

Engineering Development Model

Module: Power Splitter/Combiner and Coupler*

2DSCM-ED13504

*2 Splitters and 2 Couplers

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 : 99-01-1379

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter			Min.	Typ.	Max.	Units
Frequency			700		985	MHz
Isolation	OUT 1 - OUT 2	700-985 MHz		25		dB
	CPL-OUT 1 & CPL-OUT 2	700-985 MHz		42		dB
Insertion Loss Above 3.0 dB	IN-OUT 1 & IN-OUT 2	700-985 MHz		0.45		dB
Insertion Loss	IN-CPL	700-985 MHz		21		dB
Phase Unbalance		700-985 MHz		0.25		deg.
Amplitude Unbalance		700-985 MHz		0.01		dB
VSWR	SUM Port			1.14		(:1)
	OUT Ports			1.13		(:1)

MAXIMUM RATINGS

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

COAXIAL CONNECTIONS

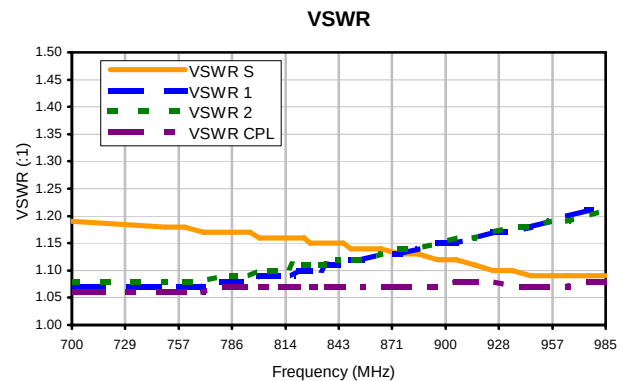
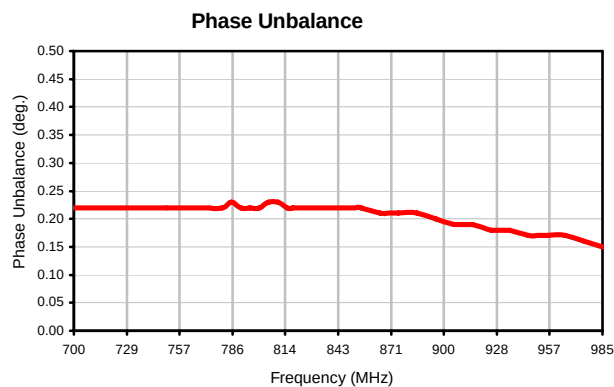
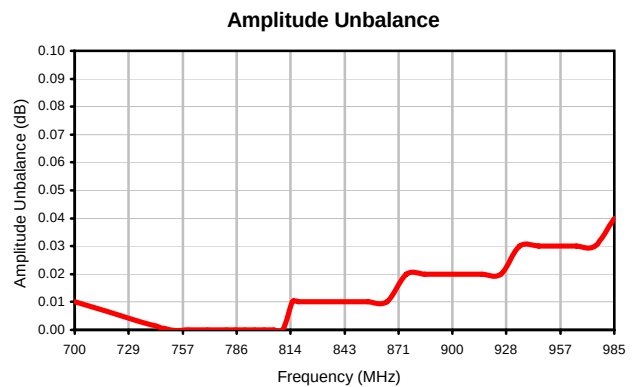
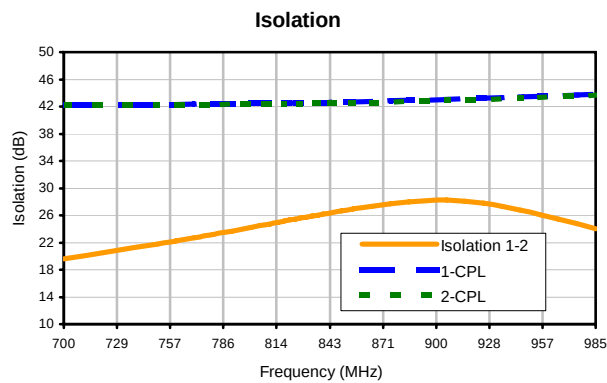
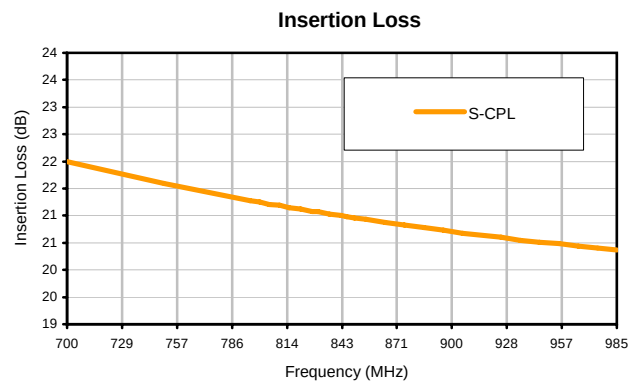
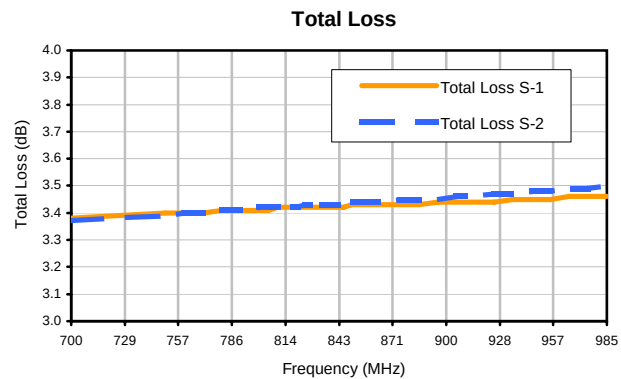
INPUT	S
OUTPUT 1	1
OUTPUT 2	2
COUPLING	CPL

Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS ¹ (dB)		Insertion Loss (dB) S-CPL	AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)			PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1)			
	S-1	S-2			1-2	1-CPL	2-CPL			S	1	2	CPL
700.00	3.38	3.37	21.99	0.01	19.57	42.23	42.19	0.22	700.00	1.19	1.07	1.08	1.06
750.00	3.40	3.39	21.59	0.00	21.79	42.27	42.18	0.22	750.00	1.18	1.07	1.08	1.06
760.00	3.40	3.40	21.52	0.00	22.23	42.32	42.21	0.22	760.00	1.18	1.07	1.08	1.06
770.00	3.40	3.40	21.45	0.00	22.72	42.34	42.24	0.22	770.00	1.17	1.07	1.08	1.06
780.00	3.41	3.41	21.38	0.00	23.18	42.37	42.27	0.22	780.00	1.17	1.08	1.09	1.07
785.00	3.41	3.41	21.35	0.00	23.43	42.41	42.31	0.23	785.00	1.17	1.08	1.09	1.07
790.00	3.41	3.41	21.31	0.00	23.68	42.40	42.33	0.22	790.00	1.17	1.08	1.09	1.07
795.00	3.41	3.41	21.28	0.00	23.94	42.40	42.34	0.22	795.00	1.17	1.08	1.09	1.07
800.00	3.41	3.42	21.25	0.00	24.17	42.45	42.35	0.22	800.00	1.16	1.09	1.10	1.07
805.00	3.41	3.42	21.21	0.00	24.46	42.44	42.35	0.23	805.00	1.16	1.09	1.10	1.07
810.00	3.42	3.42	21.19	0.00	24.72	42.47	42.36	0.23	810.00	1.16	1.09	1.10	1.07
815.00	3.42	3.42	21.15	0.01	24.98	42.48	42.40	0.22	815.00	1.16	1.09	1.10	1.07
818.00	3.42	3.42	21.14	0.01	25.14	42.48	42.40	0.22	818.00	1.16	1.09	1.11	1.07
821.00	3.42	3.42	21.12	0.01	25.30	42.49	42.41	0.22	821.00	1.16	1.10	1.11	1.07
824.00	3.42	3.43	21.10	0.01	25.42	42.52	42.42	0.22	824.00	1.16	1.10	1.11	1.07
827.00	3.42	3.43	21.08	0.01	25.58	42.55	42.41	0.22	827.00	1.15	1.10	1.11	1.07
830.00	3.42	3.43	21.07	0.01	25.73	42.53	42.44	0.22	830.00	1.15	1.10	1.11	1.07
833.00	3.42	3.43	21.05	0.01	25.87	42.57	42.45	0.22	833.00	1.15	1.10	1.11	1.07
836.00	3.42	3.43	21.03	0.01	26.03	42.58	42.45	0.22	836.00	1.15	1.11	1.11	1.07
839.00	3.42	3.43	21.02	0.01	26.15	42.59	42.46	0.22	839.00	1.15	1.11	1.12	1.07
842.00	3.42	3.43	21.00	0.01	26.32	42.58	42.46	0.22	842.00	1.15	1.11	1.12	1.07
845.00	3.42	3.43	20.98	0.01	26.44	42.62	42.49	0.22	845.00	1.15	1.11	1.12	1.07
849.00	3.43	3.44	20.96	0.01	26.63	42.67	42.49	0.22	849.00	1.14	1.12	1.12	1.07
855.00	3.43	3.44	20.93	0.01	26.92	42.68	42.54	0.22	855.00	1.14	1.12	1.12	1.07
865.00	3.43	3.44	20.88	0.01	27.35	42.75	42.60	0.21	865.00	1.14	1.13	1.13	1.07
875.00	3.43	3.45	20.83	0.02	27.71	42.83	42.67	0.21	875.00	1.13	1.13	1.14	1.07
885.00	3.43	3.45	20.78	0.02	27.97	42.93	42.78	0.21	885.00	1.13	1.14	1.14	1.07
895.00	3.44	3.45	20.73	0.02	28.17	42.97	42.85	0.20	895.00	1.12	1.15	1.15	1.07
905.00	3.44	3.46	20.68	0.02	28.22	43.06	42.92	0.19	905.00	1.12	1.15	1.16	1.08
915.00	3.44	3.46	20.64	0.02	28.08	43.12	43.01	0.19	915.00	1.11	1.16	1.16	1.08
925.00	3.44	3.47	20.60	0.02	27.77	43.20	43.07	0.18	925.00	1.10	1.17	1.17	1.08
935.00	3.45	3.47	20.55	0.03	27.28	43.30	43.16	0.18	935.00	1.10	1.17	1.18	1.07
945.00	3.45	3.48	20.51	0.03	26.75	43.39	43.22	0.17	945.00	1.09	1.18	1.18	1.07
955.00	3.45	3.48	20.48	0.03	26.11	43.46	43.32	0.17	955.00	1.09	1.19	1.19	1.07
965.00	3.46	3.49	20.44	0.03	25.45	43.57	43.46	0.17	965.00	1.09	1.20	1.19	1.07
975.00	3.46	3.49	20.40	0.03	24.77	43.69	43.55	0.16	975.00	1.09	1.21	1.20	1.08
985.00	3.46	3.50	20.37	0.04	24.04	43.82	43.67	0.15	985.00	1.09	1.21	1.21	1.08

¹Total Loss = Insertion Loss + 3dB Splitter Loss

Typical Performance Curves





All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I