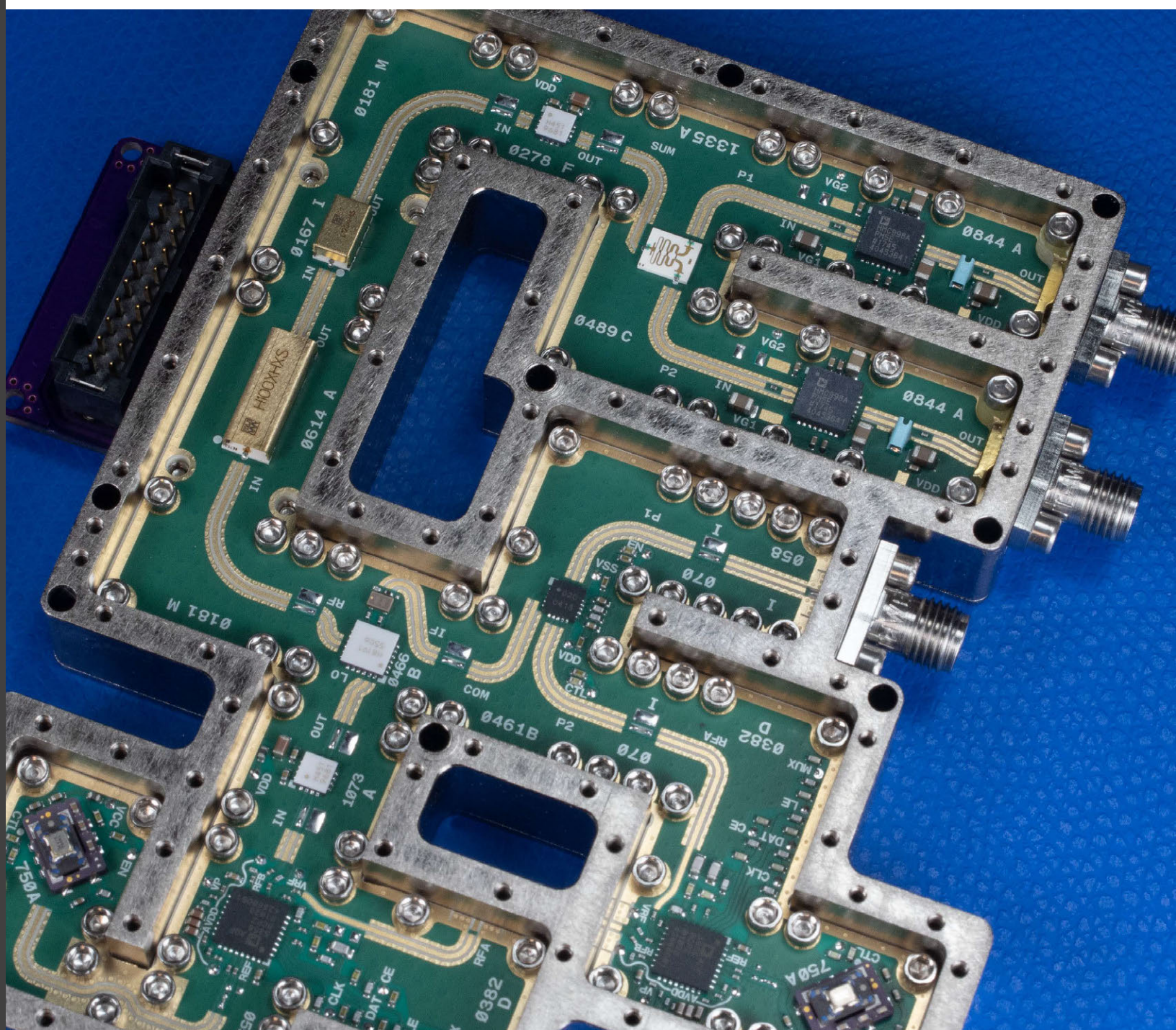




# microwave

*Modular Design, Prototyping, and  
Production from DC to 95 GHz*



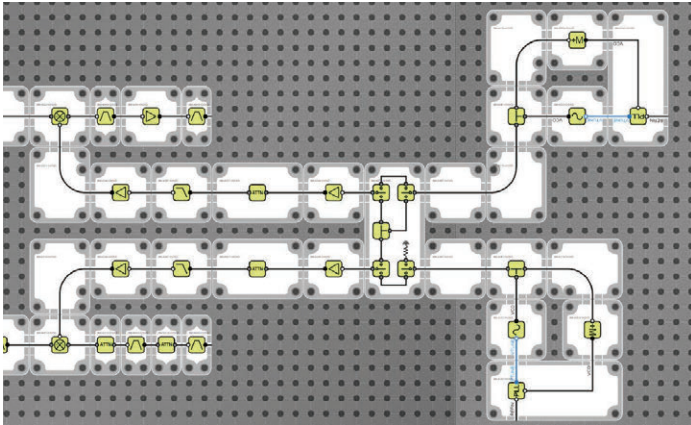
[xmicrowave.com](http://xmicrowave.com)



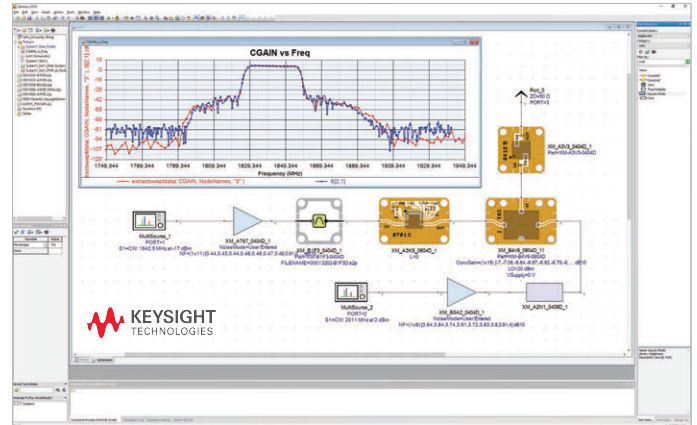
# Modular RF and Microwave Design on the Grid

## 1 Design

Design online with our system layout and cascade tool (X-MWlayout) that enables true mechanical layout planning and cascade analysis. Simulate using Keysight PathWave RF Synthesis (Genesys) or Keysight PathWave System Design (SystemVue) with the growing library of installed X-MWblock models.



X-MWlayout



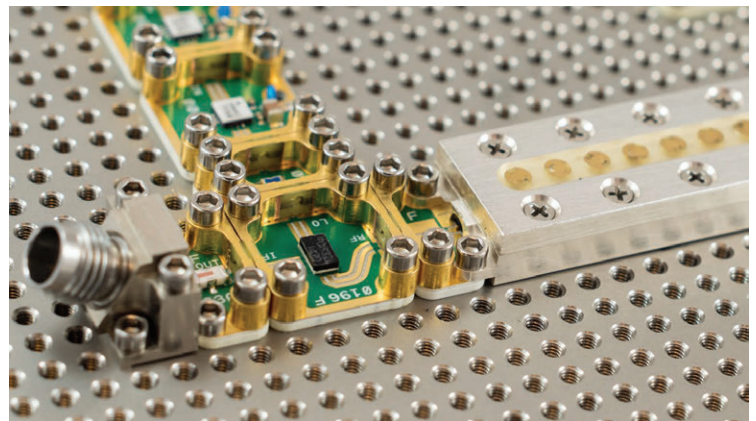
PathWave RF Synthesis (Genesys) and PathWave System Design (SystemVue)

## 2 Prototyping

Build your design on the prototyping plate. Connect RF X-MWblocks together with high frequency solderless interconnects and power them with sequenced bias and control circuitry from the bottom side of the grid. Instrument your design with the RF probe to test individual parts or your entire cascade at any point in the chain. Wall and lid pieces enable the fabrication of an enclosure for full system verification with cavity effects.



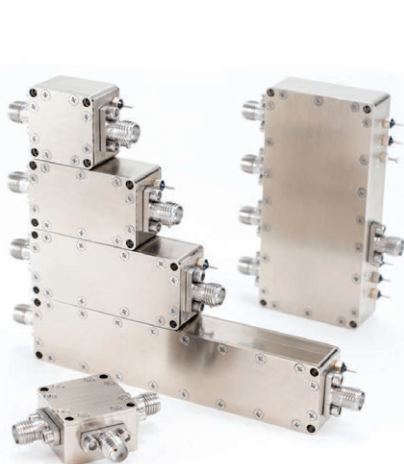
X-MWcontroller



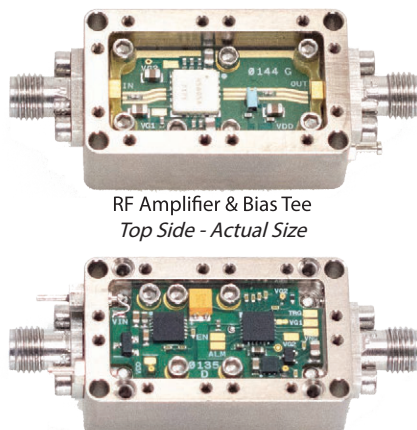
X-MWblocks®

## 3 Production

Prototypes built using the X-MWsystem are production ready. X-MWblocks and the solderless interconnect are industrial grade and field tested. Your modular designs can be rapidly integrated into a single PCB and are available on-demand at quantity 1 with little or no NRE cost. Standard housings provide a great way to package a single block or a full system. Custom housing and integration services are available when you're ready to deploy your design.

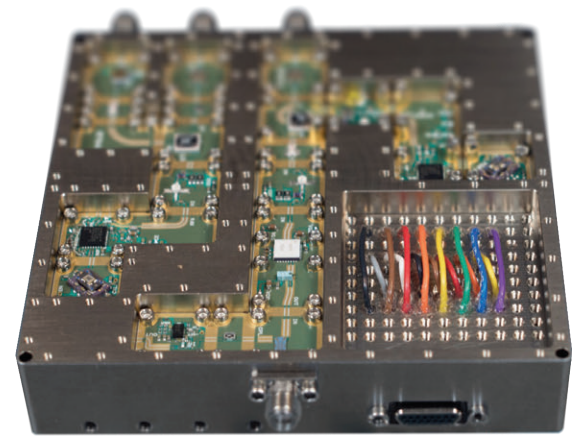


Standard Housings



RF Amplifier & Bias Tee  
Top Side - Actual Size

Sequencing & Active Bias Control  
Bottom Side - Actual Size

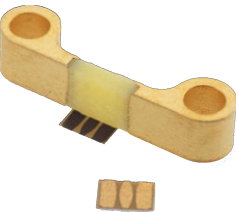
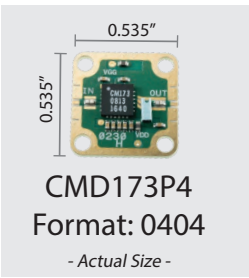
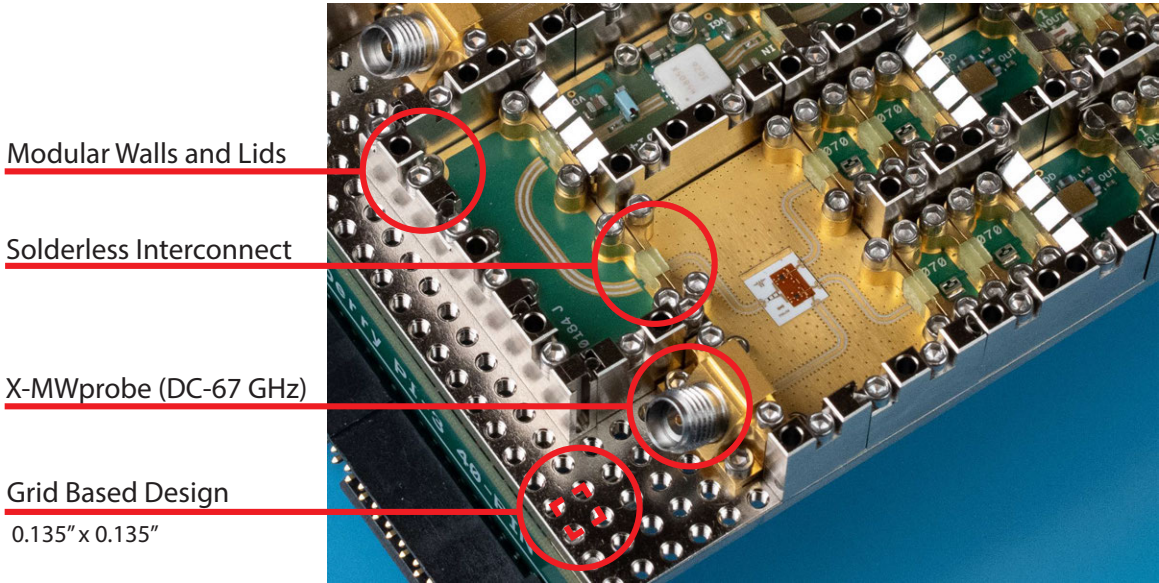


Production IMA with Combined X-Microwave Blocks



# Introduction to the X-Microwave System

Featuring a library of over 3,000 RF blocks across all component categories, the X-MWsystem is changing the way RF and Microwave systems are designed. Each X-MWblock is designed with a common launch geometry allowing any two blocks to be cascaded using a solderless interconnect. Complex designs can be built on the Prototyping Plate with RF blocks on top and matched bias, sequencing, and control boards on the bottom. Designs can then be transitioned to H-frame production housings.



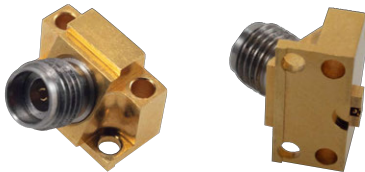
Anchor and gsgJumper

## Solderless High Frequency Interconnect (DC - 67 GHz)

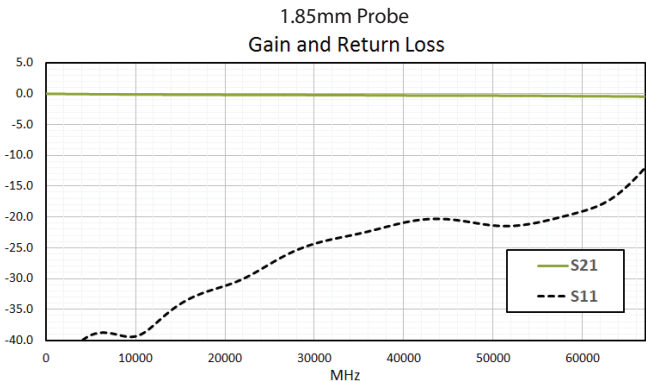
Every RF block in the X-MWsystem utilizes the same 50 Ohm coplanar launch allowing a simple 67GHz connection between any two adjacent blocks. When placed on the grid the launches are separated by 5 mils. An interconnect can be established using the solderless X-Microwave ground-signal-ground Jumper (gsgJumper), soldered or epoxied ribbon, or wire bonding. The gsgJumper is most convenient for prototyping and rugged enough for production. Once the gsgJumper is placed across two launches, two anchors hold the jumper in place.

## X-MWprobe Universal Probe (DC - 67 GHz)

The X-MWprobe provides a RF connector interface for the launch of any device in the X-MWsystem enabling rapid prototyping, measurement, and debug of individual X-MWblocks and systems of blocks. Multiple connector styles including 2.92mm and 1.85mm provide low-loss performance from DC to 67 GHz.

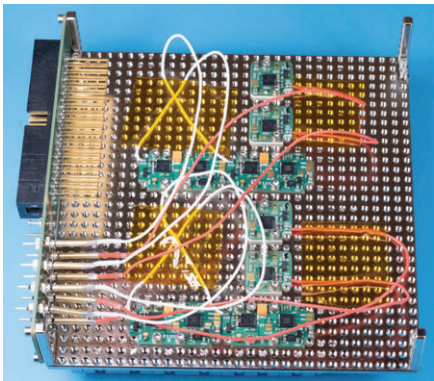
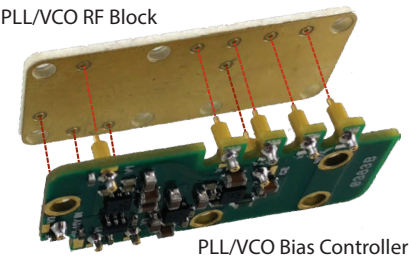
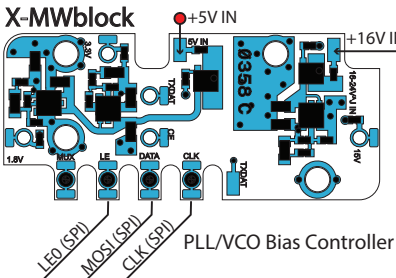


X-MWprobe



## Voltage Regulation, Sequencing, Bias and Control

Power and control are provided from the bottom of the prototyping plate from a matched bias and control block. Signals are passed to the RF board through holes in the prototyping plate or H-frame housing using spring-pins or soldered 30 ga solid core wire with strain relief.

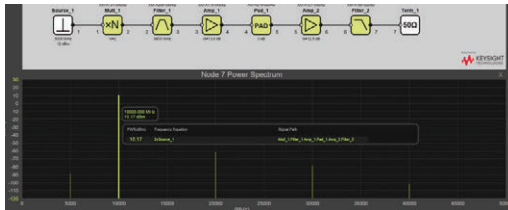


## X-Microwave Device Partners

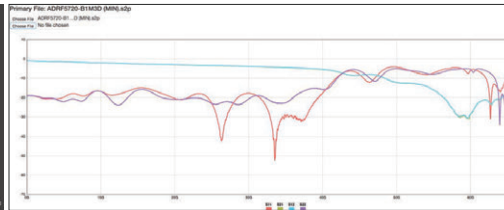


Also featuring devices from API Technologies, Atlanta Micro, Microsemi, Texas Instruments and more.

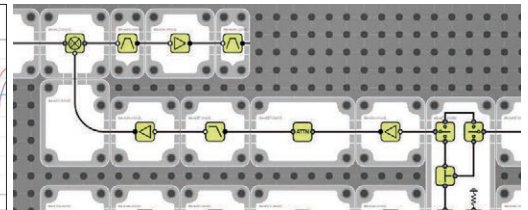
## Comprehensive RF and Microwave Offering



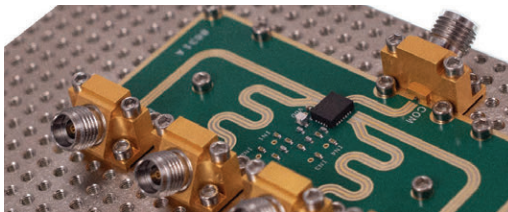
Design and Simulation



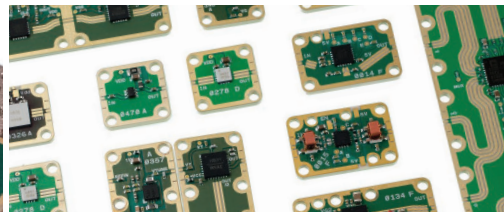
Interactive S-Parameters



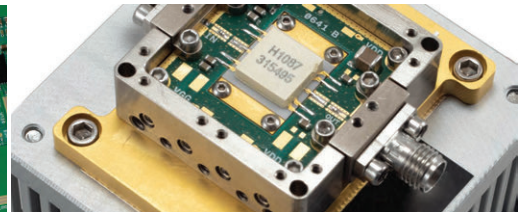
Online Layout



X-Microwave Prototyping System



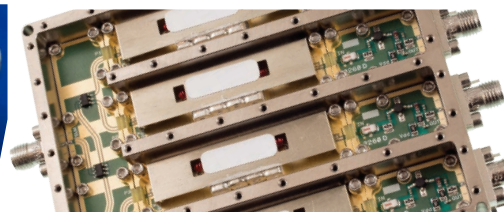
Thousands of X-Microwave Blocks



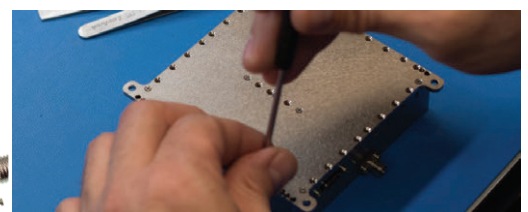
Power Amplifiers



DIE Integration & Waveguide Support



Integrated Microwave Assemblies (IMA)



Custom Enclosure

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