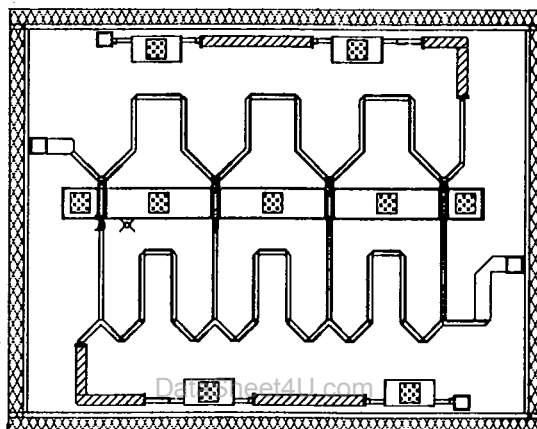


A natural extension of the MSC GaAs FET product family is the design and manufacturing of complete Microwave Monolithic Integrated Circuits (MMIC's) and other analog integrated circuits.

An example of a broadband distributed MMIC amplifier is shown below. This device, soon to be announced by MSC, has a bandwidth of 2-12 GHz, and comes complete with on chip bias networks to provide ease of use in either chip or packaged formats.

Another device being developed is a broadband amplifier operating over the frequency range of 6-18 GHz. This product will include a family of matched MMIC's delivering output power levels from small signal to ½ watt levels. The first of these is destined to provide 10 dB gain and an output power of 100 mW. The typical electrical characteristics are tabled below:

#### DISTRIBUTED 2-12 GHz MMIC AMPLIFIER



#### TYPICAL ELECTRICAL CHARACTERISTICS

Frequency Band: 2 - 12 GHz
Gain: $8.5 \pm 0.5$ dB
Output Power: 20 dBm
No. of Cells: 4
Noise Figure: 4 - 5 dB
Chip Size: 2.7 mm x 2.1 mm 0.1 mm
VSWR: 1.5

#### TYPICAL ELECTRICAL CHARACTERISTICS

Frequency Band: 6 - 18 GHz
Gain: $10 \pm 1$ dB
Output Power: 20 dBm
Chip Size: 1.7 mm x 2.1 mm x 0.1 mm
Input VSWR: 2.5 : 1
Output VSWR: 2.5 : 1

NOTE: Contact Product Marketing for C and X band MMICs, phased array radar, or Broadband EW applications requirements.