

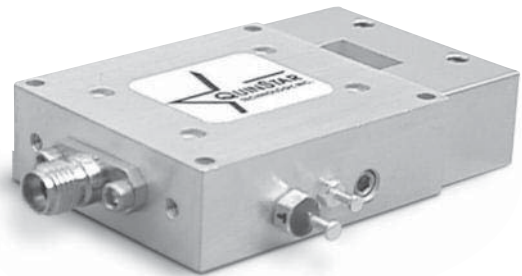


Active Frequency Multipliers

QMM

Characteristics

- ◆ Offered Over 8-110 GHz Output Frequency
- ◆ Active Amplification with Integral Filter
- ◆ Low Power Consumption



Product Description

QuinStar Technology's series **QMM active multipliers** utilize state-of-the-art active multiplier devices for frequency multiplication and amplification over the 8-110 GHz frequency range. These frequency multipliers provide a broad bandwidth with multiplying factors between 2 and 12. The standard multiplier housing enables I/O ports of SMA (DC-26.5 GHz), 2.9 mm (DC-40 GHz) and 2.4 mm (DC-50 GHz) coaxial connectors and WR-42 through WR-10 waveguide sizes.

These multipliers are useful as part of the LO chain of communication, radar and instrumentation systems. They provide a simple and economical solution for adding signal multiplication and gain in a variety of system applications.

Specifications

Output Frequency, Band, GHz	Multiplier Factor	Input Frequency, GHz	Output Power Range Offered, dBm ¹	Input Power Required dBm	Input Connector or Waveguide	Output Connector or Waveguide	Outline
8-20	2	4-10	13-27	3-6	SMA (F)	SMA (F)	J
18-26.5	2	9-13.25	13-27	5-10	SMA (F)	K (F), WR-42	J,S
26.5-40	2	13.25-20	10-20	5-10	SMA (F)	K (F), WR-28	J,S
26.5-40	3	8.83-13.33	10-20	4-6	SMA (F)	K (F), WR-28	J,S
26.5-40	4	6.62-10	10-20	3-6	SMA (F)	K (F), WR-28	J,S
33-50	2	16.5-25	10-17	0-5	K (F)	WR-22	S
33-50	3	11-16.67	10-17	5-10	SMA (F)	WR-22	S
33-50	4	8.25-12.5	10-15	5-10	SMA (F)	WR-22	S
40-60	2	20-30	10-13	5-10	K (F)	WR-19	*
40-60	3	13.3-20	10-13	5-10	SMA (F)	WR-19	*
40-60	4	10-15	10-13	5-10	SMA (F)	WR-19	*
50-75	2	25-37.5	7-16	5-8	K (F), WR-28	WR-15	*
50-75	3	16.7-25	7-16	7-10	K (F)	WR-15	*
50-75	4	12.5-18.75	7-16	5-8	SMA (F)	WR-15	*
50-75	6	8.33-12.5	7-16	4-6	SMA (F)	WR-15	*
50-75	8	6.25-9.38	7-16	4-6	SMA (F)	WR-15	*
60-90	2	30-45	0-5	5-8	K (F), WR-22	WR-12	*
60-90	3	20-30	0-5	5-8	K (F)	WR-12	*
60-90	4	15-22.5	0-5	5-8	SMA (F)	WR-12	*
60-90	6	10-15	0-5	5-8	SMA (F)	WR-12	*
60-90	8	7.5-11.25	0-5	5-8	SMA (F)	WR-12	*
70-86	2	35-39	12-17	5-8	K (F)	WR-12	W
70-86	3	23.33-26	12-17	5-8	K (F)	WR-12	W
70-86	4	17.5-19.5	12-17	5-8	SMA (F)	WR-12	W
92-96	2	46-48	7-20	-2-0	K (F), 2.4 mm	WR-10	W
92-96	3	30.67-32	7-20	5-8	K (F)	WR-10	W
92-96	4	23-24	7-20	5-8	SMA (F)	WR-10	W
92-96	6	15.33-16	7-20	5-8	SMA (F)	WR-10	W
92-96	8	11.5-12	7-20	0-5	SMA (F)	WR-10	W
92-96	12	7.67-8	7-20	0-5	SMA (F)	WR-10	W



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75-110	2	37.5-55	7-10	5-10	1.85 mm, WR-19	WR-10	*
75-110	3	25-36.67	7-10	5-10	K (F), WR-28	WR-10	*
75-110	4	18.75-27.5	7-10	5-10	K (F), WR-42	WR-10	*
75-110	6	12.5-18.33	7-10	5-10	SMA (F)	WR-10	*
75-110	8	9.38-13.75	7-10	5-10	SMA (F)	WR-10	*
75-110	12	6.25-9.17	7-10	5-10	SMA (F)	WR-10	*

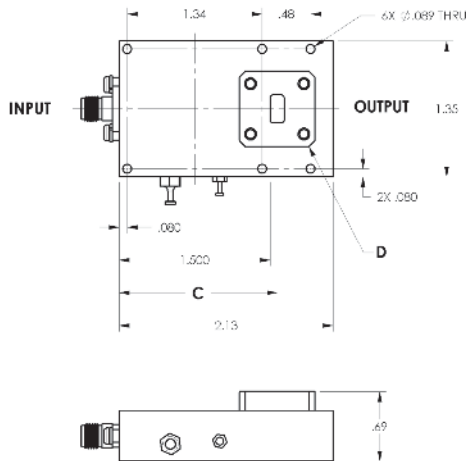
* Please contact Quinstar for outline information.

¹ Range of power levels available over the full frequency band. Higher power levels available over narrower band input.

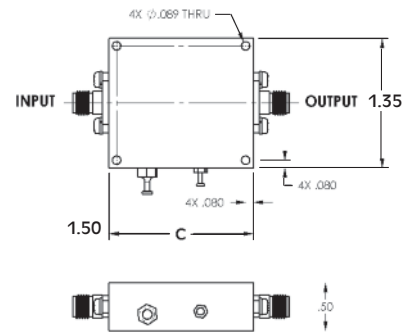
Outline Drawings/Mechanical Specifications

Outline S

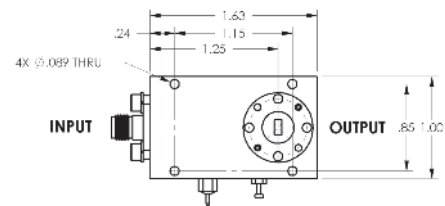
BAND	C	D
K	1.59	UG-595/U
Ka	1.57	UG-599/U
Q	1.56	UG-383/U
U	1.55	UG-383/U MOD



Outline J



Outline W



Ordering Information

Model Number **QMM -****AB CD EF GH I**

Please specify exact output frequency range when ordering.

output center frequency (rounded to nearest GHz)

bandwidth, in GHz

power output in dBm

outline drawing (see above)

Z = non-standard

multiplying factor

02 = x2, 03 = x3, 04 = x4

12 = 12