

Engineering Development Model

Power Splitter/Combiner 2 Way-180°

ADPJ-EDR4639/2

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : CD636

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		1640		1740	MHz
Isolation	1640 - 1740 MHz	14	19		dB
Insertion Loss Above 3.0 dB	1640 - 1740 MHz		1.70	3.00	dB
Phase Unbalance	1640 - 1740 MHz		7.048	11.000	deg.
Amplitude Unbalance	1640 - 1740 MHz		0.339	1.000	dB
VSWR	SUM Port		1.70	2.50	(:1)
	OUT Ports		1.70	2.50	(:1)

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	1
PORT 1	3
PORT 2	4
GND EXT	2,5
NOT USED	6

Functional Diagram



2 Way-180° Power Splitter/Combiner

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Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	ISOLATION (dB) 1-2	PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)		
	S-1	S-2					S	1	2
1290.0	4.28	4.34	0.06	17.30	174.63	1290.0	1.37	1.67	1.69
1311.0	4.30	4.36	0.06	17.58	174.23	1311.0	1.37	1.67	1.70
1331.0	4.29	4.38	0.09	17.73	174.45	1331.0	1.38	1.67	1.70
1352.0	4.33	4.39	0.06	17.76	174.49	1352.0	1.39	1.68	1.71
1372.0	4.38	4.37	0.01	17.82	174.40	1372.0	1.40	1.69	1.71
1393.0	4.40	4.37	0.03	18.03	174.19	1393.0	1.41	1.69	1.72
1413.0	4.40	4.37	0.03	18.23	174.17	1413.0	1.42	1.69	1.72
1434.0	4.44	4.37	0.07	18.38	173.88	1434.0	1.43	1.69	1.72
1454.0	4.47	4.40	0.07	18.47	174.06	1454.0	1.45	1.69	1.72
1475.0	4.52	4.40	0.12	18.55	174.00	1475.0	1.46	1.70	1.72
1495.0	4.50	4.37	0.13	18.73	173.90	1495.0	1.47	1.70	1.73
1516.0	4.53	4.38	0.15	18.94	173.72	1516.0	1.48	1.70	1.73
1536.0	4.57	4.38	0.19	19.17	173.60	1536.0	1.49	1.71	1.73
1557.0	4.59	4.42	0.17	19.22	173.56	1557.0	1.51	1.71	1.73
1577.0	4.62	4.40	0.22	19.20	173.58	1577.0	1.52	1.71	1.74
1598.0	4.64	4.39	0.25	19.39	173.33	1598.0	1.53	1.71	1.74
1618.0	4.66	4.38	0.28	19.73	173.20	1618.0	1.54	1.71	1.73
1640.0	4.68	4.39	0.29	19.97	172.88	1640.0	1.55	1.70	1.73
1651.0	4.70	4.39	0.31	19.91	173.01	1651.0	1.55	1.71	1.72
1662.0	4.71	4.41	0.30	19.85	173.15	1662.0	1.56	1.71	1.72
1673.0	4.72	4.41	0.31	19.77	173.21	1673.0	1.56	1.71	1.72
1684.0	4.75	4.42	0.33	19.81	173.04	1684.0	1.57	1.71	1.73
1696.0	4.75	4.40	0.35	19.97	173.01	1696.0	1.57	1.71	1.73
1707.0	4.76	4.40	0.36	20.20	172.90	1707.0	1.58	1.72	1.72
1718.0	4.74	4.38	0.36	20.40	172.86	1718.0	1.58	1.71	1.72
1729.0	4.76	4.38	0.38	20.51	172.84	1729.0	1.58	1.71	1.72
1740.0	4.78	4.38	0.40	20.51	172.62	1740.0	1.59	1.71	1.72
1844.0	4.87	4.38	0.49	20.74	172.17	1844.0	1.61	1.69	1.69
1864.0	4.90	4.40	0.50	20.62	172.02	1864.0	1.61	1.69	1.68
1885.0	4.91	4.38	0.53	20.46	172.02	1885.0	1.61	1.69	1.68
1905.0	4.91	4.36	0.55	20.39	172.00	1905.0	1.61	1.68	1.68
1926.0	4.91	4.36	0.55	20.50	172.00	1926.0	1.61	1.68	1.67
1946.0	4.95	4.38	0.57	20.61	171.71	1946.0	1.61	1.67	1.65
1967.0	4.97	4.39	0.58	20.42	171.85	1967.0	1.61	1.65	1.64
1987.0	4.98	4.39	0.59	20.05	171.79	1987.0	1.60	1.65	1.63
2008.0	4.98	4.38	0.60	19.80	171.66	2008.0	1.60	1.64	1.62
2028.0	5.00	4.37	0.63	19.85	171.69	2028.0	1.59	1.63	1.61
2049.0	5.00	4.38	0.62	19.89	171.44	2049.0	1.59	1.61	1.59
2069.0	5.02	4.38	0.64	19.57	171.30	2069.0	1.58	1.59	1.57
2090.0	5.06	4.41	0.65	19.13	171.22	2090.0	1.58	1.59	1.55

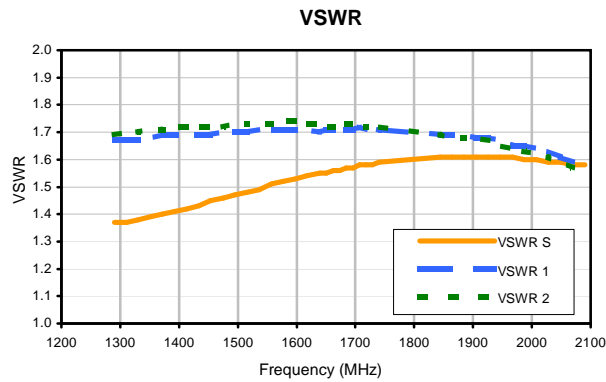
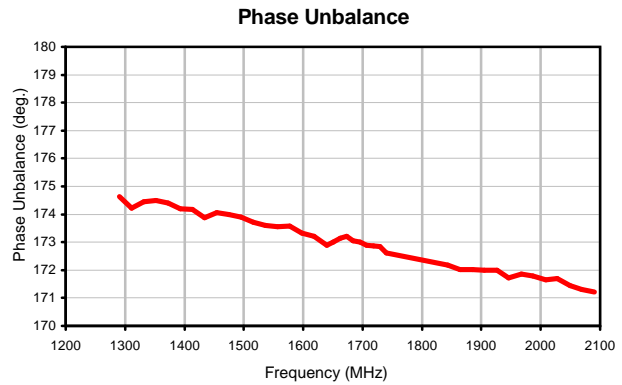
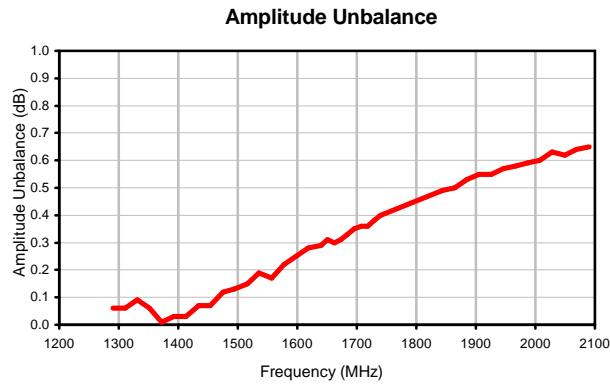
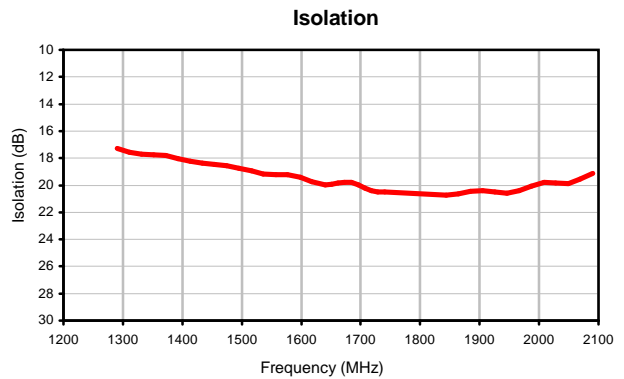
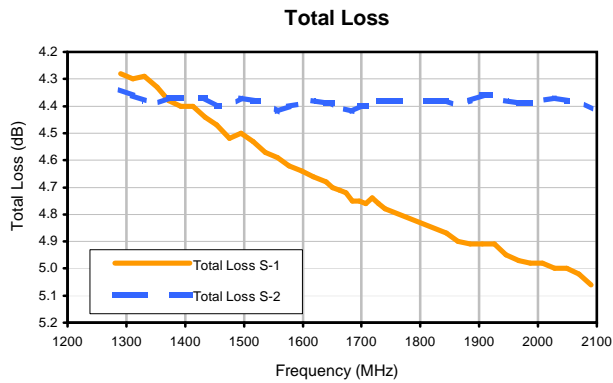
¹ Total Loss = Insertion Loss + 3dB Splitter Loss



2 Way-180° Power Splitter/Combiner

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Typical Performance Curves



REV. X2
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100707
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Case Style

CD

CD541
CD542
CD636
CD637

Outline Dimensions



PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

CASE#	A	B	C	D	E	F	G	H	J	K	L	WT, GRAM
CD541					.082 (2.08)							.15
CD542	.272 (6.91)	.310 (7.87)	.220 (5.58)	.100 (2.54)	.112 (2.84)	.055 (1.40)	.100 (2.54)	.030 (0.76)	.026 (0.66)	.065 (1.65)	.300 (7.62)	.20
CD636					.162 (4.11)							.25
CD637					.206 (5.23)							.40

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .01$; 3 Pl. $\pm .005$

Notes:

- Case material: Plastic.
- Termination finish:
For RoHS Case Styles: Tin plate over Nickel plate. All models, (+) suffix.
For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.

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				50
				100
				200
		13	Standard	500
				1000

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