

# MMIC

Monolithic Microwave Integrated Circuit

ELBIT SYSTEMS EW AND SIGINT - ELISRA | Microwave

# MMIC

Monolithic Microwave Integrated Circuit

## Key Technologies

0.15µm PHEMT GaAs MMICs Products  
Customized Millimeter Wave MMICs  
High frequency up to 50GHz  
Multi-Function Chips

## Capabilities

Passive and Active 0.15µm PHEMT GaAs MMICs DC-50GHz  
Passive components printed on Hard substrates  
Multi Function Integrated Circuits  
Multi - Layer Technology  
In House On-Wafer (Probe Station) Testing  
Multi Layer Buried Components

## Advantages

In House MMIC development suit (simulators, analysis etc.)  
Customized design  
In House RF integration and testing capabilities  
Experienced teams of engineers, technicians, assembles etc.

## GaAs Products examples

Amplifiers  
Switches  
Mixers  
Multipliers  
DCAs  
Attenuators  
Equalizers  
Phase Shifters  
Multi Function Integrated Circuits - RF Core.

The logo brand, product, service, and process names appearing herein are the trademarks or service marks of Elbit Systems Ltd., its affiliated companies or, where applicable, of other respective holders. All information in this document is for general information only, and is subject to change without notice. © 2018. This brochure contains Elbit Systems and others' proprietary information. EP-20-MKCT-020

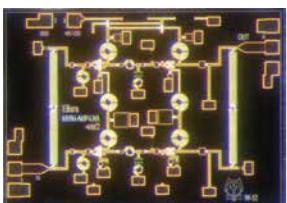




# MMIC

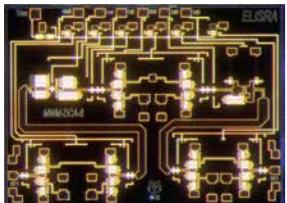
Monolithic Microwave Integrated Circuit

## 24-40GHz LNA



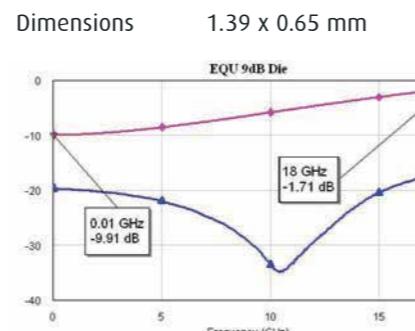
Gain 12dB  
Noise Figure 4dB  
Single Voltage Supply  
Dimensions 1.95 x 1.39 mm

## DC-18GHz 6 Bit DCA single control

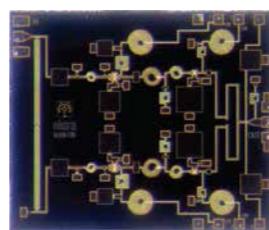


Frequency Range DC-18GHz  
Attenuation Range 0-31.5 dB  
Resolution 0.5dB  
Switching Speed <25ns  
Internal logic circuit allows single control/bit  
Dimensions 2.55 x 1.95 mm

## DC-18GHz 9dB Equalizer

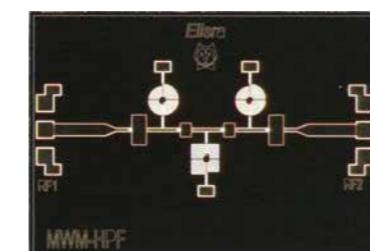


## 30-50GHz Output Frequency x3 Frequency Multiplier

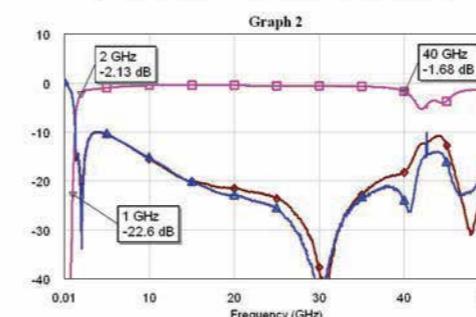


Input Frequency 14GHz  
Output Frequency 42GHz  
Input Power 0dBm  
Output Power 0dBm  
Fundamental Rejection 30dB  
2nd Harmonic Rejection 20dB  
Single Voltage Supply  
Dimensions 2.6 x 2.2 mm

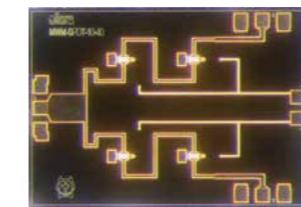
## 2GHz HPF



Ultra Wide-band Planar Filter  
Frequency Range 2-40GHz  
Dimensions 1.98 x 1.42 mm

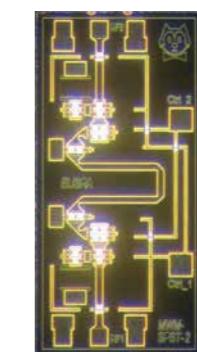


## 18-40GHz SPDT

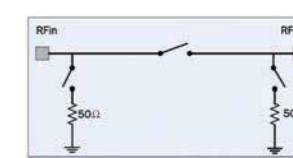


Insertion Loss 2.5dB  
Isolation 30dB  
Switching Speed 20ns  
Dimensions 1.98 x 1.42 mm

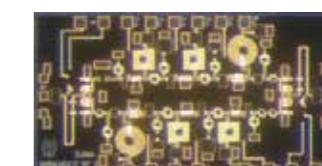
## DC-18GHz Non Reflective SPST



Insertion Loss 2dB  
Isolation 45dB  
Switching Speed 20ns  
Dimensions 1.39 x 0.65 mm



## Multi-function 6-18GHz T/R MMIC with build in Equalization



Tx Gain 30dB  
Rx Gain 15dB  
Gain Slope 4dB  
Output P1dB 15dBm  
Dimensions 2.569 x 1.39 mm

