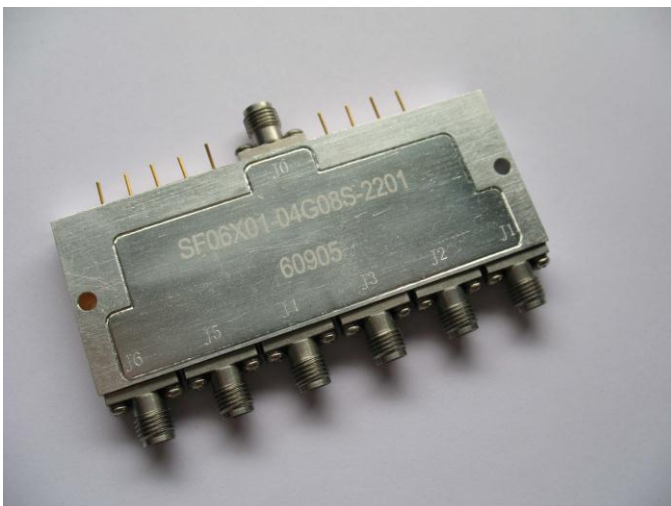
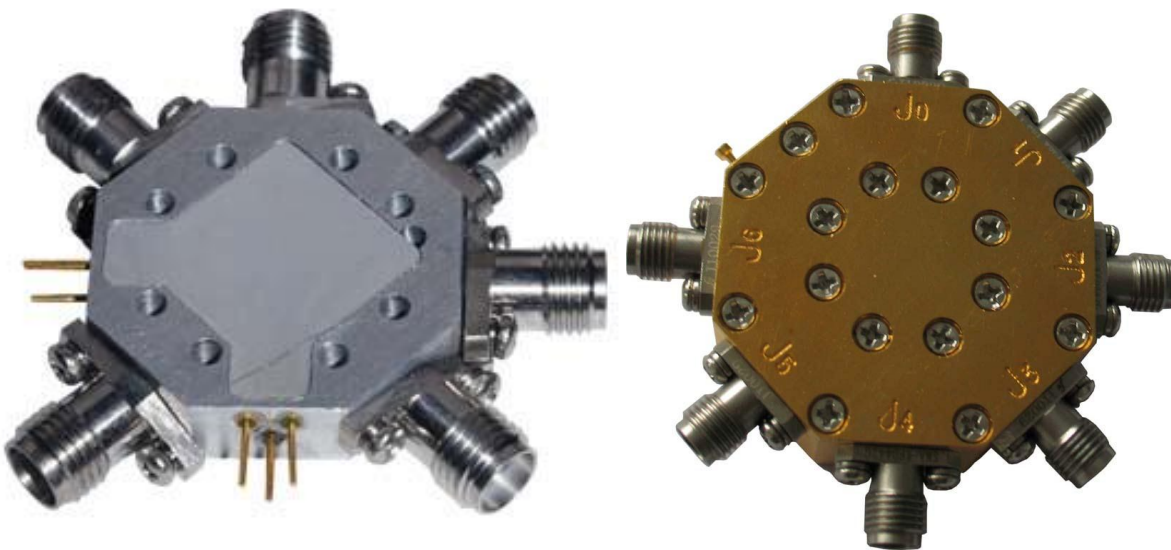
High speed from 500nS to 15nS

Excellent performance

TTL control or encoding control

High quality stainless steel removable connectors

Special protection design for TTL driver against voltage overshoot



Specifications of Standard Model

SPST Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	0.6	1.3	60	500 mw	0.8	1.3	60	100 mw	25ns 50ns 200ns Optional
	1.5	1.3	110		1.5	1.4	110		
0.02-3.0	0.7	1.3	60	500 mw	0.9	1.4	65	100 mw	
	0.9	1.4	110		1.4	1.5	110		
2.0-4.0	0.9	1.4	65	500 mw	1.2	1.6	70	100 mw	
	1.4	1.5	110		1.6	1.8	110		
2.0-8.0	1.0	1.5	60	500 mw	2.0	1.7	65	100 mw	
	1.6	1.7	110		2.5	2.0	110		
6.0-18.0	1.8	2.0	50	500 mw	2.8	2.0	60	100 mw	
	2.8	2.2	90		3.2	2.2	90		
8.0-18.0	1.8	2.0	50	500 mw	2.8	2.0	60	100 mw	
	2.8	2.2	90		3.2	2.2	90		
2.0-18.0	1.8	2.0	50	500 mw	2.8	2.0	60	100 mw	
	2.8	2.2	90		3.2	2.2	90		
0.5-18.0	1.8	2.0	50	500 mw	2.8	2.0	60	100 mw	
	2.8	2.2	90		3.2	2.2	90		

SPDT Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	0.7	1.3	55	500 mw	1.0	1.3	60	100 mw	25ns 50ns 200ns Optional
	1.2	1.3	110		2.2	1.3	110		
0.02-3.0	0.7	1.3	70	500 mw	0.9	1.3	70	100 mw	
	0.9	1.4	90		1.1	1.4	85		
2.0-4.0	0.8	1.4	65	500 mw	1.0	1.5	80	100 mw	
	1.2	1.5	110		1.6	1.6	110		
2.0-8.0	1.5	1.5	65	500 mw	1.8	1.7	75	100 mw	
	2.2	1.8	110		2.2	1.8	110		
6.0-18.0	2.3	2.0	55	500 mw	2.6	2.0	50	100 mw	
	3.0	2.2	80		3.2	2.2	90		
2.0-18.0	2.3	2.0	55	500 mw	2.6	2.0	50	100 mw	
	3.0	2.2	80		3.2	2.2	90		
0.5-18.0	2.3	2.0	55	500 mw	2.6	2.0	50	100 mw	
	3.0	2.2	80		3.2	2.2	90		

SP3T Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	1.2	1.3	60	500 mw	1.0	1.3	60	100 mw	25ns 50ns 200ns Optional
	1.6	1.3	110		1.7	1.4	110		
0.02-3.0	0.8	1.4	60	500 mw	0.9	1.3	75	100 mw	
	1.2	1.4	110		1.4	1.4	110		
2.0-4.0	1.0	1.4	75	500 mw	1.4	1.4	75	100 mw	
	1.6	1.4	110		1.8	1.6	110		
2.0-8.0	1.7	1.8	65	500 mw	2.3	1.8	75	100 mw	
	2.3	1.8	100		2.8	1.8	110		
6.0-18.0	2.6	2.2	45	500 mw	3.3	2.2	55	100 mw	
	3.0	2.2	80		3.8	2.2	90		
2.0-18.0	2.6	2.2	45	500 mw	3.3	2.2	55	100 mw	
	3.0	2.2	80		3.8	2.2	90		
0.5-18.0	2.6	2.2	45	500 mw	3.3	2.2	55	100 mw	
	3.0	2.2	80		3.8	2.2	90		

SP4T Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	0.9	1.3	60	500 mw	1.2	1.3	70	100 mw	25ns 50ns 200ns Optional
	1.7	1.3	110		1.8	1.4	110		
0.02-3.0	1.0	1.3	75	500 mw	1.0	1.4	70	100 mw	
	1.4	1.3	110		1.4	1.5	110		
2.0-4.0	1.4	1.4	70	500 mw	1.5	1.4	70	100 mw	
	1.8	1.4	110		2.0	1.4	110		
2.0-8.0	2.0	1.8	70	500 mw	2.4	1.8	70	100 mw	
	2.3	1.8	110		2.8	1.8	110		
6.0-18.0	2.5	2.2	45	500 mw	3.2	2.2	50	100 mw	
	3.5	2.2	80		3.8	2.2	80		
2.0-18.0	2.5	2.2	45	500 mw	3.2	2.2	50	100 mw	
	3.5	2.2	80		3.8	2.2	80		
0.5-18.0	2.5	2.2	45	500 mw	3.2	2.2	50	100 mw	
	3.5	2.2	80		3.8	2.2	80		

SP5T Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	0.8	1.3	70	500 mw	0.8	1.3	70	100 mw	25ns 50ns 200ns Optional
	1.5	1.3	110		1.5	1.3	110		
0.02-3.0	0.8	1.3	70	500 mw	1.0	1.3	70	100 mw	
	1.2	1.4	110		1.4	1.4	110		
2.0-4.0	1.2	1.4	70	500 mw	1.5	1.4	70	100 mw	
	1.6	1.4	110		2.0	1.4	110		
2.0-8.0	2.2	1.8	70	500 mw	1.8	1.8	70	100 mw	
	2.8	1.8	110		2.6	1.8	110		
6.0-18.0	3.0	2.2	50	500 mw	3.3	2.2	45	100 mw	
	3.8	2.2	80		4.0	2.2	80		
2.0-18.0	3.0	2.2	50	500 mw	3.3	2.2	45	100 mw	
	3.8	2.2	80		4.0	2.2	80		
0.5-18.0	3.0	2.2	50	500 mw	3.3	2.2	45	100 mw	
	3.8	2.2	80		4.0	2.2	80		

SP6T Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	0.8	1.3	70	500 mw	1.2	1.3	70	100 mw	25ns 50ns 200ns Optional
	1.5	1.3	110		1.7	1.3	110		
0.02-3.0	0.7	1.3	60	500 mw	0.9	1.3	70	100 mw	
	1.1	1.4	110		1.4	1.4	110		
0.5-2.0	0.8	1.5	70	500 mw	1.2	1.5	70	100 mw	
	1.2	1.5	110		1.6	1.6	110		
2.0-4.0	1.3	1.4	70	500 mw	1.2	1.6	70	100 mw	
	1.7	1.4	110		1.6	1.8	110		
2.0-8.0	2.2	1.8	70	500 mw	2.0	1.7	70	100 mw	
	2.8	1.8	110		2.5	2.0	110		
6.0-18.0	3.4	2.2	45	500 mw	2.8	2.0	45	100 mw	
	4.2	2.2	75		3.2	2.2	75		
2.0-18.0	3.4	2.2	45	500 mw	2.8	2.0	45	100 mw	
	4.2	2.2	75		3.2	2.2	75		
0.5-18.0	3.4	2.2	45	500 mw	2.8	2.0	45	100 mw	
	4.2	2.2	75		3.2	2.2	75		

SP7T Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	0.9	1.3	70	500 mw	0.8	1.3	70	100 mw	25ns 50ns 200ns Optional
	1.7	1.3	110		1.5	1.3	110		
0.02-3.0	0.9	1.3	75	500 mw	1.0	1.3	70	100 mw	
	1.4	1.3	110		1.4	1.4	110		
2.0-4.0	1.4	1.4	70	500 mw	1.5	1.4	70	100 mw	
	1.8	1.4	110		2.0	1.4	110		
2.0-8.0	2.0	1.8	70	500 mw	2.0	1.8	70	100 mw	
	2.3	1.8	110		2.6	1.8	110		
6.0-18.0	3.5	2.2	45	500 mw	3.9	2.2	45	100 mw	
	4.1	2.2	75		4.5	2.2	75		
2.0-18.0	3.5	2.2	45	500 mw	3.9	2.2	45	100 mw	
	4.1	2.2	75		4.5	2.2	75		
0.5-18.0	3.4	2.2	45	500 mw	2.8	2.2	45	100 mw	
	4.2	2.2	75		3.2	2.2	75		

SP8T Series

Operating Frequency (GHz)	Reflective Type				Absorptive Type				Switch Speed
	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	Insertion Loss(dB)	VSWR	Isolation (dB)	Operating Power	
0.02-0.5	0.9	1.3	70	500 mw	1.0	1.3	70	100 mw	25ns 50ns 200ns Optional
	1.7	1.3	110		1.5	1.3	110		
0.02-3.0	0.9	1.3	75	500 mw	0.8	1.3	70	100 mw	
	1.4	1.3	110		1.2	1.4	110		
2.0-4.0	1.5	1.4	70	500 mw	1.7	1.4	70	100 mw	
	1.9	1.4	110		2.1	1.4	110		
2.0-8.0	2.3	1.8	70	500 mw	1.8	1.8	70	100 mw	
	2.7	1.8	110		2.6	1.8	110		
6.0-18.0	3.7	2.2	45	500 mw	4.2	2.2	45	100 mw	
	4.3	2.2	75		4.8	2.2	70		
2.0-18.0	3.7	2.2	45	500 mw	4.2	2.2	45	100 mw	
	4.3	2.2	75		4.8	2.2	75		
0.5-18.0	3.7	2.2	45	500 mw	4.2	2.2	45	100 mw	
	4.3	2.2	75		4.8	2.2	75		

1. Power Supply: +5±0.5V/+40mA; -5V±0.5V/-10mA, please don't overshoot when turn on.
2. Control Logic: TTL "1"= Insertion Loss, TTL "0"= Isolation(standard), reverse control logic is available, please indicate when place order.

3. No damage power: Reflective switch: 1W, Absorptive switch: 0.5W
4. Connectors: Removable Stainless SMA-female(standard), other connector types are available, please contact us.
5. RF insulator center conductor: $\Phi 0.4\text{mm}$
6. Custom size, higher electrical specifications or special control are available.