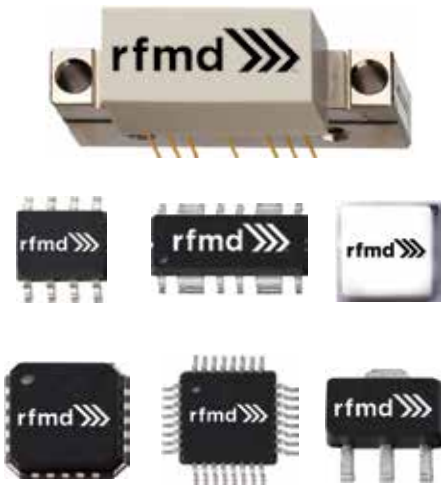


Broadband Solutions For Today And The Future

RFMD leads in performance, innovation, technology, and reliability solutions for the wired broadband market. We continue to invest in this market ensuring our products meet current and future requirements.

RFMD offers best-in-class broadband, GaAs, GaN, and silicon-based High Power CATV hybrid amplifiers. In addition, RFMD also offers low to medium power general purpose MMIC amplifiers, analog/digital attenuators, switches, and fiber optic components for broadband customer premise and broadband transmission equipment.



Broadband Transmission

Optical Nodes • SMATV • MDU

Line Amplifiers • Edge QAM

Head Ends • FTTH • RFoG • CPE

Digital Video Broadcast

Power Doublers

RFMD offers a broad range of power-doubler amplifiers developed for CATV transmission applications. These amplifiers use leading technologies, including GaN, to provide unmatched superior performance covering frequency operations up to 1600MHz. Our product selection of power doublers includes various gains ranging from 18dB to 30dB with various output levels up to 63dBmV. Some RFMD power doublers feature the unique capability of programmable current, allowing designers to optimize current and linearity by externally adjusting DC current.

Push-Pull Amplifiers

The RFMD differential, push-pull amplifiers offer gains in the 18dB to 34dB range, maximizing flexibility in the CATV transmission path. These hybrid amplifiers are designed for use as driver stages to enhance CATV access networks. They employ GaAs MESFET, GaAs pHEMT, and GaN HEMT die and operate from 40MHz to 1200MHz — all in an industry-standard SOT-115J package, or in a newly released surface mount multi-chip module, SMT MCM.

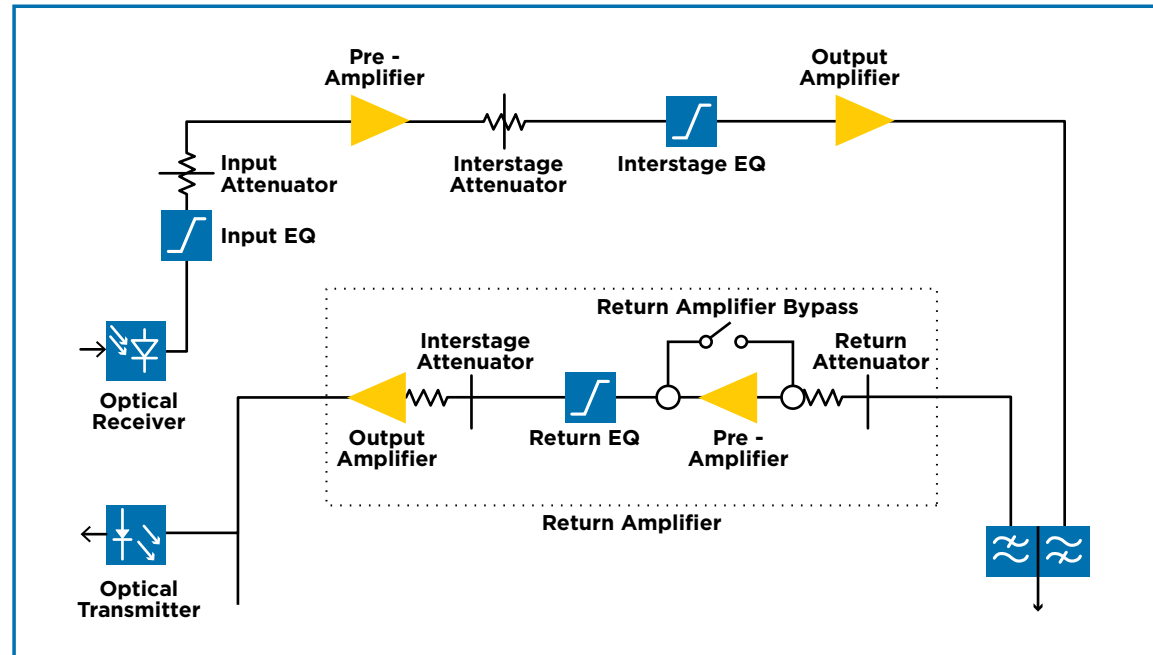
Reverse Amplifiers

RFMD's hybrid reverse amplifiers complete the CATV transmission path. Our reverse path amplifiers come in an industry-standard SOT-115J package or in a newly released surface mount, multi-chip module, SMT MCM. RFMD offers the broadest range of reverse amplifiers with gains ranging from 23dB to 40dB and frequencies of 5MHz to 300MHz for future network upgrades and enhancements. Our devices provide optimal reliability with low noise, and are well suited for reverse channel systems.

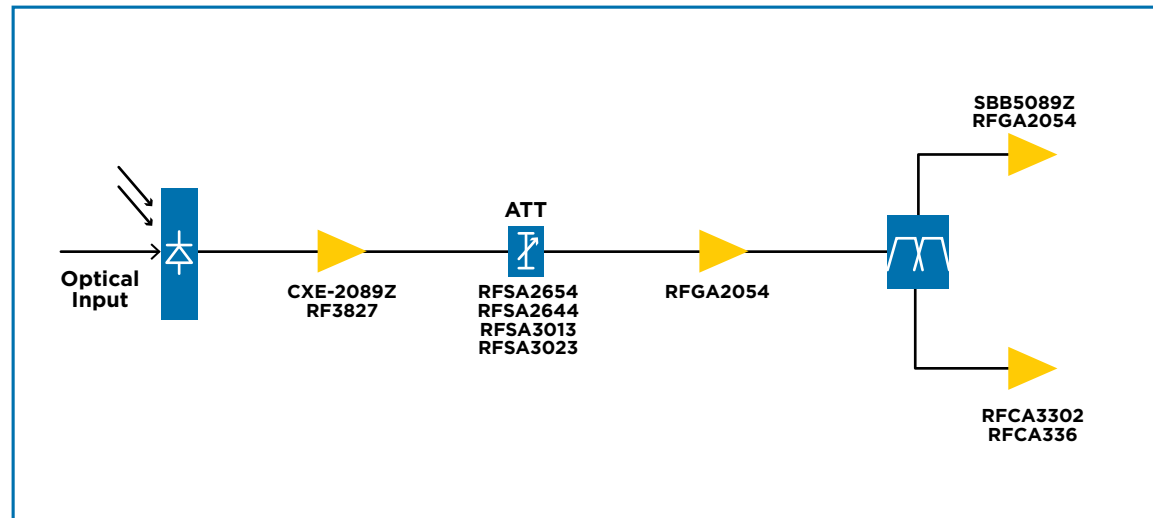
Optical Receivers

RFMD offers a family of optical receivers for both forward and reverse paths. These high-dynamic range receiver amplifiers operate from 40MHz to 1200MHz for forward and 5MHz to 300MHz reverse. The module contains a single-mode optical input, suitable for wavelengths from 1290nm to 1600nm, a terminal to monitor PIN diode current, and matched to 75Ω output impedance. The receivers have extremely low noise, less than $3.0\text{pA} / \sqrt{\text{Hz}}$ and are packaged in an industry-standard SOT-115J package.

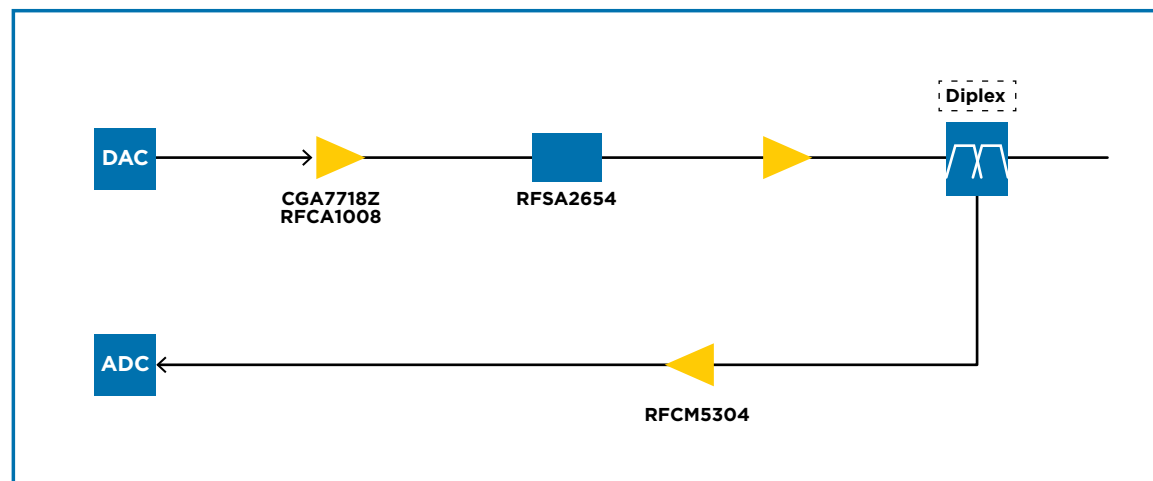
CATV Optical Node



SMATV Optical Receiver



DOCSIS 3.0



| Technology | Amplifier Type | P/N | Frequency Range MHz | Gain Type dB | Input/ Output RL dB | CTB (typ) dB | CSO (typ) dB | CTB/CSO Test Condition | | | NF (typ) dB | Vcc V | Icc (typ) mA | Package |
|------------|----------------|-----|------------------------|-----------------|---------------------------|--------------------|--------------------|------------------------|----------------------|------------|-------------------|----------|--------------------|---------|
| | | | | | | | | Channels | Output Power dBmV | Tilt dB | | | | |

High Power Push-Pull PA

| | | | | | | | | | | | | | | |
|-------|----|-----------|----------|---------|-------|-----|-----|---------|------|------|-----|----|-----|-------------|
| GaN | PP | RFCM2680 | 40-1000 | 23.0 | 20/20 | -73 | -75 | 79A+75D | 60.0 | 18 | 3.0 | 24 | 430 | MCM 9x8 |
| GaN | PD | RFCM3050 | 40-1000 | 25.0 | 17/18 | -75 | -70 | 79A+75D | 56.0 | 13.4 | 5.0 | 24 | 420 | MCM 11x 8.5 |
| GaN | PP | RFCM3080 | 40-1000 | 28.5 | 17/18 | -68 | -75 | 79A+75D | 46.0 | 0 | 4.5 | 24 | 250 | MCM 11x 8.5 |
| GaAs | PP | RFAM2790 | 40-1000 | 8 to 28 | 20/18 | -67 | -70 | 79A+75D | 46.0 | 0 | 4.0 | 12 | 410 | MCM 11x11 |
| GaAs | PP | SPD2226Z | 40-1000 | 15.0 | 12/18 | -84 | -76 | 79CH | 34.0 | 0 | 2.3 | 6 | 500 | SOF-26 |
| InGaP | PP | RFC A1008 | 5-1000 | 17.4 | 27/16 | -76 | -80 | 79CH | 34.0 | 0 | 4.0 | 5 | 215 | SOIC-8 |
| GaAs | PP | RFAM3790 | 40-1218 | 8 to 28 | 18/18 | -67 | -70 | 79A+75D | 46.0 | 0 | 4.0 | 12 | 410 | MCM 11x11 |
| GaAs | PP | RFC A8828 | 50-12018 | 15.0 | 15/17 | -78 | -82 | 79CH | 34.0 | 0 | 3 | 5 | 385 | SOIC-8 |
| GaAs | PP | RFC A8830 | 45-12018 | 19.5 | 20/20 | -70 | -77 | 79CH | 34.0 | 0 | 2 | 5 | 260 | SOIC-8 |
| GaN | PD | RFCM3316 | 40-1218 | 23.0 | 18/18 | -80 | -80 | 79A+75D | 60.0 | 22 | 3.0 | 24 | 430 | MCM 9x8 |

General MMIC

| | | | | | | | | | | | | | | |
|-------|--------|------------|---------|------|-------|-----|-----|----|----|---|-----|---|-----|---------|
| InGaP | Single | RFC A3302 | 40-1000 | 21.5 | 15/13 | -83 | -65 | 79 | 26 | 0 | 3.0 | 5 | 125 | SOT-89 |
| GaAs | Single | RFC A3306 | 50-1000 | 22.0 | 13/15 | -87 | -60 | 79 | 29 | 0 | 3.0 | 8 | 140 | SOT-89 |
| GaAs | Single | CXE2089Z | 50-1000 | 20.0 | 13/14 | -75 | -65 | 79 | 20 | 0 | 1.5 | 7 | 105 | SOT-89 |
| InGaP | Single | CGB1089Z | 50-1000 | 16.0 | 19/15 | -77 | -65 | 79 | 25 | 0 | 3.5 | 5 | 80 | SOT-89 |
| GaAs | Single | RF2317 | DC-3000 | 15.0 | 18/11 | -84 | -62 | 79 | 25 | 0 | 4.8 | 9 | 180 | CJ2BATO |
| GaAs | Single | RF3827 | 5-1500 | 20.5 | | | | | | | 1.3 | 7 | 120 | QFN3x3 |
| GaAs | Single | RF2312 | DC-2500 | 16.0 | 17/20 | -80 | -64 | 79 | 26 | 0 | 4.3 | 5 | 100 | SOIC-8 |
| InGaP | PP | RFC A1008 | 5-1000 | 17.4 | 27/16 | -76 | -80 | 79 | 34 | 0 | 4.0 | 5 | 215 | SOIC-8 |
| GaAs | PP | RFC A8818Z | 50-1000 | 17.0 | 10/15 | -64 | -62 | 77 | 34 | 0 | 2.0 | 7 | 220 | SOIC-8 |
| GaAs | PP | CGA6618Z | 5-1000 | 14.0 | 15/12 | -70 | -81 | 79 | 34 | 0 | 5.4 | 5 | 160 | ESOP-8 |
| SiGE | PP | CGA3318Z | 5-900 | 12.0 | 17/12 | -68 | -70 | 79 | 34 | 0 | 4.3 | 4 | 150 | ESOP-8 |

General Reverse Path PA

| Technology | I/O Config | P/N | Frequency Range MHz | Gain Type dB | Input/ Output RL dB | CTB (max) dB | CSO (max) dBc | CTB/CSO/XMOD Test Condition | | | NF dB | Vcc V | Icc (max) mA | Package |
|------------|------------|-----------|------------------------|-----------------|---------------------------|--------------------|---------------------|-----------------------------|----------------|------------|----------|----------|--------------------|---------|
| | | | | | | | | Channels | Output dBmV | Tilt dB | | | | |
| GaAs | Single | CXE2089Z | 5-1000 | 20 | 13/14 | | | | | | 1.5 | 7 | 105 | SOT-89 |
| InGaP | PP | RFC A1008 | 5-1000 | 17.4 | 22/22 | -67 | -80 | 7 | 50 | 0 | 4.0 | 5 | 217 | SOIC-8 |
| InGaP | PP | CGR0118Z | 5-65 | 25.4 | 20/20 | -60 | -80 | 7 | 50 | 0 | 3.0 | 5-12 | 130 | SOIC-8 |
| InGaP | PP | CGR0218Z | 5-210 | 17.3 | 22/22 | -67 | -80 | 7 | 50 | 0 | 4.0 | 5 | 217 | SOIC-8 |
| GaAs | Single | RF2317 | DC-3000 | 15.0 | 18/11 | | | | | | 4.8 | 8 | 180 | CJ2BATO |
| GaAs | Single | RF2312 | DC-2500 | 16.0 | 17/20 | | | | | | 4.3 | 5 | 100 | SOIC-8 |
| GaAs | Single | RF3827 | 5-1500 | 20.5 | | | | | | | 1.5 | 7 | 120 | QFN3x3 |

CATV Set-Top Application-Specific ICs

| Type | P/N | Impedance Ω | Frequency Range MHz | Gain dB | AGC Range dB | NF dB | Vcc V | Icc mA | Package |
|-------------------|-------------|--------------------|------------------------|------------|-----------------|----------|----------|-----------|---------|
| | | | | | | | | | |
| Out-of-Band Tuner | S510065-55Z | 75 | 50-150 | 82.0 | 55.0 | 13.0 | 3.3 | 117 | QFN |

Attenuator and Switch

| Technology | Type | P/N | Impedance Ω | Frequency Range MHz | Input/ Output RL dB | IP0.5dB dB | Gain Range dB | CTB (max) dB | CSO (max) dBc | CTB/CSO/XMOD Test Condition | | | Vcc V | Package |
|------------|--------|-----------|--------------------|------------------------|---------------------------|---------------|------------------|--------------------|---------------------|-----------------------------|----------------------|------------|----------|------------|
| | | | | | | | | | | Channels | Output Power dBmV | Tilt dB | | |
| GaAs | DA | RFS A2654 | 75 | 5-2000 | 17.5/17.5 | 30 | 31.5 | | | | | | 5 | MCM 24-Pin |
| SI | VA | RFS A3013 | 75 | 50-3000 | 10/10 | 30 | 35.0 | -70 | -65 | 112 | 39 | 0 | 5 | QFN 16-Pin |
| SI | VA | RFS A3023 | 75 | 50-3000 | 10/10 | 30 | 35.0 | -70 | -65 | 112 | 39 | 0 | 3.3 | QFN 16-Pin |
| SI | Switch | RFS W1012 | 75 | 5-2500 | 15/15 | 33 | NC | -100 | -100 | 137 | 41 | 0 | 3 | QFN 12-Pin |