

Power Splitter/Combiner

8 Way-0° 50Ω 2000 to 11000 MHz

ZN8PD-113-S+



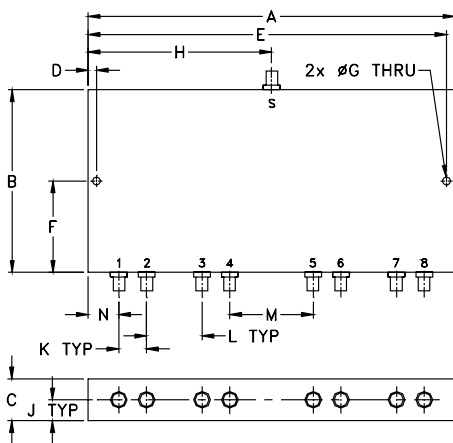
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.875W max.
DC Current	1.2A(150mA for each port)
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S(COM)
PORT 1,2,3,.....,8	1,2,3,.....,8

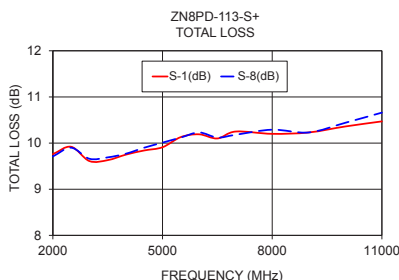
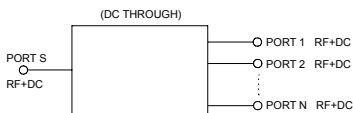
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
6.60	3.28	.75	.150	6.45	1.64	.144
167.64	83.31	19.05	3.81	163.83	41.66	3.66
H	J	K	L	M	N	wt
3.30	.38	.500	1.000	1.500	0.550	grams
83.82	9.65	12.70	25.4	38.1	13.97	360

electrical schematic



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
 C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Features

- wideband, 2000 to 11000 MHz
- low insertion loss, 1.7 dB typ.
- low amplitude unbalance, 0.3 dB typ.
- DC PASS from sum port to output ports

Applications

- high band PCS
- UNII
- WIMAX
- WiFi
- bluetooth

Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		2000		11000	MHz
Insertion Loss (above theoretical 9.0 dB)	2000-4600	—	0.9	1.4	dB
	4600-7200	—	1.3	1.9	
	7200-11000	—	1.9	2.6	
Isolation	2000-4600	15	20	—	dB
	4600-7200	17	22	—	
	7200-11000	15	20	—	
Phase Unbalance	2000-4600	—	3	6	Degree
	4600-7200	—	6	10	
	7200-11000	—	8	15	
Amplitude Unbalance	2000-4600	—	0.3	0.5	dB
	4600-7200	—	0.4	0.7	
	7200-11000	—	0.5	0.9	
VSWR (Port S)	2000-4600	—	1.55	1.95	:1
	4600-7200	—	1.30	1.60	
	7200-11000	—	1.50	1.95	
VSWR (Port 1-8)	2000-4600	—	1.33	1.60	:1
	4600-7200	—	1.33	1.60	
	7200-11000	—	1.45	2.2	

1. Over -55°C to +55°C. Derate linearly to 20% of rating at 100°C

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)						Amp. Unb. (dB)	Isolation (dB)				Phase Unb. (deg.)	VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-3	3-4	5-6				
2000	9.76	9.75	9.75	9.77	9.68	9.71	0.09	17.49	24.49	28.33	19.30	1.68	1.53	1.14	1.14
2500	9.92	9.91	9.87	9.89	9.87	9.90	0.06	22.28	27.55	33.24	23.67	1.42	1.72	1.22	1.19
3000	9.61	9.62	9.57	9.61	9.60	9.66	0.09	25.68	31.91	41.40	22.10	2.22	1.21	1.03	1.06
3500	9.63	9.67	9.65	9.69	9.66	9.69	0.06	21.34	28.87	38.51	18.63	3.01	1.21	1.06	1.09
4000	9.75	9.83	9.77	9.78	9.81	9.77	0.08	21.13	33.33	33.96	18.57	3.49	1.14	1.08	1.09
4500	9.84	9.94	9.97	9.84	9.97	9.90	0.13	28.80	28.72	32.85	23.34	2.87	1.22	1.22	1.26
5000	9.91	9.99	9.91	9.81	9.93	10.01	0.20	34.61	29.63	32.93	40.77	3.18	1.23	1.32	1.37
5500	10.13	10.25	10.17	10.05	10.14	10.12	0.20	20.43	44.81	34.93	21.51	4.80	1.36	1.20	1.19
6000	10.19	10.28	10.27	10.15	10.47	10.23	0.33	25.08	29.47	35.44	27.44	6.40	1.12	1.15	1.15
6500	10.10	10.18	10.17	10.07	10.25	10.12	0.24	25.81	33.82	34.91	28.84	5.11	1.20	1.22	1.21
7000	10.25	10.33	10.17	10.13	10.29	10.18	0.32	29.68	31.83	38.17	29.47	5.38	1.22	1.41	1.35
8000	10.20	10.21	10.30	10.29	10.40	10.29	0.22	20.59	40.14	35.50	20.44	6.39	1.23	1.33	1.27
9000	10.23	10.37	10.27	10.25	10.25	10.23	0.15	26.13	26.00	32.38	23.71	6.47	1.20	1.43	1.36
10000	10.36	10.51	10.49	10.56	10.53	10.44	0.22	26.38	24.40	36.09	24.54	8.13	1.36	1.37	1.26
11000	10.47	10.61	10.76	10.50	10.79	10.66	0.32	27.95	27.65	30.03	28.65	7.25	1.43	1.34	1.30

1. Total Loss = Insertion Loss + 9dB theoretical splitter loss.

