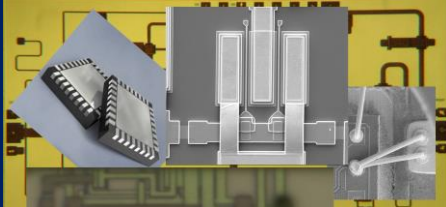


# TMC216

## 17-21 GHz

### Driver Amplifier



## Product Features

- RF frequency: 17 to 21 GHz
- Linear Gain: 25 dB
- Psat: 20 W
- Die Size: X=4 mm, Y=1.5 mm
- 0.15um GaN HEMT Process
- 4 mil SiC substrate
- DC Power: 20 VDC, 100 mA

## Application

- Satellite Communication

## Product Description

The TMC216 GaN HEMT Driver amplifier is a three-stage Single-ended MMIC, designed for use in Satellite applications. The TMC216 is a 50  $\Omega$  matched design which eliminates the need for RF port matching. To ensure rugged and reliable operation and moisture protection, the TMC216 is fully passivated. Both bond pad and backside metallization are Au-based that is compatible with ribbon and wedge bonding and high conductivity epoxy and eutectic die attach methods.

### *Electrical Performance : Vdd = 20 V, Vgg = -4.0 V, TA = 25 °C, F = 19 GHz*

|                     | min | Typ | Max | Units |
|---------------------|-----|-----|-----|-------|
| <b>Frequency</b>    | 17  |     | 21  | GHz   |
| <b>Gain</b>         |     | 25  |     | dB    |
| <b>P1dB</b>         |     | 29  |     | dBm   |
| <b>Psat</b>         |     | 31  |     | dBm   |
| <b>NF</b>           |     | 5   |     | dB    |
| <b>OIP3</b>         |     | 41  |     | dBm   |
| <b>Bias Voltage</b> |     | 20  |     | V     |
| <b>Bias Current</b> |     | 100 |     | mA    |

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