

Applications:

- Microwave & Millimeter Single I/Q Up & down conversion
- Instrumentations
- Test Bench

Features:

- Low Conversion Loss
- Various Bandwidth Coverage
- Low Phase Error

Descriptions:



3J Microwave, Inc. offers a complete line of I/Q mixers in 8 waveguide bands from K to W. The available state-of-the-art solid-state technologies, devices, advanced Phase-detect techniques are utilized in the I/Q mixers. The unique I/Q structures ensure IF-I and IF-Q Phase accuracy. Waveguide LO and RF connectors are designed to cover eight waveguide bands from K to W-Band in the frequency range of 18 to 110 GHz. Coaxial RF and LO

connectors are available in the frequency range below 67 GHz. IF-I and IF-Q ports are SMA coaxial connectors. The I/Q mixers are designed for various applications such as I/Q up and down conversion, transceivers, Phase detectors, instrumentations and bench test etc. The series I/Q mixers are sorted in two categories: 1) **IQMXC** series coax I/Q mixers. 2) **IQMX** series waveguide I/Q mixers.

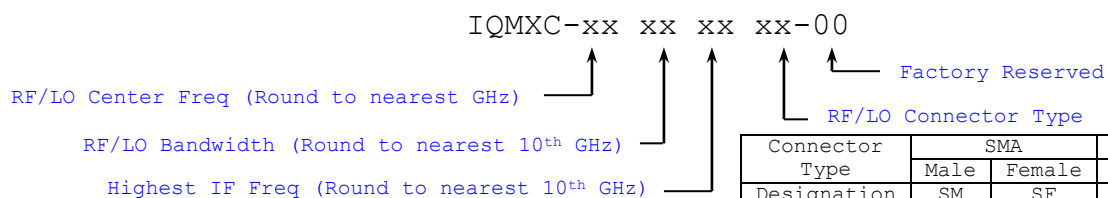
IQMXC Series Coax I/Q Mixer Specifications:

Model Number**	RF/LO Freq (GHz)	RF/LO BW (GHz)	IF Freq (MHz)	C.L.* (dB)	I/Q Phase Error (°)	Input P1dB (dBm)	RF/LO Connector	Outline
IQMX-xxxxxxx-00	18-27	0.1-1.0	0.1- 1.0	-7.0	+/-10	+5	UG595-U	
	27-40			-7.5		+5	UG595-UM	
	33-50			-8.0		+5	UG599-U	
	40-60			-9.0		+5	UG383-U	
	50-67			-9.5		+3	UG383-UM	

* Tested at RF power of -20 dBm and LO power of +15 dBm

** Please see "how to order" for the model number details

How to Order:



Connector Type	SMA		2.92 mm	
	Male	Female	Male	Female
Designation	SM	SF	KM	KF
Connector Type	2.40 mm		1.85 mm	
	Male	Female	Male	Female
Designation	2M	2F	VM	VF



IQMXC Model Number Example:

Model Number of a W-Band Waveguide I/Q Mixer:

Specifications	Model number
RF/LO Frequency: 35 ± 0.5 GHz IF Frequency: 0 to 200 MHz Conversion Lose: 10.5 dB I/Q Phase Error: ± 10°	<i>IQMXC-350502KF-00</i>

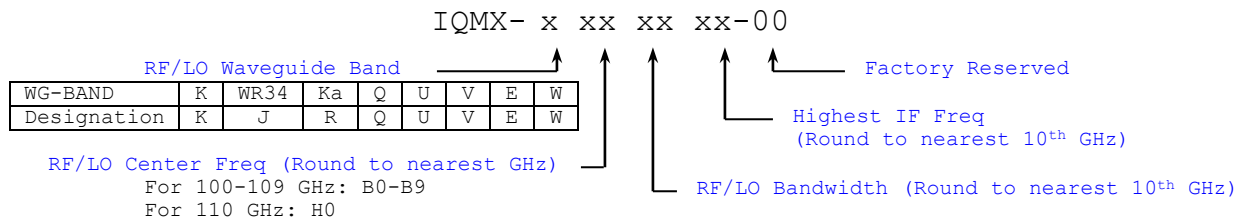
IQMX Series I/Q Mixer Specifications:

Model Number**	RF/LO Freq (GHz)	RF/LO BW (GHz)	IF Freq (MHz)	C.L.* (dB)	I/Q Phase Error (°)	Input PldB (dBm)	RF/LO Connector	Outline
IQMX-xxxxxxx-00	18-27	0.1-1.0	0.1- 1.0	-7.0	+/-10	+5	UG595-U	F01
	22-33			-7.5		+5	UG595-UM	F02
	26-40			-8.0		+5	UG599-U	F03
	33-50			-9.0		+5	UG383-U	F04
	40-60			-9.5		+3	UG383-UM	
	50-75			-10.0		+3	UG385-U	
	60-90			-10.0		0	UG387-U	
	75-110			-10.5		0	UG387-UM	

* Tested at RF power of -20 dBm and LO power of +15 dBm

** Please see "how to order" for the model number details

How to Order:



IQMX Model Number Example:

Model Number of a W-Band Waveguide I/Q Mixer:

Specifications	Model number
RF/LO Frequency: 100 ± 0.5 GHz IF Frequency: 0 to 500 MHz Conversion Lose: 10.5 dB I/Q Phase Error: ± 10°	<i>IQMX-WB05050-00</i>

Outline:

Waveguide Outline: F01, F02, F03 and F04

Coax Outline: Consult the Factory