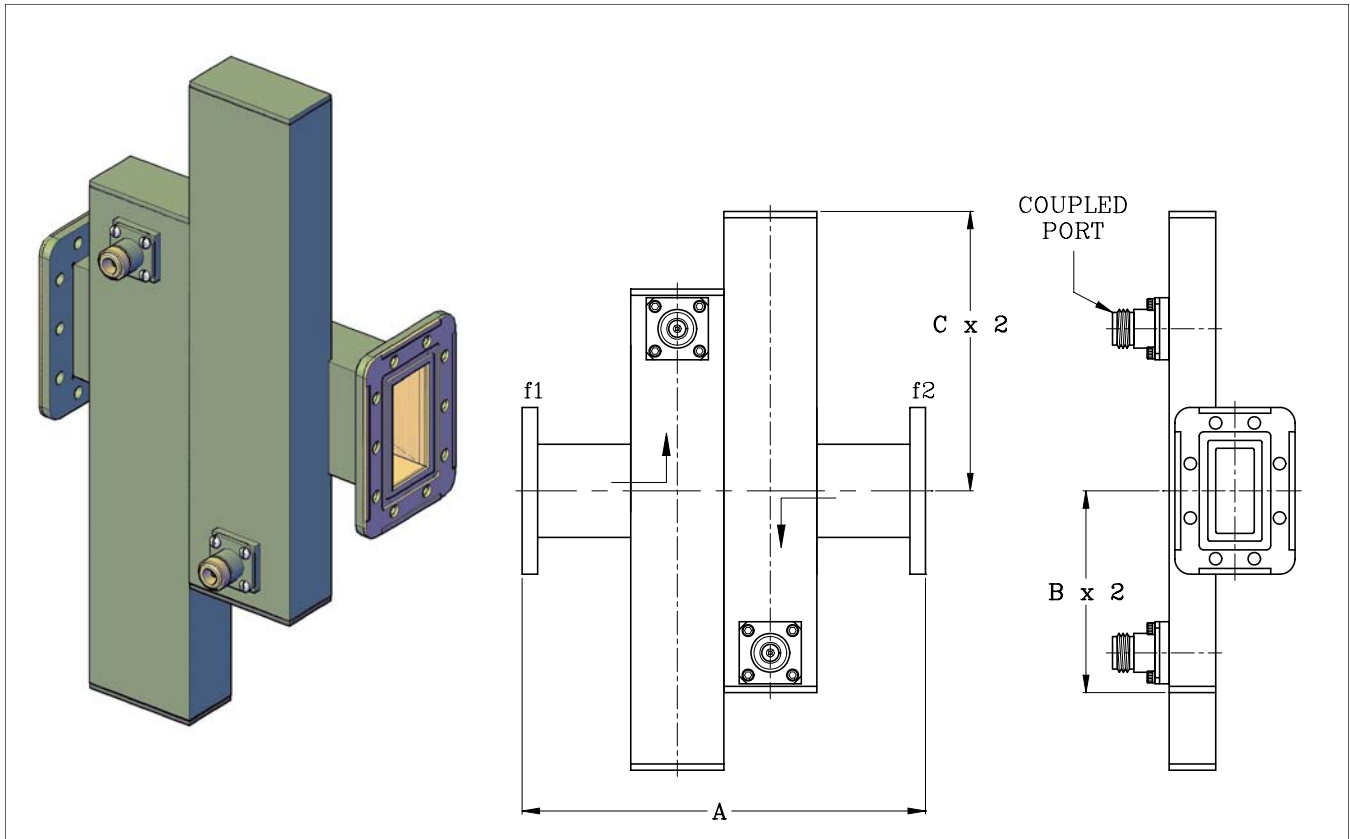


Rectangular Waveguide Dual Cross Guide Couplers



Space Machine custom fabricates a standard product line of dual cross guide couplers covering waveguide sizes WR28 thru WR284. Coupling variation is typically ± 2 dB over the full waveguide band. Directivity is 20dB minimum. Additional sizes and configurations are available upon request. See next page for standard dimensions.

Ordering Information:

Dual Cross Guide Coupler, WR137, Bronze, 30dB Coupling, Type N Female Coupled Port, CPRF / CPRG Flanges, Chromated, Paint Space Machine Gray.

Example part number:

<u>DCB</u>	<u>wr</u>	<u>m</u>	<u>c</u>	<u>cp</u>	<u>-f1 f2</u>	<u>-p</u>	<u>f</u>
DCB	137	-B	30	NF	-05 04	-C	P

Series (DCB):

Waveguide Size (wr): WR28 thru WR284

Material (-m): A – Aluminum, B – Bronze, O – Other

Coupling (c): 20 - 60 dB

Coupled Port (cp): Connector – See [Appendix E](#)
Flange – See [Appendix G](#)

Flange (-f1 f2): See [Appendix G](#)

Plating (-p): C – Chromate, S – Silver, G – Gold, O – Other, N – None

Finish (f): P – Paint Space Machine Gray, N – None, O – Other

Rectangular Waveguide Dual Cross Guide Coupler Dimensions

Model	WR #	Frequency (GHz)	A	B	C
DCB28-	28	26.50 – 40.00	2.75	1.25	2.00
DCB34-	34	22.00 – 33.00	3.00	1.25	2.00
DCB42-	42	18.00 – 26.50	3.25	1.25	2.50
DCB51-	51	15.00 – 22.00	3.50	1.25	2.75
DCB62-	62	12.40 – 18.00	3.50	1.50	2.75
DCB75-	75	10.00 – 15.00	4.00	1.50	3.25
DCB90-	90	8.20 – 12.40	4.25	2.00	3.50
DCB102-	102	7.00 – 11.00	4.50	2.00	3.75
DCB112-	112	7.05 – 10.00	5.00	2.00	4.00
DCB137-	137	5.85 – 8.20	6.00	3.00	5.00
DCB159-	159	4.90 – 7.05	7.00	3.00	6.00
DCB187-	187	3.95 – 5.85	7.50	3.50	6.25
DCB229-	229	3.30 – 4.90	8.50	4.00	6.50
DCB284-	284	2.60 – 3.95	9.50	6.00	7.25

All dimensions are in inches and given for couplers with connectors on the coupled port.