

180° Quad Hybrid Couplers

Description

Cobham hybrid couplers feature high directivity and low VSWR and are conservatively rated to ensure the most reliable service and performance. The volume of these couplers makes them ideally suited for applications involving high density packaging.



Frequency Range (GHz)	Part Number	Nominal Coupling (dB)	Deviation from Nominal Coupling (Min) (dB)	Insertion Loss (Max) (dB)	Isolation (Min) (dB)	VSWR (Max) (Ratio)	Phase Balance (Degrees)
0.25 - 0.5	MH-24	3.0 +0.25/-0	±0.50	0.25	20	1.30:1	±4.0
0.5 - 1.0	MH-29	3.0 +0.25/-0	±0.50	0.25	20	1.30:1	±4.0
1.0 - 2.0	MH-33	3.0 +0.30/-0	±0.50	0.30	18	1.30:1	±4.0
2.0 - 4.0	MH-39	3.0 +0.30/-0	±0.55	0.30	18	1.35:1	±4.0
4.0 - 8.0	MH-46	3.0 +0.35/-0	±0.60	0.35	17	1.45:1	±4.0
8.0 - 16.0	MH-58	3.0 +0.45/-0	±0.60	0.45	15	1.50:1	±5.0
6.0 - 18.0	MH-60	3.0 +0.45/-0	±0.60	0.45	15	1.50:1	±5.0

Part Number	"A"	"B"	"C"	"D"	"E"	"F"	"G"
MH-24	4.00	3.00	0.20	0.26	3.80	0.25	0.25
MH-29	3.25	1.70	0.20	1.30	3.05	0.40	0.28
MH-33	2.00	1.70	0.20	1.30	1.80	0.38	0.25
MH-39	1.55	1.70	0.20	1.30	1.35	0.25	0.38
MH-46	1.00	1.10	0.55	-	0.80	0.25	0.25
MH-58	1.00	1.10	0.55	-	0.80	0.25	0.25
MH-60	1.00	1.10	0.55	-	0.80	0.25	0.25

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90° Quad Hybrid Couplers

Frequency Range (GHz)	Part Number	Nomial Coupling (dB)	Deviation from Nomial Coupling (Min) (dB)	Insertation Loss (Max) (dB)	Isolation (Min) (dB)	VSWR (Max) (Ratio)	Phase Balance (Degrees)
2.0 - 8.0	QH-19	3.0 +0.15/-0	±0.40	0.15	22	1.15:1	±1.0
0.25 - 0.5	QH-26	3.0 +0.15/-0	±0.40	0.15	22	1.15:1	±1.0
0.5 - 1.0	QH-28	3.0 +0.15/-0	±0.40	0.15	22	1.20:1	±1.0
1.0 - 2.0	QH-31	3.0 +0.15/-0	±0.40	0.15	22	1.20:1	±2.0
2.0 - 4.0	QH-36	3.0 +0.20/-0	±0.45	0.20	22	1.20:1	±2.5.0
4.0 - 8.0	QH-45	3.0 +0.25/-0	±0.50	0.25	20	1.30:1	±3.0
7.0 - 12.4	QH-51	3.0 +0.35/-0	±0.50	0.35	17	1.35:1	±4.0
0.5 - 2.0	QH-55	3.0 +0.35/-0	±0.50	0.35	17	1.35:1	±4.0
8.0 - 16.0	QH-57	3.0 +0.50/-0	±0.60	0.50	16	1.45:1	±5.0
12.0 - 18.0	QH-58	3.0 +0.50/-0	±0.60	0.50	16	1.50:1	±5.0
8.0 - 18.0	QH-88	3.0 +0.50/-0	±0.60	0.50	16	1.50:1	±5.0

Part Number	"A"	"B"	"C"	"D"	"E"	"F"	"G"
QH-19	3.00	2.00	0.55	1.90	1.80	0.25	-
QH-26	1.65	1.15	0.82	-	0.95	0.25	-
QH-28	2.80	0.50	0.55	1.70	0.30	0.30	-
QH-31	1.65	0.50	0.82	-	0.30	0.20	-
QH-36	1.00	0.50	0.50	-	0.30	0.20	-
QH-45	0.90	0.50	0.45	-	0.30	0.20	-
QH-51	0.95	0.50	0.48	-	0.30	0.20	-
QH-55	0.95	0.50	0.48	-	0.30	0.20	-
QH-57	0.95	0.50	0.48	-	0.30	0.20	-
QH-58	0.95	0.50	0.48	-	0.30	0.20	-
QH-88	0.95	0.50	0.48	-	0.30	0.20	-

