

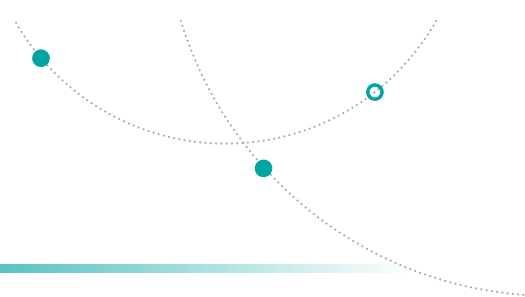


Power Divider

Selection Guide

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Sainty-Tech Communications Limited

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INTRODUCTION

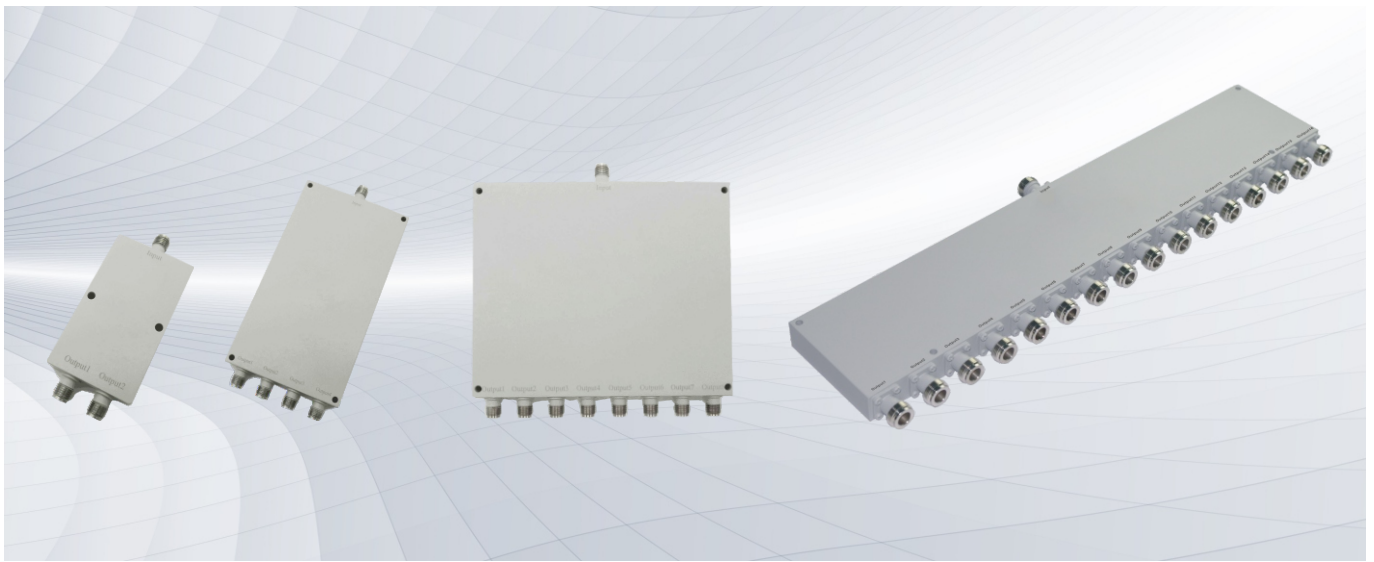
Power Divider is a passive device used to either divide one power source to several or combine several power sources to one when used in reverse. It is very common in RF & Microwave solutions and applications.

The signal power division reduction can be calculated, a table of power levels reduction for various outputs is given below. (Insertion loss mentioned in our datasheets excludes split loss.)

Theoretical Split Loss

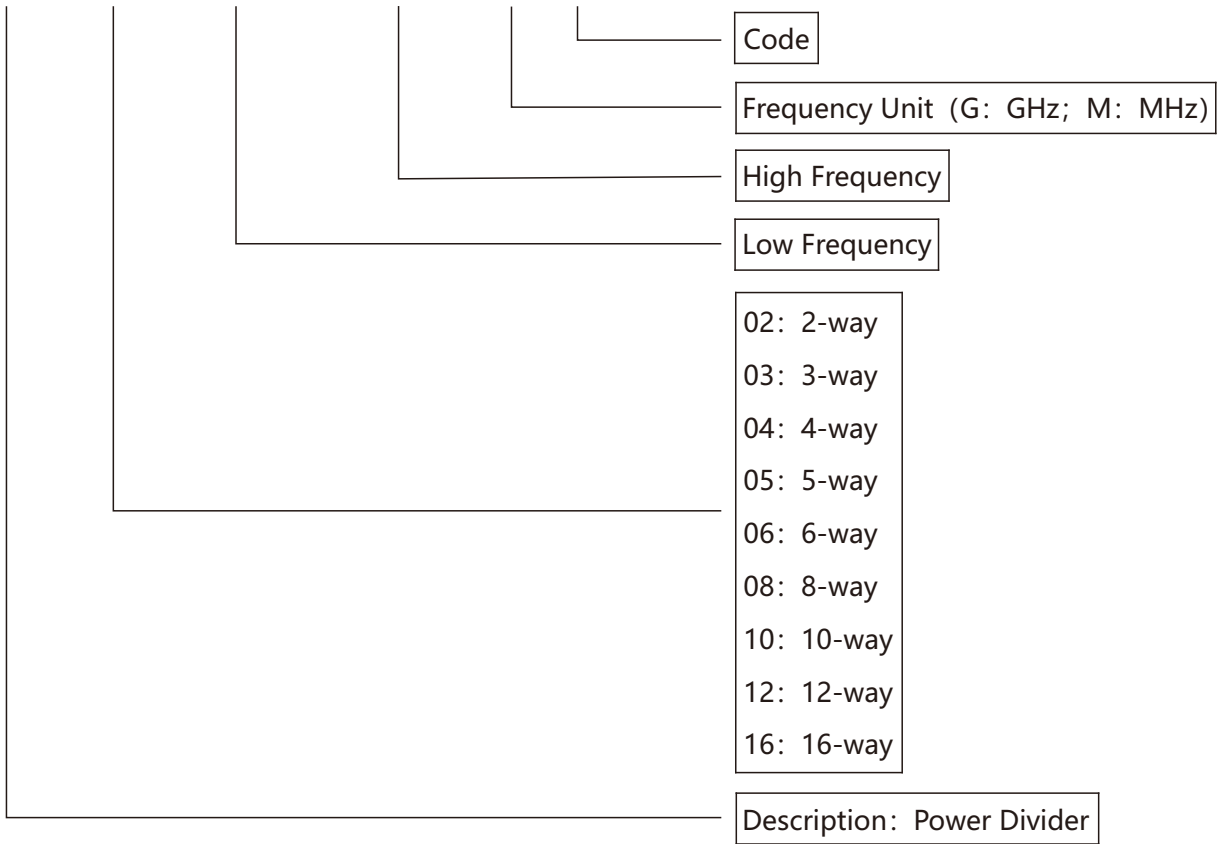
Number of Output Ports	Theoretical Split Loss (Unit: dB)
2	3.0
3	4.8
4	6.0
5	7.0
6	7.8
8	9.0
10	10.0
12	10.8
16	12.0

We offer Power Dividers up to 43.5GHz, wide bandwidths with high port isolation and low insertion loss. It can achieve 32-way signal shunting. Customization is available upon customer's requests. It can be used in many applications, such as Microwave Telecommunications, 5G Communications, IoT, Radar, ECM, Aerospace, Navigation etc.



































Numbering Rules





























PD 02 0050 0200 G A



2-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWR _{in} Max.	VSWR _{out} Max.	Amplitude Unbalance (±dB)	Phase Unbalance (±°)	Connector Type	Power (W)	Datasheet
PD0203756000MN	0.375	6	1	16	1.5	1.3	0.2	3	N	30	
PD0200500200GA	0.5	2	0.5	20	1.25	1.2	0.2	2	SMA	30	
PD0200500250GA	0.5	2.5	0.6	20	1.3	1.2	0.3	3	SMA	30	
PD0200500500GA	0.5	5	0.7	18	1.4	1.3	0.2	3	SMA	30	
PD0200500600GC	0.5	6	1.1	20	1.3	1.25	0.2	3	SMA	30	
PD0200500600GA	0.5	6	0.8	18	1.4	1.3	0.2	3	SMA	30	
PD0200500600GB	0.5	6	0.8	18	1.4	1.3	0.3	3	SMA	30	
PD0200500600GT	0.5	6	1	18	1.4	1.3	0.2	3	TNC	30	
PD0206982700MB	0.698	2.7	0.4	19	1.3	1.2	0.2	3	SMA	50	
PD0200700270GB ⁽¹⁾	0.7	2.7	0.4	20	1.25	1.2	0.3	3	N	30	
PD0200700270GN	0.7	2.7	0.55	18	1.35	1.3	0.2	/	N	50	
PD0200700270GM	0.7	2.7	0.4	20	1.25	1.2	0.3	3	N	30	
PD0200700270GA	0.7	2.7	0.4	20	1.3	1.2	0.2	4	SMA	50	
PD0200700360GN	0.7	3.6	0.6	20	1.3	1.25	0.3	3	N	30	
PD0200800200GN	0.8	2	0.3	22	1.25	1.2	0.3	2	N	30	
PD0200800250GA	0.8	2.5	0.4	20	1.3	1.2	0.2	2	SMA	30	
PD0200800300GN	0.8	3	0.5	20	1.3	1.25	0.2	2	N	30	
PD0200800350GN	0.8	3.5	0.3	6	1.3	1.3	0.4	4	N	300	
PD0200800420GA	0.8	4.2	0.7	20	1.4	1.3	0.3	3	SMA	30	
PD0201000200GA	1	2	0.3	20	1.2	1.15	0.2	2	SMA	30	
PD0201000200GC	1	2	0.3	22	1.2	1.15	0.3	2	SMA	30	
PD0201000400GN	1	4	0.7	20	1.3	1.2	0.3	4	N	30	
PD0201000400GA	1	4	0.5	20	1.3	1.2	0.3	3	SMA	30	
PD0201000800GA	1	8	1	20	1.35	1.3	0.3	5	SMA	30	
PD0201001240GA	1	12.4	1.2	16	1.4	1.3	0.4	5	SMA	20	
PD0201001800GA	1	18	1.2	16	1.5	1.5	0.3	5	SMA	20	
PD0201001800GN	1	18	1.4	16	1.5	1.5	0.3	5	N	20	
PD0201002650GA	1	26.5	1.4	16	1.7	1.5	0.5	6	SMA	10	
PD0201702650GB	1.7	26.5	1.5	16	1.8	1.6	0.4	6	2.92	20	
PD0202000400GA	2	4	0.3	20	1.25	1.2	0.2	2	SMA	30	
PD0202000800GA	2	8	0.6	20	1.3	1.2	0.3	3	SMA	30	
PD0202000800GN	2	8	0.7	20	1.35	1.25	0.3	4	N	30	

2-way Power Divider

















Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWR _{in} Max.	VSWR _{out} Max.	Amplitude Unbalance (±dB)	Phase Unbalance (±°)	Connector Type	Power (W)	Datasheet
PD0202001800GA	2	18	1	16	1.5	1.5	0.3	5	SMA	20	
PD0202001800GB	2	18	1	18	1.5	1.5	0.4	5	SMA	30	
PD0202002200GA	2	22	1.5	16	1.6	1.5	0.4	5	SMA	20	
PD0202004000GB	2	40	1.8	16	1.8	1.6	0.35	6	2.92	10	
PD0203400420GN	3.4	4.2	0.6	20	1.3	1.25	0.3	3	N	30	
PD0204000800GA	4	8	0.5	20	1.2	1.2	0.3	3	SMA	20	
PD0204000800GB	4	8	0.35	20	1.3	1.25	0.2	4	SMA	30 ^[2]	
PD0204000800GN	4	8	0.6	20	1.3	1.25	0.3	3	N	30	
PD0204001200GA	4	12	0.6	20	1.4	1.3	0.3	3	SMA	30	
PD0204001800GA	4	18	0.7	18	1.5	1.5	0.2	4	SMA	20	
PD0206001800GA	6	18	0.6	18	1.5	1.4	0.3	4	SMA	20	
PD0206001800GN	6	18	0.9	18	1.5	1.4	0.3	4	N	20	
PD0206004000GB	6	40	1.3	16	1.7	1.5	0.4	5	2.92	20	
PD0207000900GA	7	9	0.5	20	1.3	1.2	0.2	2	SMA	20	
PD0207000900GN	7	9	0.5	20	1.3	1.2	0.2	3	N	20	
PD0207001240GB	7	12.4	0.4	20	1.3	1.2	0.2	4	SMA	30 ^[2]	
PD0208001200GA	8	12	0.5	18	1.3	1.3	0.2	5	SMA	20	
PD0208001800GA	8	18	0.6	18	1.5	1.4	0.3	4	SMA	20	
PD0210001500GA	10	15	0.5	18	1.4	1.3	0.2	4	SMA	20	
PD0210001500GN	10	15	0.6	18	1.4	1.3	0.2	3	N	20	
PD0212001800GA	12	18	0.6	18	1.5	1.4	0.3	5	SMA	20	
PD0215002650GA	15	26.5	0.8	18	1.5	1.45	0.3	4	SMA	10	
PD0218002650GA	18	26.5	0.8	18	1.5	1.45	0.3	4	SMA	10	
PD0218004000GB	18	40	1.5	16	1.6	1.6	0.4	4	2.92	10	
PD0220002700GB	20	27	1	16	1.5	1.5	0.3	5	2.92	10	
PD0220003000GB	20	30	1	16	1.6	1.5	0.3	4	2.92	10	
PD0231003500GB	31	35	1.2	16	1.6	1.5	0.3	5	2.92	10	
PD0234003800GB	34	38	1.3	16	1.6	1.5	0.3	4	2.92	10	

*Insertion Loss excludes split loss.

[1] Low PIM

































[2] See detailed description in datasheet

3-way Power Divider









Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. I.L.* (dB)	Isolation Min.(dB)	VSWR _{in} Max.	VSWR _{out} Max.	Amplitude Unbalance (±dB)	Phase Unbalance (±°)	Connector Type	Power (W)	Datasheet
PD0300500200GA	0.5	2	0.8	20	1.35	1.3	0.4	5	SMA	30	
PD0306982700MN	0.698	2.7	0.7	18	1.35	1.3	0.4	4	N	50	
PD0300700270GN	0.7	2.7	0.6	18	1.35	1.3	0.3	/	N	30	
PD0300800250GA	0.8	2.5	0.7	20	1.4	1.3	0.4	5	SMA	30	
PD0301000200GA	1	2	0.6	18	1.3	1.3	0.3	5	SMA	30	
PD0302000400GA	2	4	0.6	18	1.3	1.3	0.3	5	SMA	30	
PD0302000800GA	2	8	1	18	1.4	1.3	0.6	4	SMA	30	
PD0302001800GA	2	18	1.5	16	1.7	1.5	0.5	8	SMA	20	
PD0304000800GA	4	8	0.6	18	1.35	1.3	0.4	5	SMA	30	
PD0304001800GA	4	18	1.3	18	1.6	1.5	0.7	6	SMA	20	
PD0306001800GA	6	18	1.2	18	1.6	1.5	0.6	6	SMA	20	
PD0306001800GC	6	18	1	18	1.7	1.5	0.4	6	SMA	20	
PD0307000900GN	7	9	0.8	18	1.4	1.3	0.5	5	N	20	
PD0308001800GA	8	18	0.7	18	1.5	1.5	0.6	5	SMA	20	
PD0317001800GA	17	18	0.7	18	1.5	1.5	0.6	5	SMA	20	
PD0330003100GA	30	31	1.2	15	1.5	1.5	0.5	6	2.92	30	

*Insertion Loss excludes split loss.

4-way Power Divider


Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWR _{in} Max.	VSWR _{out} Max.	Amplitude Unbalance (±dB)	Phase Unbalance (±°)	Connector Type	Power (W)	Datasheet
PD0400100500MA	0.01	0.5	1.5	20	1.5	1.4	0.3	2	SMA	10	
PD0400100500MN	0.01	0.5	1.4	20	1.4	1.4	0.3	2	N	10	
PD0403756000MN	0.375	6	2	11	1.7	1.4	0.3	4	N	30	
PD0400500200GA	0.5	2	0.8	20	1.25	1.2	0.3	3	SMA	30	
PD0400500600GA	0.5	6	1.8	19	1.4	1.4	0.3	4	SMA	30	
PD0400700360GN	0.7	3.6	1.2	20	1.4	1.3	0.4	4	N	30	
PD0400800200GN	0.8	2	0.8	22	1.25	1.2	0.3	5	N	30	
PD0400800250GA	0.8	2.5	0.7	20	1.3	1.2	0.3	6	SMA	30	
PD0400800300GN	0.8	3	1	20	1.35	1.3	0.3	3	N	30	
PD0400800420GA	0.8	4.2	1.4	18	1.5	1.4	0.4	5	SMA	30	
PD0400801800GA	0.8	18	4	16	1.7	1.5	0.5	8	SMA	20	
PD0401000200GA	1	2	0.6	20	1.25	1.2	0.3	3	SMA	30	
PD0401000400GA	1	4	0.8	20	1.3	1.2	0.3	4	SMA	30	
PD0401000400GN	1	4	1	20	1.4	1.3	0.4	5	N	30	
PD0401000800GA	1	8	1.4	20	1.5	1.4	0.3	6	SMA	30	
PD0401001240GA	1	12.4	2.2	16	1.6	1.3	0.5	7	SMA	20	
PD0401001800GA	1	18	2.6	16	1.65	1.6	0.5	6	SMA	20	
PD0401001800GN	1	18	3	16	1.6	1.5	0.5	6	N	20	
PD0402000400GA	2	4	0.5	20	1.25	1.2	0.3	3	SMA	30	
PD0402000800GA	2	8	0.9	20	1.4	1.3	0.3	4	SMA	30	
PD0402000800GN	2	8	1.2	18	1.4	1.3	0.4	4	N	30	
PD0402001800GA	2	18	1.8	16	1.6	1.5	0.4	6	SMA	20	
PD0402001800GD	2	18	1.5	15	1.8	1.8	0.8	8	SMA	10	
PD0402001800GN	2	18	2.2	16	1.6	1.5	0.4	6	N	20	
PD0404000800GA	4	8	0.8	20	1.3	1.25	0.3	3	SMA	30	
PD0404000800GN	4	8	1	18	1.5	1.4	0.4	4	N	30	
PD0404001800GA	4	18	1.1	18	1.6	1.5	0.4	5	SMA	20	
PD0404001800GN	4	18	1.8	18	1.6	1.5	0.4	6	N	20	
PD0406001800GN	6	18	1.8	18	1.6	1.5	0.4	6	N	20	
PD0406001800GA	6	18	1	18	1.6	1.5	0.3	5	SMA	20	
PD0406004000GB	6	40	2	15	2	1.6	0.4	8	2.92	10	
PD0407000900GN	7	9	0.8	20	1.4	1.3	0.3	3	N	30	

4-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWRin Max.	VSWRout Max.	Amplitude Unbalance (±dB)	Phase Unbalance (±°)	Connector Type	Power (W)	Datasheet
PD0407000900GA	7	9	0.7	20	1.3	1.2	0.3	4	SMA	20	
PD0408001800GA	8	18	1	18	1.6	1.5	0.3	5	SMA	20	
PD0410001500GN	10	15	1	18	1.5	1.4	0.3	4	N	20	
PD0410001500GA	10	15	0.8	18	1.5	1.4	0.3	4	SMA	20	
PD0410701450GA	10.7	14.5	0.8	20	1.45	1.35	0.3	4	SMA	30	
PD0415002650GA	15	26.5	1.5	16	1.7	1.5	0.4	6	SMA	10	
PD0418004000GB	18	40	1.6	15	1.8	1.5	0.4	6	2.92	10	
PD0426004000GB	26	40	2	15	1.7	1.6	0.4	8	2.92	10	












*Insertion Loss excludes split loss.

5-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWRin Max.	VSWRout Max.	Amplitude Unbalance (\pm dB)	Phase Unbalance (\pm $^{\circ}$)	Connector Type	Power (W)	Datasheet
PD0500500200GA	0.5	2	1.2	18	1.5	1.4	0.5	6	SMA	30	

























*Insertion Loss excludes split loss.

6-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. I.L.* (dB)	Isolation Min.(dB)	VSWR _{in} Max.	VSWR _{out} Max.	Amplitude Unbalance (±dB)	Phase Unbalance (±°)	Connector Type	Power (W)	Datasheet
PD0600500200GA	0.5	2	1.5	20	1.4	1.3	0.4	5	SMA	30	
PD0606982700MN	0.698	2.7	1	18	1.5	1.3	0.6	6	N	50	
PD0600800250GN	0.8	2.5	0.8	20	1.3	1.25	0.5	5	N	100	
PD0600800250GA	0.8	2.5	1.2	20	1.4	1.25	0.5	8	SMA	30	
PD0601000400GA	1	4	1.5	20	1.4	1.3	0.4	5	SMA	30	
PD0601000800GA	1	8	1.8	18	1.4	1.3	0.4	5	SMA	30	
PD0602000400GA	2	4	1	20	1.4	1.3	0.4	6	SMA	30	
PD0602000800GA	2	8	1.4	18	1.4	1.3	0.4	6	SMA	30	
PD0602001800GA	2	18	2.2	16	1.8	1.5	0.7	8	SMA	20	
PD0604001800GA	4	18	2.2	16	1.8	1.5	0.7	8	SMA	20	
PD0606001800GA	6	18	1.8	16	1.8	1.5	0.7	8	SMA	20	


*Insertion Loss excludes split loss.

8-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWR _{in} Max.	VSWR _{out} Max.	Amplitude Unbalance (±dB)	Phase Unbalance (±°)	Connector Type	Power (W)	Datasheet
PD0800050500MA	0.005	0.5	1.2	20	1.6	1.5	0.3	3	SMA	10	
PD0800050500MN	0.005	0.5	1.2	20	1.6	1.5	0.3	2	N	10	
PD0803756000MN	0.375	6	3	14	1.65	1.4	0.4	6	N	30	
PD0800500200GA	0.5	2	1.5	20	1.4	1.2	0.3	3	SMA	30	
PD0800500600GC	0.5	6	3.5	18	1.6	1.4	0.5	7	SMA	30	
PD0806982700MN	0.698	2.7	1	20	1.5	1.3	0.4	5	N	50	
PD0800800250GA	0.8	2.5	1	20	1.4	1.25	0.4	5	SMA	30	
PD0800800420GA	0.8	4.2	2	18	1.6	1.3	0.3	6	SMA	30	
PD0801000200GA	1	2	0.7	20	1.3	1.2	0.4	4	SMA	30	
PD0801000400GA	1	4	1.2	20	1.4	1.3	0.4	4	SMA	30	
PD0801000800GA	1	8	2	18	1.6	1.4	0.4	6	SMA	30	
PD0801001240GA	1	12.4	3.6	15	1.8	1.5	0.8	10	SMA	20	
PD0801001800GA	1	18	4	15	1.8	1.5	0.5	10	SMA	20	
PD0802000400GA	2	4	0.8	20	1.3	1.2	0.4	4	SMA	30	
PD0802000800GA	2	8	1.2	18	1.5	1.3	0.5	5	SMA	30	
PD0802001800GA	2	18	3.2	15	1.8	1.5	0.8	10	SMA	20	
PD0802002200GA	2	22	4.5	16	2	1.6	0.6	8	SMA	20	
PD0803001300GA	3	13	1.8	18	1.6	1.3	0.5	5	SMA	20	
PD0804000800GA	4	8	1.2	18	1.5	1.25	0.4	4	SMA	30	
PD0804001800GA	4	18	1.8	18	1.7	1.5	0.5	6	SMA	20	
PD0806001800GA	6	18	1.4	18	1.7	1.5	0.5	6	SMA	20	
PD0806004000GB	6	40	2.5	15	2	1.6	0.5	6	2.92	10	
PD0806004350GB	6	43.5	3.2	15	2	1.6	0.5	6	2.92	10	
PD0810001500GA	10	15	1.2	18	1.5	1.4	0.4	4	SMA	20	


*Insertion Loss excludes split loss.

10-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWRin Max.	VSWRout Max.	Amplitude Unbalance (\pm dB)	Phase Unbalance (\pm $^{\circ}$)	Connector Type	Power (W)	Datasheet
PD1000800200GA	0.8	2	1	20	1.6	1.4	0.6	8	SMA	30	





*Insertion Loss excludes split loss.

12-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWRin Max.	VSWRout Max.	Amplitude Unbalance (\pm dB)	Phase Unbalance (\pm $^{\circ}$)	Connector Type	Power (W)	Datasheet
PD1202000800GA	2	8	2	18	1.7	1.4	0.8	10	SMA	30	

*Insertion Loss excludes split loss.






16-way Power Divider

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max.I.L.* (dB)	Isolation Min.(dB)	VSWRin Max.	VSWRout Max.	Amplitude Unbalance (\pm dB)	Phase Unbalance (\pm °)	Connector Type	Power (W)	Datasheet
PD1600800250GA	0.8	2.5	1.7	18	1.5	1.3	0.4	8	SMA	30	
PD1601000800GA	1	8	2.8	18	1.8	1.5	0.5	8	SMA	30	
PD1602000400GA	2	4	1.2	18	1.5	1.3	0.4	8	SMA	30	
PD1602000800GA	2	8	2.2	18	1.8	1.5	0.5	8	SMA	30	

*Insertion Loss excludes split loss.



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