Engineering Development Model

Module: Power Splitter/Combiner and Coupler* 2DSCM-ED13491/1

*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			1500		2300	MHz
Isolation	**OUT 1 - OUT 2**	**1500-2300 MHz**		23		dB
	CPL-OUT 1 & CPL-OUT 2	**1500-2300 MHz**		44		dB
Insertion Loss Above 3.0 dB	**IN-OUT 1 & IN-OUT 2**	**1500-2300 MHz**		0.35		dB
Insertion Loss	**IN-CPL**	**1500-2300 MHz**		21.25		dB
Phase Unbalance		**1500-2300 MHz**		1.05		deg.
Amplitude Unbalance		**1500-2300 MHz**		0.08		dB
VSWR		**SUM Port**		1.18		(: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)	AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)			PHASE UNBALANCE (deg.)
	S-1	S-2	S-CPL		1-2	1-CPL	2-CPL	
1500.0	3.40	3.51	21.70	0.11	17.88	44.29	44.44	0.94
1550.0	3.39	3.50	21.60	0.11	18.71	44.37	44.55	0.96
1600.0	3.38	3.49	21.52	0.10	19.72	44.41	44.63	0.98
1650.0	3.37	3.47	21.45	0.10	20.95	44.49	44.74	0.98
1700.0	3.35	3.45	21.39	0.10	22.44	44.53	44.80	0.99
1750.0	3.33	3.43	21.33	0.09	24.30	44.71	44.87	1.00
1800.0	3.31	3.40	21.28	0.09	26.25	44.76	44.94	1.02
1820.0	3.30	3.39	21.27	0.09	26.99	44.80	44.96	1.02
1830.0	3.30	3.39	21.26	0.09	27.30	44.81	44.89	1.03
1840.0	3.30	3.39	21.25	0.09	27.56	44.84	44.88	1.03
1850.0	3.29	3.38	21.25	0.09	27.77	44.87	44.91	1.03
1860.0	3.29	3.38	21.24	0.09	27.88	44.92	44.93	1.02
1870.0	3.29	3.37	21.23	0.09	27.95	44.89	44.93	1.02
1880.0	3.28	3.37	21.22	0.09	27.89	44.93	44.93	1.03
1890.0	3.28	3.37	21.22	0.09	27.77	44.95	44.94	1.03
1900.0	3.28	3.36	21.21	0.08	27.59	44.97	44.99	1.03
1910.0	3.28	3.36	21.20	0.08	27.31	45.03	44.92	1.02
1920.0	3.27	3.36	21.20	0.08	26.98	45.04	44.89	1.03
1930.0	3.27	3.35	21.19	0.08	26.59	45.05	44.89	1.04
1940.0	3.27	3.35	21.19	0.08	26.19	45.08	44.86	1.05
1950.0	3.27	3.35	21.19	0.08	25.76	45.09	44.87	1.04
1960.0	3.27	3.35	21.18	0.08	25.31	45.15	44.85	1.03
1970.0	3.27	3.35	21.18	0.08	24.90	45.14	44.87	1.05
1980.0	3.27	3.35	21.17	0.08	24.44	45.19	44.86	1.05
1990.0	3.27	3.35	21.17	0.08	24.02	45.17	44.86	1.06
2000.0	3.27	3.35	21.17	0.08	23.57	45.21	44.83	1.06
2010.0	3.27	3.35	21.16	0.07	23.15	45.26	44.80	1.05
2020.0	3.27	3.35	21.16	0.07	22.74	45.27	44.79	1.05
2030.0	3.27	3.35	21.16	0.07	22.34	45.28	44.70	1.06
2040.0	3.28	3.35	21.16	0.07	21.94	45.35	44.72	1.07
2050.0	3.28	3.35	21.16	0.07	21.58	45.37	44.71	1.06
2100.0	3.30	3.37	21.16	0.07	19.90	45.50	44.72	1.07
2150.0	3.33	3.39	21.17	0.06	18.55	45.58	44.57	1.09
2200.0	3.37	3.43	21.19	0.06	17.41	45.74	44.49	1.11
2250.0	3.42	3.47	21.23	0.05	16.45	45.90	44.47	1.13
2300.0	3.47	3.52	21.28	0.04	15.68	45.98	44.43	1.14

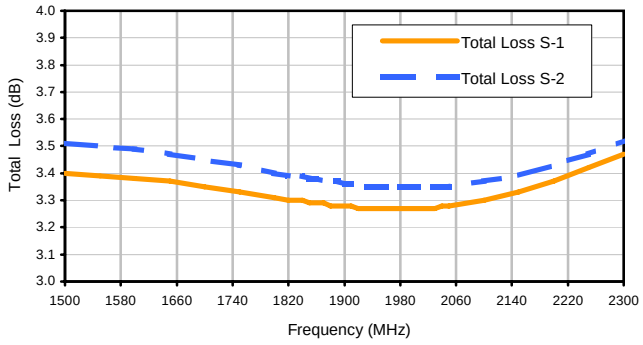
FREQUENCY (MHz)	VSWR (:1)			
	S	1	2	CPL
1500.0	1.46	1.13	1.16	1.22
1550.0	1.44	1.14	1.17	1.21
1600.0	1.41	1.15	1.17	1.20
1650.0	1.38	1.15	1.18	1.18
1700.0	1.34	1.15	1.18	1.17
1750.0	1.30	1.15	1.17	1.16
1800.0	1.24	1.14	1.16	1.14
1820.0	1.22	1.13	1.16	1.14
1830.0	1.21	1.13	1.16	1.13
1840.0	1.20	1.13	1.15	1.13
1850.0	1.19	1.12	1.15	1.13
1860.0	1.17	1.12	1.15	1.13
1870.0	1.16	1.12	1.15	1.12
1880.0	1.15	1.11	1.14	1.12
1890.0	1.14	1.11	1.14	1.12
1900.0	1.13	1.11	1.14	1.12
1910.0	1.11	1.10	1.13	1.11
1920.0	1.10	1.10	1.13	1.11
1930.0	1.09	1.10	1.13	1.11
1940.0	1.08	1.09	1.12	1.11
1950.0	1.07	1.09	1.12	1.10
1960.0	1.05	1.09	1.12	1.10
1970.0	1.04	1.09	1.12	1.10
1980.0	1.03	1.08	1.12	1.10
1990.0	1.02	1.08	1.11	1.10
2000.0	1.02	1.08	1.11	1.10
2010.0	1.02	1.08	1.11	1.10
2020.0	1.03	1.08	1.11	1.10
2030.0	1.04	1.08	1.11	1.10
2040.0	1.05	1.08	1.11	1.10
2050.0	1.07	1.08	1.11	1.10
2100.0	1.13	1.10	1.12	1.10
2150.0	1.21	1.12	1.14	1.11
2200.0	1.29	1.16	1.17	1.12
2250.0	1.37	1.20	1.21	1.14
2300.0	1.45	1.25	1.26	1.16

[1]Total Loss = Insertion Loss + 3dB Splitter Loss

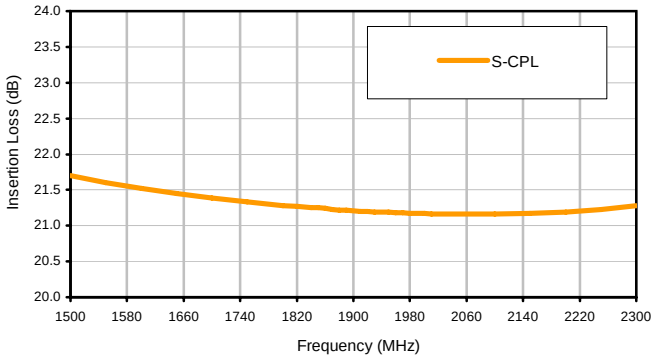
Module: 2 Way-0° Power Splitter/Combiner & Coupler 2DSCM-ED13491/1

Typical Performance Curves

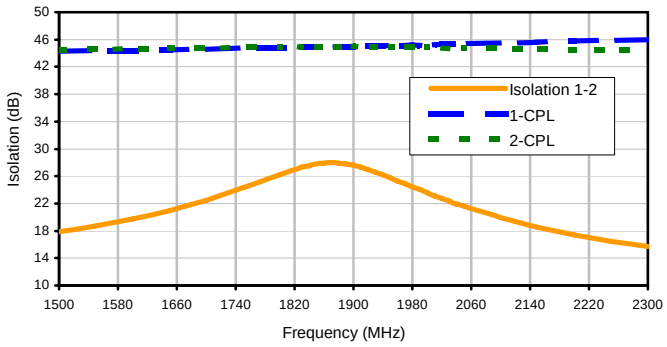
Total Loss



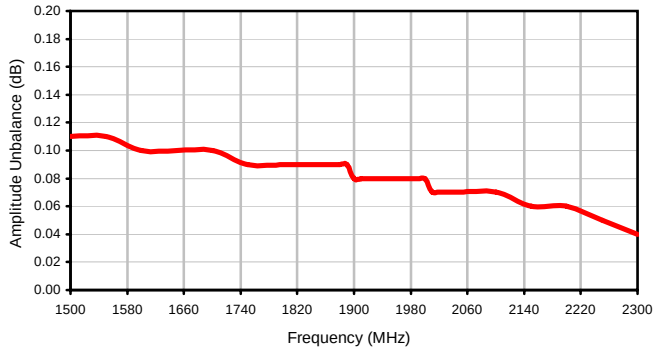
Insertion Loss



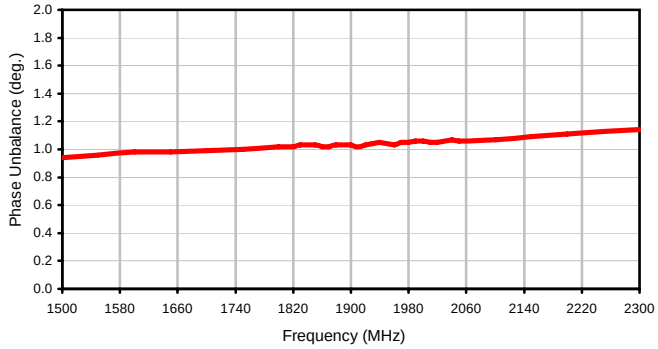
Isolation



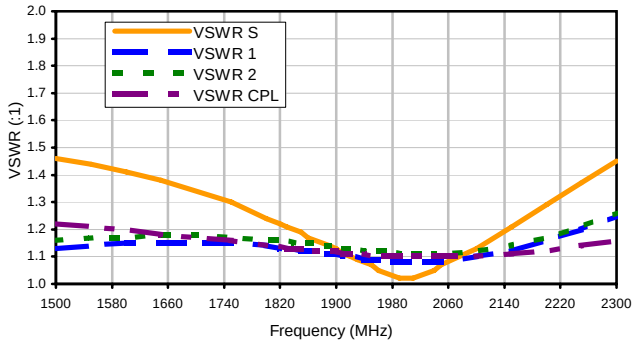
Amplitude Unbalance



Phase Unbalance



VSWR



Mini-Circuits

Environmental Specifications ENV28

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