



● Circulator/Isolator Selection Guide



南京舜特科通信技术有限公司
Sainty-Tech Communications Limited

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■ Circulator/Isolator

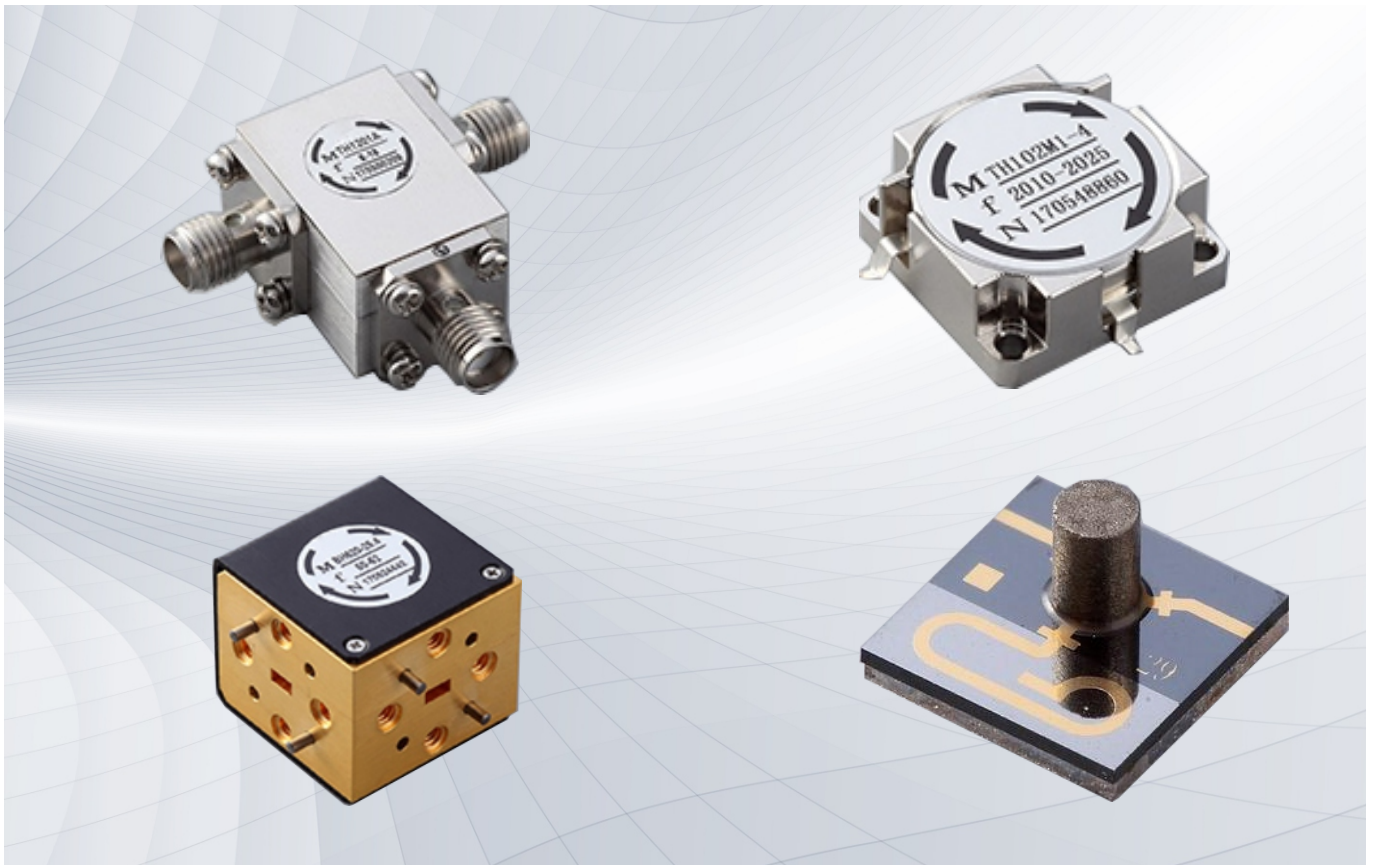
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INTRODUCTION

RF Circulator is a 3 Port ferromagnetic device used to regulate the signal flow within a circuit. It transmits an input signal in one direction – A signal that enters port 1 is transmitted to port 2 and isolated from port 3, a signal incident at port 2 is transmitted to port 3 and isolated from port 1, a signal incident at port 3 is transmitted to port 1 and isolated from port 2. Circulators are typically designed to have minimal loss when transmitting an input signal from one port to the next.





























RF Isolator is a two-port passive device made of magnets and ferrite material which is used to protect other RF components from excessive signal reflection.














Our Circulator & Isolator product lines cover 100MHz to 110GHz, with excellent performance, competitive price and fast delivery. These devices are used widely in many applications, such as Microwave Telecommunications, 5G Communications, IoT, Radar, ECM, Aerospace, Navigation etc. There are various packages for Circulators & Isolators: Drop-in style, Coaxial style, Waveguide, SMD, Microstrip. Customized design is available upon request.



































Series Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Relative BW	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
TG0101A	Isolator	0.14	0.24	5%	0.6	18	1.3	0 ~ +60	10	SMA or N	
TG0101A-B	Isolator	0.14	0.24	5%	0.6	18	1.3	0 ~ +60	100	SMA or N	
TH0101A	Circulator	0.14	0.24	5%	0.6	18	1.3	0 ~ +60	/	SMA or N	
TG0101	Isolator	0.2	0.3	10%	0.5	18	1.3	0 ~ +60	10	SMA or N	
TG0101B	Isolator	0.2	0.3	10%	0.5	18	1.3	0 ~ +60	100	SMA or N	
TH0101	Circulator	0.2	0.3	10%	0.5	18	1.3	0 ~ +60	/	SMA or N	
TG0301A	Isolator	0.25	0.45	10%	0.4	20	1.25	-15 ~ +60	10	SMA or N	
TG0301B	Isolator	0.25	0.45	10%	0.4	20	1.25	-15 ~ +60	100	SMA or N	
TH0301A	Circulator	0.25	0.45	10%	0.4	20	1.25	-15 ~ +60	/	SMA or N	
TG0401A	Isolator	0.4	0.6	10%	0.4	20	1.25	-15 ~ +60	10	SMA or N	
TG0401B	Isolator	0.4	0.6	10%	0.4	20	1.25	-15 ~ +60	100	SMA or N	
TH0401A	Circulator	0.4	0.6	10%	0.4	20	1.25	-15 ~ +60	/	SMA or N	
TG0701	Isolator	0.5	1	10%	0.4	23	1.2	-30 ~ +70	10	SMA or N	
TG0701B	Isolator	0.5	1	10%	0.4	23	1.2	-30 ~ +70	100	SMA or N	
TH0701	Circulator	0.5	1	10%	0.4	23	1.2	-30 ~ +70	/	SMA or N	
TG101	Isolator	0.8	1.4	10%	0.3	23	1.2	-40 ~ +85	10	SMA or N	
TG101B	Isolator	0.8	1.4	10%	0.3	23	1.2	-40 ~ +85	100	SMA or N	
TH101	Circulator	0.8	1.4	10%	0.3	23	1.2	-40 ~ +85	/	SMA or N	
TG101A	Isolator	1.2	2.5	10%	0.3	23	1.2	-40 ~ +85	10	SMA or N	
TG101A-B	Isolator	1.2	2.5	10%	0.3	23	1.2	-40 ~ +85	100	SMA or N	
TH101A	Circulator	1.2	2.5	10%	0.3	23	1.2	-40 ~ +85	/	SMA or N	
TG201F	Isolator	2	4	10%	0.4	23	1.2	-30 ~ +70	10	SMA	
TH201F	Circulator	2	4	10%	0.4	23	1.2	-30 ~ +70	/	SMA	
TG401A	Isolator	3.5	8	10%	0.4	23	1.2	-40 ~ +70	10	SMA	
TH401A	Circulator	3.5	8	10%	0.4	23	1.2	-40 ~ +70	/	SMA	
TG801F8	Isolator	7	20	10%	0.4	20	1.25	-40 ~ +70	5	SMA	
TH701A	Circulator	7	20	10%	0.4	20	1.25	-40 ~ +70	/	SMA	
TG2001	Isolator	18	24.5	10%	0.6	18	1.35	-40 ~ +70	2	SMA Female	
TH2001	Circulator	18	24.5	10%	0.6	18	1.35	-40 ~ +70	/	SMA Female	

Drop-in Series

Series Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Relative BW	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
TG0102A	Isolator	0.14	0.24	5%	0.6	18	1.3	0 ~ +60	100	TAB	
TH0102A	Circulator	0.14	0.24	5%	0.6	18	1.3	0 ~ +60	/	TAB	
TG0102M-100	Isolator	0.2	0.4	10%	0.5	18	1.3	0 ~ +60	100	TAB	
TH0102M	Circulator	0.2	0.4	10%	0.5	18	1.3	0 ~ +60	/	TAB	
TG0402A	Isolator	0.35	0.55	10%	0.4	20	1.25	-15 ~ +60	10	TAB	
TG0402-100	Isolator	0.35	0.55	10%	0.4	20	1.25	-15 ~ +60	100	TAB	
TH0402A	Circulator	0.35	0.55	10%	0.4	20	1.25	-15 ~ +60	/	TAB	
TG0702M1	Isolator	0.5	1	10%	0.4	23	1.2	-30 ~ +70	10	TAB	
TG0702M1-100	Isolator	0.5	1	10%	0.4	23	1.2	-30 ~ +70	100	TAB	
TH0702M1	Circulator	0.5	1	10%	0.4	23	1.2	-30 ~ +70	/	TAB	
TG0902M	Isolator	0.8	2.2	5%	0.4	23	1.2	-40 ~ +85	10	TAB	
TG0902M-100	Isolator	0.8	2.2	5%	0.4	23	1.2	-40 ~ +85	100	TAB	
TH0902M	Circulator	0.8	2.2	5%	0.4	23	1.2	-40 ~ +85	/	TAB	
TG102M-10	Isolator	0.8	2.2	10%	0.3	23	1.2	-40 ~ +85	10	TAB	
TH102M-10	Circulator	0.8	2.2	10%	0.3	23	1.2	-40 ~ +85	/	TAB	
TG102M6	Isolator	0.8	2.2	10%	0.3	23	1.2	-40 ~ +85	100	TAB	
TH102M6	Circulator	0.8	2.2	10%	0.3	23	1.2	-40 ~ +85	/	TAB	
TG102M3-10	Isolator	1.2	3.8	5%	0.4	23	1.2	-40 ~ +85	10	TAB	
TG102M3-100	Isolator	1.2	3.8	5%	0.4	23	1.2	-40 ~ +85	100	TAB	
TH102M3-100	Circulator	1.2	3.8	5%	0.4	23	1.2	-40 ~ +85	/	TAB	
TG302C2	Isolator	3	7	5%	0.4	20	1.25	-40 ~ +70	5	TAB	
TH302C2	Circulator	3	7	5%	0.4	20	1.25	-40 ~ +70	/	TAB	
TG402A	Isolator	3.5	8	10%	0.4	23	1.2	-40 ~ +70	10	TAB	
TH402A	Circulator	3.5	8	10%	0.4	23	1.2	-40 ~ +70	/	TAB	
TG1002E	Isolator	7	18	10%	0.4	20	1.25	-40 ~ +70	5	TAB	
TH1002C2	Circulator	7	18	10%	0.4	20	1.25	-40 ~ +70	/	TAB	
TG2002	Isolator	18	24.5	10%	0.6	18	1.35	-40 ~ +70	2	TAB	
TH2002	Circulator	18	24.5	10%	0.6	18	1.35	-40 ~ +70	/	TAB	




Series Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Relative BW	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
TG102M1-4	Isolator	0.35	0.5	5%	0.7	18	1.3	-40 ~ +85	10	SMD	
TG102M1-4	Isolator	0.5	1	5%	0.5	23	1.2	-40 ~ +85	10	SMD	
TH102M1-4	Circulator	0.35	0.5	5%	0.7	18	1.3	-40 ~ +85	/	SMD	
TH102M1-4	Circulator	0.5	1	5%	0.5	23	1.2	-40 ~ +85	/	SMD	
TG102K4	Isolator	1.5	2.2	1%	0.4	20	1.25	-40 ~ +85	5	SMD	
TH102K4	Circulator	1.5	2.2	1%	0.4	20	1.25	-40 ~ +85	/	SMD	
TG102SMD01-100	Isolator	0.8	2.2	10%	0.3	23	1.2	-40 ~ +85	100	SMD	
TH102SMD06	Circulator	0.8	2.2	10%	0.3	23	1.2	-40 ~ +85	/	SMD	
TG202SMD08-100	Isolator	1.2	3.8	5%	0.4	23	1.2	-40 ~ +85	100	SMD	
TH202SMD08	Circulator	1.2	3.8	5%	0.4	23	1.2	-40 ~ +85	/	SMD	
TG202SMD05	Isolator	1.8	2.7	5%	0.4	20	1.25	-40 ~ +85	10	SMD	
TH202SMD05	Circulator	1.8	2.7	5%	0.4	20	1.25	-40 ~ +85	/	SMD	
TG902C1	Isolator	9	11	10%	0.5	20	1.25	-15 ~ +60	0.5	SMD	
TH902C	Circulator	9	11	10%	0.5	20	1.25	-15 ~ +60	/	SMD	

Micro-strip Series(Single)

Part Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
WH502A2 / 5-6GHz	Circulator	5	6	0.6	17	1.35	-55 ~ +85	/	GWB	
WG502A5 / 5-6GHz	Isolator	5	6	0.5	18	1.25	55 ~ +85	10	GWB	
WH502A3 / 5.2-5.9GHz	Circulator	5.2	5.9	0.5	18	1.3	-55 ~ +85	/	GWB	
WG702A5 / 5.8-7.2GHz	Isolator	5.8	7.2	0.5	18	1.25	-55 ~ +85	10	GWB	
WH702A1 / 6.5-7.1GHz	Circulator	6.5	7.1	0.5	18	1.3	-55 ~ +85	/	GWB	
WG702A1 / 7-7.5GHz	Isolator	7	7.5	0.5	20	1.25	-55 ~ +85	0.5	GWB	
WG702A3 / 7-8.5GHz	Isolator	7	8.5	0.6	18	1.3	-55 ~ +85	10	GWB	
WG702A / 7.1-8.5GHz	Isolator	7.1	8.5	0.5	20	1.35	-55 ~ +85	10	GWB	
WG902A19 / 8-12GHz	Isolator	8	12	0.6	17	1.35	-55 ~ +85	10	GWB	
WH902A3 / 8-12GHz	Circulator	8	12	0.6	17	1.35	-55 ~ +85	/	GWB	
WH902A5 / 8-12GHz	Circulator	8	12	0.6	16	1.4	-55 ~ +85	/	GWB	
WG1202A / 8-18GHz	Isolator	8	18	1.2	11	1.6	-55 ~ +85	5	GWB	
WG902A7 / 8.5-10.5GHz	Isolator	8.5	10.5	0.5	18	1.25	-55 ~ +85	20	GWB	
WG902A12 / 8.5-10.5GHz	Isolator	8.5	10.5	0.5	18	1.3	-55 ~ +85	0.5	GWB	
WH902A2 / 8.6-10.6GHz	Circulator	8.6	10.6	0.6	17	1.35	-55 ~ +85	/	GWB	
WG902A / 8.8-9.8GHz	Isolator	8.8	9.8	0.5	20	1.25	-55 ~ +85	0.5	GWB	
WG902A3 / 10.5-10.9GHz	Isolator	10.5	10.9	0.5	20	1.25	-55 ~ +85	10	GWB	
WG902A2 / 11.9-12.2GHz	Isolator	11.9	12.2	0.5	20	1.25	-55 ~ +85	0.5	GWB	
WG1502A16 / 12-17GHz	Isolator	12	17	0.8	15	1.45	-55 ~ +85	10	GWB	
WH1502A9 / 12-17GHz	Circulator	12	17	0.8	15	1.45	-55 ~ +85	/	GWB	
WG902A11 / 13-15GHz	Isolator	13	15	0.6	18	1.3	-55 ~ +85	0.5	GWB	
WH1502A6 / 14-18GHz	Circulator	14	18	0.7	16	1.4	-55 ~ +85	/	GWB	
WG1502A10 / 14.2-16GHz	Isolator	14.2	16	0.6	17	1.35	-55 ~ +85	10	GWB	
WH1502A18 / 14.5-15.5GHz	Circulator	14.5	15.5	0.5	20	1.25	-55 ~ +85	/	GWB	
WG1502A8 / 16-17GHz	Isolator	16	17	0.6	18	1.3	-55 ~ +85	10	GWB	
WG2002A / 18.2-21.2GHz	Isolator	18.2	21.2	0.8	17	1.4	-55 ~ +85	0.5	GWB	
WH2002A / 19.5-23GHz	Circulator	19.5	23	0.8	15	1.4	-55 ~ +85	/	GWB	
WG2602A2 / 24.5-28.35GHz	Isolator	24.5	28.35	1.2	18	1.4	-55 ~ +85	0.5	GWB	
WH2602A2 / 24.5-26.5GHz	Circulator	24.5	26.5	1	16	1.4	-55 ~ +85	/	GWB	
WG2802A1 / 29-31GHz	Isolator	29	31	1.2	18	1.4	-55 ~ +85	0.5	GWB	
WG3002A8 / 30.4-33.4GHz	Isolator	30.4	33.4	1.2	15	1.4	-55 ~ +85	0.5	GWB	
WG3002A3 / 32-36GHz	Isolator	32	36	1.3	15	1.5	-55 ~ +85	0.5	GWB	

Micro-strip Series(Single)

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Part Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
WH3002A2 / 34-36GHz	Circulator	34	36	1.2	16	1.4	-55 ~ +85	/	GWB	
WH3002A3 / 34-36GHz	Circulator	34	36	1.2	16	1.4	-55 ~ +85	/	GWB	
WG4002A / 43.5-45.5GHz	Isolator	43.5	45.5	1.5	15	1.5	-55 ~ +85	0.5	GWB	

Micro-strip Series (Dual-junction)

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
WH502AS5 / 5.1-5.7GHz	5.1	5.7	0.5(2→3)	20(3→2)	1.3	-55~+85	10	GWB	
			1.0(3→1)	38(1→3)					
WH502AS6 / 5.1-5.7GHz	5.1	5.7	0.5(2→3)	20(3→2)	1.3	-55~+85	10	GWB	
			1.0(3→1)	38(1→3)					
WH502AS7 / 5.2-5.7GHz	5.2	5.7	0.4(1→2)	20(2→1)	1.25	-55~+85	10	GWB	
			0.7(2→3)	39(3→2)					
WH902AS10 / 8-12GHz	8	12	0.6(2→1)	16(1→3)	1.3	-55~+85	20	GWB	
			1.2(3→2)	30(2→3)					
WH1202AS1 / 11.5-13.5GHz	11.5	13.5	0.6(1→2)	18(2→1)	1.3	-55~+85	10	GWB	
			1.1(2→3)	30(3→2)					
WH1502AS4-1 / 15.5-17.9GHz	15.5	17.9	0.65(2→1)	18(1→2)	1.3	-55~+85	10	GWB	
			1.1(1→3)	30(3→1)					
WH1502AS8 / 15.7-17.7GHz	15.7	17.7	0.6(1→2)	18(2→1)	1.3	-55~+85	20	GWB	
			1.1(2→3)	30(3→2)					
WH1502AS12 / 15.7-17.7GHz	15.7	17.7	0.6(1→2)	18(2→1)	1.3	-55~+85	20	GWB	
			1.1(2→3)	30(3→2)					
WH1502AS10 / 14.5-16GHz	14.5	16	0.6(1→2)	17(2→1)	1.3	-55~+85	10	GWB	
			1.2(2→3)	30(3→2)					
WH1502AS14 / 14.5-16GHz	14.5	16	0.6(1→2)	17(2→1)	1.3	-55~+85	10	GWB	
			1.2(2→3)	30(3→2)					
WH1502AS18 / 14-18GHz	14	18	0.8(1→2)	15(2→1)	1.45	-55~+85	20	GWB	
			1.5(2→3)	30(3→2)					
WH1602AS / 16.4-17.2GHz	16.4	17.2	0.5(1→2)	23(2→1)	1.25	-55~+85	10	GWB	
			0.9(2→3)	23(3→1)					







Waveguide Series

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Series Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Relative BW	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Connector Type	Datasheet
BG70-45	Isolator	5.38	8.18	10%	0.3	23	1.2	-40 ~ +85	WR137	
BH70-68.3	Circulator	5.38	8.18	10%	0.3	23	1.2	-40 ~ +85	WR137	
BG84-36	Isolator	6.58	10	10%	0.3	23	1.2	-40 ~ +85	WR112	
BH84-60	Circulator	6.58	10	10%	0.3	23	1.2	-40 ~ +85	WR112	
BG100-12.7	Isolator	8.2	12.5	3%	0.3	25	1.2	-40 ~ +85	WR90	
BG100-28	Isolator	8.2	12.5	10%	0.3	23	1.2	-40 ~ +85	WR90	
BH100-48	Circulator	8.2	12.5	10%	0.3	23	1.2	-40 ~ +85	WR90	
BG120-12.7A	Isolator	9.48	15	5%	0.3	20	1.2	-40 ~ +85	WR75	
BG120-25	Isolator	9.48	15	10%	0.3	23	1.2	-40 ~ +85	WR75	
BH120-42	Circulator	9.48	15	10%	0.3	23	1.2	-40 ~ +85	WR75	
BG140-12.7	Isolator	11.9	18	5%	0.3	23	1.2	-40 ~ +85	WR62	
BG140-21	Isolator	11.9	18	10%	0.3	23	1.2	-40 ~ +85	WR62	
BH140-40	Circulator	11.9	18	10%	0.3	23	1.2	-40 ~ +85	WR62	
BG180-15A	Isolator	14.5	22	10%	0.3	20	1.2	-40 ~ +85	WR51	
BH180-32	Circulator	14.5	22	10%	0.3	20	1.2	-40 ~ +85	WR51	
BG220-9.5	Isolator	17.6	26.7	10%	0.4	18	1.3	-40 ~ +85	WR42	
BG220-12.7	Isolator	17.6	26.7	10%	0.4	20	1.2	-40 ~ +85	WR42	
BH220-24	Circulator	17.6	26.7	10%	0.4	20	1.2	-40 ~ +85	WR42	
BG260-12.7	Isolator	21.7	33	8%	0.4	20	1.2	-40 ~ +85	WR34	
BH260-22.3	Circulator	21.7	33	8%	0.4	20	1.2	-40 ~ +85	WR34	
BG320-10	Isolator	26.4	40.1	5%	0.4	20	1.25	-40 ~ +85	WR28	
BG320-12.7L1	Isolator	26.4	40.1	8%	0.4	20	1.25	-40 ~ +85	WR28	
BH320-10	Circulator	26.4	40.1	5%	0.4	20	1.25	-40 ~ +85	WR28	
BH320-21	Circulator	26.4	40.1	5%	0.4	20	1.25	-40 ~ +85	WR28	
BG400-10	Isolator	33	50.1	5%	0.4	20	1.25	-40 ~ +85	WR22	
BH400-19	Circulator	33	50.1	5%	0.4	20	1.25	-40 ~ +85	WR22	
BG500-10	Isolator	39.3	59.7	4%	0.4	20	1.25	-40 ~ +85	WR19	
BH500-10	Circulator	39.3	59.7	4%	0.4	20	1.25	-40 ~ +85	WR19	
BG740-19	Isolator	60.5	92	1%	0.8	18	1.3	-40 ~ +85	WR12	
BH740-25.4	Circulator	60.5	92	1%	0.8	18	1.3	-40 ~ +85	WR12	
BG900-10A	Isolator	73.8	112	2%	1	18	1.3	-40 ~ +85	WR10	
BH900-10A	Circulator	73.8	112	2%	1	18	1.3	-40 ~ +85	WR10	

















Waveguide-Coaxial Isolator Series

































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Series Number	Low Freq. (GHz)	High Freq. (GHz)	Relative BW	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Connector Type	Datasheet
BTG48-57S	3.94	5.99	10%	0.5	20	1.25	-40 ~ +85	WR187-SMA Female	
BTG84-50	6.58	10	10%	0.5	20	1.2	-40 ~ +85	WR112 to PIN	
BTG100-36	8.2	12.5	10%	0.5	20	1.2	-40 ~ +85	WR90 to PIN	
BTG120-36	9.48	15	10%	0.5	20	1.2	-40 ~ +85	WR75 to PIN	
BTG120-30.2	9.48	15	15%	0.4	20	1.2	-40 ~ +85	WR75 to SMA Female	
BTG140-30	11.9	18	15%	0.4	20	1.2	-40 ~ +85	WR62 to SMA Female	

















Dual-Junction Series

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Series Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Relative BW	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
TG0101AS	Isolator	0.14	0.25	5%	1.2	36	1.3	0 ~ +60	10	SMA or N	
TH0101AS	Circulator	0.14	0.25	5%	1.2	36	1.3	0 ~ +60	/	SMA or N	
TG0301S-100	Isolator	0.25	0.5	10%	0.8	40	1.25	-15 ~ +60	10	SMA or N	
TH0301S-100	Circulator	0.25	0.5	10%	0.8	40	1.25	-15 ~ +60	/	SMA or N	
TG0701S	Isolator	0.5	1	10%	0.8	46	1.2	-30 ~ +70	10	SMA or N	
TH0701S	Circulator	0.5	1	10%	0.8	46	1.2	-30 ~ +70	/	SMA or N	
TG101S	Isolator	0.8	1.4	10%	0.6	46	1.2	-40 ~ +85	10	SMA or N	
TH101S	Circulator	0.8	1.4	10%	0.6	46	1.2	-40 ~ +85	/	SMA or N	
TG101AS	Isolator	1.2	2.5	10%	0.6	46	1.2	-40 ~ +85	10	SMA or N	
TH101AS	Circulator	1.2	2.5	10%	0.6	46	1.2	-40 ~ +85	/	SMA/N	
TG201FS	Isolator	2	4	10%	0.8	46	1.2	-30 ~ +70	10	SMA	
TH201FS	Circulator	2	4	10%	0.8	46	1.2	-30 ~ +70	/	SMA	
TG601S	Isolator	3.5	8	10%	0.8	46	1.2	-40 ~ +70	10	SMA	
TH401AS	Circulator	3.5	8	10%	0.8	46	1.2	-40 ~ +70	/	SMA	
TG1201S	Isolator	7	20	10%	0.8	40	1.25	-40 ~ +70	5	SMA	
TH801S1	Circulator	7	20	10%	0.8	40	1.25	-40 ~ +70	/	SMA	

Part Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
TG201J / 1-2GHz	Isolator	1	2	0.7	16	1.4	0 ~ +60	10	SMA or N	
TH201J / 1-2GHz	Circulator	1	2	0.7	15	1.4	0 ~ +60	/	SMA or N	
TG201-C2 / 1.35-2.7GHz	Isolator	1.35	2.7	0.6	17	1.35	0 ~ +60	10	SMA	
TH201-C2 / 1.35-2.7GHz	Circulator	1.35	2.7	0.6	17	1.35	0 ~ +60	/	SMA	
TG301A / 2-4GHz	Isolator	2	4	0.6	18	1.4	-30 ~ +70	10	SMA/N	
TG302D / 2-4GHz	Isolator	2	4	0.6	18	1.4	-30 ~ +70	10	TAB	
TH301A / 2-4GHz	Circulator	2	4	0.6	16	1.4	-30 ~ +70	/	SMA or N	
TH302D / 2-4GHz	Circulator	2	4	0.6	16	1.4	-30 ~ +70	/	TAB	
TG501B / 2-6GHz	Isolator	2	6	1.2	15	1.5	0 ~ +60	10	SMA or N	
TG501B / 2-8GHz	Isolator	2	8	1.5	12	1.8	0 ~ +60	10	SMA or N	
TG501H / 3-6GHz	Isolator	3	6	0.6	17	1.4	-30 ~ +70	10	SMA	
TH501H / 3-6GHz	Circulator	3	6	0.6	16	1.4	-30 ~ +70	/	SMA	
TG601K / 4-8GHz	Isolator	4	8	0.6	18	1.3	-30 ~ +70	10	SMA	
TG402H2 / 4-8GHz	Isolator	4	8	0.6	14	1.5	-30 ~ +70	10	TAB	
TH601K / 4-8GHz	Circulator	4	8	0.6	18	1.3	-30 ~ +70	/	SMA	
TG601K / 5-10GHz	Isolator	5	10	0.6	18	1.3	-30 ~ +70	10	SMA	
TH601K / 5-10GHz	Circulator	5	10	0.6	18	1.3	-30 ~ +70	/	SMA	
TG901K / 6-12GHz	Isolator	6	12	0.6	18	1.4	-40 ~ +70	5	SMA	
TH901K / 6-12GHz	Circulator	6	12	0.6	16	1.4	-40 ~ +70	/	SMA	
TG801F8 / 8-12GHz	Isolator	8	12	0.5	20	1.25	-40 ~ +70	5	SMA	
TG1002K / 8-12GHz	Isolator	8	12	0.6	18	1.3	-40 ~ +70	5	TAB	
TH701A / 8-12GHz	Circulator	8	12	0.5	20	1.25	-40 ~ +70	/	SMA	
TG801F8 / 10-15GHz	Isolator	10	15	0.5	20	1.25	-40 ~ +70	5	SMA	
TG1002K / 10-15GHz	Isolator	10	15	0.6	18	1.3	-40 ~ +70	5	TAB	
TH701A / 10-15GHz	Circulator	10	15	0.5	20	1.25	-40 ~ +70	/	SMA	
TG801F8 / 12-18GHz	Isolator	12	18	0.6	18	1.35	-40 ~ +70	5	SMA	
TG1202 / 12-18GHz	Isolator	12	18	0.6	17	1.4	-40 ~ +70	5	TAB	
TH701A / 12-18GHz	Circulator	12	18	0.6	18	1.35	-40 ~ +70	/	SMA	
TG1201A / 8-18GHz	Isolator	8	18	0.8	17	1.4	-40 ~ +70	5	SMA	
TH1201A / 8-18GHz	Circulator	8	18	0.8	16	1.5	-40 ~ +70	/	SMA	
TG1201K / 6-18GHz	Isolator	6	18	1.5	11	1.9	-40 ~ +70	5	SMA	
TH1201K / 6-18GHz	Circulator	6	18	1.5	10	1.9	-40 ~ +70	/	SMA	

Low IMD Series









Part Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Min.IMD (dBc)	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
TG102M6 / 791-821MHz	Isolator	791	821	-70 ^[1]	0.3	21	1.2	-40 ~ +85	100	TAB	
TH102M6 / 791-821MHz	Circulator	791	821	-70 ^[1]	0.3	21	1.2	-40 ~ +85	/	TAB	
TG102M6 / 869-894MHz	Isolator	869	894	-75 ^[1]	0.25	23	1.2	-40 ~ +85	100	TAB	
TH102M6 / 869-894MHz	Circulator	869	894	-75 ^[1]	0.25	23	1.2	-40 ~ +85	/	TAB	
TG102M6 / 925-960MHz	Isolator	925	960	-75 ^[1]	0.25	23	1.2	-40 ~ +85	100	TAB	
TH102M6 / 925-960MHz	Circulator	925	960	-75 ^[1]	0.25	23	1.2	-40 ~ +85	/	TAB	
TG102M6 / 1805-1880MHz	Isolator	1805	1880	-75 ^[1]	0.25	23	1.2	-40 ~ +85	100	TAB	
TH102M6 / 1805-1880MHz	Circulator	1805	1880	-75 ^[1]	0.25	23	1.2	-40 ~ +85	/	TAB	
TG102M3-100 / 1805-1880MHz	Isolator	1805	1880	-70 ^[2]	0.3	21	1.2	-40 ~ +85	100	TAB	
TH102M3-100 / 1805-1880MHz	Circulator	1805	1880	-70 ^[2]	0.3	21	1.2	-40 ~ +85	/	TAB	
TG102M6 / 1930-1990MHz	Isolator	1930	1990	-75 ^[1]	0.25	23	1.2	-40 ~ +85	100	TAB	
TH102M6 / 1930-1990MHz	Circulator	1930	1990	-75 ^[1]	0.25	23	1.2	-40 ~ +85	/	TAB	
TG102M3-100 / 1930-1990MHz	Isolator	1930	1990	-70 ^[2]	0.3	21	1.2	-40 ~ +85	100	TAB	
TH102M3-100 / 1930-1990MHz	Circulator	1930	1990	-70 ^[2]	0.3	21	1.2	-40 ~ +85	/	TAB	
TG102M6 / 2110-2170MHz	Isolator	2110	2170	-75 ^[1]	0.25	23	1.2	-40 ~ +85	100	TAB	
TH102M6 / 2110-2170MHz	Circulator	2110	2170	-75 ^[1]	0.25	23	1.2	-40 ~ +85	/	TAB	

Low IMD Series

Part Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Min.IMD (dBc)	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Load Power (W)	Connector Type	Datasheet
TG102M3-100 / 2110-2170MHz	Isolator	2110	2170	-70 ^[2]	0.3	21	1.2	-40 ~ +85	100	TAB	
TH102M3-100 / 2110-2170MHz	Circulator	2110	2170	-70 ^[2]	0.3	21	1.2	-40 ~ +85	/	TAB	
TG102M3-100 / 2300-2400MHz	Isolator	2300	2400	-70 ^[2]	0.3	21	1.2	-40 ~ +85	100	TAB	
TH102M3-100 / 2300-2400MHz	Circulator	2300	2400	-70 ^[2]	0.3	21	1.2	-40 ~ +85	/	TAB	
TG102M3-100 / 2620-2690MHz	Isolator	2620	2690	-70 ^[2]	0.3	21	1.2	-40 ~ +85	100	TAB	
TH102M3-100 / 2620-2690MHz	Circulator	2620	2690	-70 ^[2]	0.3	21	1.2	-40 ~ +85	/	TAB	









Remarks: [1] means IMD test at 2×45dBm, 5MHz Gap
 [2] means IMD test at 2×43dBm, 5MHz Gap

High Power Series (Coaxial)

Part Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Max. I.L (dB)	Min. Iso. (dB)	VSWR Max.	Temp. (°C)	Peak Power(W)	D.C.	Load Power(W)	Connector Type	Datasheet
TG0201A-B500 / 0.26-0.3GHz	Isolator	0.26	0.3	0.4	20	1.25	-30 ~ +70	1600	30%	500	N	
TG0201A-B800 / 0.26-0.3GHz	Isolator	0.26	0.3	0.4	20	1.25	-30 ~ +70	2500	30%	800	N	
TH0201A / 0.26-0.3GHz	Circulator	0.26	0.3	0.4	20	1.25	-30 ~ +70	2500	30%	/	N	
TG0301-400 / 0.32-0.36GHz	Isolator	0.32	0.36	0.4	20	1.25	-30 ~ +70	1200	30%	500	N	
TG0301-500 / 0.32-0.36GHz	Isolator	0.32	0.36	0.4	20	1.25	-30 ~ +70	1600	30%	500	N	
TH0301-500 / 0.32-0.36GHz	Circulator	0.32	0.36	0.4	20	1.25	-30 ~ +70	1600	30%	/	N	
TH101-400 / 2-2.2GHz	Circulator	2	2.2	0.6	18	1.35	-30 ~ +70	1600	30%	/	N	
TH101-400 / 2.2-2.5GHz	Circulator	2.2	2.5	0.6	18	1.35	-30 ~ +70	1600	30%	/	N	






High Power Series (Waveguide)

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Series Number	Description	Low Freq. (GHz)	High Freq. (GHz)	Relative BW	Max.I.L. (dB)	Min.Iso. (dB)	VSWR Max.	Temp. (°C)	Peak Power(W)	D.C.	Connector Type	Datasheet
BH84-60B	Circulator	6.58	10	10%	0.3	20	1.2	-40~+85	3500	10%	WR112	
BH100-60B	Circulator	8.2	12.5	10%	0.3	20	1.2	-40~+85	3000	10%	WR90	
BH120-48.5B	Circulator	9.48	15	8%	0.3	20	1.2	-40~+85	1000	10%	WR75	
BH140-40B	Circulator	11.9	18	6%	0.3	20	1.2	-40~+85	1000	10%	WR62	
BH180-32B	Circulator	14.5	22	5%	0.3	20	1.2	-40~+85	1000	10%	WR51	
BH220-24B	Circulator	17.6	26.7	5%	0.3	20	1.2	-40~+85	500	10%	WR42	
BH260-22.3B	Circulator	21.7	33	3%	0.3	20	1.2	-40~+85	500	10%	WR34	
BH320-25.4B1	Circulator	26.4	40.1	3%	0.3	20	1.2	-40~+85	500	10%	WR28	



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