

Microdevice Products Short Form Catalog



Detectors • Limiters • MMICs

Amplifier Products

Our selection of RF MMIC amplifiers offer many combinations of output power, gain, noise figure and linearity, as well as surface mount packages, connectorized modules and bare die.

GaAs PHEMT MMICs

Low Noise Distributed Amplifiers

| | Frequency Range | Gain | Noise Figure | P1dB | Psat | OIP3 | Bias Supply | |
|--------------|-----------------|-----------|--------------|------------|------------|------------|-------------|---------|
| Model Number | GHz | dB (Typ.) | dB (Typ.) | dBm (Typ.) | dBm (Typ.) | dBm (Typ.) | V/mA | Package |
| EMD1710 | 2.0 - 20.0 | 12.5 | 2.0 | +18.5 | +19.0 | +28.0 | 5/83 | QFN 4mm |
| EMD1715 | DC - 20.0 | 14.5 | 1.8 | +20.5 | +23.5 | +28.0 | 5/103 | QFN 4mm |
| EMD1725-D | DC - 40.0 | 15.0 | 3.5 | +20.5 | +23.0 | +33.0 | 8/108 | DIE |

Features

- +5 or +8 volts supply
- Low noise figure
- Broadband frequency response
- High output intercept point
- Low cost QFN 4mm lead-less RoHS package
- Hermetically sealed
- Excellent VSWR
- Die available upon request

Applications

- General purpose
- Commercial and industrial
- Microwave radio & VSAT
- Test instrumentation
- Telecom & fiber optics

Product Export Classification

- ECCN: EAR 99 (Unless otherwise specified)
- HTS: 8542.33.0000

Driver Amplifiers

| | Frequency Range | Gain | Noise Figure | P1dB | Psat | OIP3 | Bias Supply | |
|--------------|-----------------|-----------|--------------|------------|------------|------------|-------------|---------|
| Model Number | GHz | dB (Typ.) | dB (Typ.) | dBm (Typ.) | dBm (Typ.) | dBm (Typ.) | V/mA | Package |
| EMD1705 | DC - 20.0 | 15.0 | 7.5 | +24.0 | +25.0 | +28.0 | 8/190 | QFN 4mm |
| EMD1706 | DC - 24.0 | 15.0 | 6.5 | +22.0 | +23.5 | +28.0 | 8/130 | QFN 4mm |

Features

- Up to +24 dBm P1dB
- +8 Volts supply
- 15 dB gain typical
- Broadband frequency response
- Low cost QFN 4mm lead-less RoHS package
- Hermetically sealed
- Excellent VSWR
- Die available upon request

Applications

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- Commercial and industrial
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Power Amplifiers

| | Frequency Range | Gain | P1dB | Psat | OIP3 | Bias Supply | |
|--------------|-----------------|-----------|------------|------------|------------|-------------|---------|
| Model Number | GHz | dB (Typ.) | dBm (Typ.) | dBm (Typ.) | dBm (Typ.) | V/mA | Package |
| EMD1211-D | DC - 20.0 | 13.0 | +28.0 | +30.5 | +38.0 | 12/300 | DIE |

Features

- 13 dB gain typical
- +28.0dBm typical P1dB
- +30.5dBm Psat
- Low cost QFN 4mm lead-less RoHS package
- Hermetically sealed
- Die available upon request

Applications

- General purpose
- Commercial and industrial
- Production test
- Test instrumentation

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Detector and Limiter Products

Schottky detector products include a broad range of devices that extend from 100 MHz to 18 GHz. PIN Schottky limiters offer wide frequency response, low insertion loss and low VSWR in hermetically sealed QFN 4mm packages.

ZBD SCHOTTKY DETECTORS

Network Matched

| Model Number | Frequency Range GHz | Voltage Sensitivity mV/mW | VSWR (Typ.) | Flatness dB (Typ.) | Tss dBm | Video Cap pF (Typ.) |
|--------------|------------------------|------------------------------|----------------|-----------------------|------------|------------------------|
| EZM0140QFN4 | 0.1 - 4.0 | 500 | 1.5 | 0.8 | - | 20 |
| EZM0112QFN4 | 0.1 - 12.0 | 500 | 1.8 | 1.0 | - | 20 |
| EZM0118QFN4 | 0.1 - 18.0 | 400 | 2.5 | 2.0 | - | 20 |
| EZM2040QFN4 | 2.0 - 4.0 | 500 | 1.5 | 0.6 | - | 20 |
| EZM2080QFN4 | 2.0 - 8.0 | 500 | 1.5 | 0.8 | - | 20 |
| EZM2018QFN4 | 2.0 - 18.0 | 400 | 2.5 | 1.0 | - | 20 |

High Sensitivity

| Model Number | Frequency Range GHz | Voltage Sensitivity mV/mW | VSWR (Typ.) | Flatness dB (Typ.) | Tss dBm | Video Cap pF (Typ.) |
|--------------|------------------------|------------------------------|----------------|-----------------------|------------|------------------------|
| EZR0120QFN4 | 0.1 - 2.0 | 1800 | - | 1.0 | -50.0 | 20 |
| EZR0140QFN4 | 0.1 - 4.0 | 1200 | - | 1.2 | -48.0 | 20 |
| EZR0112QFN4 | 0.1 - 12.0 | 1000 | - | 1.5 | -45.0 | 20 |
| EZR0118QFN4 | 0.1 - 18.0 | 800 | - | 2.0 | -42.0 | 20 |
| EZR2040QFN4 | 2.0 - 4.0 | 2000 | - | 0.8 | -48.0 | 20 |
| EZR2080QFN4 | 2.0 - 8.0 | 1800 | - | 1.0 | -48.0 | 20 |
| EZR2018QFN4 | 2.0 - 18.0 | 1000 | - | 1.5 | -42.0 | 20 |

Features

- (-) Negative polarity standard
- Dynamic range: -25 to +10 dBm
- CW application
- Broadband frequency response
- Low Cost QFN 4mm lead-less RoHS package
- Hermetically sealed

Maximum Rating and Test Conditions

- Maximum input power: +20 dBm
- Operating temperature range: -45°C to +95°C
- Storage temperature range: -65°C to +125°C

Product Export Classification

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ESL LIMITERS

PIN Schottky Diodes

| Model Number | Insertion Loss dB (Typ.) | VSWR (Typ.) | Maximum Leakage Power (dBm) | |
|--------------|-----------------------------|----------------|-----------------------------|-------|
| | | | CW | Peak |
| ESL0510QFN4 | 0.4 | 1.5 | +19.0 | +23.0 |
| ESL1020QFN4 | 0.6 | 1.8 | +19.0 | +23.0 |
| ESL2040QFN4 | 0.8 | 1.8 | +16.0 | +20.0 |
| ESL2080QFN4 | 1.5 | 2.0 | +16.0 | +23.0 |
| ESL4080QFN4 | 1.8 | 2.0 | +16.0 | +20.0 |
| ESL0580QFN4 | 1.8 | 2.2 | +19.0 | +23.0 |

Features

- Dynamic range: -25 to +10 dBm
- Broadband frequency response
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A World of Communications

MMICs

DETECTORS

LIMITERS