

# DC Pass Bi-Directional Coupler

50Ω Up to 100W 700 to 1800 MHz

## ZABDC20-182H+



CASE STYLE: DD477-1

Connectors	Model	Price	Qty.
SMA	ZABDC20-182H-S+	\$119.95	(1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Maximum Ratings

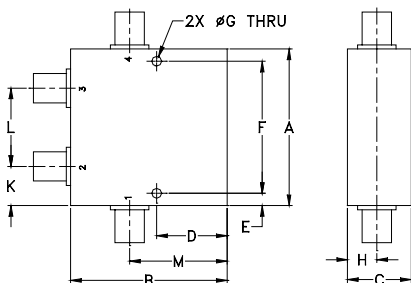
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
DC Current	2.0 A

\* Case temperature is defined as temperature on ground leads. Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

INPUT	1
OUTPUT	4
COUPLED (forward)	2
COUPLED (reverse)	3

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	
2.00	2.00	.88	.90	.156	1.688	.125	
50.80	50.80	22.35	22.86	3.96	42.88	3.18	
H	J	K	L	M		wt	
.38	---	.50	1.00	1.25		grams	
9.65	---	12.70	25.40	31.75		225	

### Features

- excellent mainline loss, 0.2 dB typ.
- excellent directivity, 25 dB typ.
- high power, up to 100W
- rugged shielded case
- DC current through input to output 2.0A Max. at 50 watt RF input power

### Applications

- PCS/DCS/UMTS
- power leveling & monitoring
- VSWR measurement

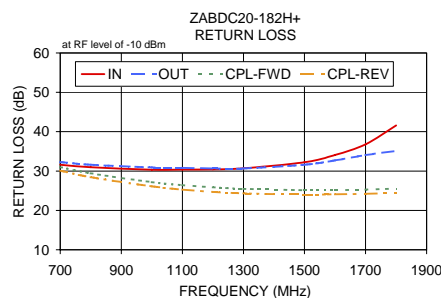
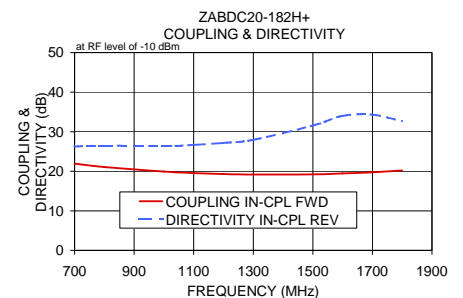
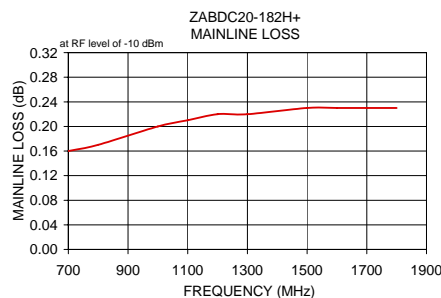
### Bi-Directional Coupler Electrical Specifications

FREQ. (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)		DIRECTIVITY (dB)		VSWR (:1)	POWER INPUT (W)
	Nom.	Flatness	Typ.	Max.	Typ.	Min.		
$f_L$ - $f_U$								
700-1800			0.20	0.35	25	19	1.08	50
800-1000	20.5±1.0	±0.75	0.20	0.30	23	20	1.08	100
1000-1600	19.5±0.8	±0.6	0.25	0.35	27	20	1.08	50
1600-1800	20.0±1.0	±0.6	0.25	0.35	25	19	1.08	50

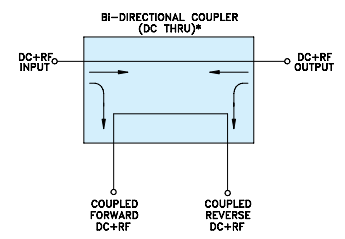
1. Mainline loss includes theoretical power loss at coupled port.

### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB)		Coupling (dB)		Directivity (dB)		Return Loss (dB)		
	In-Out	In-Cpl Fwd	Out-Cpl Rev	Out-Cpl Fwd	In-Cpl Rev	In	Out	Cpl Fwd	Cpl Rev
700.00	0.16	21.92	21.94	26.35	26.27	31.61	32.26	30.98	30.09
800.00	0.17	21.08	21.10	26.19	26.48	30.98	31.61	29.43	28.43
1000.00	0.20	19.91	19.93	25.90	26.39	30.35	30.95	27.18	26.13
1100.00	0.21	19.55	19.57	25.96	26.67	30.39	30.81	26.42	25.28
1200.00	0.22	19.30	19.32	26.55	27.18	30.40	30.67	25.87	24.71
1300.00	0.22	19.17	19.19	27.47	27.96	30.69	30.65	25.48	24.35
1500.00	0.23	19.24	19.25	29.96	31.56	32.22	31.59	25.11	24.02
1600.00	0.23	19.44	19.46	31.28	34.00	34.08	32.70	25.11	24.09
1700.00	0.23	19.75	19.77	30.63	34.30	36.77	34.05	25.28	24.21
1800.00	0.23	20.20	20.22	29.13	32.66	41.59	35.13	25.53	24.47



### Electrical Schematic



\* ELECTRICAL SCHEMATIC IS FOR BI-DIRECTIONAL COUPLER WITHOUT INTERNAL TRANSFORMERS AND RESISTORS.

For detailed performance specs & shopping online see web site

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