DC Pass
Directional Coupler

ZADC-10-63-S+

50Ω Up to 4W 2500 to 6000 MHz



CASE STYLE: CC1266

Connectors	Model
SMA	ZADC-10-63-S+

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	1.0A

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	S

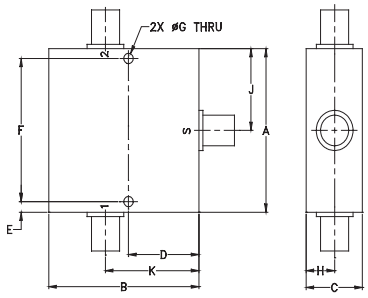
Features

- excellent directivity, 20 dB typ.
- good VSWR, 1.40 typ.
- power input up to 4W
- low cost
- DC current through input to output 1.0A Max.

Applications

- instrumentation
- ISM
- defense communications
- federal communications
- fixed satellite

Outline Drawing

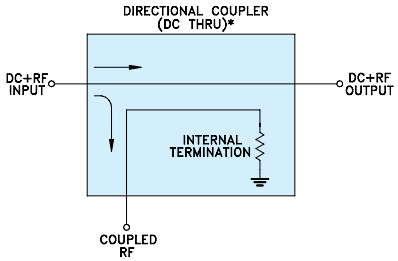


Outline Dimensions (inch / mm)

A	B	C	D	E	F
2.00	2.00	.75	.938	.13	1.750
50.80	50.80	19.05	23.83	3.30	44.45

G	H	J	K	wt
.125	.38	1.00	1.25	grams
3.18	9.65	25.40	31.75	200.0

Electrical Schematic



* ELECTRICAL SCHEMATIC FOR DIRECTIONAL COUPLER THAT IS DESIGNED WITHOUT INTERNAL TRANSFORMERS.

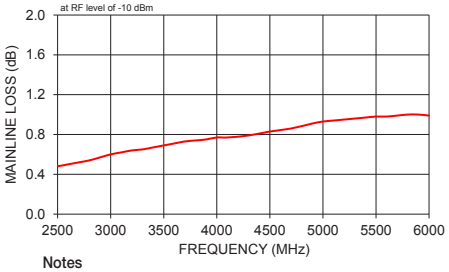
Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		2500	—	6000	MHz
Mainline Loss (above theoretical 0.3 dB)	2500 3500 5000 6000	— — — —	0.2 0.4 0.6 0.7	0.7 0.9 1.1 1.2	dB
Coupling	2500 - 6000 2500 - 3500 3500 - 5000 5000 - 6000	— 10.5 9.5 9.3	11.7 — — —	— 14.5 12.5 11.3	dB
Coupling Flatness(±)	2500 - 3500 3500 - 5000 5000 - 6000	— — —	1.0 0.6 0.2	1.5 1.0 0.5	dB
Directivity	2500 3500 5000 6000	17 13 12 10	23.0 21.8 20.6 16.6	— — — —	dB
Return Loss (Input)	2500 3500 5000 6000	20 18 15 15	30 25 22 22	— — — —	dB
Return Loss (Output)	2500 3500 5000 6000	19 18 14 14	31 29 19 19	— — — —	dB
Return Loss (Coupling)	2500 3500 5000 6000	19 18 14 8	32 27 25 11	— — — —	dB
Input Power	2500 - 6000	—	—	4.0	W

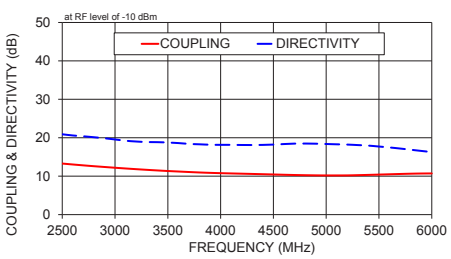
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB) In	Return Loss (dB) Out	Return Loss (dB) Cpl
2500.00	0.48	13.28	20.90	26.47	27.12	32.61
2800.00	0.54	12.59	20.13	24.27	25.60	38.24
3000.00	0.60	12.19	19.55	23.20	24.58	35.00
3500.00	0.69	11.34	18.75	22.79	25.76	24.94
4000.00	0.77	10.78	18.15	29.15	39.56	22.16
4500.00	0.83	10.44	18.22	29.05	24.41	25.25
5000.00	0.93	10.19	18.37	21.78	18.62	26.09
5500.00	0.98	10.41	17.71	22.43	18.14	13.93
5800.00	1.00	10.64	16.88	25.73	19.41	11.34
6000.00	0.99	10.71	16.27	29.59	20.91	10.70

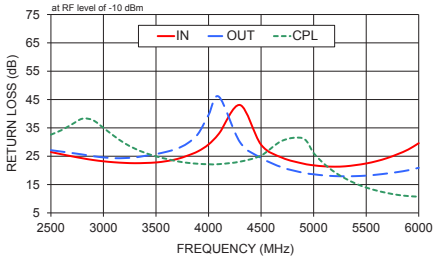
ZADC-10-63-S+
MAINLINE LOSS



ZADC-10-63-S+
COUPLING & DIRECTIVITY



ZADC-10-63-S+
RETURN LOSS



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