

QCN-12AD+

CASE STYLE: FV1206-1

* Derate linearly to 7W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded

SUM PORT	1
PORT 1 (0°)	4
PORT 2 (+90°)	6
GROUND	2,5
50 OHM TERM EXTERNAL	3

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

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28
G	H	J	K	wt	
.039	.024	.042	.123	grams	
0.99	0.61	1.07	3.12	.020	

Figure 1 is a cross-sectional diagram of a microelectronic package. It shows a central vertical structure with a central core and surrounding layers. Key dimensions and features include:

- Top layer: .044, 2 PL.
- Second layer: .005, 2 PL.
- Third layer: .063, 2 PL.
- Fourth layer: .018, 2 PL.
- Fifth layer: .014 TYP.
- Bottom layer: .070, 2 PL.
- Central core: .044 LINE WIDTH, 4 PL. (SEE NOTE BELOW)
- Angle: 45° TYP.
- Grounding: 4X .015 PTH FOR GROUND
- Outline: PACKAGE OUTLINE
- Pin: PIN 1

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Notes:

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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- low insertion loss, 0.4 dB typ.
- wrap-around terminal for excellent solderability
- ultra small, 0.12"X0.06"X0.035"

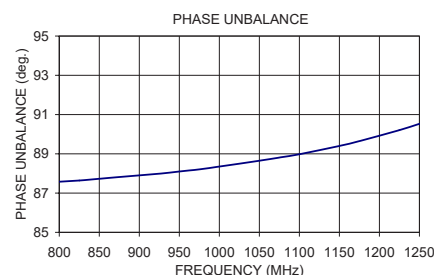
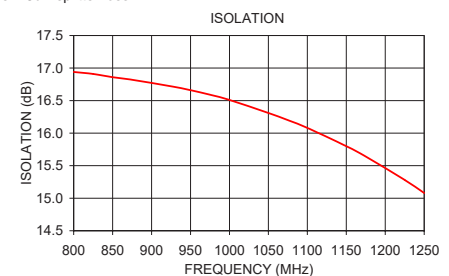
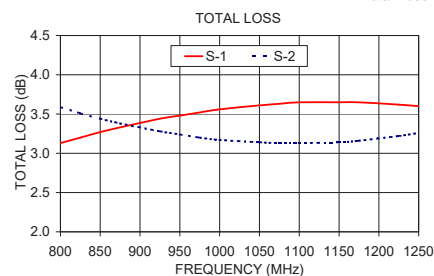
- cellular
- GSM
- balanced amplifiers
- modulators

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)
$f_c - f_u$	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Typ.
800-1250					
800-1000	17 15	0.3 0.6	2.5 5.0	0.2 0.8	1.2
1000-1250	16 13	0.4 0.7	2.5 5.0	0.5 0.8	1.2

1. For applications requiring DC voltage to be applied to the RF ports. DC resistance to ground is 100 Mohms min.

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
800.00	3.13	3.59	0.46	16.94	87.58	1.27	1.20	1.11
825.00	3.20	3.51	0.31	16.91	87.64	1.27	1.20	1.10
850.00	3.27	3.44	0.18	16.86	87.73	1.27	1.19	1.10
875.00	3.33	3.38	0.05	16.82	87.82	1.27	1.18	1.09
925.00	3.44	3.28	0.16	16.72	87.99	1.27	1.16	1.08
950.00	3.48	3.24	0.25	16.66	88.10	1.27	1.15	1.07
975.00	3.52	3.20	0.32	16.59	88.21	1.27	1.14	1.07
1000.00	3.56	3.17	0.39	16.51	88.35	1.27	1.13	1.07
1050.00	3.61	3.14	0.48	16.31	88.65	1.27	1.10	1.07
1075.00	3.63	3.13	0.50	16.20	88.81	1.28	1.09	1.07
1100.00	3.65	3.13	0.52	16.08	88.98	1.28	1.07	1.07
1150.00	3.65	3.14	0.51	15.80	89.40	1.29	1.05	1.09
1175.00	3.65	3.16	0.49	15.64	89.65	1.29	1.03	1.10
1225.00	3.62	3.22	0.40	15.28	90.21	1.30	1.01	1.12
1250.00	3.60	3.26	0.34	15.08	90.53	1.31	1.03	1.14

1. Total Loss = Insertion Loss + 3dB splitter loss.



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